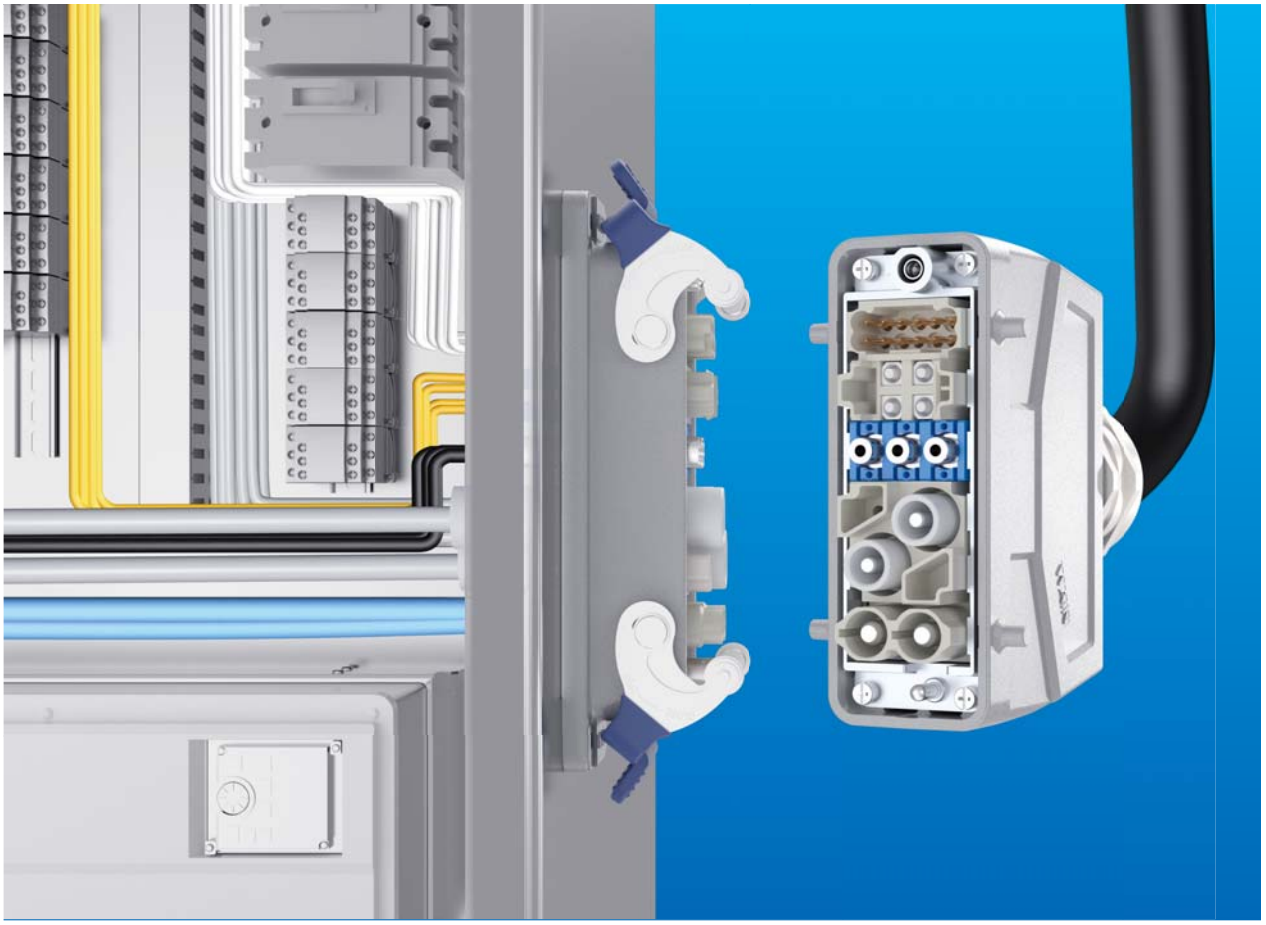




WAIN Connector

WAIN is not only manufacturing, but also creating!
Any questions and ideas related to industrial connectors,
we welcome to discuss with you.

WAIN Heavy duty connector

Heavy–duty connector is designed for modular production pre–wiring and satisfying severe environmental conditions, which is mainly applied in rail transit, industrial automation and equipment manufacturing fields.
Compared with traditional wiring methods, use of heavy–duty connector can reduce site wiring operation after equipment or vehicle leaves the workshop, enhance production efficiency and reduce quality risk of site wiring.

Flexible production is core reflection of Industrial 4.0 modular design, production and application of all functional modules of equipment can lay solid foundation for flexible production. With deep development of industrial automation, equipment has witnessed more renovation. For example, a large amount of equipment has adopted module design whose functions have been constantly increased according to application demand.
Use of heavy–duty connectors including pneumatic modules, large current modules, electromagnetic shielding modules and D–Sub modules has not only achieved accessible and rapid connection among module equipment, but also has guaranteed transmission of signal and power supply. As for manufacturers of machinery equipment, they can not only obtain safe and reliable connection, but also save installation time and reduce comprehensive production costs. As for end users, they can easily install operation equipment without instructions of any professional personnel, and maintenance also becomes easier. It can not only increase effectiveness and practicality of machinery equipment, but also reduce installation time and reduced equipment repair time.

WAIN is a comprehensive professional enterprise with integration of R&D, manufacture and sales of heavy–duty connectors. The company has modernized work places including injection molding workshop, hardware workshop, casting workshop, electroplating workshop, assembly and mould workshop. In addition,the company has product R&D and product performance testing laboratory and several technical patents. We are dedicated to providing high–quality product for industrial connection system. WAIN connector product has thousands of portfolios and can satisfy electric and signal connection requirements of different fields and different situations.

Contents

Rectangular connector –Inserts

	Rated voltage	Rated current	Number of contacts	Wire Connection	Page
HA Series –the slim inserts	230/400V 250V	10A 16A	3, 4, 10, 16, 32	Crimp / Screw Spring	P01–01 ~ P01–06
HE Series –compact inserts	500V	16A	6, 10, 16, 24, 32, 48	Crimp / Screw Spring	P02–01 ~ P02–10
HVE Series –high voltage inserts	830V 400/690V	16A 16A	3, 6, 10, 12, 20, 16, 32	Screw Crimp	P03–01 ~ P03–11
HVES Series –high voltage inserts	830V	16A	3, 6, 10, 12, 20	Spring	P04–01 ~ P04–07
HEE Series –high density inserts	500V *690V,1000V	16A	10, 18, 32, 46, 40, 64, 92	Crimp	P05–01 ~ P05–12
HEEE Series –high density inserts	400V	16A	32, 72	Crimp	P05E–01 ~ P05E–04
HD&HDD Series –ultra–high density inserts	–120V/~50V 250V *400V, 500V	10A 10A	8 7–216	Crimp	P06–01 ~ P06–24
HSB Series –high heavy–current inserts	400/690V	35A	6, 12	Screw	P07–01 ~ P07–06
HK Series –combination inserts	160–830V	10A–100A	various	Crimp Screw	P08–01 ~ P08–27
HE AV Series –extendible inserts HD AV Series –extendible inserts	500V 250V	16A 10A	6, 10, 16, 24 40, 64	Screw Screw	P09–01 ~ P09–07 P09–08 ~ P09–12
HM Series –flexible and combined inserts	50–5000V Fiber Optic / Pneumatic	5A–200A	1–42	Crimp / Screw Spring	P10–01 ~ P10–70
HQ Series –compact inserts	230–690V	10A, 16A, 40A	2–17	Crimp Screw	P11–01 ~ P11–19
HC Series –high heavy–current inserts	1150–4000V	200A–650A	1–4	Crimp Screw	P12–01 ~ P12–26
HCM Series –small sized solder insert	50V	5A	15，18，21	Crimp Solder	P12H–01 ~ P12H–04

Rectangular connector–Crimp contacts

Type	Page
5A, 10A, 16A, 40A, 70A, 100A, 200A, 250A, 350A, 650A Crimp	P13–01~P13–07

Rectangular connector–Accessories

Type	Page
PCB–adapter	P14–02~P14–11
Rail bracket	P14–12~P14–13
Ground terminal/Docking frame	P14–14~P14–16
Code pin	P14–17~P14–18
Cable clamp	P14–19
D–Sub adapter	P14–20

Rectangular connector-Hoods/Housings

Size	Type	Page
3A	Hoods/Housings (Plastic, Metal, EMC, Corrosion resistance, H version Pressure tight)	P15–06 ~ P15–16
10A	Hoods/Housings(Plastic, Metal)	P15–17 ~ P15–18
16A	Metal Hoods/Housings	P15–19 ~ P15–20
32A	Metal Hoods/Housings	P15–21 ~ P15–24
6B	Hoods/Housings (Plastic, Metal, Corrosion resistance, EMC, W version, H version, C version Pressure tight, WV/HV)	P15–25 ~ P15–38
10B	Hoods/Housings (Plastic, Metal, Corrosion resistance, EMC, W version, H version, C version Pressure tight, WV/HV)	P15–39 ~ P15–69
16B	Hoods/Housings (Plastic, Metal, Corrosion resistance, EMC, W version, H version, C version Pressure tight, WV/HV)	P15–70 ~ P15–107
24B	Hoods/Housings (Plastic, Metal, Corrosion resistance, EMC, W version, H version, C version Pressure tight, WV/HV)	P15–108 ~ P15–150
32B	Hoods/Housings (Metal, WV/HV)	P15–151 ~ P15–159
48B	Hoods/Housings (Metal, WV/HV)	P15–160 ~ P15–162
HC	Hoods/Housings (Plastic, Metal)	P15–163 ~ P15–168
Thickned seal part	(H series BK housing)	P15–169 ~ P15–170

*By adjusting the layout of contacts, they could be applied up to 690V or 1000V.
By adjusting the layout of contacts, they could be applied up to 400V or 500V.

To users: Part of the data pictures in this product manual may be updated. Please refer to the latest data provided by the technical department of our company while selecting the model. For the details, please call 400–882–5885, confirm with the sales personnel of our company or inquire via info@wainconnector.com.

Contents

PCB Connector

Type	Rated voltage	Rated current	Number of contacts	Terminal	Page
	1.5V	6A	48	Crimp, Solder	P15F-01 ~ P15F-04

Circular connector

	Rated voltage	Rated current	Number of contacts	Terminal	Page
Technical characteristics					P16–02 ~ P16–11
M8	30V, 60V	4A	3, 4, 5	screw clamp connection, solder, dip solder, moulded	P17–01 ~ P17–23
M12–A	60V, 125V, 250V	2A, 4A, 8A	3, 4, 5, 8, 12	screw clamp connection, solder, dip solder, moulded,single wires	P18–01 ~ P18–40
M12–B	125V, 250V	4A, 8A	2, 3, 4, 5	screw clamp connection, solder, dip solder, moulded,single wires	P18B–01 ~ P18B–27
M12–D	250V	4A	4	screw clamp connection, solder, dip solder, moulded,single wires	P19–01 ~ P19–15
M12–X	250V	4A	8	crimp terminal,single wires	P19X–01 ~ P19X–08
M12 Distributor Sensor junction box	60/250V 10~30V DC	4A 2A, 9A	4, 5 4, 5	– pluggable M23	P20–01 ~ P20–04
7/8	300V	8A, 9A, 10A, 12A	3(2+PE), 4(3+PE), 5(4+PE),	screw clamp connection,	P21–01 ~ P21–08
M17	32V,60V,630V	3.6A,7A,14A	7,12,17	crimp terminal	P21S–01 ~ P21S–10
HR23(M23)	25V~/60V–	7A, 15A	6, 9, 12, 17, 19	crimp terminal, (PCB)solder terminal screw clamp connection	P22–01 ~ P22–13
MR23	25V~/60V–	7A	12, 17	crimp terminal	P23–01 ~ P23–08
M23	250V, 630V	9A, 30A	6, 8	crimp terminal	P24–01~ P24–10
M40	250V	20A, 60A	4/4	crimp terminal	P25–01~ P25–04
Power electrical connector	250V	1A, 13A, 20A, 25A, 40A	4, 5, 6, 10, 26, RJ45&3	crimp terminal, solder terminal	P26–01~ P26–08
Customized product–HW	1000V	800A	1	crimp terminal	P27–01~ P27–04
Customized product–MI	400/30V	6/1A	6+6(5+PE)	crimp terminal	P27–05~ P27–06

Customized product

	Rated voltage	Rated current	Number of contacts	Terminal	Page
HCC Series–single row inserts	500V	30A	10	Screw terminal	P28–01 ~ P28–02
HV Series–single row inserts	400V	20A	8	Screw terminal	P29–01 ~ P29–04
The State Grid Anti–Open Connector	500V/250V	40A/10A	24+8(anti–open circuit) +1 (grounding) 8+8(anti–open circuit) +40 6+PE	crimp terminal, (PCB)solder terminal screw clamp connection	P29–05 ~ P29–08.6
D–Sub–044 Series		3A	44	crimp terminal	P29–09 ~ P29–12
Charging socket	500V/12V	150A/2A	8/2	crimp terminal	P29–13 ~ P29–15
Test Tool (TL–DZ)/ Metallic outlet boxes					P29–16 ~ P29–18
wiring harness					P30–01 ~ P30–14
Optical fiber					P31–01 ~ P31–06

Tools/Cable gland

	Page
Tools/Cable gland	P32–01 ~ P32–26
List of part no.	P33–01 ~ P33–30

System certificates



ISO 14001



ISO 9001



IRIS

Product certificates



VDE



UL



CE



CQC



EAC

Introduction to IRIS: IRIS, standing for International Railway Industry Standard, is an initiative led by the Union of the European Railway Industries (UNIFE). It is mainly used to ensure the high quality of the whole railway industry and make the manufacturers of railway equipment meet the requirements of global railways for high–quality railway parts and increase their competitiveness in the world. IRIS aims to develop and implement a universal system to evaluate the quality management systems of railway industry. IRIS adds railway specific requirements into ISO 9001; in short, IRIS is the extension of ISO 9001 for railway industry.

EUROMAP WAIN is one of the recommended suppliers of EUROMAP, the Europe' s Association for plastics and rubber machinery manufacturers.

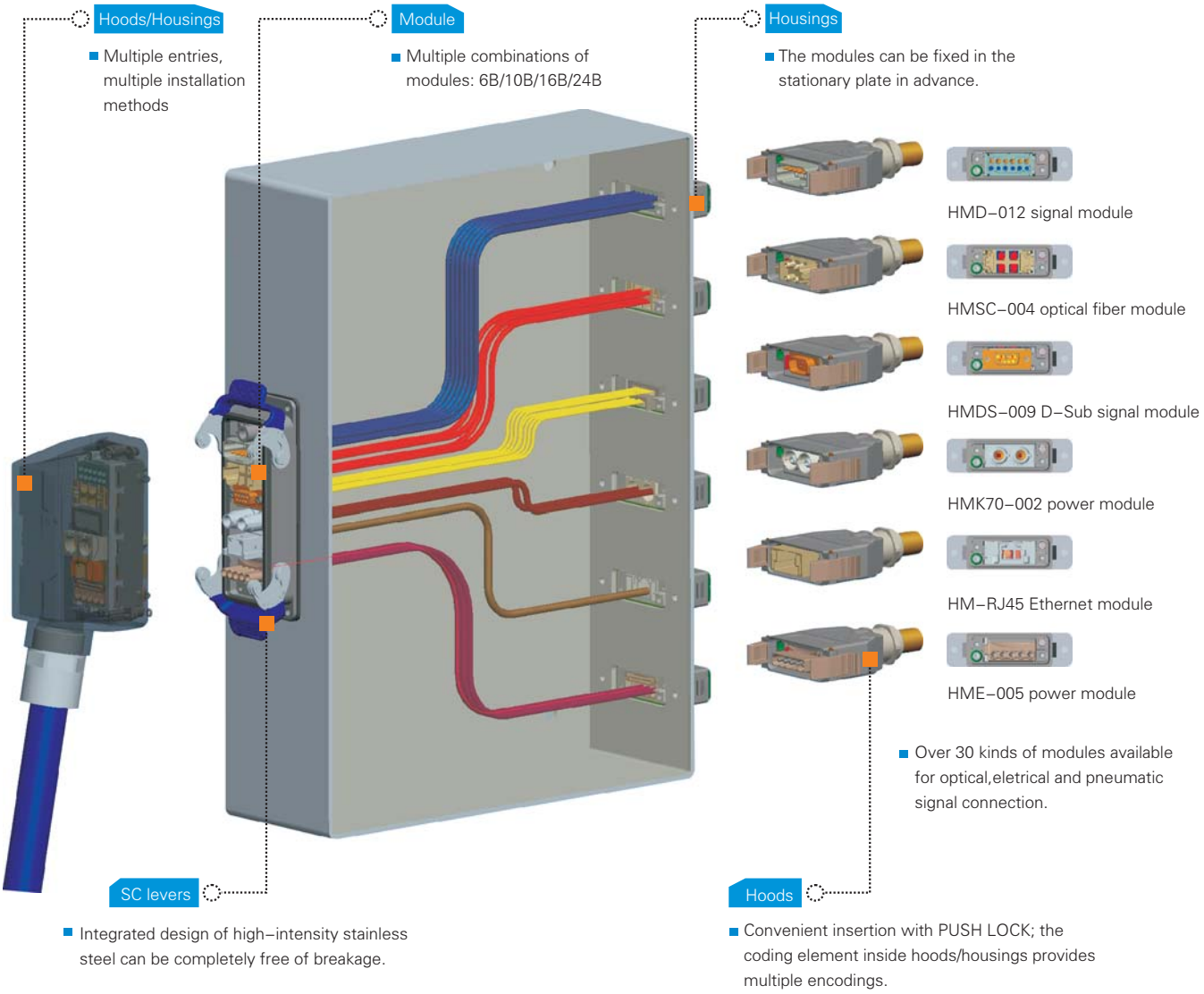
EUROMAP recommendations:

The inserts and the relevant enclosures meet the EUROMAP Recommendations (European Committee of machinery manufacturers for the plastic and rubber industry) EUROMAP 12, 13, 14.1, 14.2, 16, 27.1, 28, 29, 62, 67, 67.1, 70, 73, 74, 78

For more information, please visit WAIN's homepage: www.wainconnector.com

WAIN "WU" single module connector series

The innovative products of WAIN in 2016 combine dozens of modules (large current, signal current, optical fiber, gas, Ethernet and so on) into an independent unit with EMC performance and a protection level of IP65.



WAIN provides solutions for various branching integration demands!



Characteristics

- smaller width, more compact, space-saving;
- convenient locks save time during assembly;
- encoder inside hoods/housings provides multiple encodings;
- modules can be fixed in the stationary plate in advance;
- With grounding function;
- Grounding screw is in vertical direction, which does not interfere with the face plate so that operation space is large;
- It is matched with multiple single module slugs;
- EMC function;

For more information about the hoods, housings and modules of "WU" Series, please refer to HM Series.

WAIN joins the EPLAN Data Portal

We are glad to inform you that WAIN products are now available in the EPLAN Data Protal. There are more than 3500 components online for your reference. In this way, customers can select WAIN products more quickly and conveniently so as to save the time of design and production, furthermore, improve efficiency.

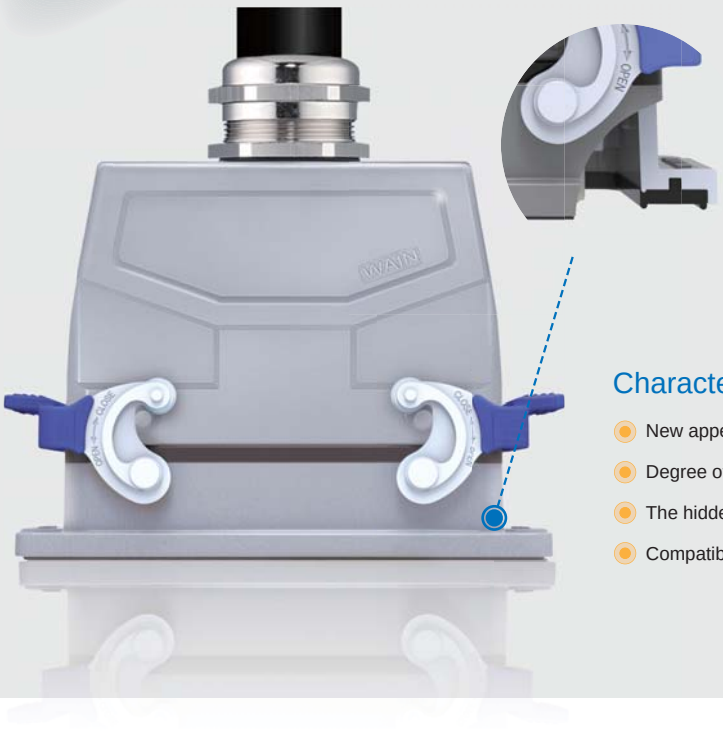


- **WAIN has more than 22000[1] products, which are applicable in most of the industrial application scenarios!**
- **Wain offers also customization service for industrial connectors!**

[1] Data sourced from WAIN-ERP System, statistics time: 2022.02.01.

NEW

WAIN new hoods/housings (IP67)



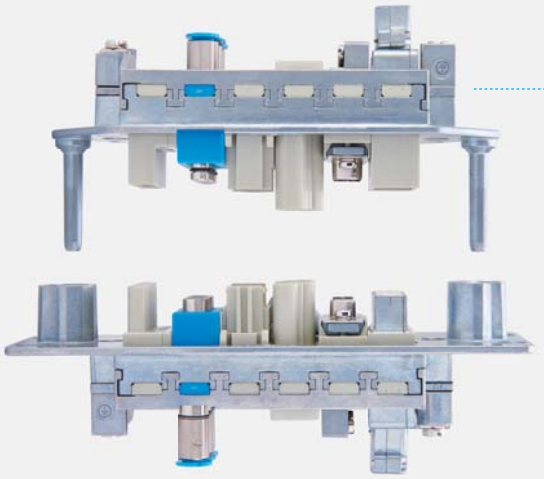
Glue-free bottom base

Hidden base pad, better corrosion resistance!

Characteristics

- New appearance by independent development.
- Degree of protection IP67.
- The hidden glue-free bottom base provides better corrosion resistance.
- Compatible with the old-designed hoods/housings.

WAIN metal docking frame



Direct installation without hood and housing

Characteristics

- Easy assembly and disassembly with hanging type half-threaded screws.
- Putting guiding pins into conical holes to realize guiding.
- Using the floating washers to increase gaps, it helps to increase guiding function.
- Guiding through crown spring improves the safety performance greatly.
- Direct installation and no need to match with hoods/housings.

WAIN metal pneumatic module



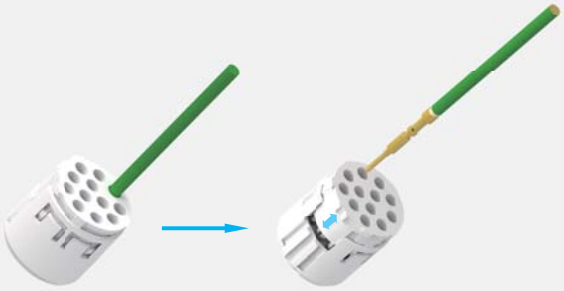


Characteristics

- Easy assembly and disassembly of contacts and modules by using contact removal tools.
- Quick connection and disconnection of the air tube.
- Metal pneumatic contact increases strength and service life of the module.

WAIN MR23 circular connector

- Efficient mounting and removal of contacts through Push-Pull mounting technology





Characteristics

- Crimp connection stabilizes the signal transmission in vibration environment.
- Push-Pull mounting technology realizes efficient mounting and removal without any tool.
- Reverse coding is also available.

WAIN extra large plastic hood



- Largest wire diameter of Φ47mm



Characteristics

- The hood is designed as a separate structure, easy assembly and disassembly with screws
- Enlarged space inside the hood makes it convenient to connect and install large cables
- Mating hood and housing with locking levers, the connector will not easily fall apart
- Excellent electrical insulating property (Insulating resistance＞10 Ω)
- High performance material suits the harsh environment
- Light weight, high mechanical properties and economical
- Widely used in various applications, compatible with regular inserts, frames, etc.



WAIN 32 pin anti-open circuit connector



Assembly and welding of two-stage welding pins
The stress relief structure of PCB electrical connection
can release the stress, so as to protect PCB from damage.



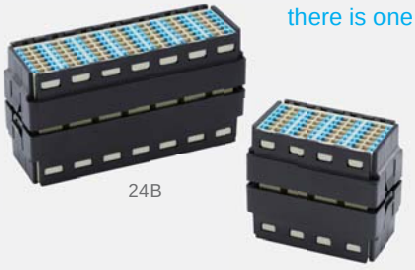
Characteristics

- The stress relief structure of PCB electrical connection can release the stress, so as to protect PCB from damage.
- Assembly and welding of two-stage welding pins: one or more pins and PCB at male end welded with female plug at the same time; better protection of welding points; more effective and reliable operation of the system; easy installation and maintainance.

WAIN modular type plastic hoods/housings



- Snap-in type, easy to operate.
- Compared with metal frame, there is one more module space.



24B

10B

Characteristics

- The hoods and housings are connected by special latch design, which prevents from falling off.
- High performance materials are adapted to harsh environment.
- Light weight, high mechanical strength and low costs.

WAIN 7/8 Circular connector

Screw terminal, Easy assembly on site.





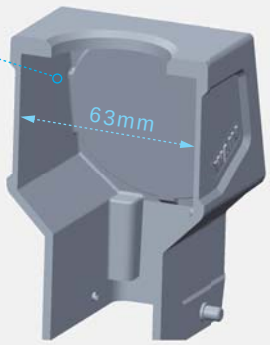
Characteristics

- Original anti-loosing joint to avoid accidental loosing, with superior performance in shock resistance and vibration load.
- 7/8 flange seat with fixed cable wiring design, greatly improving cable life and connection stability.
- Screw terminal, easy to maintain and operate! Easy assembly on site.
- Patented design with sleeve pin to improve mechanical life.
- Superior waterproof, dustproof and explosion-proof performance, with protection grade up to IP67.
- The connector is made of high temperature resistant material, with the maximum temperature of 125 ℃, and the fire rating of UL94V0

WAIN enlarge metal hood



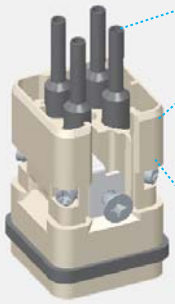
Internal space up to 63mm wide
Large cable, easier wiring and installation!



Characteristics

- The internal space of the conventional 24B high structure hood is only 34mm, and the internal space of this extra large shell can reach 63mm.
- Increase the internal space to ensure that the cable with large cable outer diameter can also be wired.
- It is made of aluminum alloy metal with high strength and long service life!
- It can be compatible with conventional insert, frame and other usage, and has a wide range of uses.
- Wiring methods: side entry/top entry.

WAIN new and upgraded modules



The max is up to 2.5mm² terminal connection

Open cover up and down.
Simple insertion in the corresponding insert hole position when installing.
Easy operation.

Limiting stopper buckle, design of the cover against falling off.





Function of coding pin.

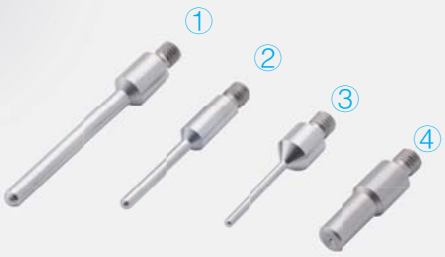
Characteristics

- There is a cover barrier between the insert and shell, which ensures sufficient creepage distance and reliable electrical performance.
- The top outlet avoids folding the wire to 90° then upwards, as by side outlet. The operation is convinient by wiring.
- The protective cover has a reliable structure. The cover will not fall off when pushed up and down.
- It has the function of coding pin, including 4 encoding modes.

WAIN independently developed "TL-DZ Contact retention test tool"

The indicator





WAIN TL-DZ Contact retention test tool is a kind of tool for detecting contact retention, using the LED indicator function to visualise the test results. The tool is compact and simple to operate, chrome-plated and fine in appearance. It has a mechanical life of over 100,000 times, a variety of free replaceable heads and is compatible with various contact detection, whose detection strength is customizable!

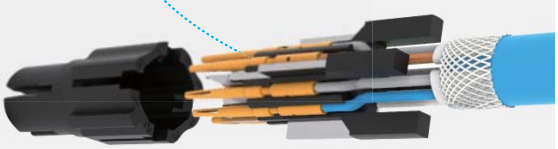
*Please refer to P31-05~P31-06 for selection and operation.

① Female head:
used for the detection of 16A female contact (optional)
② Female head:
used for the detection of 10A female contact (standard)
③ Female head:
used for the detection of 5A female contact (standard)
④ male head:
used for the detection of 5A/10A/16A male contact detection (standard)

WAIN M12 circular connector,X-coded



The high data transmission speed is up to 10Gbps.



Characteristics

- High data transmission speed, up to 10Gbps.
- Full metal shell, effectively anti-electromagnetic interference.
- Cold-pressed contacts, effectively anti-vibration and highly data transmission stabilizing.
- Fixition of contacts into inserts by side press, easy assembly and maintainance without tools.

WAIN 1440 shell



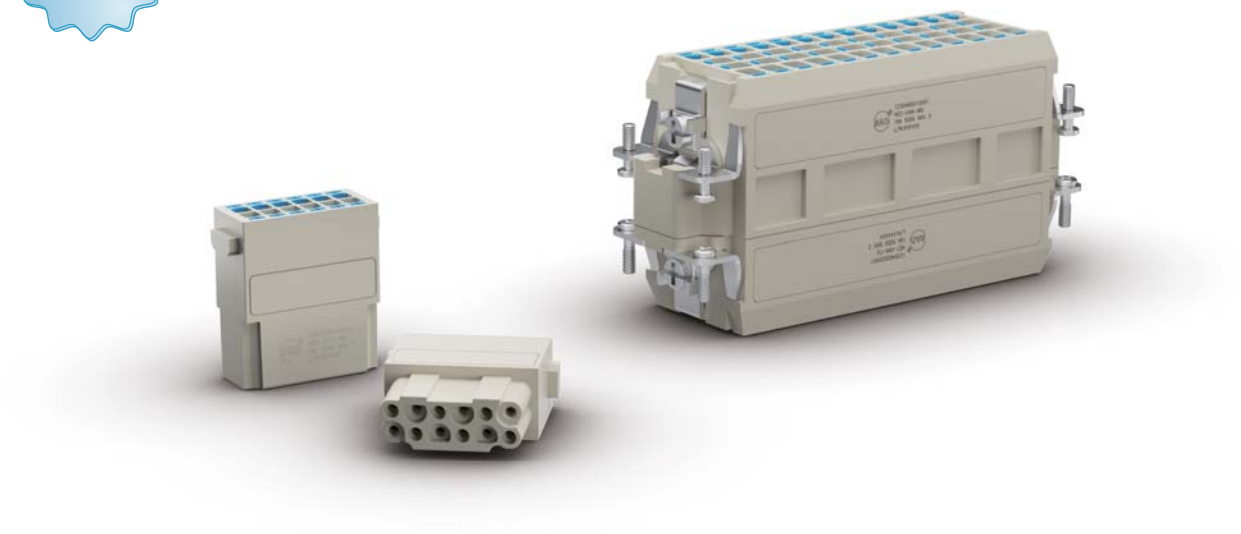
1440 Shell

- Adopting the special treatment process.
- The neutral salt spray test is up to 1440 hours (C5H grade).
- Applicable to all the aluminum alloy shell.
- Applicable in the environment with high anti-corrosion requirements.

WAIN quick-in
wiring technology series



- Reduced about *80%* time compared with traditional wiring.



Characteristics



Save time

Reduced about 80% time compared with traditional wiring.



Fast lock

Straight-in spring, unique lock design



Support a variety of wires

Hard wire cable
Wire with terminal
Flexible cable



Vibration-proof

Strong connection

WAIN E-Push product quick wiring technology





- Integrated jumping ports
- Mating cycle of terminal jumper ≥500 times

Characteristics



Save wiring time

Fast and effective wiring



Support a variety of wires

Hard wire cable /
Wire with terminal /
Flexible cable



Vibration-proof

Strong connection



High reliable connection

Reliable jumping achieved by larger contact surface.

The jumper and the U-Shape jumper receptacle are made of heavy gauge copper alloy for high current carry capacity.



With test port

The test port diameter is 1.95mm, while the test lead has a diameter of 2.00mm.

The slightly smaller test port reduces shaking of the test lead and increace the test stability.

WAIN underwater connector technology

7000 m

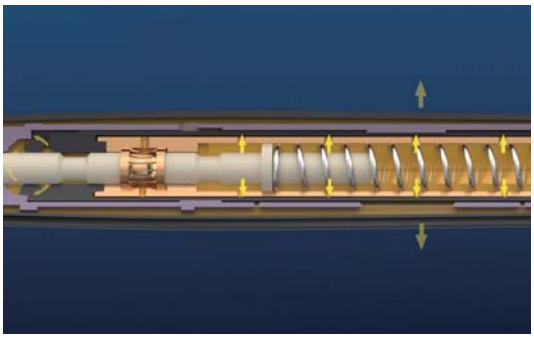
- High reliability **wet mating** underwater at **7000m**.



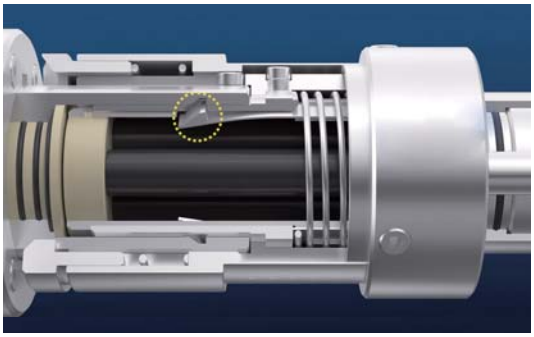
Characteristics



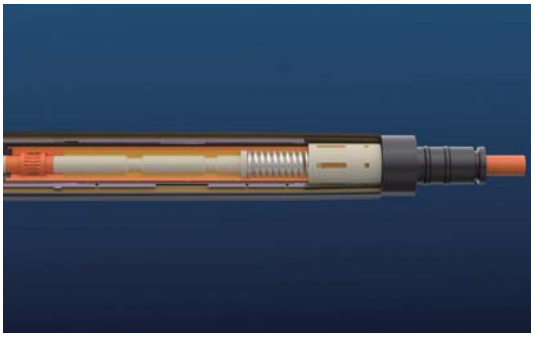
High compression resistance and corrosion resistance.
Adoption of high-strength titanium alloy.



Double layer oil sealing.
Automatic flushing and purification when mating.
Pressure balance under deep sea.

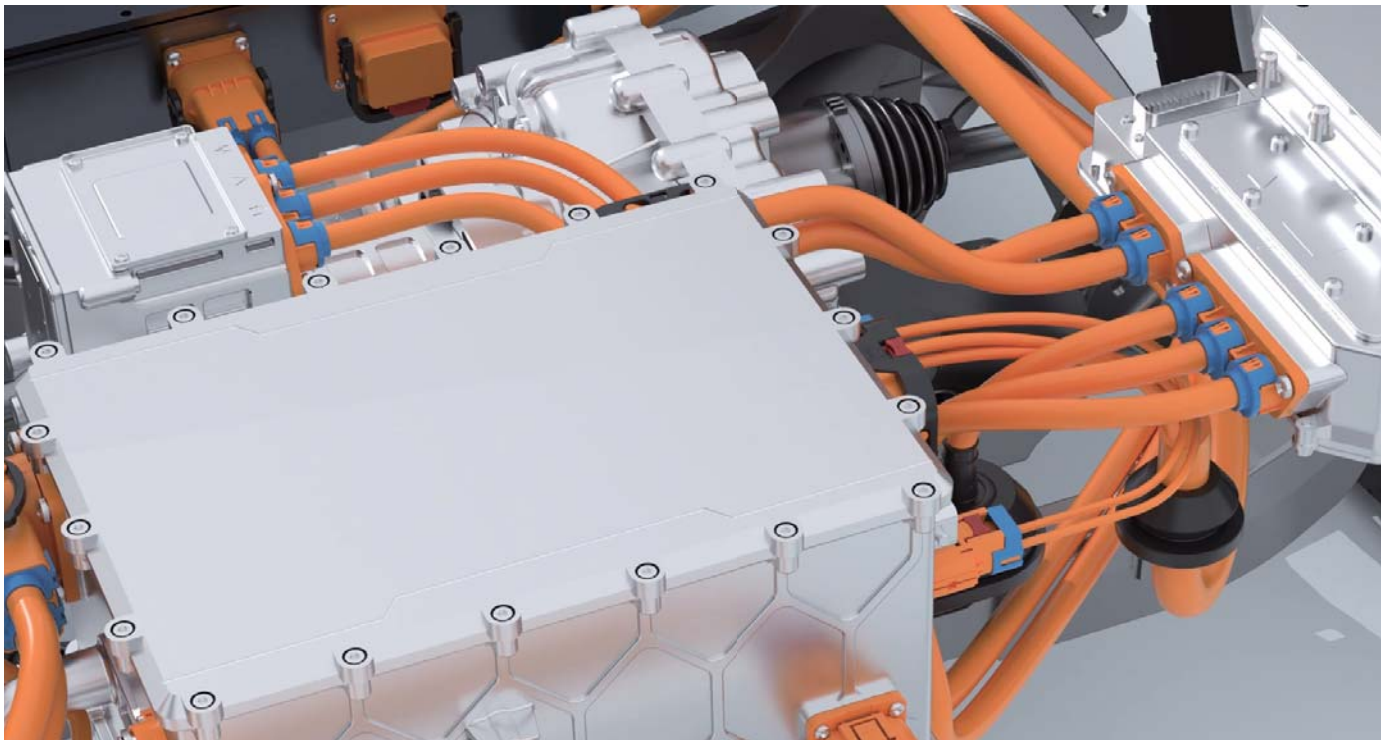


Male and female mating self-locking function.
Self-locking completed when unplugged.

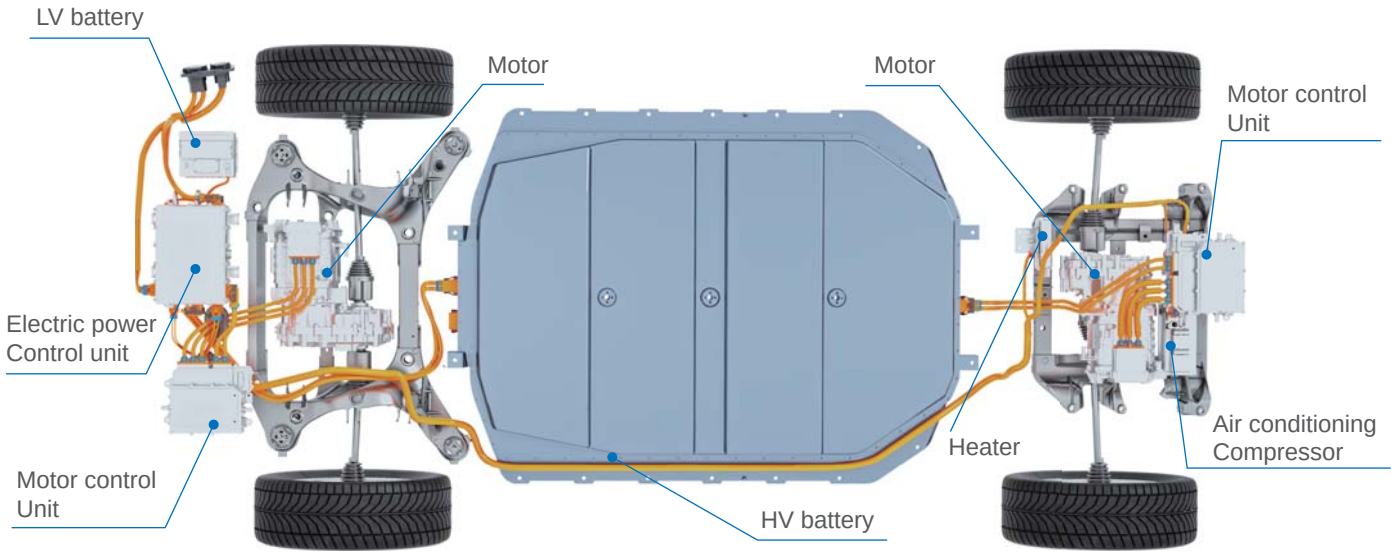


Safe and reliable connection.

WAIN high voltage connection system of new energy vehicle



High voltage interconnection diagram of EV



WAIN high current connector

- Quick mating
- Dafe and reliable
- Patented design

Quick nut reversing device

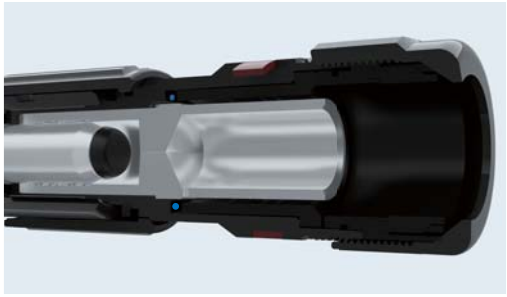
Color coded for 3-phase identification



Rapid fastening



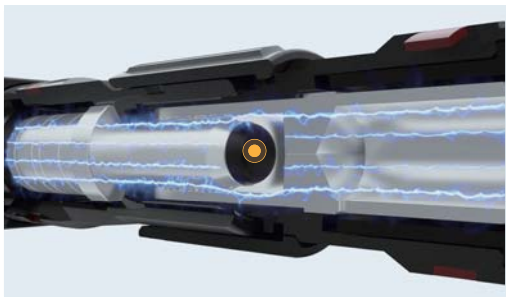
Contraction gap
Prevent connector damage



Double crown spring to
Increase contact surface



Super load-bearing tensile strength



Electric shock proof

WAIN m12 junction box

Compact structure, elegant appearance, convenient wiring, strong scalability.



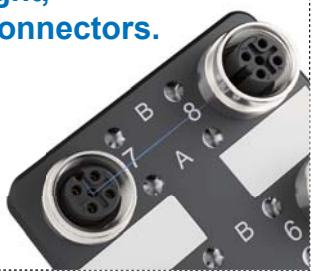


Prefabricated cables, on-site wiring.
Meeting the needs of different customers.

Led power and signal indicators give real-time feedback of product status.



Forming 90° angle to each other.
Adapted to straight, bent and other connectors.

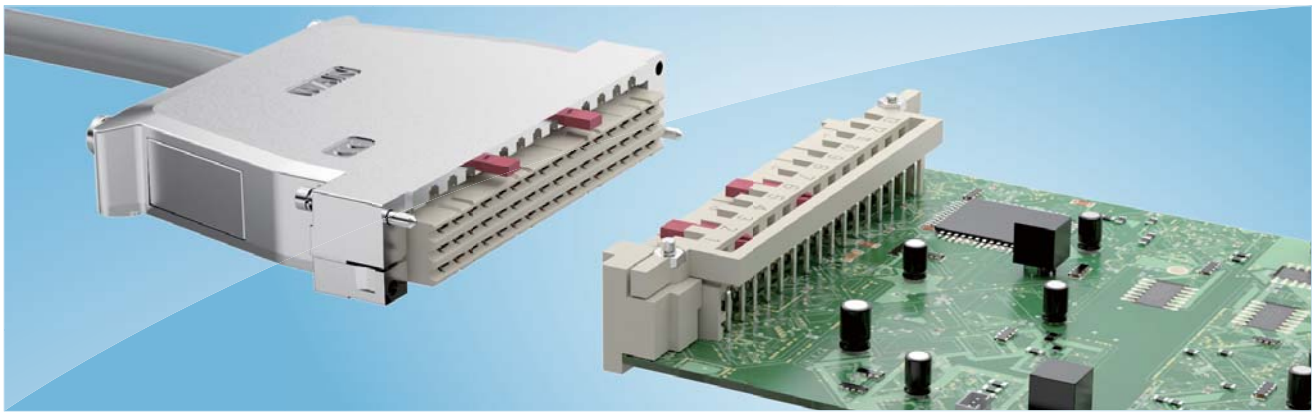




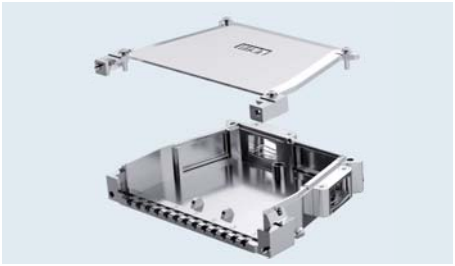
Compatible with a variety of small distributors.

WAIN PCB connector

Connecting PCB for signal transmission



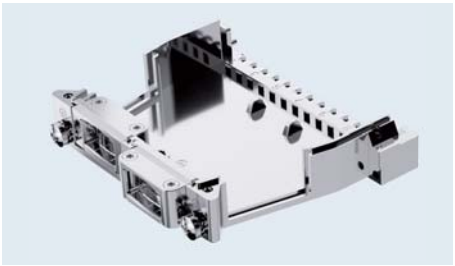
Characteristics



Full metal shell, rugged and durable



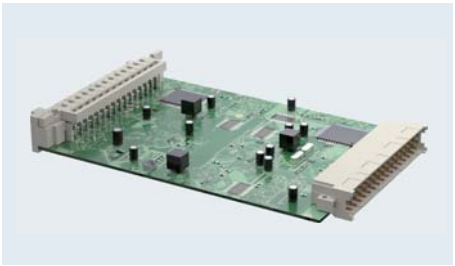
4 optional cable outlet methods



Reversable cable clamp, flexible and convenient



Supports coding fool-proof mechanism



PCB welded used for signal transmission



Perfect for rail transit applications

WAIN PCB connector

- Perfect for electric control cabinet of construction. Machinery applications and so on.



Wire to board connector
(21 pins)



Wire to board connector
(15 pins)



Pcb mount
relay socket



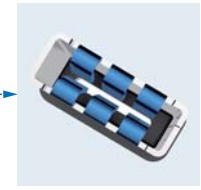
Wire to board connector
(18 pins)



Wire to board connector
For signal transmission



Pcb mount relay socket
For relay pcb mounting



Intuitive double row spring contact
Double contact surface





Pin coded fool-proof



Color coded fool-proof
Engineered for rapid connectivity between circuits



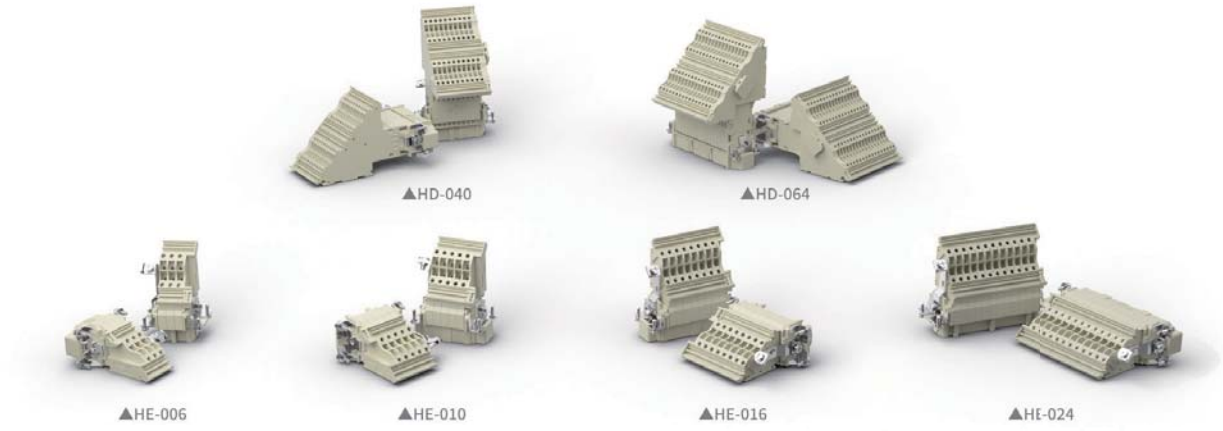
Integrated rubber shock absorber
Preventing pcb board from crushing



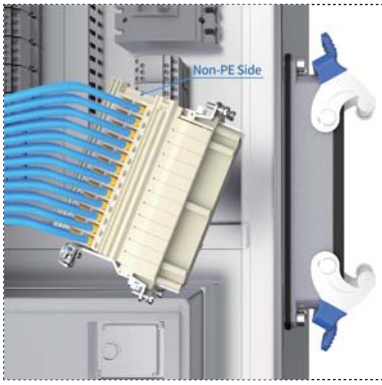
Easy to install
Reliable soldered installation

WAIN terminal block type connector

WAIN terminal block type that extends into the cabinet can be applied to not only wiring installation in the control cabinet in the industrial industry, but also to guide rail connection. The connector is convenient for on-site operation, repair and maintenance. The wiring process is simplified by prefabricated cables, which is fast and effective.



■ Characteristics



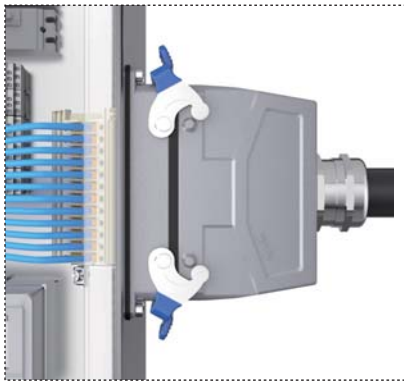
Installation outside the cabinet

Wiring in the cabinet is convenient for on-site operation, repair and maintenance.

Non-PE side terminal first into the bulkhead mounted housing.

Installation inside the cabinet

Prefabricated cables, fast and effective wiring



Easy connection outside the cabinet

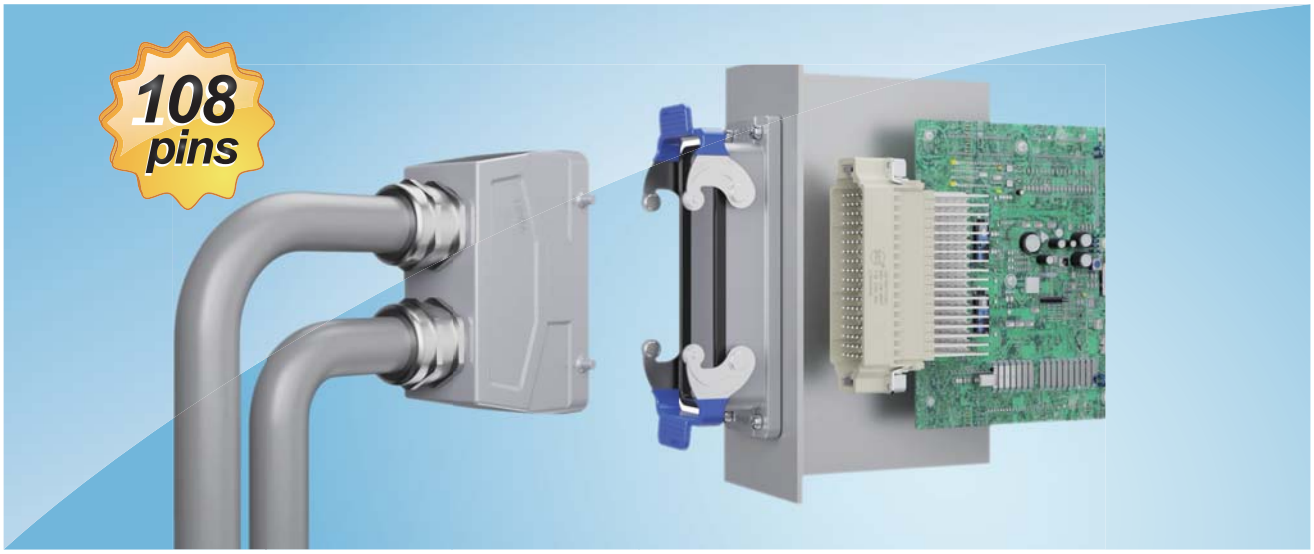


Extensive application

Matched with locking elements, the connector can be directly applied to the guide rail.

WAIN PCB connector

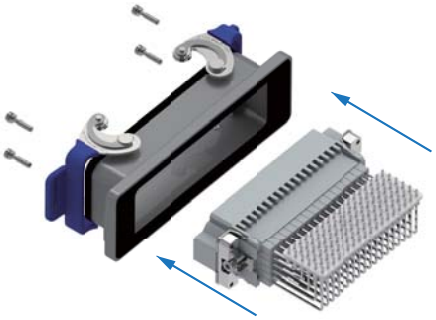
- High density insert 108 pins





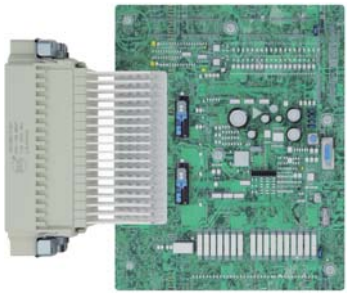
90° angle wire-to-board connector

Used with different PCB layout, either 90° or 180°



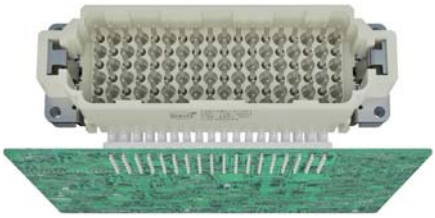
Advance method

Reverse insert assembly
Assembly and disassembly outside the cabinet
Convenient installation and maintance



Pcb overall soldering wiring;

High assembly efficiency

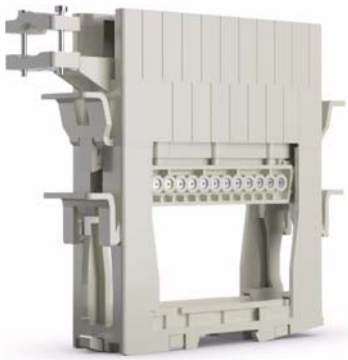


108 pins with fixing plate

Quick and easy insertion

WAIN CCAB rail bracket

Convenient assembly and flexible position change



Technical information

Applicable rail specification (DIN BN60715：35*7.5 or 35*15)

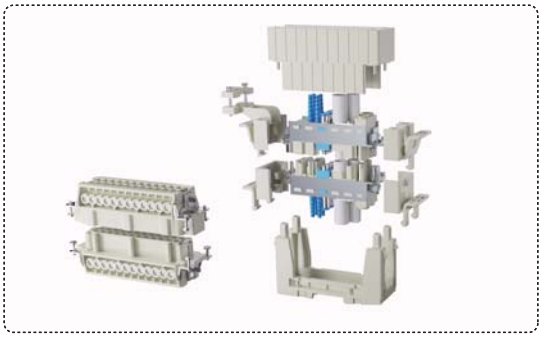
Minimum supporting force on supporting rail ≥ 450N

Material: PC

Flame retardant rating: V0 (according to UL94)

Operating temperature range: -40℃~125℃

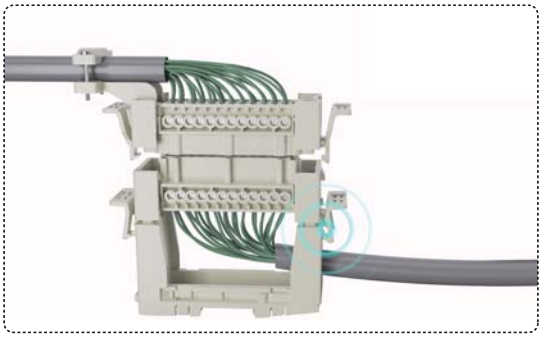
Application: Inserts and modular frames of all compatible with B size shells.



Suitable for modular frames and inserts with different specifications



Adjustable construction
Compatible with 6B 10B 16B 24B.



Secure and reliable insert locking mechanism, easy disassembly.

Cables can be locked with cable clamps.

Snap-in docking mechanism, easy handling.



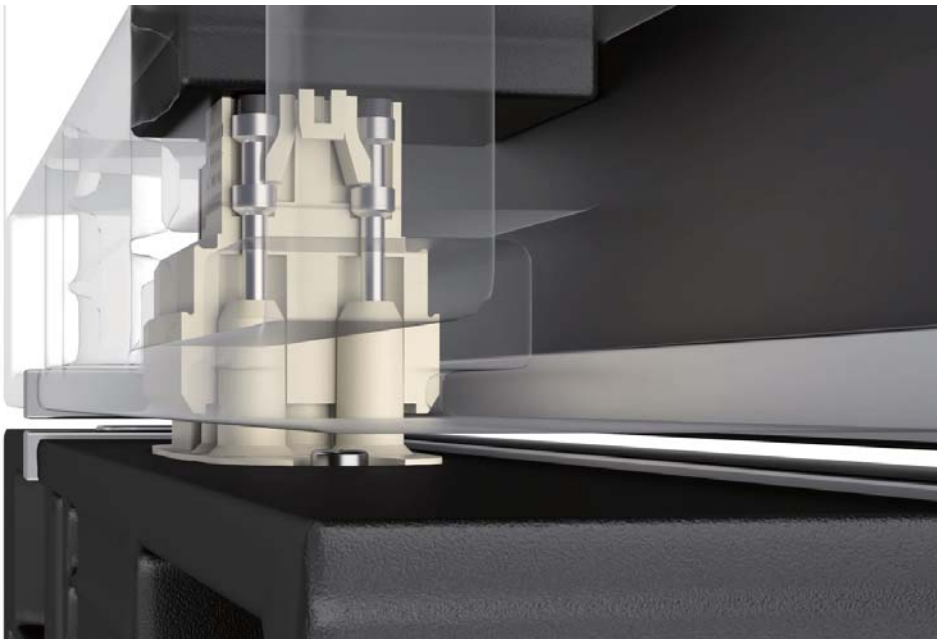
Compatible with horizontal and vertical rails, ideal for flexible field installation.

The protection cover protects the cables against dust deposits and unnecessary contact.

Easy Identification Tag.

WAIN LED display connector

Providing signal and power connection

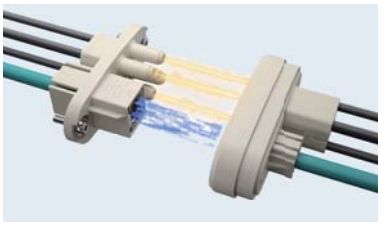








Characteristics



With signal and power transmission



The screws are pre-hung and do not fall off



High mating and good reliability

Suitable for standard metal shielded RJ45 crystal head



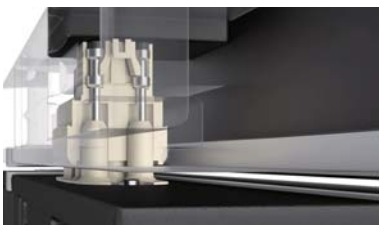
Easy assembly and disassembly, good stability

Metal shielding module



Mating fast and safe

Fool-proofing mating chamfering guide



Floating docking

WAIN 24 contacts shielding module

Small space, big satisfaction.



Technical information

HMSV-024-MC/FC(Signal Module）

Number of contacts: 24+Shielding

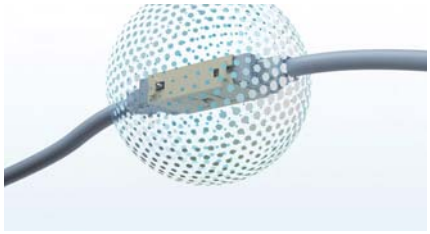
Rated current: 4A

Rated voltage: 32V

▣ Characteristics



Single module
Metal EMC shielding



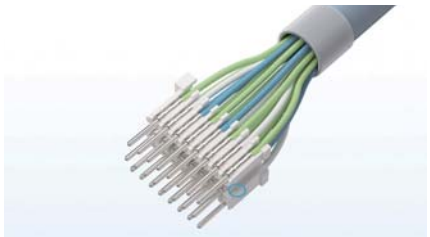
EMC electromagnetic shielding



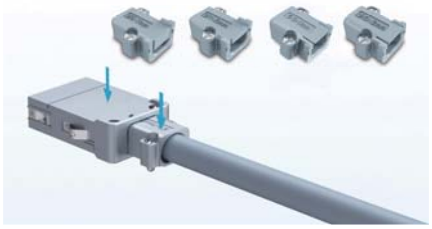
Single module
24 signal contacts



Flexible match with other modules



Innovative foolproof design

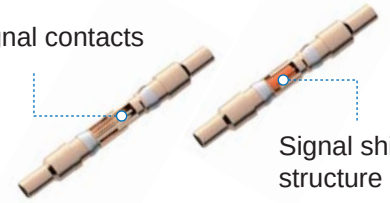


A wide range of cable clamping capacity, a variety of wire gauge available.

WAIN coaxial module

Designed for RF communication equipment







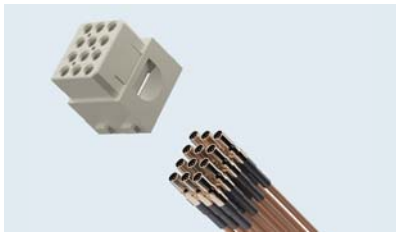




Characteristics



For RF signal transmission



Easy assembly by pushing contacts direct from insert bottom



Foolproof design



One module supports up to 12 channels



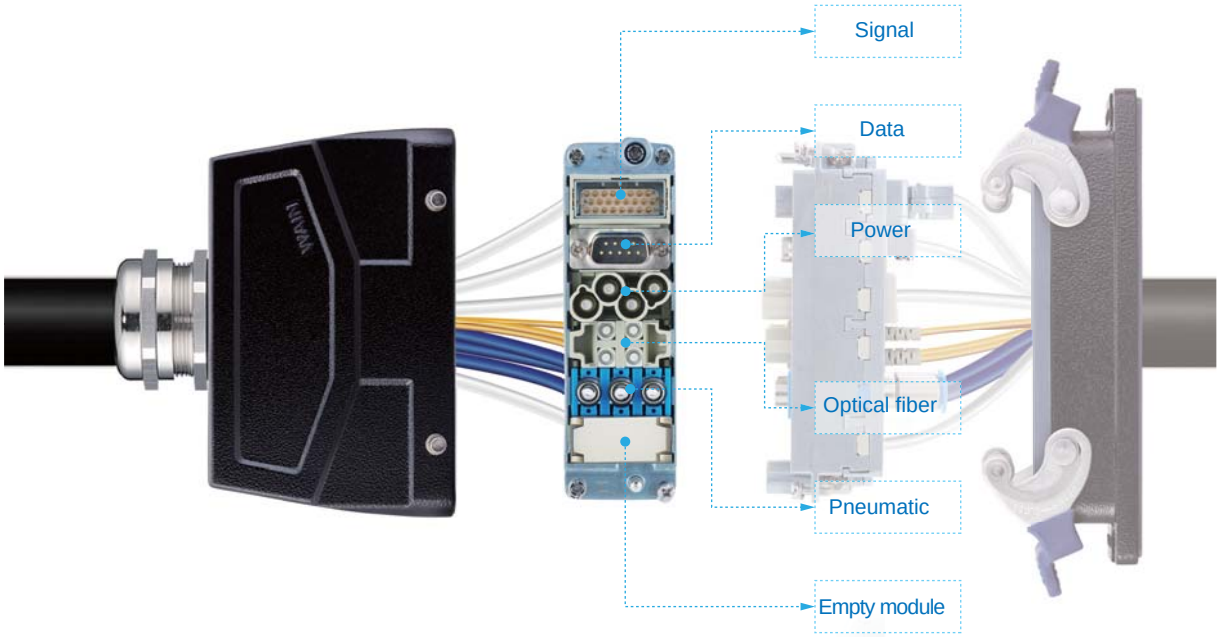
Quick and easy disassembly with contact removal tools



Flexible combination with other modules

WAIN modular connector

Connecting unlimited possibilities.

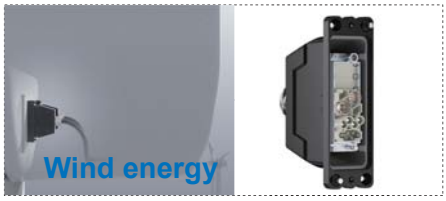


Five advantages of wain module system

- Perfect integration of power, signal, optical fiber, and fluid connection.
- The pre-assembled cable harness is rapid, professional, reliable and timesaving.
- The standard size fufills multi-transmission and saves space.
- Various module combination within one connector saves costs.
- Reserving dummy modules, to change in constant.



Flexibly / High versatility







WAIN hot mating connector with emergency disconnection function

Protection for the data center with fuse function



Characteristics



Pre-installed fuse



Protection of circuits and equipment

Instantaneous disconnection of the circuit in the situation of current overload



Transparent shell design

Easy observation and replacement of components



Fuse function

Withstanding emergency disconnection



IP protection design

Protection for circuits and equipments



Data center

Additional security protection

WAIN data & communication
modular connector

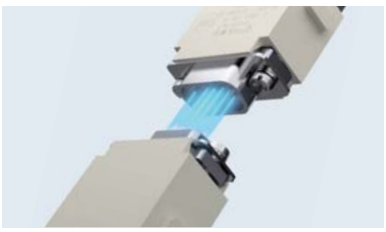
A diverse product portfolio of communcation modular connectors



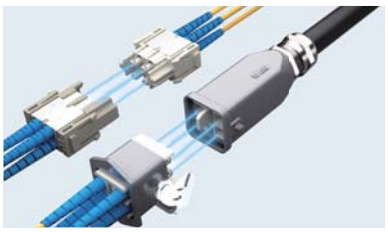
Various interfaces



X-Code
Safe and reliable 10Gbps high-speed data transmission



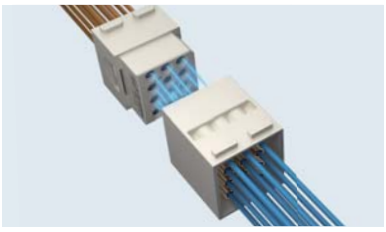
D-Sub
Transmission of analog, digital and series data



Fiber optic module
For high-speed optical fiber transmission



CAT6A
Brandwidth up to 500MHz, less crosstalk.



Coaxial module
RF signal transmission



Communication modules
Flexible combination into modular connectors

WAIN circular connector

Extensive range of circular connector products



Wide selection of product series, abundant variations of product structure.



Our connector portfolio includes: A Code, B Code…..



A Code



B Code



D Code



X Code

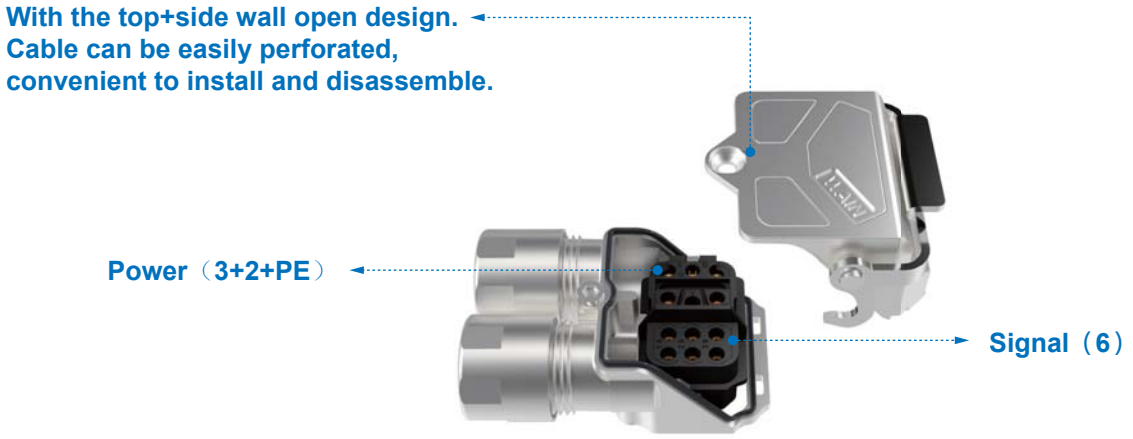
Various pins configurations available



WAIN MI mini connector

- Small connector for power and signal in one

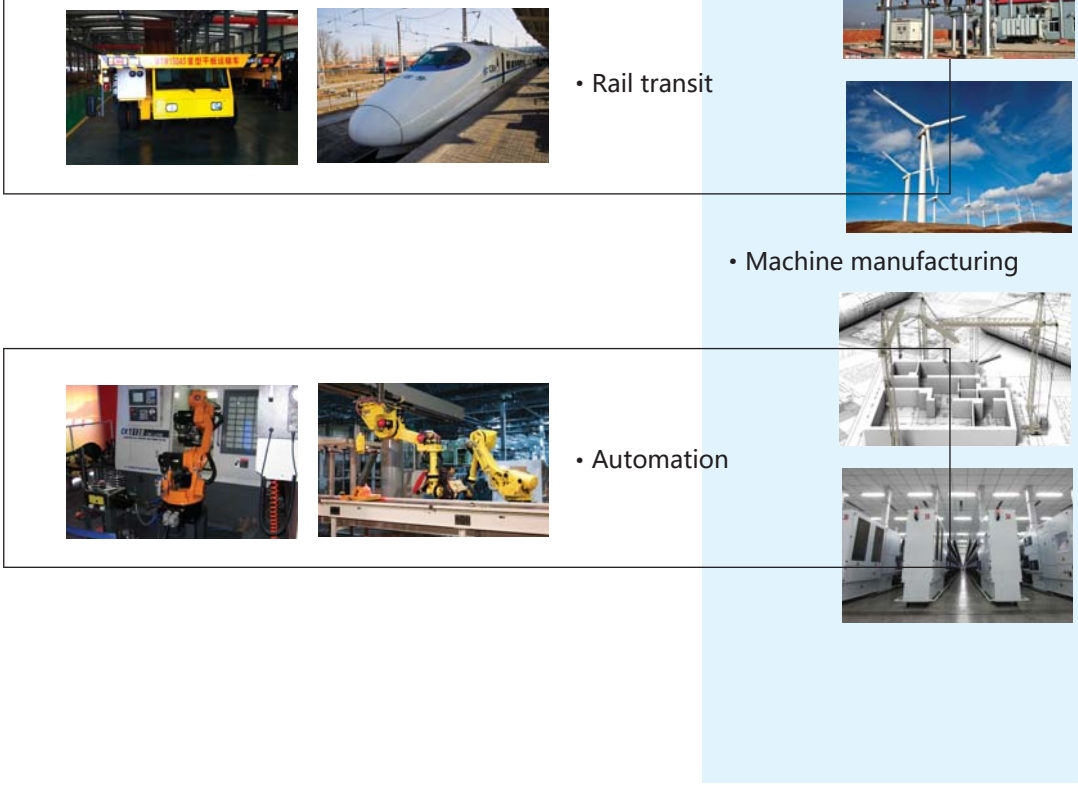




Characteristics

- Adopt button structure to realize rapid installation and disassembly.
- Crimping structure, with the advantages of efficient crimping, earthquake resistance and convenient maintenance.
- Shell is 360 ° overall shielded, and the power and signal areas are isolated separately.
- Double cable outlet, the max diameter of cable outlet can reach Φ7.5.
- With the top+side wall open design. Cable can be easily perforated, convenient to install and disassemble, and greatly shorten the assembly time.

Product applications





- Convenient maintenance
- Rapid surefooted installation
- Degree of protection IP68

> WAIN provides stable and reliable electrical connection for variable pitch blades and slip rings.



Turbine parts



Turbine parts



Pitch system

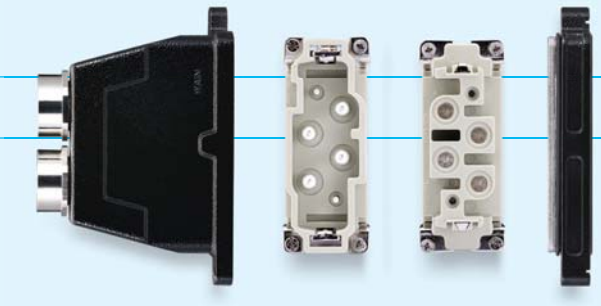
Connectors in wind power generation

Wind power generation is the most mature way of power generation, which is qualified for large–scale development and has commercial development prospect., and it has been developed in the recent years. Reliable operation and convenient maintenance and replacement of functional module system are significant for the wind power station.

WAIN Connector provides reliable electrical connection solutions for wind power generation. The HC, HE, RJ45, HR23 series, as well as other series can satisfy various connection of week and strong current in different applications of wind power.

HK Combination Connectors

- Combination of power and signal area in one connector
- Up to 200A current connection
- Match with various kinds of hoods and housings
- An ideal connector for large current connection in narrow space



Connectors in Electric power industry

Reliability, safety, economic efficiency, energy efficiency and environment–friendliness are important indicators of power grid operation. Therefore, new–type intelligent power grid taking physical power grid as foundation and integrating advanced sensor measurement technology, communication technology, information technology, computer technology and control technology is an important way to reach these indicators.

The various model of WAIN Connector also facilitates the safety, reliable operation and intelligent transformation of power grid.



In order to meet the heavy-current and high-voltage requirements in power generation, WAIN provides HD HDD series and H version shell to build a secure and stable system.





HD HDD High-Density Inserts

- Safe and reliable, convenient maintenance
- High density of crimping contacts, up to 216 contacts, compact structure
- Match with various kinds of hoods and housings



Vacuum circuit breaker



High–tension switch cabinet



Box–type substation



Connectors in Rail transit

Due to further specialization of labor and requirements for convenient maintenance, the modular design of components in the railway traffic technology is being attached with more and more attention. WAIN Connector provides a complete solution for different electrical connections among all kinds of components, ensuring the safe and reliable coordinated operation of each component in various environments.



HM Series Inserts: Flexible Combination

- Modular structure with high flexibility.
- Compact structure saves space.
- Connectors can be assembled according to special requirement.



WAIN provides connection solution with high protection grade for important occasions such as high-speed train, jumper wire of subway, air-conditioner and lighting, etc.



Jumper wire



Coupling end



Coupling end



Hauling system



”WAIN uses single connector to achieve power and signal transmission so that robot wiring is more reasonable and engineering application can be carried out with high efficiency.



Use the least space to realize the automation

In the development of modern automation technology, flexibility is a very important indicator, including flexibility and convenience of installation, use, production and commissioning.
WAIN’s HE, HEE, HK, HM and other series, along with hoods and housings with various degrees of protection, cable outlets and locking levers, can satisfy the requirements for space and electrical connection.



HM Combined suite

- Modular structure
- Universality，reducing inventory
- Realize the power and signal transmission in the least space
- Meet electrical or signal connecting requirements in different fields and for different purposes



Outer join



Control system

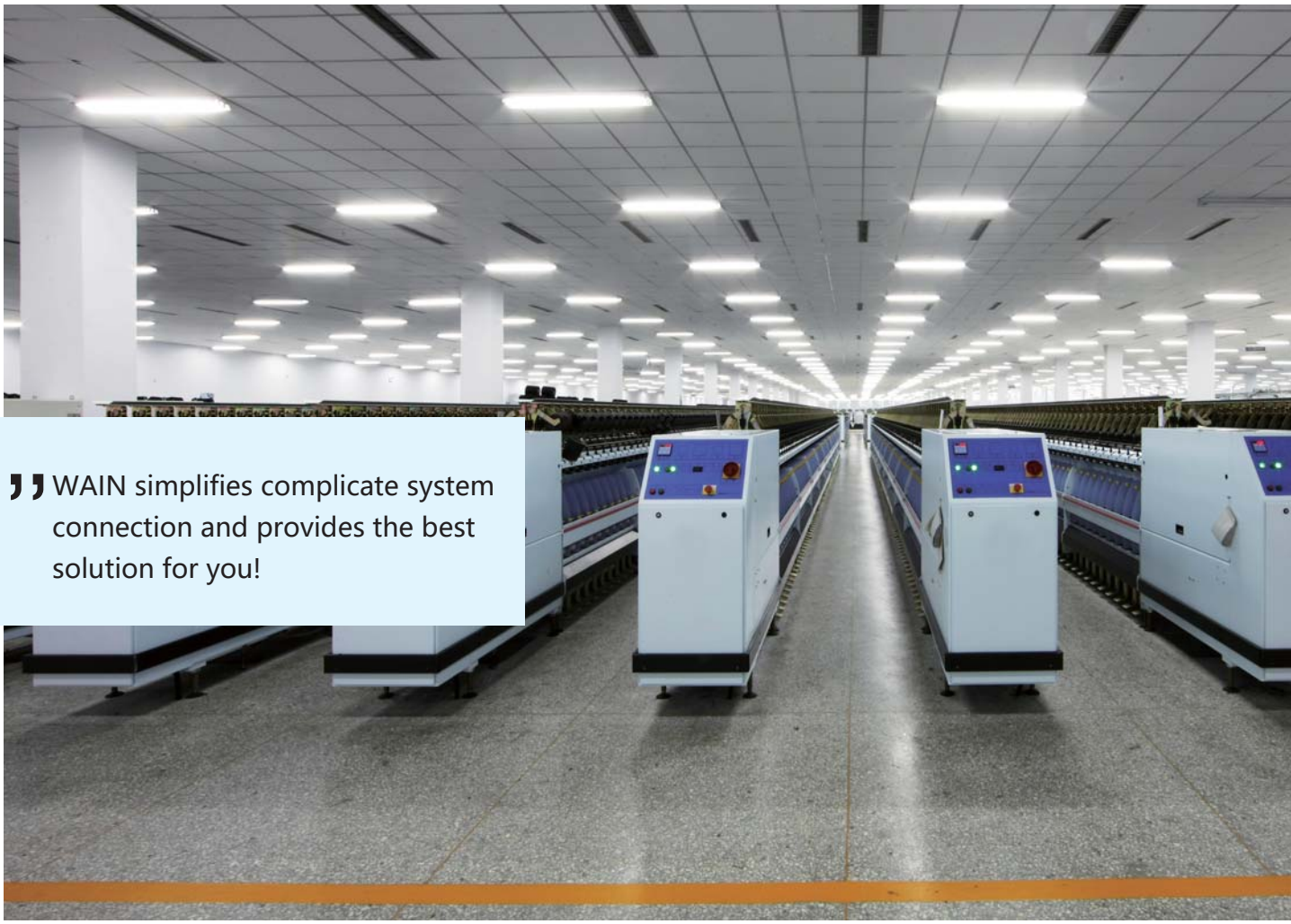


Outer join

Connector in machinery

In machinery manufacturing field, due to the diversified equipment and space requirements, light, gas and other media are also needed to be transmitted in some cases, besides weak current and strong current.

WAIN Connector provides integral solutions for this; it not only has many electrical connectors, but also has connectors for other media (such as pneumatic connector). It can satisfy different applications of various kinds of equipment, and simultaneously connect electrical circuit and gas circuit in a connector if necessary.



WAIN simplifies complicate system connection and provides the best solution for you!





HQ compact connectors

- Convenient maintenance
- Compact design
- Match pressure tight or EMC hoods/housings







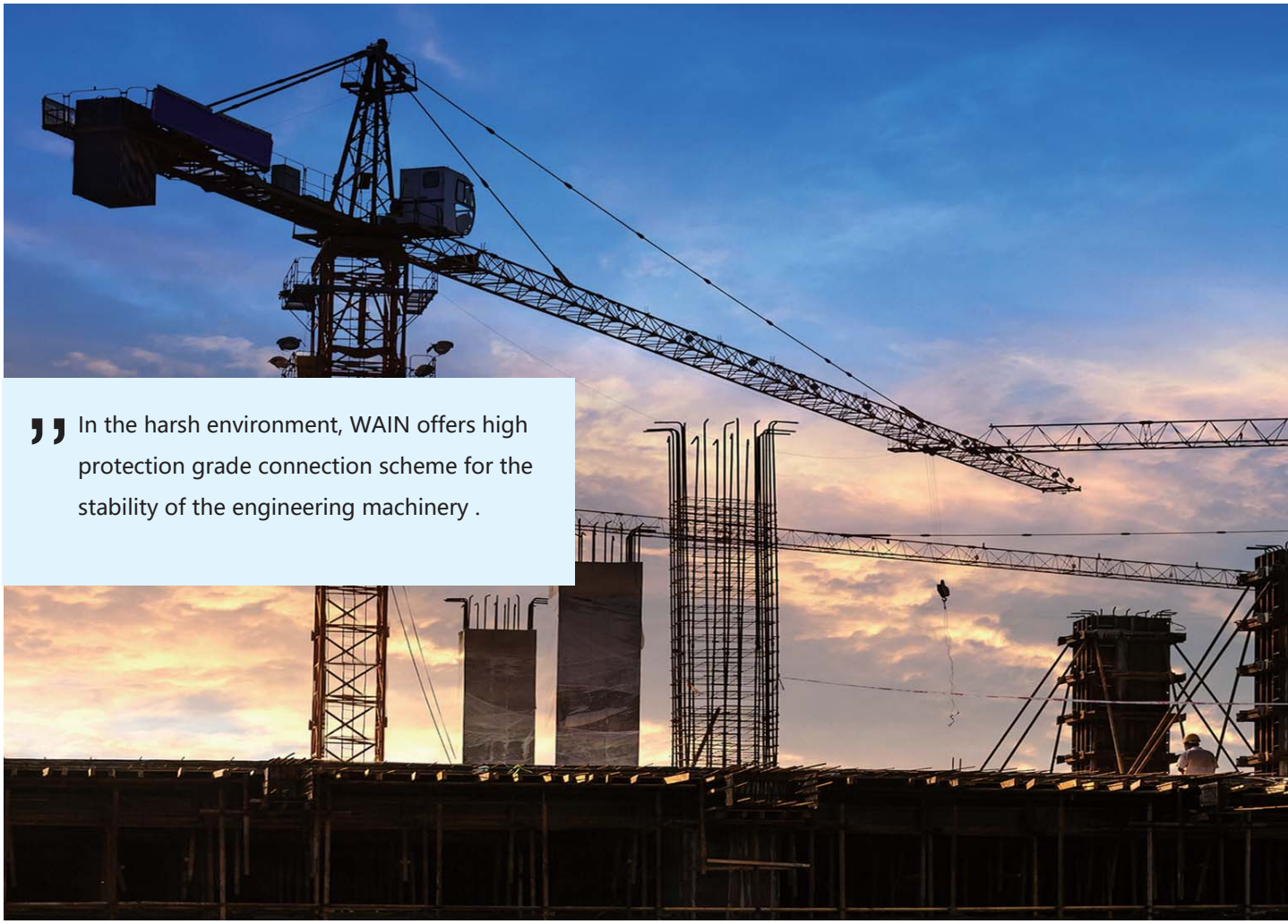
Connector in engineering machinery

The future demands for diversification, high rise, beautiful appearance, energy conservation and environmental protection in construction industry will absolutely promote the development of engineering machinery.

WAIN Connector, boasting of dozens of series, thousand of models, strong current connection up to 650A and shells with IP65/IP68 protection grade, provides reliable electrical connection for the high–end and intelligent development of constr–uction machinery.

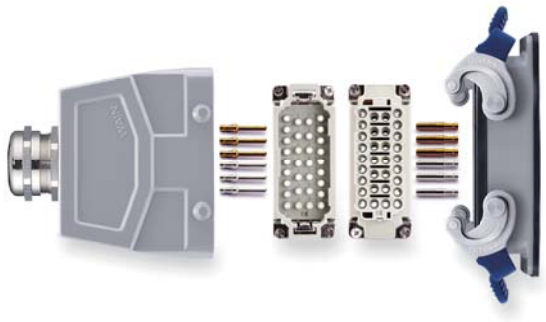
*The hoods/housings developed by WAIN for harsh enviroment reach a salt–spray protection of 500 hours. Compared with similar product around the world, it has more excellent protection capability.

*Airtightness of fluororubber has formed standard adapter of WAIN product. Therefore, it can satisfy protection requirement under chemistry and chemical engineering environment.



In the harsh environment, WAIN offers high protection grade connection scheme for the stability of the engineering machinery .





HEE High density connectors

- High density of crimping contacts，up to 92 pins
- Polarised insert
- Contacts available with either hard silver plated or hard gold plated surface
- Various degrees of protection and cable entries for the hoods
- Airtightness of fluororubber
- Locking levers made of stainless steel



Engineering machinery



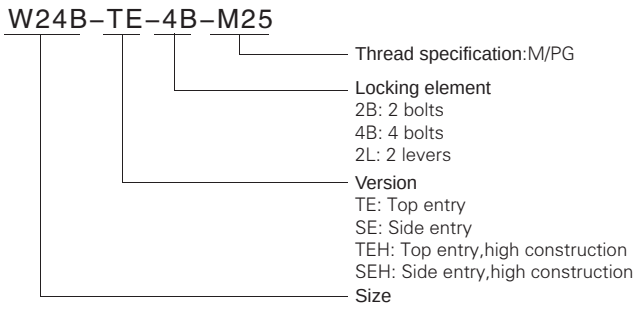
Engineering machinery



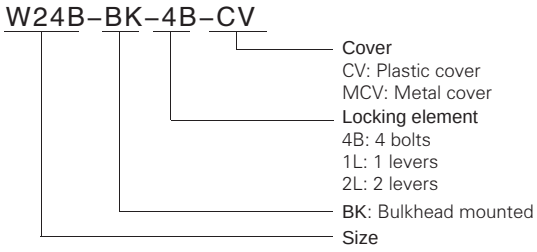
Engineering machinery

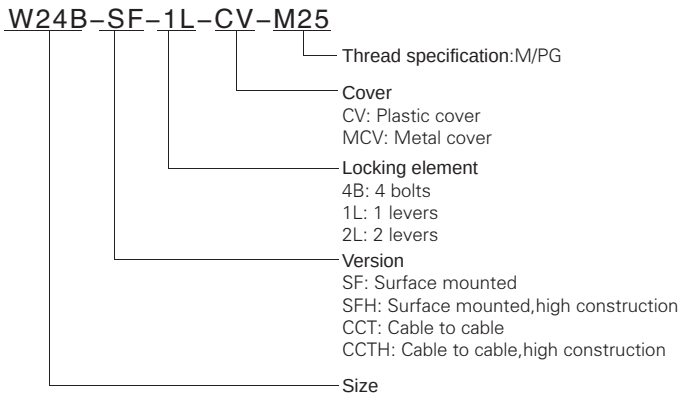
Explain for Designation

Hood

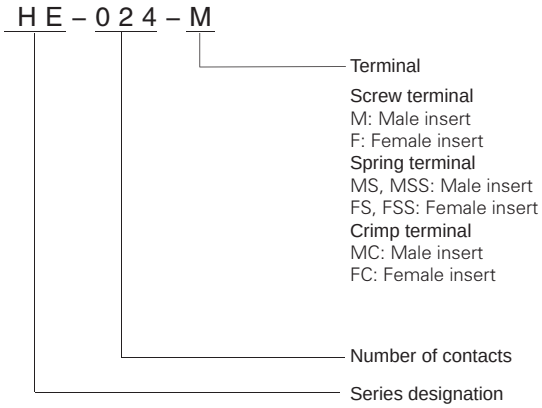


Housing

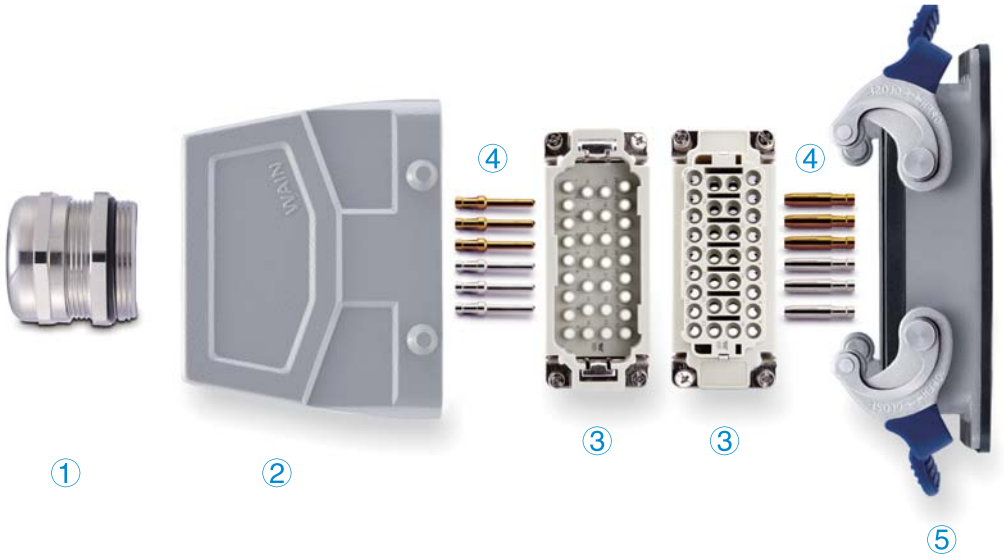




Insert



Parts of the heavy duty connector



① Cable gland

Nylon or brass nickel plated
Universal cable glands
Cable gland with normal or multiple seal
Other Cable gland

② Hoods

Low or high construction
Top or side cable ent
2 bolts or 4 bolts or 2 locking levers

③ Male insert or Female insert

Screw terminal
Crimp terminal
Cage–clamp terminal
Spring terminal

④ Crimp contacts (only for crimp connection insert)

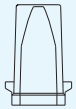
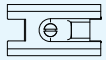
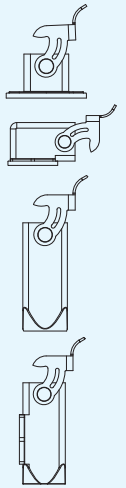
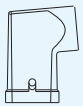
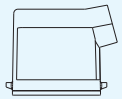
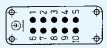
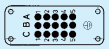
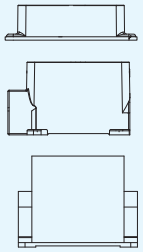
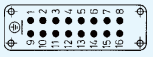
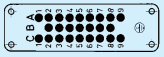
Golden plated or silver plated
Rated current: 5A, 10A, 16A, 40A, 70A, 100A, 200A, 350A, 650A

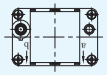
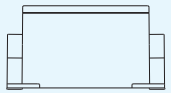
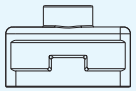
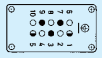
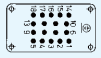
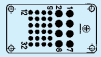
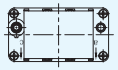
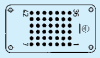
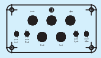
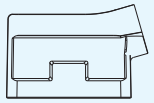
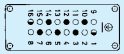
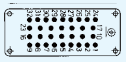
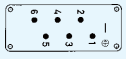
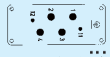
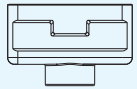
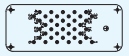
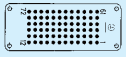
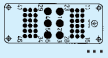
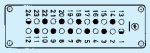
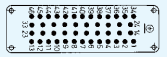
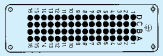
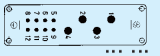
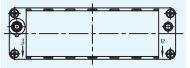
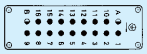
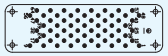
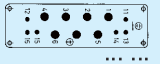
⑤ Housings

Bulkhead mounting or surface mounting or cable to cable
Low or high construction
1 or 2 locking levers or 4 bolts
With or without thermoplastic/metal covers

Except standard hoods/housings, special hoods/housings with high protection level(IP68) and EMC screening are also available for clients.

*For customized requirement, please contact us.

Hoods \ Inserts	HA Series Crimp terminal Screw terminal Spring terminal	HD Series Crimp terminal	HQ Series Axial screw terminal Crimp terminal	HM Series Crimp terminal Screw terminal Spring terminal	HM Series Q–Coax/Coax			Housings
3A		 250V 10A 7P+⏚	 830V 40A 2P+⏚					
		 –120V/~50V 10A 8P	 400V 40A 2P+⏚					
			 230/400V 16A 5P+⏚					
			 400V 10A 7P+⏚					
10A		 250V 16A 10P+⏚	 250V 10A 15P+⏚		 Single Modular			
16A		 250V 16A 16P+⏚	 250V 10A 25P+⏚					
32A	suitable for 2 inserts of size 16 A							

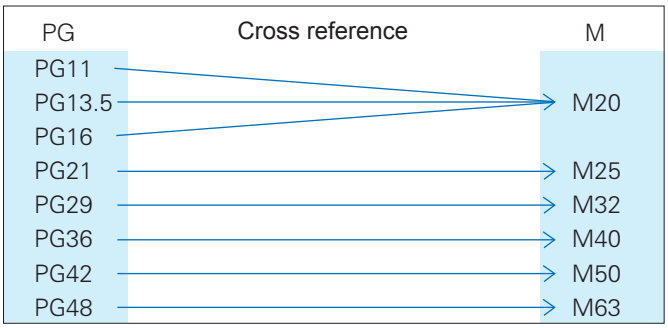
Hoods \ Inserts	HE Series Crimp terminal Screw terminal Spring terminal	HVE/HVES Series Screw terminal Spring terminal	HEE Series Crimp terminal	HD/HDD Series Crimp terminal	HSB Series Screw terminal	HK Series Screw terminal	HM Series Crimp terminal Screw terminal Spring terminal	Housings
6B	 500V 16A 6P+⏚		 500V 16A 10P+⏚				 2 modules	
				 250V 10A 24P+⏚				
10B	  500V 16A 10P+⏚	 830V 16A 3+2P+⏚	 500V 16A 18P+⏚			 400/250V 16/10A 8/24P+⏚	 3 modules	
				 250V 10A 42P+⏚		 690/250V 70/16A 4/4P+⏚		
16B	  500V 16A 16P+⏚	 830V 16A 6+2P+⏚	 500V 16A 32P+⏚	 250V 10A 40P+⏚	 400/690V 35A 12P+⏚	 830/400V 80/16A 4/0P+⏚ 830/400V 80/16A 4/2P+⏚	 4 modules	
			 500V 16A 46P+⏚	 250V 10A 72P+⏚		 690/160V 40/10A 6/36P+⏚		
24B	 500V 16A 24P+⏚	 830V 16A 10+2P+⏚	 500V 16A 40P+⏚	 250V 10A 64P+⏚		 830/400V 80/16A 4/8P+⏚	 6 modules	
		 830V 16A 16+2P+⏚	 500V 16A 64P+⏚	 250V 10A 108P+⏚		 690/400V 100/16A 6/6P+⏚		
32B	suitable for 2 inserts of size 16 B							
48B	suitable for 2 inserts of size 24 B							

Size of the Cable Entry

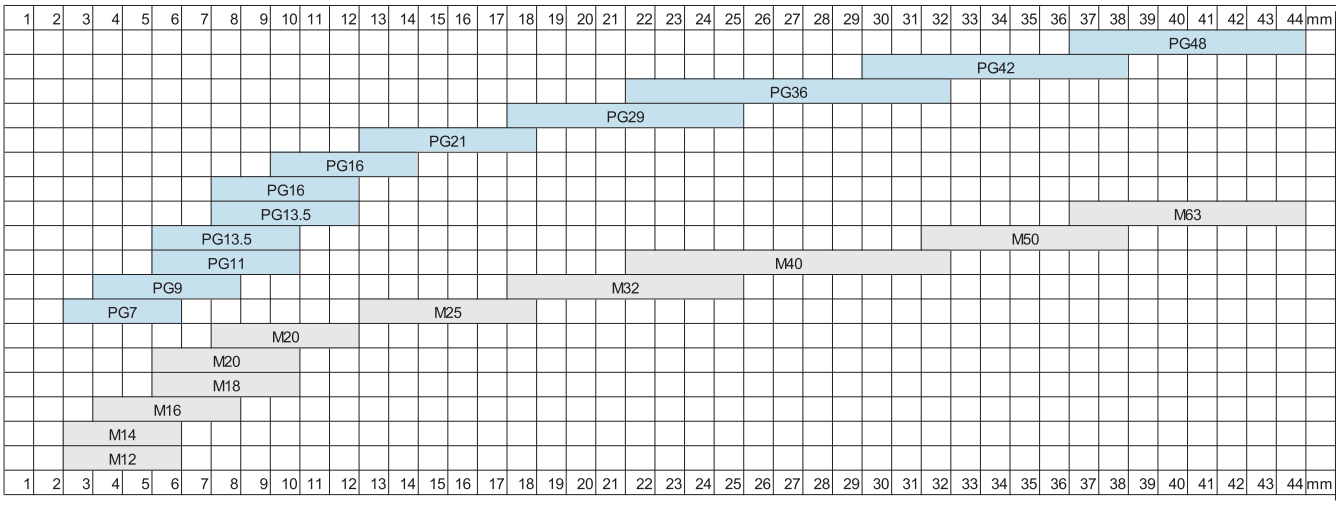
The adoption of metric threads considerably simplifies the understanding and specification of the size of cable entry as the product type description contains the thread dimension.

The following Cross Reference table shows the correlation between the PG versions and the new metric types.

Please notice that the maximum cable diameter may be reduced by the new metric cable glands.

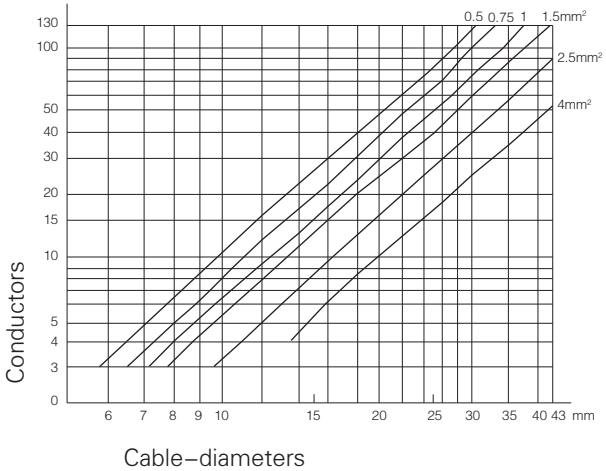


Below is shown the cable range of metric glands:



Cable

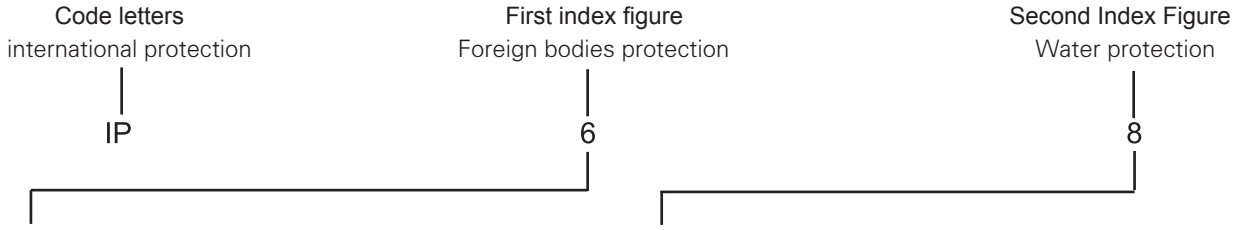
The diagram shows different cable–diameters, being dependent on wire gauges and number of conductors.
All data are averages for commercial cables.



Degree of Protection of Hoods/Housings

The connector's hood, housing, sealing and locking lever protect the inner components from external influences such as mechanical shocks, foreign bodies, humidity, dust, water or other fluids such as cleansing and cooling agents, oils, etc. The degree of protection the housing offers is explained in the IEC 60 529, DIN EN 60 529, standards that categorize enclosures according to foreign body and water protection.

The following table shows the different degrees of protection.



Index figure	Degree of protection
0	No protection: No protection against accidental contact, no protection against solid foreign bodies.
1	Protection against large foreign bodies: potection against contact with any large area by hand and against large solid foreign bodies with Ø>50mm.
2	Protection against medium sized foreign bodies: potection against contact with the fingers, protection against solid foreign bodies with Ø>12mm.
3	Protection against small solid foreign bodies: potection against tools, wires or similar objects Ø>2.5mm, protection against small foreign solid bodies with Ø>2.5mm.
4	Protection against grain–shaped foreign bodies: As 3 however, Ø>1mm.
5	Protection against injurious deposits of dust: Full potection against contact, protection against interior injurious dust deposits.
6	Protection against ingress dust: Total protection against contact, protection against penetration dust.

Index figure	Degree of protection
0	No protection against water.
1	Drip–proof: Protection against vertical water drips.
2	Drip–proof: Protection against water drips (Up to a 15° angle)
3	Spray–proof: Protection against diagonal water drips (Up to 60° angle)
4	Splash–proof: Protection against splashed water from all directions.
5	Hose–proof: Protection against water (out of a nozzle) from all directions.
6	Protection against flooding: Protection against temporary flooding.
7	Protection against immersion: Protection against temporary immersion.
8	Water–tight: Protection against temporary Pressure.
9k[1)]	Protected against water from high–pressure / steam jet cleaners

1) ... IP x9k is not part of IEC 60529

Electrical engineering data

Rated impulse voltages (Table B2 of DIN EN 60 664–1)

Nominal voltage of the supply system (= rated insulation voltage of equipment)					Preferred values for the rated impulse voltage kV (1.2/50 μ s)			
					Overvoltage category			
					I	II	III	IV
Voltage line to earth derived from the nominal voltage of the supply system to the a. c. voltage (r. m. s. value) or d. c. voltage	AC voltage (r. m. s. value) 	AC voltage 	AC voltage (r. m. s. value d. c. voltage)	AC voltage (r. m. s. value d. c. voltage) 	Special protected levels	Level for electrical equipment (household and others)	Level for distribution supply systems	Input level
V	V	V	V	V				
100	66/115	66	60	—	0.5	0.8	1.5	2.5
150	120/208; 127/220	115; 120; 127	110; 120	220–110; 240–120	0.8	1.5	2.5	4
300	220/380; 230/400; 240/415; 260/440; 277/480	220; 230; 240; 260; 277	220	440–220	1.5	2.5	4	6
600	347/600; 380/660; 400/690; 415/720; 480/830	347; 380; 400; 415; 440; 480; 500; 577; 600	480	960–480	2.5	4	6	8
1000		660; 690; 720; 830; 1000	1000	—	4	6	8	12

Over-voltage category

The following categories in line with the standard IEC 60664–1

The overvoltage category is dependent on the mains voltage and the location at which the equipment is installed. It describes the maximum overvoltage resistance of a device in the event of a power supply system fault, e. g. in the event of a lightening strike. According to the relevant standards, there are 4 overvoltage categories.

Category I is equipment for connection to circuits in which measures are taken to limit transient overvoltages to an appropriately low level.

Note: Examples are protected electronic circuits.

Category II is energy–consuming equipment to be supplied from the fixed installation.

Note: Examples of such equipment are appliances, portable tools and other household equipment with similar loads.

Category III is equipment in fixed installations and for cases where the reliability and the availability of the equipment is subject to special requirements.

Note: Examples of such equipment are switches in the fixed installation and equipment for industrial use with permanent connection to the fixed installation. WAIN industrial connectors belong to the over–voltage type

Category IV is for use at the origin of the installation.

Note: Examples of such equipment are electricity meters and primary overcurrent protection equipment.

Pollution degree

The following categories in line with the standard IEC 60664–1

The dimensioning of operating equipment is dependent on environmental conditions. Any pollution or contamination may give rise to conductivity that, in combination with moisture, may affect the insulating properties of the surface on which it is deposited. The pollution degree influences the design of components in terms of the creepage distance. The pollution degree is defined for exposed, unprotected insulation on the basis of environmental conditions.

Pollution degree 1

No pollution or only dry, non–conductive pollution occurs. The pollution has no influence. such as computer and measuring instrument rooms, for example.

Pollution degree Ⅱ

Only non–conductive pollution occurs except that occasionally a temporary conductivity caused by condensation is to be excepted. such as residential，sales，laboratories，precision engineering workshops, for example.

Pollution degree Ⅲ

Conductive pollution occurs or dry nonconductive pollution occurs which becomes conductive due to condensation which is to be excepted. such as unheated storage premises, workshops or boiler rooms, also for the electrical components of assembly or mounting equipment and machine tools, for example. **WAIN heavy duty connectors are designed as standard for the Pollution Degree .**

Pollution degree Ⅳ

The pollution generates persistent conductivity caused by conductive dust or by rain or snow, such as in the enviornment of outdoor,

Special ruling for connectors

Subject to compliance with certain preconditions, the standard for connectors permits a lower pollution degree than that which applies to the installation as a whole. This means that in a pollution degree 3 environment, connectors may be used which are electrically rated for pollution degree 2.

Extract from DIN EN 61 984, Para. 6.19.2.3.

For a connector with a degree of protection IP54 or higher according to IEC 60529, the insulating parts inside the enclosure may be dimensioned for a lower pollution degree, This also applies to mated connectors where enclosure is ensured by the connector housing and which may only be disengaged for test and maintenance purposes.

The conditions fulfills：

- a connector which is protected to at least IP54 acc. to IEC 60 529
- a connector which is installed in a housing and which as described in the standard is disconnected for testing and maintenance purposes only.
- a connector which is installed in a housing and which when disconnected is protected by a cap or cover to at least IP54,
- a connector located inside a switching cabinet to at least IP54.

Note:These conditions do not extend to connectors which when disconnected remain exposed to the industrial atmosphere for an indefinite period.

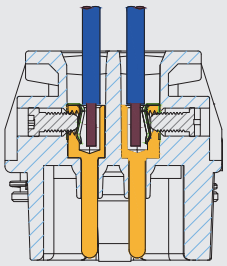
Typical applications in which to choose pollution degree 2 connectors:

- A connector serving a drive motor which is disconnected only for the purpose of replacing a defective motor, even when the plant or system otherwise calls for pollution degree 3.
- Connectors located inside a switching cabinet to IP54. In such cases, it is even possible to dispense with the IP54 housings of the connectors themselves.
- Connectors serving a machine of modular design which are disconnected for transport purposes only and enable rapid erection and reliable commissioning. In transit, protective covers or adequate packing must be provided to ensure that the connectors are not affected by pollution/contamination.

Terminations technology

Screw terminal

Advantages
Wide scope of applicable wire specification;
No special tool needed;
Protection plate of wire is available;
A single hole can be connected to serveral wires at the same time if necessary;
Insert has contact pins itself, easy to reduce inventory.

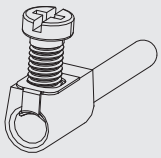


Screw terminal is accord to VDE 0609/EN 60 999. Test dimensions and tightening torques are shown in the list following.
Dimensions and tightening torque of screw terminals.

Wire gauge (mm²)	1.5	2.5	4	6	10	16
Screw thread	M3	M3	M3.5	M4	M4	M6
Test moment of torque (Nm)	0.5	0.5	0.8	1.2	1.2	1.2*
min. pull–out for stranded wire(N)	40	50	60	80	90	100

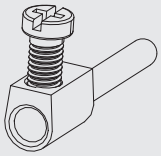
*For fixed screws without heads

Terminals with wire protection



The ferrules is not necessary to use for:
HSB series, HVE series, HK–006/12，HK–006/6

Terminals without wire protection



The insulation is to be removed and use the wire ferrules:
HK–004/0，HK–004/2 ，HK–004/8

Screw terminal

Inserts	Wire protection		min. wire gauge		max. wire gauge		Stripping length
	Yes	No	mm²	AWG	mm²	AWG	mm
HA–003/HA–004		√	0.75	18	1.5	16	4.5
HA–010/HA–016/HA–032	√		0.75	18	2.5	14	7.5
HE Series, HVE Series	√		0.75	18	2.5	14	7.5
HSB Series	√		1.5	16	6	10	11.5
HK–006/6, HK–006/12(signal contacts)	√		0.2	24	2.5	14	7.5
HK–004/2, HK–004/8(signal contacts)		√	0.5	20	2.5	14	7.5
HK–004/0, HK–004/2, HK–004/8(power contacts)		√	1.5	16	16	6	14
HD AV Series, HE AV Series	√		0.2	24	2.5	14	8...11

Terminations technology

Screw terminal

Recommendation of tightening torque and screwdriver types for inserts connecting with screws

Screw type	Screws classification	Inserts	tightening torque recommandation（Nm）	tightening torque recomma（Lbft）	screwdriver types recommandation
M3	screw terminal	HA–003/HA–004, HQ–005/HQ–007/HQ–012（PE）	0.25	0.20	cross screwdr PH0
	screw terminal	HD AV, HE AV, HK–006/6（signal pin）, HK–006/12（signal pin）	0.50	0.40	slot type screwdriver 0.5x3.0
	screw terminal	HA–010/HA–016/HA–032, HVE, HE, HME–005, HWK–006/6（signal pin）	0.50	0.40	slot type screwdriver 0.6x3.5 or cross screwdriver PH1
	Screws fixed on the 3A Hoods/ Housings	HA–002/HA–003/HA–004, HD–007/HD–008, HQ–002/HQV–002/HQ–005/HQ–007/HQ–012	0.50	0.40	cross screwdriver PH1or cross screwdriver PH2
	Screws fixed on the H10A/H16A/H32A Hoods/Housings, HB Hoods/Housings	HA–010/HA–016/HA–032, HE, HVE, HEE, HD–015 /HD–025/HD–050/HD–040/HD–064/HD–080/HD–128 , HDD, HSB, HK, HWK, HKH, HE AV, HD AV	0.50	0.40	slot type screwdriver 0.6x3.5 or cross screwdriver PH1 or cross screwdriver PH2
	Coding Pin	CODE–M3, MCODE–M3, GBUSH–M3, GPIN–M3 , MGBUSH–M3, MGPIN–M3	0.50	0.40	slot type screwdriver 1x6.0
M3.5	Ground terminal	HA–010/HA–016/HA–032, HD–015/HD–025	0.80	0.60	slot type screwdriver 0.6x3.5 or cross screwdriver PH1
M4	screw terminal	HSB–006/HSB–012	1.20	0.90	slot type screwdriver 0.6x3.5 or cross screwdriver PH1
	Ground terminal	HE, HVE, HD–040/HD–064/HD–080/HD–128, HE AV, HD AV, HK–008/24, HWK–006, HK–006/6 , HK–006/12, HK–008/0, HSB–006/HSB–012	1.20	0.90	slot type screwdriver 0.8x4.5 or cross screwdriver PH2
M5	screw terminal	HWK–006/6（power pin）	2	1.4	slot type screwdriver 0.8x4.5
	Ground terminal	HK–012/2, HKH–012/0, HK–004/0, HK–004/2, HK–004/8, HK–006/36	2	1.4	slot type screwdriver 0.8x4.5 or cross screwdriver PH2
M6	screw terminal	HK–004/0（power pin）, HK–004/2（power pin）, HK–004/8（power pin）	the corresponding technical data please see chapter 8		slot type screwdriver 0.8x4.5
slot type screwdriver according to ISO 2380 cross screwdriver according to ISO 8764					

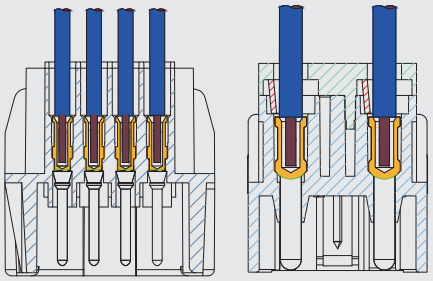
Increasing the tightening torque does not improve considerably the contact resistances.The torque moments were determined when optimum mechanical, thermal and electrical circumstances were given. If the recommended figures are considerably exceeded the wire or the termination can be damaged.

Terminations technology

Crimp connection

Advantages

Applicable to vibration situation;
Density of the contact pin is high;
Nearly cold welding guarantees corrosion resistance;
Able to achieve pre–assembly of wiring harness;
The same insert can be used for different coated pins according to actual demand.



A perfect crimping can realize air tight state, and has the effect of cold welding. To achieve high–quality crimping requires the coordination of crimping parts and crimping tools, the crimped wires must match the correct specifications of crimping pieces. As long as these basic requirements are met, the user can ensure a connection with low contact resistance and high corrosion resistance.
The requirements for crimping connectors shall be in accordance with DIN EN60 352–2 as following table.

Tensile strength:
The tensile strength of the contact wire at the terminal can be used to judge the crimping quality of the conductor.The relationship between tensile strength and cross section area of conductor is defined under DIN EN60 352–2.
Using the Wain crimping tool can ensure the required tensile strength in the correct application process.
Crimping tools
The crimping tool (hand or automatic) is designed to make the connecting parts of contact or wire deform uniformly under the pressure of pliers, to ensure the uniform extension of material.

Overview inserts with crimp terminal

Wire gauge		Internal diameter	Stripping length l (mm)		
(mm²)	AWG	Ø (mm)	HDD HD R15 Modular (10 A)	HE HA Hv E (16 A)	HC (40 A)
0.14 ... 0.37	26 ... 22	0.9	8	–	–
0.5	20	1.15	8	7.5	–
0.75	18	1.3	8	7.5	–
1	18	1.45	8	7.5	–
1.5	16	1.75	8	7.5	9
2.5	14	2.25	6	7.5	9
4	12	2.85	–	7.5	9.6
6	10	3.5	–	–	9.6
10	8	4.6	–	–	15

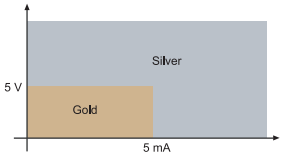
	Conductor cross-section	ø	Stripping length
100 A Modul	10 mm²	4.3 mm	19.0 mm
	16 mm²	5.5 mm	19.0 mm
	25 mm²	7.0 mm	19.0 mm
	35 mm²	8.2 mm	16.0 mm
HC Modular 350	35 mm²	8.2 mm	26.0 mm
	50 mm²	10.0 mm	28.0 mm
	70 mm²	11.5 mm	28.0 mm
	95 mm²	13.5 mm	30.0 mm
	120 mm²	15.5 mm	24.0 mm
HC Modular 650	240 mm²	22.5 mm	50.0 mm
for fine stranded wires according to IEC 60 228 class 5			

Tensile strength of crimped connections(Table1:DIN EN 60 352-2)

Conductor cross–section		Tensile strength
mm²	AWG	N
0.05	30	6
0.08	28	11
0.12	26	15
0.14		18
0.22	24	28
0.25		32
0.32	22	40
0.5	20	60
0.75		85
0.82	18	90
1.0		108
1.3	16	135
1.5		150
2.1	14	200
2.5		230
3.3	12	275
4.0		310
5.3	10	355
6.0		360
8.4	8	370
10.0		380

The selection of contact surface plated

Below is a table derived from actual experiences



Recommendation

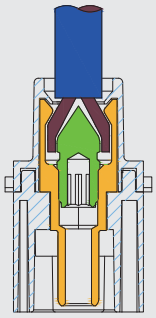
Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Terminations technology

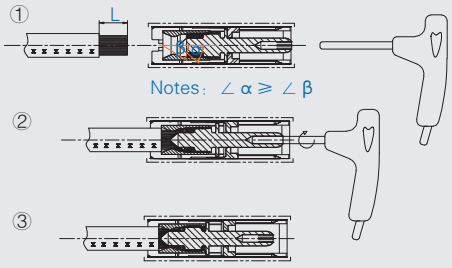
Axial screw terminal

Advantages

Scope of applicable wire specification is wide;
Special tool will not be used;
Little space required;
Simple operation;



Axial screw crimping instruction



①.Strip insulation from the wire， the length as per the form and insert the wire into the contact until insulation layer is flush with the wiring access of the contact.Do not twist the strands of the wire.
②.Hold the wire in position and tighten the wire from the mating side by a twist driver (SW–2x40),the tightening torque reference the form.
③.Complete wiring .

Technical notes for Axial screw termial:

The wire gauge (sectional area) mentioned in the catalogue refers to the geometric wire gauge (sectional area) of the cable.

Background:
According to DIN VDE 0295 for cables and insulated wires, the sectional area of cables is measured according to the conductance (Ω / km) and the maximum diameter of wire. The minimum diameter of wire is not specified. For example (rated sectional area 95mm2 → actual geometric sectional area 89mm2)

Suggestions:
If there is a big difference between the geometric cross–sectional area and the rated cross–sectional area of the cable, additional detection should be carried out when axial screw termial is used.

Stress relief:
For safe operation, there should be enough distance between the cable and the pressure contact to ensure that the contact is not affected by radial stress. Specific stress relief designs can be found in DIN VDE 0100–520:2003–6 (refer to the table below).

Outer cable diameter (mm)	Maximum fixing distance (mm)	
	horizontal	vertical
D≤9	250	400
9 < D < 15	300	400
15 < D < 20	350	450
20 < D < 40	400	550

Cable:
The axial screw termial technology was developed based on DIN EN 60 228 class 5 cables (cable assembly according to DIN EN 60 228). Different cable assemblies need to be tested independently.

Assembly remarks:
Before assembly, the user must ensure that the axial taper thread completely opens the contact chamber downward. After the cable insulation is stripped, do not twist the strands, and the longest stripping length should not exceed the recommended dimension. Insert the cable completely into the connector and make direct contact with the bottom of the copper strand. Maintain the cable in this position when using the recommended tightening torque.

Maintenance of axial screw termial:
After initial assembly, only use the recommended tightening torque once again to avoid damaging the individual wire strands.

Wire assembly according to DIN EN 60 228

Wire gauge (mm²)	Stranded wires DIN EN 60 228 class 2	Fine stranded wires DIN EN 60 228 class 5	Super fine stranded wires DIN EN 60 228 class 6			
0.5	7 x 0.30	16 x 0.20	28 x 0.15	64 x 0.10	131 x 0.07	256 x 0.05
0.75	7 x 0.37	24 x 0.20	42 x 0.15	96 x 0.10	195 x 0.07	384 x 0.05
1	7 x 0.43	32 x 0.20	56 x 0.15	128 x 0.10	260 x 0.07	512 x 0.05
1.5	7 x 0.52	30 x 0.25	84 x 0.15	192 x 0.10	392 x 0.07	768 x 0.05
2.5	7 x 0.67	50 x 0.25	140 x 0.15	320 x 0.10	651 x 0.07	1280 x 0.05
4	7 x 0.85	56 x 0.30	224 x 0.15	512 x 0.10	1040 x 0.07	
6	7 x 1.05	84 x 0.30	192 x 0.20	768 x 0.10	1560 x 0.07	
10	7 x 1.35	80 x 0.40	320 x 0.20	1280 x 0.10	2600 x 0.07	
16	7 x 1.70	128 x 0.40	512 x 0.20	2048 x 0.10		
25	7 x 2.13	200 x 0.40	800 x 0.20	3200 x 0.10		
35	7 x 2.52	280 x 0.40	1120 x 0.20			
50	19 x 1.83	400 x 0.40	705 x 0.30			
70	19 x 2.17	356 x 0.50	990 x 0.30			
95	19 x 2.52	485 x 0.50	1340 x 0.30			
120	37 x 2.03	614 x 0.50	1690 x 0.30			
150	37 x 2.27	765 x 0.50	2123 x 0.30			
185	37 x 2.52	944 x 0.50	1470 x 0.40			
240	61 x 2.24	1225 x 0.50	1905 x 0.40			

Terminations technology

Overview inserts with axial screw terminal

Insert	Wire gauge	Stripping length	Tightening torque	Max. cable insulation diameter	Size hexagon recess	Insert dimension for cable indication (ISK)
	(mm²)	(mm)	(Nm)	(mm)	(SW)	(mm)
HK-006/12	2.5 – 8	2.5 mm²: 8+1 4 mm²: 8+1 6 mm²: 8+1 8 mm²: 8+1	2.5 mm² 1.5 4 mm²: 1.5 6 mm²: 2 8 mm²: 2	6.2	2	4.7
	6 – 10	6 mm²: 8+1 8 mm²: 8+1 10 mm²: 8+1	6 mm²: 2 8 mm²: 2 10 mm²: 2	6.2	2	4.7
HK-006/6	16 – 35	13+/–1	16 mm²: 6 25 mm²: 7 35 mm²: 8	11.4	4	4.9
HK-008/0	10 – 25	13+/–1	10 mm²: 6 16 mm²: 6 25 mm²: 7	11.4	4	4.75
HQV-002 HQ-002/0 High Voltage	2.5 – 10 2.5 – 10	8+1 PE: 2 mm longer	1.8	7.3	2	5.6
200 A module without PE 200 A module with PE	25 – 40	25 mm²: 16 40 mm²: 16	25 mm²: 8 40 mm²: 8	12 16	5	3
200 A module without PE 200 A module with PE	40 – 70	40 mm²: 16 70 mm²: 16	40 mm²: 9 70 mm²: 10	12 16	5	3
100 A module	10 – 25	13+/–1	10 mm²: 6 16 mm²: 6 25 mm²: 7	11.4	4	4.9
	16 – 35	13+/–1	16 mm²: 6 25 mm²: 7 35 mm²: 8	11.4	4	4.9
70 A module	6 – 16	6 mm²: 11+1 10 mm²: 11+1 16 mm²: 11+1	6 mm²: 2 10 mm²: 3 16 mm²: 4	8.9	2.5	7.4
	14 – 22	12.5+1	14 mm²: 4 16 mm²: 4 22 mm²: 5	10	2.5	5.9
40 A module	2.5 – 8	2.5 mm²: 5+1 4 mm²: 5+1 6 mm²: 8+1 8 mm²: 11+1	2.5 mm²: 1.5 4 mm²: 1.5 6 mm²: 2 8 mm²: 2	4 4 6 8.2	2	4.7
	6 – 10	6 mm²: 8+1 10 mm²: 11+1	6 mm²: 2 10 mm²: 2	6 10.5	2	4.7

Overview inserts with axial screw terminal

Module with axial screw terminal	2.5 – 8 6 – 10	2.5 mm²: 5+1 4 mm²: 5+1 6 mm²: 8+1 10 mm²: 11+1	2.5 mm²: 1.5 4 mm²: 1.5 6 mm²: 2 10 mm²: 2	4 4 6 8.2	2	5.2
HK-003/0 straight	35 – 70	22	35 mm²: 8 50 mm²: 9 70 mm²: 10	15	5	8.2
HK-003/0 angled	35 – 70	22	35 mm²: 8 50 mm²: 9 70 mm²: 10	15	5	9
HK-003/2 straight	35 – 70	22	35 mm²: 8 50 mm²: 9 70 mm²: 10	15 PE: 10	5	8.2 PE: 7.2
HK-003/2 angled	35 – 70	22	35 mm²: 8 50 mm²: 9 70 mm²: 10	15 PE: 10	5	9.0
HC Modular 650	70 – 120	23+2	70 mm²: 12 95 mm²: 14 120 mm²: 16	26.5	8	28
	150 – 185	23+2	150 mm²: 17 185 mm²: 18	26.5	8	28

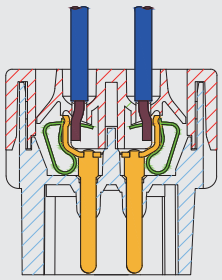
Terminations technology

Spring terminal

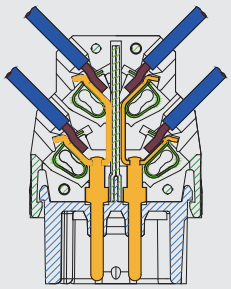
Advantages

No special tool needed;
Applicable to vibration situation;
Insert has contact pins itself, easy to reduce inventory.

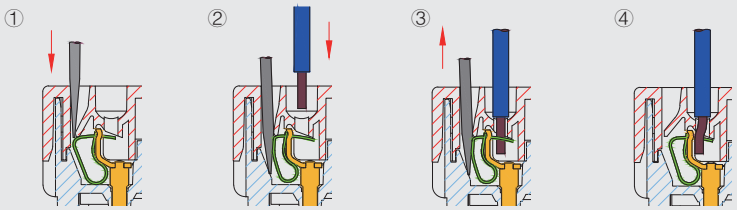
Spring terminal



Double spring connection

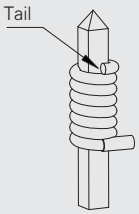


Spring terminal-connection step
Screwdriver width: 3.0 x 0.5 mm



Inserts	max. wire gauge		Stripping length
	(mm²)	AWG	l (mm)
HE Spring terminal, HVE Spring termina	0.14 ... 2.5	26 ... 14	7 ... 9
HE Double spring connection	0.14 ... 2.5	26 ... 14	9 ... 11
HK–004/4	0.14 ... 2.5	26 ... 14	7 ... 9
HME–005–MS/FS	0.14 ... 2.5	26 ... 14	7 ... 9

Wrap terminal



The characteristic of wrap terminal:
Solderless wrap connection technology, is to use a special tool–winding device, exerts a pulling force to the single unit solid bare wire, make it according to the prescribed number of turns in a tightly ling edges at the terminal, so that the wire and the terminal form firm joints technology, so as to achieve a reliable electrical connection. It is different from screw connection, welding, crimping, piercing connection way.

Advantage:
Wrap connection has more advantage than solder connection, see the following:;
① Higher reliability, longer working life;
② The junction is durable, anti–fatigue, corrosion resistance;
③ Production quality is stable, neat appearance, easier operation, and eliminate the virtual welding problems of the solder connection;
④ Achieve high density mounting and product miniaturization.
⑤ Reduce manufacture costs and improve work efficiency.

Terminations technology

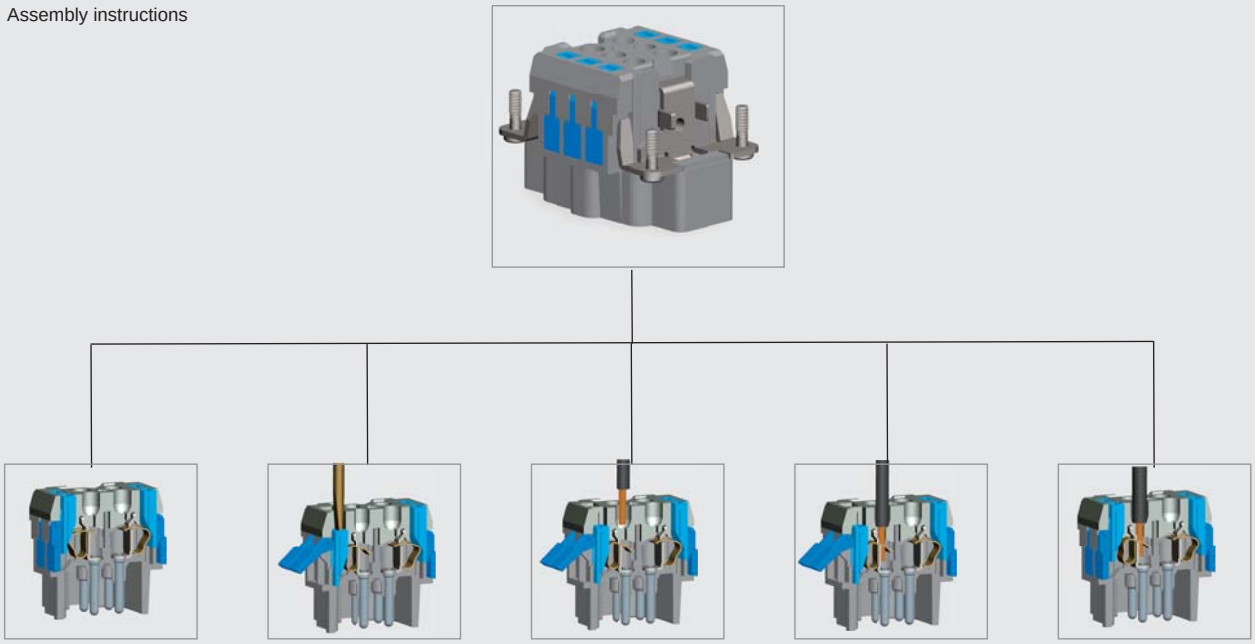
Spring terminal

HE push spring insert

Characteristics of the product:

The product can be connected and disassembled in limited space without special tool. Installation and disassembly can't be disturbed by tools, operation is convenient; Furthermore, during connection and disassembly, the hole can be opened through pushing the corresbonding lever. To make it more efficient, all the holes can be opened with a slotted screwdriver similtaneously. The tool is not contacted to the conductor while operating, therefore it avoids electric shock.

Assembly instructions



step 1：Strip the insulate layer by 9–11mm;
step 2：Using slotted screwdriver of spec. 0.5*3 to insert into groove of rectangle pushing lever, and push to the bottom, to let the driving lever tilt out. At this moment the spring stabilizes at opening condition.
step 3：Insert striped wire/cable into the round hole.
step 4：Reset the driving lever until hearing the "bang", which indicates the pushing lever automaticly reset and the spring shut, the wire/cable and contact are connected securely.
step 5：Installation is completed.

Tools

HE B Spring open machine[1)]



Description	Designation	Order NO.
for all HE B spring inserts	SOM01	198 001 003 0008

1) It can open all the shrapnel windows of insert at one time; suitable for using in mass assembly, greatly imporving the efficiency of the connection.

Hoods/Housings

Screw tightening torque

Recommended tightening torque for bulkhead mounted housings

Series	Number of screws	Size of screws	Recommended Tightening torque (Nm)	Remarks
H3A	2	M 3	0.8 ... 1.0	Gasket
H10A / 16A	4	M 3	0.8 ... 1.0	Gasket
H32A	4	M 4	0.8 ... 1.0	Gasket
H6B / H10B / H16B / H24B	4	M 4	0.8 ... 1.0	Gasket
H32B	4	M 5	min. 2.5	Gasket
H48B	4	M 6	min. 3.0	O–ring
HP3A	2	M 4	min. 1.0	O–ring
HP6B / HP10B / HP16B / HP24B	4	M 6	min. 3.0	O–ring
HP6B/H / HP10B/H / HP16B/H / HP24B/H	4	M 6	min. 3.0	O–ring

To offer safe protection the surface condition for mounting panel should be according to DIN 4766:
Waviness $\leqslant$ 0.2 mm on 200 mm distance
Roughness $R_a \leqslant 16\ \mu m$

HA SERIES

Compact standard connector



HA SERIES The slim inserts

Technical characteristics

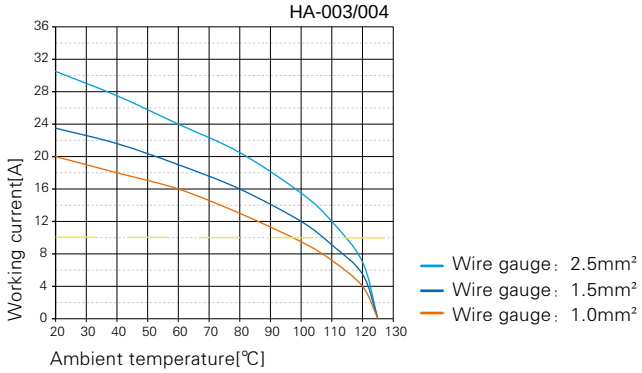
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	3,4,10,16,32(2X16)+PE
Electrical data acc. to EN 61 984	
HA–002/HA–003/HA–004	
–Rated current	10A
–Rated voltage conductor–ground	230V
–Rated voltage conductor–conductor	400V
–Rated impulse voltage	4kV
–Pollution degree	3
–or	10A 250V 4kV 3
HA–010/HA–016	
–Rated current	16A
–Rated voltage	250V
–Rated impulse voltage	4kV
–Pollution degree	3
–Pollution degree 2 also	16A 230/400V 4kV 2
Rated voltage acc. to UL	600V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–gold plated
	hard–silver plated
Contact resistance	⩽1mΩ
Screw terminal	
–Wrie gauge	0.75–1.5mm² （HA–003/004）
	0.75–2.5mm² （HA–010/016）
	0.75–2.5mm² (HA–003–M/F–V2)
–AWG	18–16（HA–003/004）
	18–14（HA–010/016）
–Tightening/Test torque	0.25Nm（HA–003/004）or
	0.5Nm（HA–010/016）
Crimp terminal	
–Wrie gauge	0.14–4.0mm²
–AWG	26–12
Spring terminal	
–Wrie gauge	0.14–2.5mm²
	(Not suitable for connecting terminal)
–AWG	26–14
Spring terminal(Quick–in)	
–Wire gauge	0.5–2.5mm²
–AWG	20–14
–Stripping length	10 ± 0.5mm
–Contact resistance	⩽3mΩ

Current carrying capacity

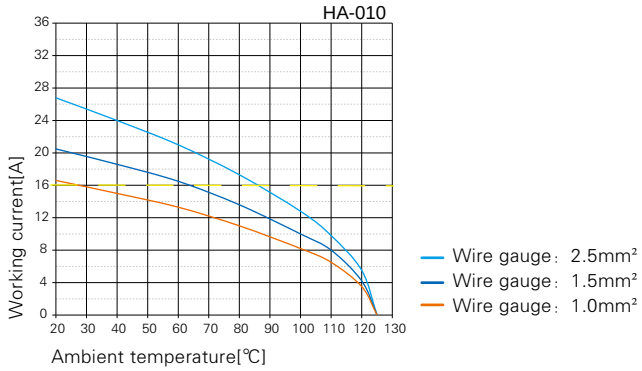
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5

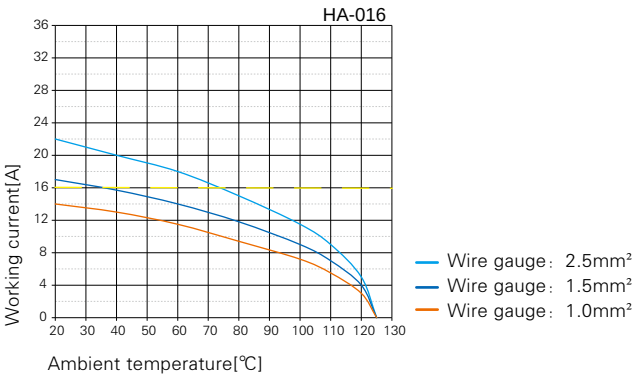
HA-003/004



HA-010



HA-016



HA-003/004 The slim inserts

230/400V 10A 3/4+⏚

Inserts

Hoods/Housings: size 3A, please find the details on page 15-06~15-16.

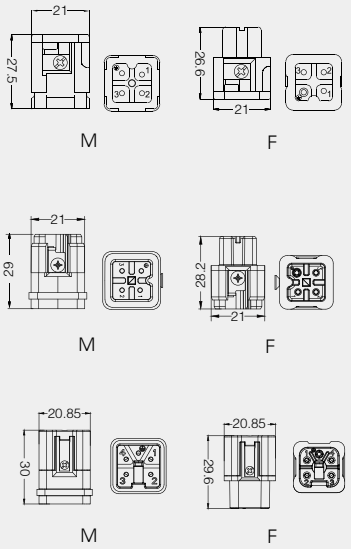
Screw terminal







Insert	Designation	Order No.
Male	HA–003–M	121 003 011 0001
Female	HA–003–F	121 003 021 0001
Male	HA–003–M–V2	121 003 011 0505
Female	HA–003–F–V2	121 003 021 0505
Male	HA–004–M–V2	121 004 011 0002
Female	HA–004–F–V2	121 004 021 0002



Coding element



Description	Designation	Order No.
coding、pokayoke	CODE–Q3	198 002 005 0034

Suitable for HA–003–M/F–V2



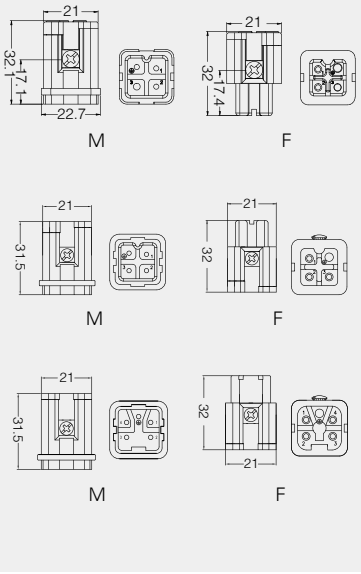
Spring terminal, See P00–35 for the structural characteristics of spring.







Insert	Designation	Order No.
Male	HA–002–MS	121 002 012 0001
Female	HA–002–FS	121 002 022 0001
Male	HA–003–MS	121 003 012 0001
Female	HA–003–FS	121 003 022 0001
Male	HA–004–MS	121 004 012 0001
Female	HA–004–FS	121 004 022 0001



HA-003/004 Quick-in module

230/400V 10A 3/4+⏚

Inserts

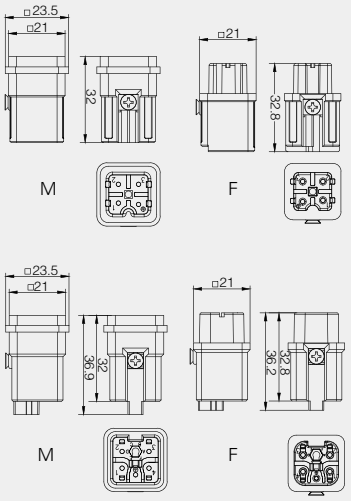
Hoods/Housings: size 3A, please find the details on page 15-06~15-16.

Spring terminal(Quick-in)



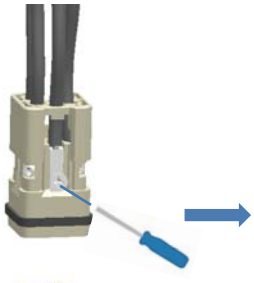


Insert	Designation	Order No.
Male	HA–003–MQ	121 003 001 0001
Female	HA–003–FQ	121 003 002 0001
Male	HA–004–MQ	121 004 001 0001
Female	HA–004–FQ	121 004 002 0001



HA–004–M–V2/HA–004–F–V2 Features

Step 1：wire from the top，lock the side screw



Step 2：close the cover



The feature of structure：

①.Cover was added；

②.Top entry, side screw locking

③.Low insert height

The innovation：

①.The insert is separated from the shell by the cover. That ensures enough creepage distance and reliable electrical property；

②.When it is side entry, the cable have to be bent to an angle of 90 degree and go upward, the top entry could avoid the bend of cable and have convenient assembly

③.Compact structure saves space.

HA-010 The slim inserts

250V 16A 10+⏚

Inserts

Hoods/Housings: size 10A, please find the details on page 15-17~15-18.

Screw terminal



Insert	Designation	Order No.
Male	HA–010–M	121 010 011 0001
Female	HA–010–F	121 010 021 0001
Male	HA–010–M/B[1)]	121 010 011 0503
Female	HA–010–F/B[1)]	121 010 021 0503

1). /B stands for wiring with cable protecting(details see page 00–28)

Crimp terminal

Order crimp contacts separately



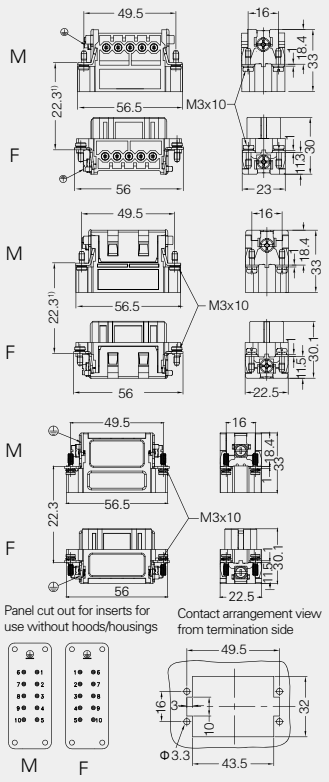
Insert	Designation	Order No.
Male	HA–010–MC	121 010 010 0001
Female	HA–010–FC	121 010 020 0001

Spring terminal, See P00–35 for the structural characteristics of spring.



Insert	Designation	Order No.
Male	HA–010–MS	121 010 012 0001
Female	HA–010–FS	121 010 022 0001

1) Distance for contact max. 24 mm



Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ
silver plated

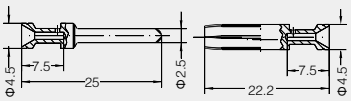


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HA-016 The slim inserts

250V 16A 16+⏚

Inserts

Hoods/Housings: size 16A, please find the details on page 15-19~15-20.

Screw terminal



Insert	Designation	Order No.
Male	HA–016–M	121 016 011 0001
Female	HA–016–F	121 016 021 0001
Male	HA–016–M/B[1)]	121 016 011 0505
Female	HA–016–F/B[1)]	121 016 021 0505

1). /B stands for wiring with cable protecting(details see page 00–30)

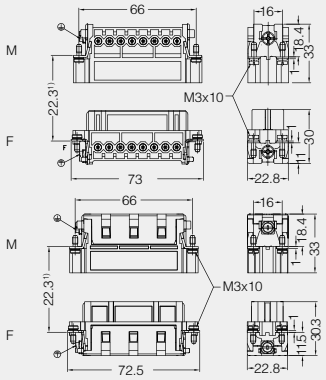
Crimp terminal

Order crimp contacts separately

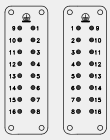


Insert	Designation	Order No.
Male	HA–016–MC	121 016 010 0001
Female	HA–016–FC	121 016 020 0001

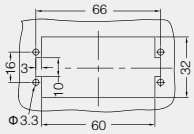
1) Distance for contact max. 24 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ

silver plated

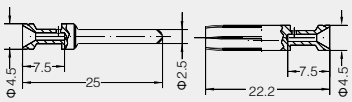


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



M F

Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Contact removal tool



Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HA-032 The slim inserts

250V 16A 32+⏚

Inserts

Hoods/Housings: size 32A, please find the details on page 15-21~15-24.

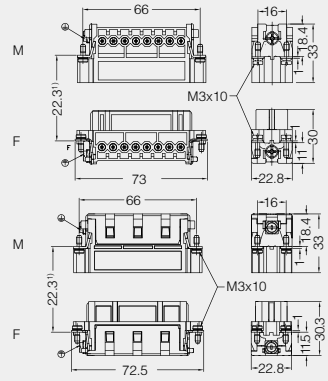
Screw terminal



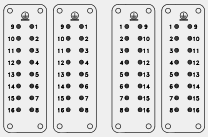
Insert	Designation	Order No.
Male	HA–016–M	121 016 011 0001
	HA–016–M(17–32)	121 016 011 0002
Female	HA–016–F	121 016 021 0001
	HA–016–F(17–32)	121 016 021 0002
Male	HA–016–M/B[1)]	121 016 011 0505
	HA–016–M/B(17–32)[1)]	121 016 011 0504
Female	HA–016–F/B[1)]	121 016 021 0505
	HA–016–F/B(17–32)[1)]	121 016 021 0504

1). /B stands for wiring with cable protecting(details see page 00–30)

1) Distance for contact max. 24 mm

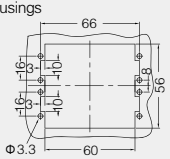


Contact arrangement view from termination side



M F

Panel cut out for inserts for use without hoods/housings



Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HA–016–MC	121 016 010 0001
	HA–016–MC(17–32)	121 016 010 0002
Female	HA–016–FC	121 016 020 0001
	HA–016–FC(17–32)	121 016 020 0002

Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ

silver plated

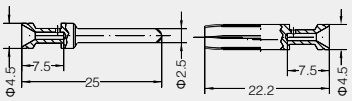


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



M F

Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

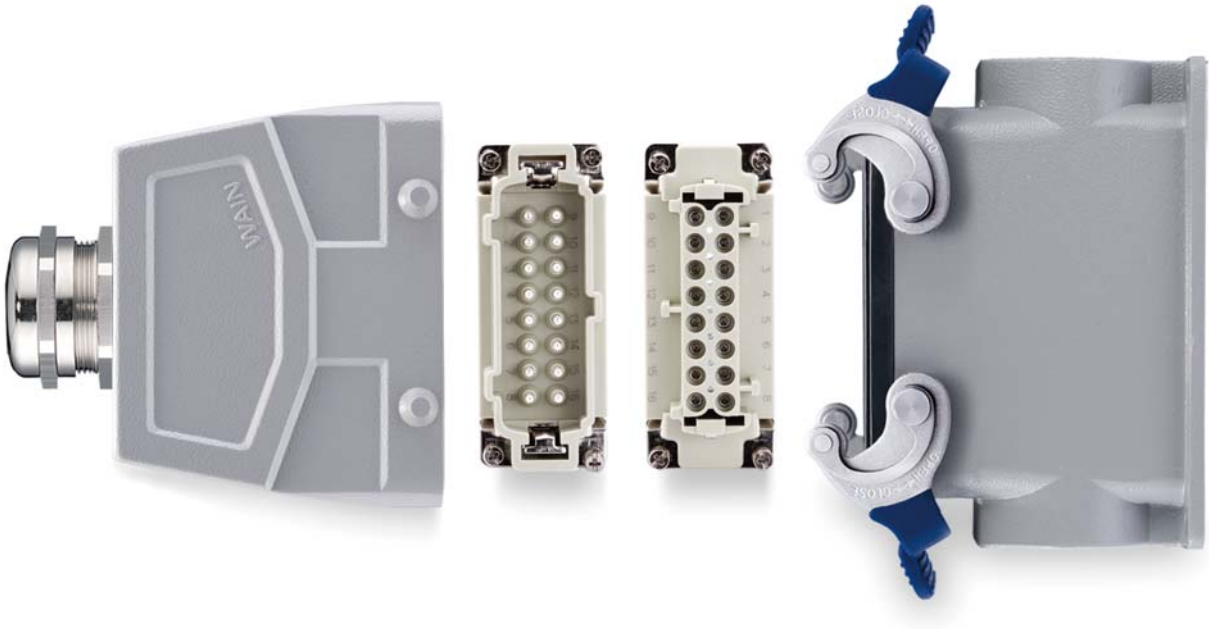
More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.



HE SERIES

Standard products



HE SERIES Standard inserts

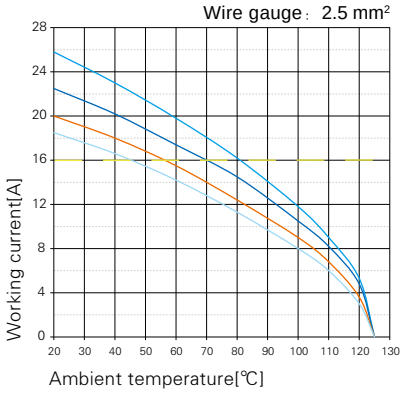
Technical characteristics

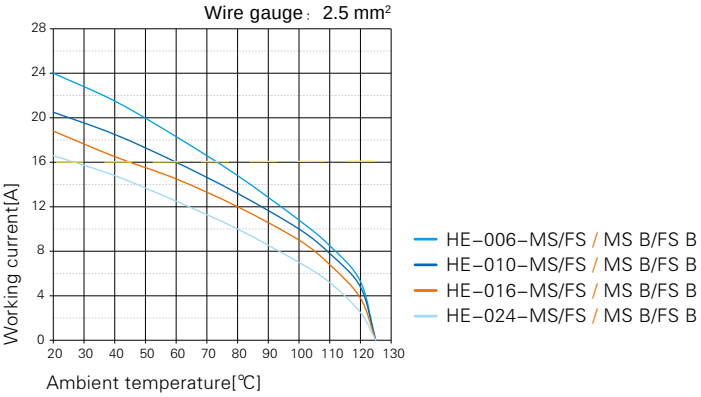
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	6,10,16,24,32(2X16),48(2X24)+PE
Electrical data acc. to DIN EN 61 984	
–Rated current	16A
–Rated voltage	500V
–Rated impulse voltage	6kV
–Pollution degree	3
–Pollution degree 2 also	16A 400/690V 6kV 2
Rated voltage acc. to UL	600V
Insulation resistance	$\geqslant 10^{10}\Omega$
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–gold plated
	hard–silver plated
Contact resistance	⩽1mΩ
Screw terminal	
–Wrie gauge	0.75–2.5mm²
–AWG	18–14
–Tightening/Test torque	0.5Nm
–Stripping length	7.0mm
Crimp terminal	
–Wrie gauge	0.14–4.0mm²
–AWG	26–12
–Stripping length	7.5mm
Spring terminal	
–Wrie gauge	0.14–2.5mm²
–AWG	26–14
–Stripping length	7–9mm
Spring terminal(Quick–in)	
–Wire gauge	0.5–2.5mm²
–AWG	20–14
–Stripping length	9–10mm
–Contact resistance	⩽3mΩ

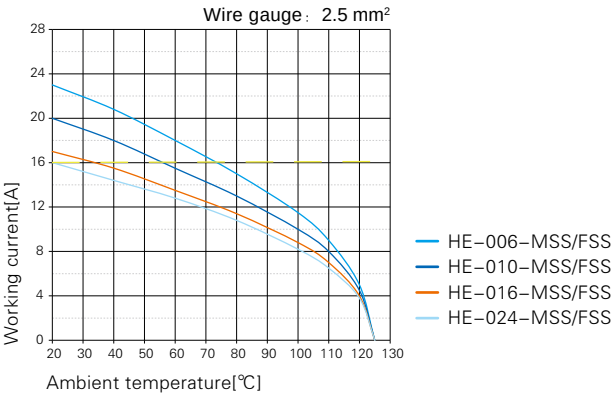
Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5







HE-006 Standard inserts

500V 16A 6+⏚

Inserts

Hoods/Housings: size 6B, please find the details on page 15-25~15-38.

Screw terminal



Insert	Designation	Order No.
Male	HE–006–M	122 006 011 0001
Female	HE–006–F	122 006 021 0001

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HE–006–MC[1)]	122 006 010 0001
Female	HE–006–FC[1)]	122 006 020 0001

1).can match PCB adapter,see page 14–04~14–05.

Male	HE–006–MC/N[2)]	122 006 010 0101
Female	HE–006–FC/N[2)]	122 006 020 0101

2).for crimp contacts 16A–Enhanced Ⅲ ,see page 13–04.

Spring terminal, See P00–35 for the structural characteristics of spring.

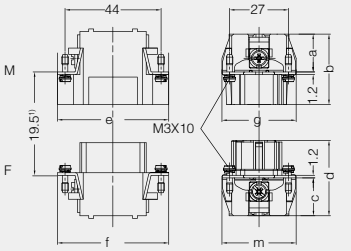


Insert	Designation	Order No.
Male	HE–006–MS	122 006 012 0001
Female	HE–006–FS	122 006 022 0001
Male	HE–006–MS B	122 006 012 0101
Female	HE–006–FS B	122 006 022 0101

Double spring connection(Two terminal per contact)
Only suitable for high structure shells

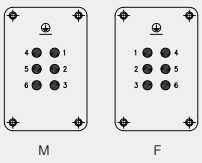
Male	HE–006–MSS	122 006 012 0201
Female	HE–006–FSS	122 006 022 0201

1) Distance for contact max. 21 mm

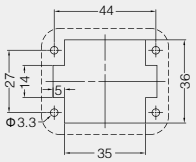


	a	b	e	g	c	d	f	m
M/F	16	32.4	51	34	16.8	34.5	50.5	34
MC/FC	18	33	51	34	18	35	50.5	34
MC/N / FC/N	18.3	34	51	34	19	36	51	34
MS/FS	18	33.3	51	34	18.2	35.4	50.5	34
MSS/FSS	34.5	49.5	50	34	33.4	50	50	34
MS B / FS B	19.5	34.7	51	34	19	36.5	51	34

Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ
silver plated

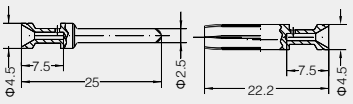


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HE-010 Standard inserts

500V 16A 10+⏚

Inserts

Hoods/Housings: size 10B, please find the details on page 15-39~15-69.

Screw terminal



Insert	Designation	Order No.
Male	HE–010–M	122 010 011 0001
Female	HE–010–F	122 010 021 0001

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HE–010–MC[1)]	122 010 010 0001
Female	HE–010–FC[1)]	122 010 020 0001

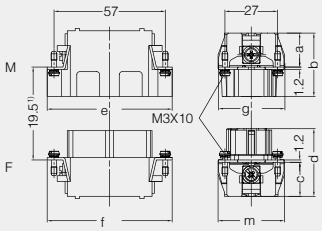
1).can match PCB adapter,see page 14–04~14–05.

Spring terminal, See P00–35 for the structural characteristics of spring.



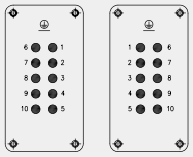
Insert	Designation	Order No.
Male	HE–010–MS	122 010 012 0001
Female	HE–010–FS	122 010 022 0001
Male	HE–010–MS B	122 010 012 0101
Female	HE–010–FS B	122 010 022 0101
Double spring connection(Two terminal per contact) Only suitable for high structure shells		
Male	HE–010–MSS	122 010 012 0201
Female	HE–010–FSS	122 010 022 0201

1) Distance for contact max. 21 mm

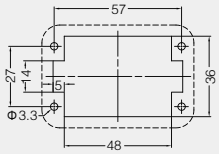


	a	b	e	g	c	d	f	m
M/F	16.5	32	64.5	34	16.8	34.2	64	34
MC/FC	18	33	64	34	17.5	35.2	64	34
MS/FS	18.5	33.5	64	34	18.5	35.6	64	34
MSS/FSS	34	49	64	34	33.5	49.5	63	34
MS B / FS B	19	34.5	64	34	18.6	36	64	34

Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ
silver plated

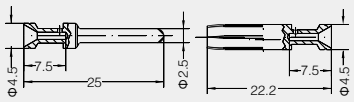


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Contact removal tool



Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HE-016 Standard inserts

500V 16A 16+⏚

Inserts

Hoods/Housings: size 16B, please find the details on page 15-70~15-107.

Screw terminal



Insert	Designation	Order No.
Male	HE–016–M	122 016 011 0001
Female	HE–016–F	122 016 021 0001

Crimp terminal

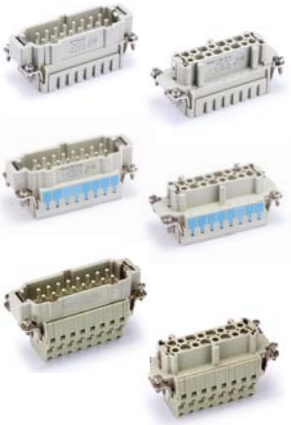
Order crimp contacts separately



Insert	Designation	Order No.
Male	HE–016–MC[1)]	122 016 010 0001
Female	HE–016–FC[1)]	122 016 020 0001

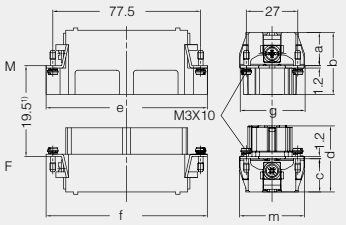
1).can match PCB adapter,see page 14–04~14–05.

Spring terminal, See P00–35 for the structural characteristics of spring.



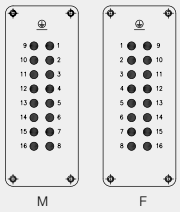
Insert	Designation	Order No.
Male	HE–016–MS	122 016 012 0001
Female	HE–016–FS	122 016 022 0001
Male	HE–016–MS B	122 016 012 0101
Female	HE–016–FS B	122 016 022 0101
Double spring connection(Two terminal per contact) Only suitable for high structure shells		
Male	HE–016–MSS	122 016 012 0201
Female	HE–016–FSS	122 016 022 0201

1) Distance for contact max. 21 mm

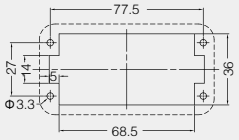


	a	b	e	g	c	d	f	m
M/F	17	32.5	84.2	34	17	34.5	84.2	33.5
MC/FC	18	33.5	84.5	34	18	35	84.5	34
MS/FS	18	33.7	84.5	34	18.2	35.5	84.5	34
MSS/FSS	34.3	49	84.5	34	32.2	49	84.5	34
MS B / FS B	19.6	34.7	84.3	34	18.6	36	84.5	34

Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ

silver plated

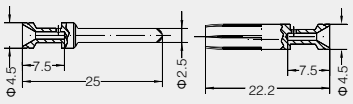


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Contact removal tool



Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HE-024 Standard inserts

500V 16A 24+⏚

Inserts

Hoods/Housings: size 24B, please find the details on page 15-108~15-150.

Screw terminal



Insert	Designation	Order No.
Male	HE–024–M	122 024 011 0001
Female	HE–024–F	122 024 021 0001

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HE–024–MC[1)]	122 024 010 0001
Female	HE–024–FC[1)]	122 024 020 0001

1).can match PCB adapter,see page 14–04~14–05.

Spring terminal, See P00–35 for the structural characteristics of spring.

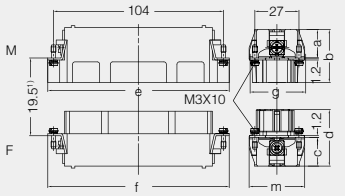






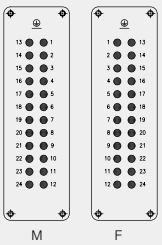
Insert	Designation	Order No.
Male	HE–024–MS	122 024 012 0001
Female	HE–024–FS	122 024 022 0001
Male	HE–024–MS B	122 024 012 0101
Female	HE–024–FS B	122 024 022 0101
Double spring connection(Two terminal per contact) Only suitable for high structure shells		
Male	HE–024–MSS	122 024 012 0201
Female	HE–024–FSS	122 024 022 0201

1) Distance for contact max. 21 mm

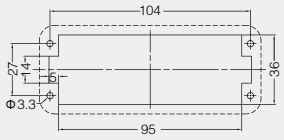


	a	b	e	g	c	d	f	m
M/F	17	32.5	111	33.5	17	34.5	111	33.5
MC/FC	18.3	33.5	111	34	18.3	35.5	111	34
MS/FS	18.5	33.6	111	34	18.5	35.6	111	34
MSS/FSS	34	49	110	34	32	49	110	34
MS B / FS B	19.6	34.7	111	34	19	36.2	111	34

Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ

silver plated

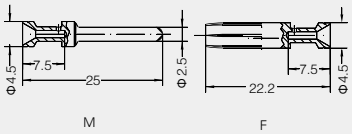


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HE-024 Quick-in module

500V 16A 24+⏚

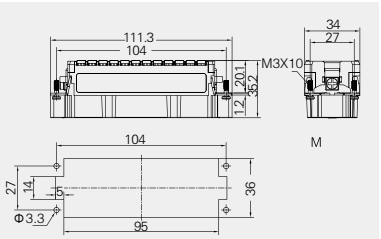
Inserts

Hoods/Housings: size 24B, please find the details on page 15-108~15-150.

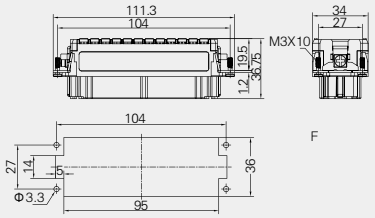
Spring terminal(Quick-in)



Insert	Designation	Order No.
Male	HE-024-MQ P	122 024 010 0003
Female	HE-024-FQ P	122 024 020 0003



Panel cut out



Panel cut out

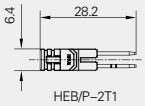
Bridging module

Description	Designation	Order No.
–	HEB/P-2T1	198 002 007 0029
–	HEB/P-1T3	198 002 007 0028
–	HEB/P-1T2	198 002 007 0027

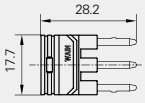




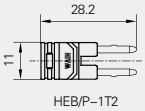




HEB/P-2T1



HEB/P-1T3



HEB/P-1T2

HE-032 Standard inserts

500V 16A 32+⏚

VDE CE EAC CQC

Inserts

Hoods/Housings: size 32B, please find the details on page 15-151~15-159.

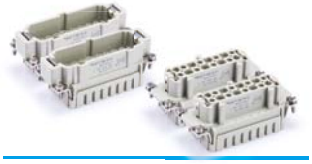
Screw terminal



Insert	Designation	Order No.
Male	HE–016–M	122 016 011 0001
	HE–016–M(17–32)	122 016 011 0002
Female	HE–016–F	122 016 021 0001
	HE–016–F(17–32)	122 016 021 0002

Crimp terminal

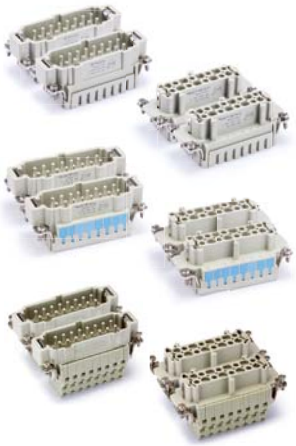
Order crimp contacts separately



Insert	Designation	Order No.
Male	HE–016–MC	122 016 010 0001
	HE–016–MC(17–32)[1)]	122 016 010 0002
Female	HE–016–FC	122 016 020 0001
	HE–016–FC(17–32)[1)]	122 016 020 0002

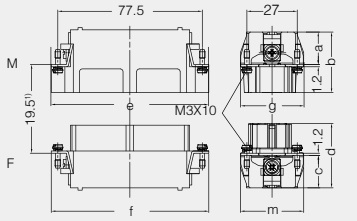
1).can match PCB adapter,see page 14–04~14–05.

Spring terminal, See P00–35 for the structural characteristics of spring.



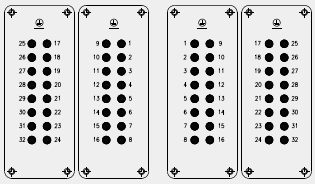
Insert	Designation	Order No.
Male	HE–016–MS	122 016 012 0001
	HE–016–MS(17–32)	122 016 012 0002
Female	HE–016–FS	122 016 022 0001
	HE–016–FS(17–32)	122 016 022 0002
Male	HE–016–MS B	122 016 012 0101
	HE–016–MS B(17–32)	122 016 012 0102
Female	HE–016–FS B	122 016 022 0101
	HE–016–FS B(17–32)	122 016 022 0102
Double spring connection(Two terminal per contact) Only suitable for high structure shells		
Male	HE–016–MSS	122 016 012 0201
	HE–016–MSS(17–32)	122 016 012 0202
Female	HE–016–FSS	122 016 022 0201
	HE–016–FSS(17–32)	122 016 022 0202

1) Distance for contact max. 21 mm



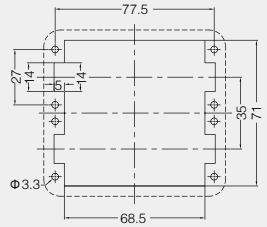
	a	b	e	g	c	d	f	m
M/F	17	32.5	84.2	34	17	34.5	84.2	33.5
MC/FC	18	33.5	84.5	34	18	35	84.5	34
MS/FS	18	33.7	84.5	34	18.2	35.5	84.5	34
MSS/FSS	34.3	49	84.5	34	32.2	49	84.5	34
MS B / FS B	19.6	34.7	84.3	34	18.6	36	84.5	34

Contact arrangement view from termination side



M F

Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ

silver plated

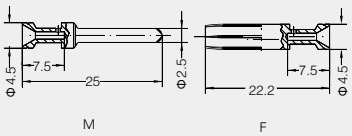


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



M F

Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HE-048 Standard inserts

500V 16A 48+⏚

Inserts

Hoods/Housings: size 48B, please find the details on page 15-160~15-162.

Screw terminal



Insert	Designation	Order No.
Male	HE–024–M	122 024 011 0001
Female	HE–024–M(25–48)	122 024 011 0002
	HE–024–F	122 024 021 0001
	HE–024–F(25–48)	122 024 021 0002

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HE–024–MC	122 024 010 0001
	HE–024–MC(25–48)[1)]	122 024 010 0002
Female	HE–024–FC	122 024 020 0001
	HE–024–FC(25–48)[1)]	122 024 020 0002

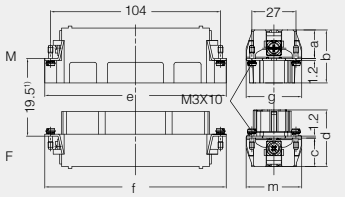
1).can match PCB adapter,see page 14–04~14–05.

Spring terminal, See P00–35 for the structural characteristics of spring.



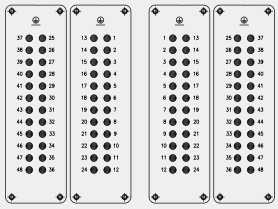
Insert	Designation	Order No.
Male	HE–024–MS	122 024 012 0001
	HE–024–MS(25–48)	122 024 012 0002
Female	HE–024–FS	122 024 022 0001
	HE–024–FS(25–48)	122 024 022 0002
Male	HE–024–MS B	122 024 012 0101
	HE–024–MS B(25–48)	122 024 012 0102
Female	HE–024–FS B	122 024 022 0101
	HE–024–FS B(25–48)	122 024 022 0102
Double spring connection(Two terminal per contact) Only suitable for high structure shells		
Male	HE–024–MSS	122 024 012 0201
	HE–024–MSS(25–48)	122 024 012 0202
Female	HE–024–FSS	122 024 022 0201
	HE–024–FSS(25–48)	122 024 022 0202

1) Distance for contact max. 21 mm



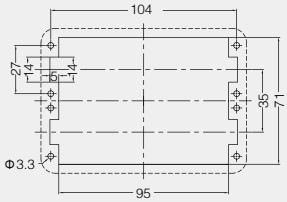
	a	b	e	g	c	d	f	m
M/F	17	32.5	111	33.5	17	34.5	111	33.5
MC/FC	18.3	33.5	111	34	18.3	35.5	111	34
MS/FS	18.5	33.6	111	34	18.5	35.6	111	34
MSS/FSS	34	49	110	34	32	49	110	34
MS B / FS B	19.6	34.7	111	34	19	36.2	111	34

Contact arrangement view from termination side



M F

Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ

silver plated

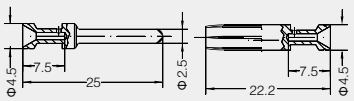


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



M F

Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HE push spring insert

Tools

HE B Spring open machine[1)]

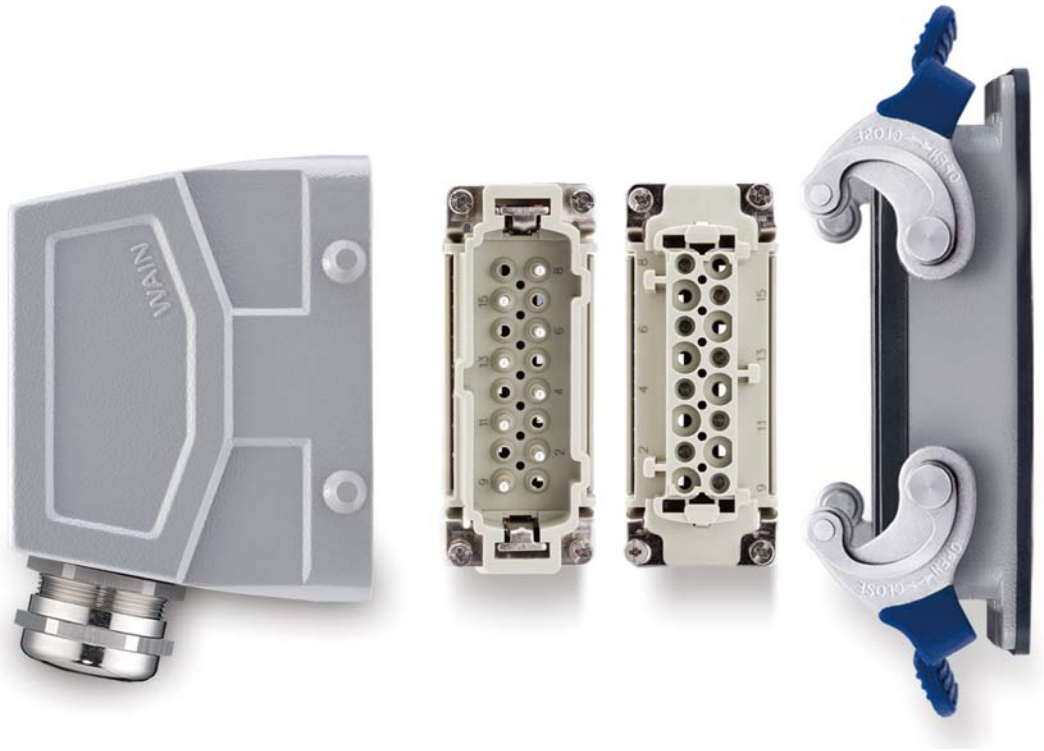


Description	Designation	Order NO.
for all HE B spring inserts	SOM01	198 001 003 0008

1) It can open all the shrapnel windows of insert at one time;suitable for using in mass assembly, greatly imporving the efficiency of the connection.

HVE SERIES

High voltage connector



HVE SERIES High voltage inserts

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	3,6,10,12,20+PE
Electrical data acc. to DIN EN 61 984	
–Rated current	16A
–Rated voltage	830V
–Rated impulse voltage	8kV
–Pollution degree	3
–Pollution degree 2 also	16A 1000V 8kV 2
–or	16A 720/1250V 8kV 2
–Relay contacts	16A 500V 6kV 3
Rated voltage acc. to UL	600V
Relay contacts	250V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–silver plated
Contact resistance	⩽1mΩ
Screw terminal	
–Wire gauge	1.0–2.5mm²
–AWG	18–14
–Tightening/test torque	0.5Nm
–Stripping length	7.0mm
Crimp terminal	
–Wire gauge	0.14–4.0mm²
–AWG	26–12
–Stripping length	7.5mm

For a fully equipped crimp connector the following contacts are required:

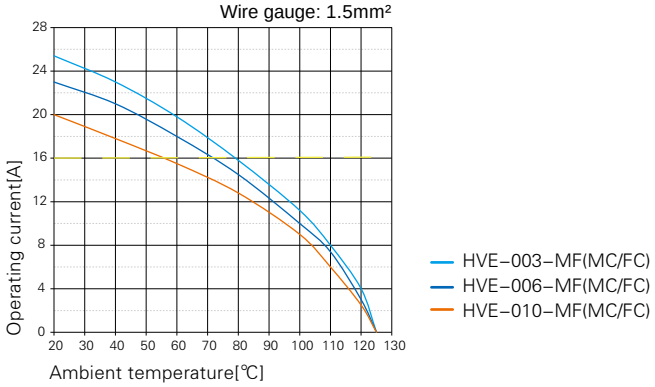
Type	Contacts total	Operating contacts	Relay contacts
HVE–003	5	3	2
HVE–006	8	6	2
HVE–010	12	10	2
HVE–012	16	12	4
HVE–020	24	20	4

Current carrying capacity

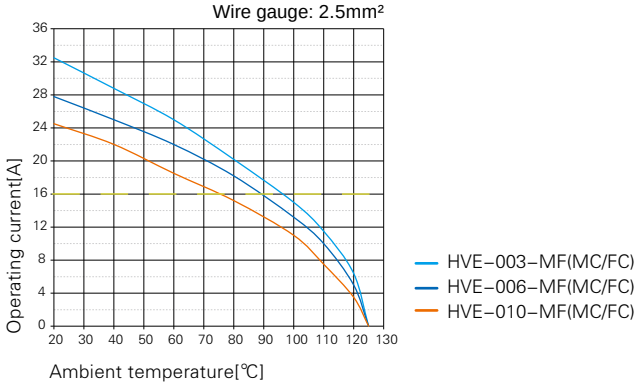
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5

Wire gauge: 1.5mm²



Wire gauge: 2.5mm²



HVE-003 High voltage inserts

830V 16A 3+2+⏚

Inserts

Hoods/Housings: Screw terminal size 10B Plastic or WV10B/HV10B, please find the details on page 15-39, 15-60~15-65.
Crimp terminal size10B, please find the details on page 15-39~15-69.

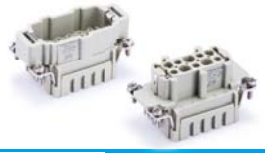
Screw terminal



Insert	Designation	Order No.
Male	HVE–003–M	124 003 011 0001
Female	HVE–003–F	124 003 021 0001

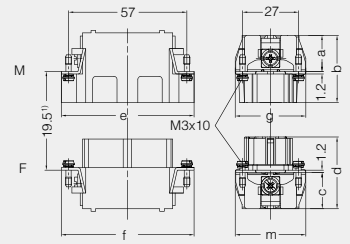
Crimp terminal

Order crimp contacts separately



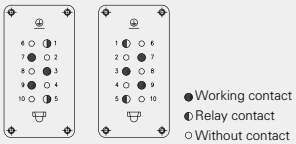
Insert	Designation	Order No.
Male	HVE–003–MC	124 003 010 0001
Female	HVE–003–FC	124 003 020 0001

1) Distance for contact max. 21 mm

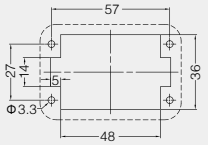


	a	b	e	g	c	d	f	m
M/F	16.5	32	64.5	34	16.8	34.2	64	34
MC/FC	18	33	64	34	17.5	35.2	64	34

Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

16A Operating contacts
Contact resistance≤1mΩ
silver plated



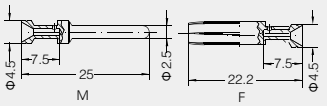
Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201

Relay contacts[2)]
silver plated



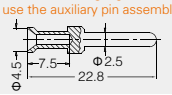
Wire gauge	Designation	Order No.
1mm²	CESM–1.0R	101 019 110 0808
1.5 mm²	CESM–1.5R	101 019 110 0908
2.5 mm²	CESM–2.5R	101 019 110 1008

More crimp contacts 16A see P13–04.



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.



Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Contact removal tool



Application	Designation	Order No.
for crimp contacts 16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.
2) Delay pin is relatively short, delay contact, protect circuit to avoid electric arc.

HVE-006 High voltage inserts

830V 16A 6+2+⏚

Hoods/Housings: Screw terminal size 16B Plastic or WV16B/HV16B, please find the details on page 15-70, 15-68~96-103.
Crimp terminal size 16B, please find the details on page 15-70~15-107.

Inserts

Screw terminal



Insert	Designation	Order No.
Male	HVE–006–M	124 006 011 0001
Female	HVE–006–F	124 006 021 0001

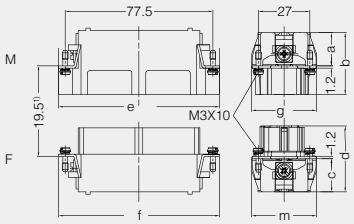
Crimp terminal

Order crimp contacts separately



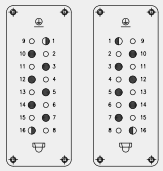
Insert	Designation	Order No.
Male	HVE–006–MC	124 006 010 0001
Female	HVE–006–FC	124 006 020 0001

1) Distance for contact max. 21 mm



	a	b	e	g	c	d	f	m
M/F	18	32.5	84.5	34	18	34.5	84.5	34
MC/FC	18	33.5	84.5	34	18	35	84.5	34

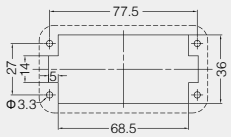
Contact arrangement view from termination side



●Working contact
◐Relay contact
○Without contact

M F

Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

16A Operating contacts
Contact resistance≤1mΩ
silver plated



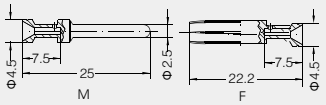
Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201

Relay contacts[2)]
silver plated



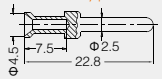
Wire gauge	Designation	Order No.
1mm²	CESM–1.0R	101 019 110 0808
1.5 mm²	CESM–1.5R	101 019 110 0908
2.5 mm²	CESM–2.5R	101 019 110 1008

More crimp contacts 16A see P13–04.



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.



Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts 16A	TL01	198 001 000 0002

Contact removal tool



More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.
2) Delay pin is relatively short, delay contact, protect circuit to avoid electric arc.

HVE-010 High voltage inserts

830V 16A 10+2+⏚

Hoods/Housings: Screw terminal size 24B Plastic or WV24B/HV24B, please find the details on page 15-108, 15-136~15-144.
Crimp terminal size 24B, please find the details on page 15-108~15-150.

Inserts

Screw terminal



Insert	Designation	Order No.
Male	HVE–010–M	124 010 011 0001
Female	HVE–010–F	124 010 021 0001

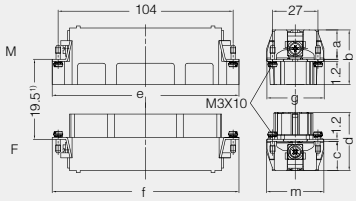
Crimp terminal

Order crimp contacts separately



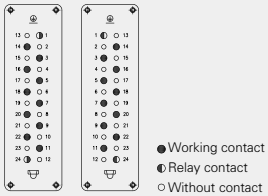
Insert	Designation	Order No.
Male	HVE–010–MC	124 010 010 0001
Female	HVE–010–FC	124 010 020 0001

1) Distance for contact max. 21 mm

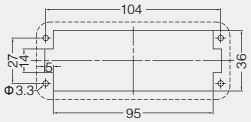


	a	b	e	g	c	d	f	m
M/F	17	32.5	111	33.5	17	34.5	111	33.5
MC/FC	18.3	33.5	111	34	18.3	35.5	111	34

Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

16A Operating contacts
Contact resistance≤1mΩ
silver plated



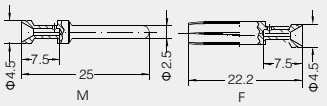
Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201

Relay contacts[2]
silver plated



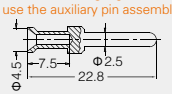
Wire gauge	Designation	Order No.
1mm²	CESM–1.0R	101 019 110 0808
1.5 mm²	CESM–1.5R	101 019 110 0908
2.5 mm²	CESM–2.5R	101 019 110 1008

More crimp contacts 16A see P13–04.



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.



Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Contact removal tool



Application	Designation	Order No.
for crimp contacts 16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.
2) Delay pin is relatively short, delay contact, protect circuit to avoid electric arc.

HVE-012 High voltage inserts

830V 16A 12+4+⏚

Hoods/Housings: Screw terminal size WV32B/HV32B, please find the details on page 15-156~15-157.
Crimp terminal size 32B, please find the details on page 15-151~15-159.

Inserts

Screw terminal



Insert	Designation	Order No.
Male	HVE–006–M	124 006 011 0001
	HVE–006–M(7–12)	124 006 011 0002
Female	HVE–006–F	124 006 021 0001
	HVE–006–F(7–12)	124 006 021 0002

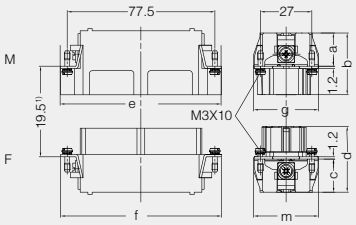
Crimp terminal

Order crimp contacts separately



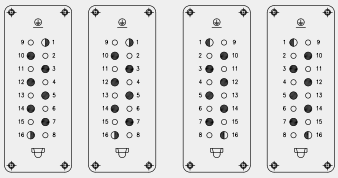
Insert	Designation	Order No.
Male	HVE–006–MC	124 006 010 0001
	HVE–006–MC(7–12)	124 006 010 0002
Female	HVE–006–FC	124 006 020 0001
	HVE–006–FC(7–12)	124 006 020 0002

1) Distance for contact max. 21 mm



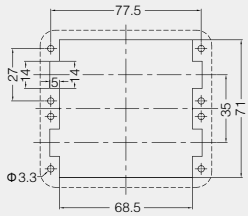
	a	b	e	g	c	d	f	m
M/F	18	32.5	84.5	34	18	34.5	84.5	34
MC/FC	18	33.5	84.5	34	18	35	84.5	34

Contact arrangement view from termination side



● Working contact
◐ Relay contact
○ Without contact

Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

16A Operating contacts
Contact resistance≤1mΩ
silver plated



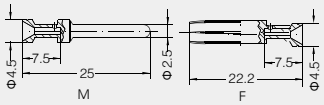
Relay contacts[2)]
silver plated



More crimp contacts 16A see P13–04.

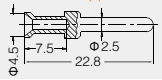
Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201

Wire gauge	Designation	Order No.
1mm²	CESM–1.0R	101 019 110 0808
1.5 mm²	CESM–1.5R	101 019 110 0908
2.5 mm²	CESM–2.5R	101 019 110 1008



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.



Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts 16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.
2) Delay pin is relatively short, delay contact, protect circuit to avoid electric arc.

HVE-020 High voltage inserts

830V 16A 20+4+⏚

Hoods/Housings: Screw terminal size WV48B/HV48B, please find the details on page 15-162.
Crimp terminal size 48B, please find the details on page 15-160~15-162.

Inserts

Screw terminal



Insert	Designation	Order No.
Male	HVE–010–M	124 010 011 0001
	HVE–010–M(11–20)	124 010 011 0002
Female	HVE–010–F	124 010 021 0001
	HVE–010–F(11–20)	124 010 021 0002

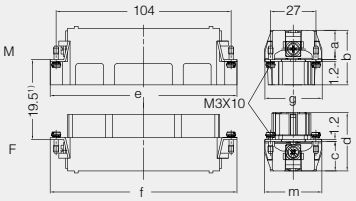
Crimp terminal

Order crimp contacts separately



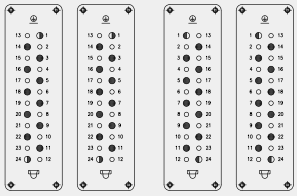
Insert	Designation	Order No.
Male	HVE–010–MC	124 010 010 0001
	HVE–010–MC(11–20)	124 010 010 0002
Female	HVE–010–FC	124 010 020 0001
	HVE–010–FC(11–20)	124 010 020 0002

1) Distance for contact max. 21 mm



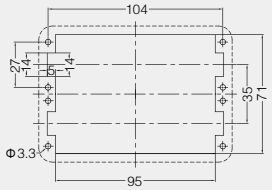
	a	b	e	g	c	d	f	m
M/F	17	32.5	111	33.5	17	34.5	111	33.5
MC/FC	18.3	33.5	111	34	18.3	35.5	111	34

Contact arrangement view from termination side



M F ●Working contact ◐Relay contact ○Without contact

Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

16A Operating contacts
Contact resistance≤1mΩ
silver plated



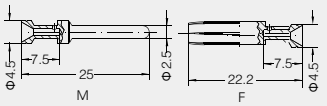
Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201

Relay contacts[2]
silver plated



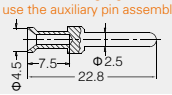
Wire gauge	Designation	Order No.
1mm²	CESM–1.0R	101 019 110 0808
1.5 mm²	CESM–1.5R	101 019 110 0908
2.5 mm²	CESM–2.5R	101 019 110 1008

More crimp contacts 16A see P13–04.



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.



Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts 16A	TL01	198 001 000 0002

Contact removal tool



More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.
2) Delay pin is relatively short, delay contact, protect circuit to avoid electric arc.

HVE-016 High voltage inserts

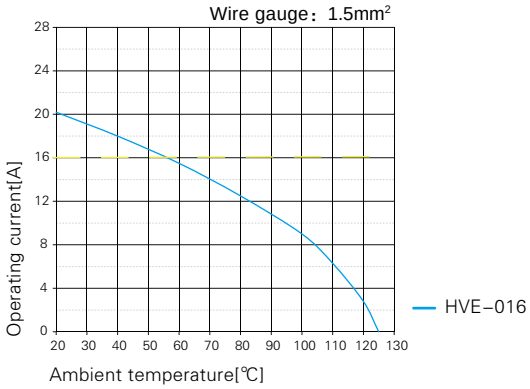
Technical characteristics

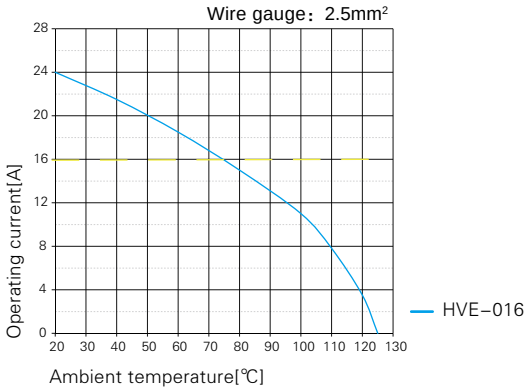
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	16,32+PE
	+ 2 additional contacts for
	safe high voltage connections
Electrical data acc. to DIN EN 61 984	
–Rated current	16A
–Rated voltage conductor – ground	400V
–Rated voltage conductor – conductor	690V
–Rated impulse voltage	6kV
–Pollution degree	3
–or	16A 500V 6kV 3
Rated voltage acc. to UL	600V
Relay contacts	250V
Insulation resistance	$\geqslant 10^{10}\Omega$
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–silver plated
Contact resistance	⩽1mΩ
Screw terminal	
–Wire gauge	2.5mm²
–AWG	14
–Tightening/test torque	0.5Nm

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5





HVE-016 High voltage inserts

400/690V 16A 16+2+⏚

Inserts

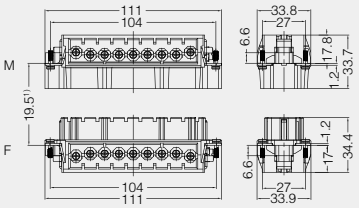
Hoods/Housings: size 24B Plastic or WV24B/HV24B, please find the details on page 15-108, 15-136~15-144.

Screw terminal

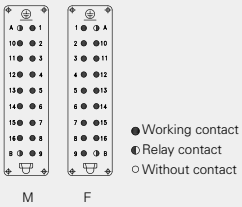


Insert	Designation	Order No.
Male	HVE–016–M	124 016 011 0001
Female	HVE–016–F	124 016 021 0001

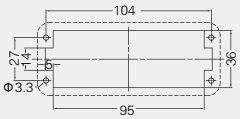
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



HVE-032 High voltage inserts

400/690V 16A 32+4+⏚

Inserts

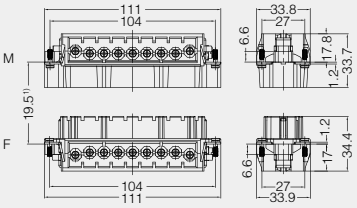
Hoods/Housings: size WV48B/HV48B, please find the details on page 15-162.

Screw terminal

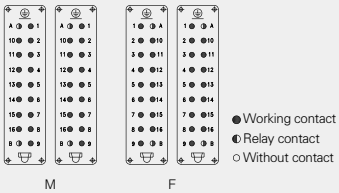


Insert	Designation	Order No.
Male	HVE–016–M	124 016 011 0001
	HVE–016–M(17–32)	124 016 011 0002
Female	HVE–016–F	124 016 021 0001
	HVE–016–F(17–32)	124 016 021 0002

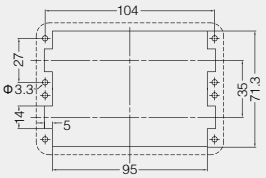
1) Distance for contact max. 21 mm



Contact arrangement view from termination side

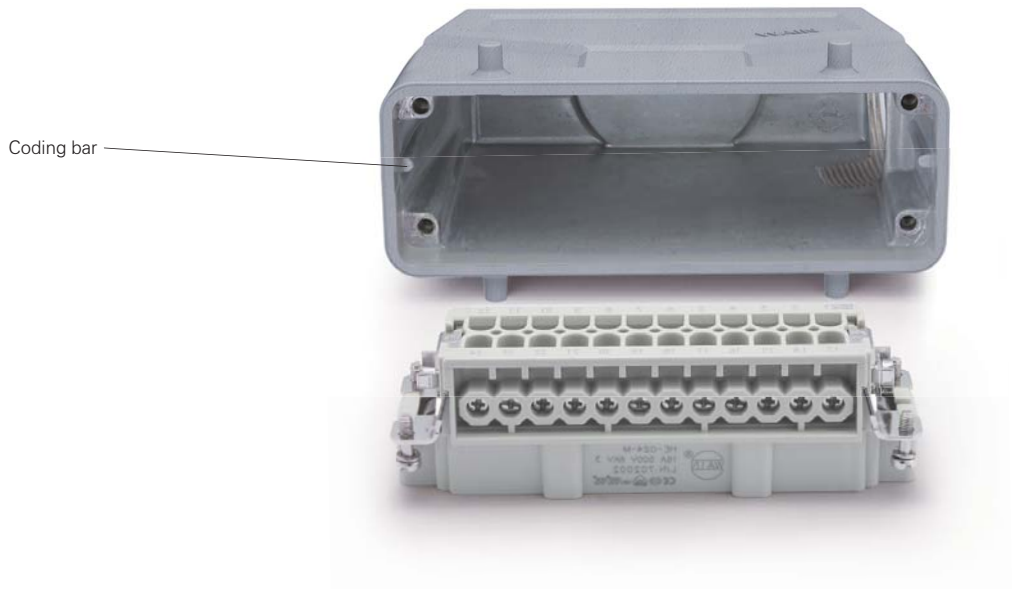


Panel cut out for inserts for use without hoods/housings



Difference between applicable housing and standard housing of HVE series

B standard Hoods/Housings



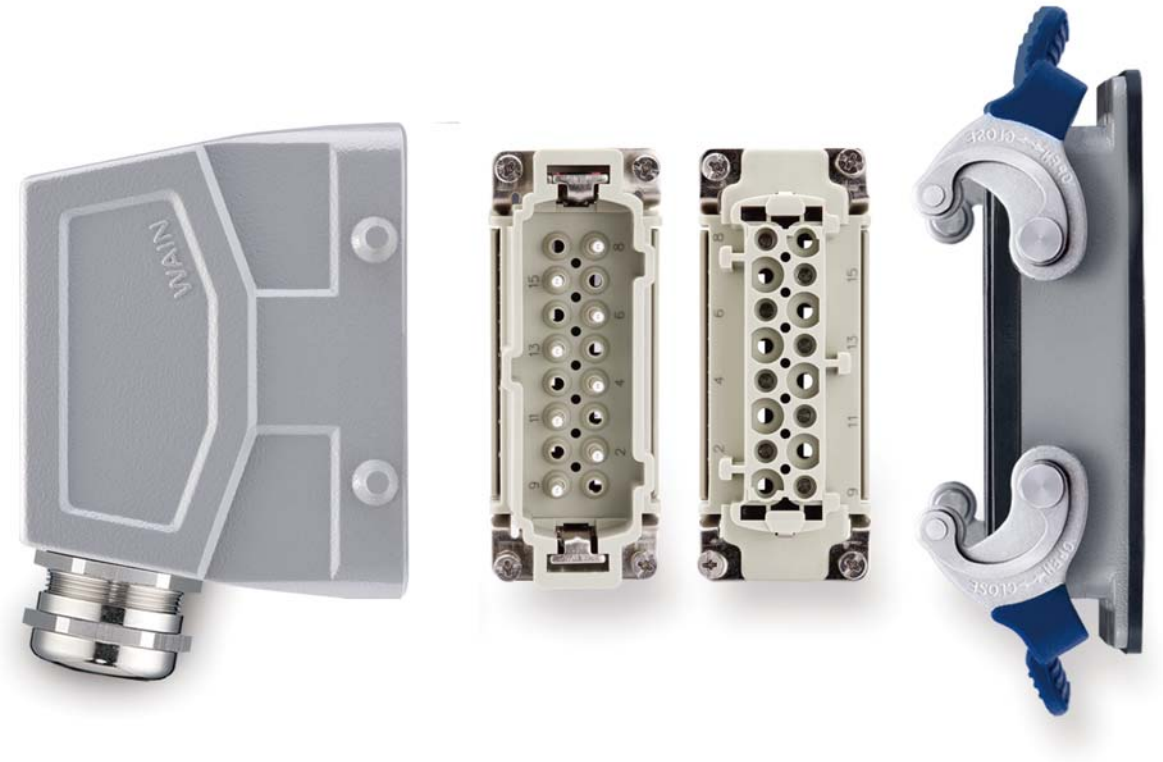
Special HVE Hoods/Housings

For HVE screw inserts，the screw inserts may be used together the corresponding HVE Hoods/Housings only.



HVES SERIES

High voltage connector(spring piece connector)



HVES SERIES High voltage inserts

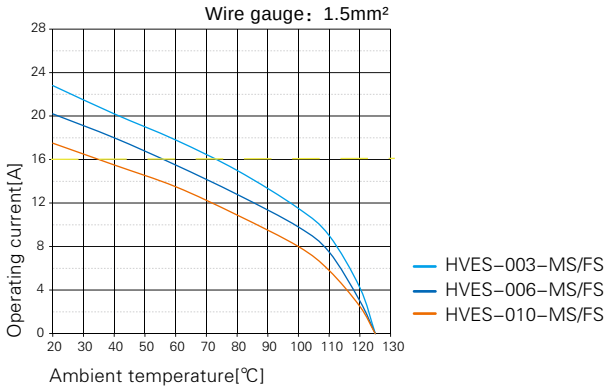
Technical characteristics

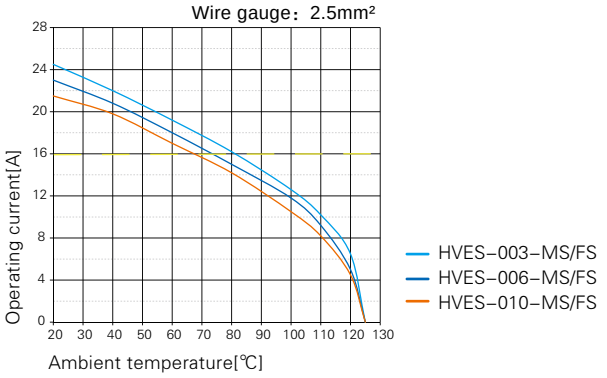
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	3,6,10,12,20+PE
	+ 2 additional contacts for
	safe high voltage connections
Electrical data acc. to DIN EN 61 984	
–Rated current	16A
–Rated voltage	830V
–Rated impulse voltage	8kV
–Pollution degree	3
–Pollution degree 2 also	16A 1000V 8kV 2
–or	16A 720/1250V 8kV 2
–Relay contacts	16A 500V 6kV 3
Rated voltage acc. to UL	600V
Relay contacts	250V
Insulation resistance	$\geqslant 10^{10}\,\Omega$
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–silver plated
Contact resistance	$\leqslant 3\text{m}\,\Omega$
Spring terminal	
–wire gauge	0.14–2.5mm²
–AWG	26–14
–Stripping length	7–9mm

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5





HVE-003 High voltage inserts

830V 16A 3+2+⏚

Inserts

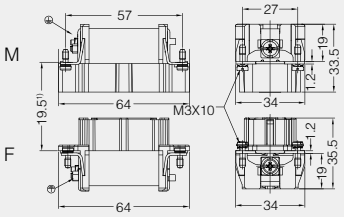
Hoods/Housings: size10B, please find the details on page 15-39~15-69.

Spring terminal, See P00–35 for the structural characteristics of spring.

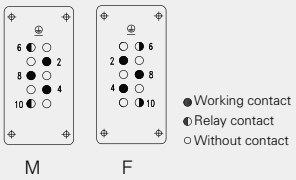


Insert	Designation	Order No.
Male	HVE–003–MS	124 003 012 0001
Female	HVE–003–FS	124 003 022 0001

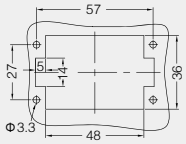
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



HVE-006 High voltage inserts

830V 16A 6+2+⏚

Inserts

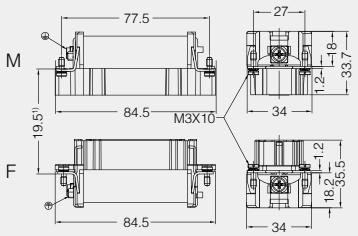
Hoods/Housings: size 16B, please find the details on page 15-70~15-107.

Spring terminal, See P00–35 for the structural characteristics of spring.

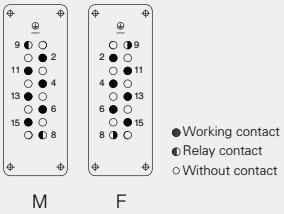


Insert	Designation	Order No.
Male	HVE–006–MS	124 006 012 0001
Female	HVE–006–FS	124 006 022 0001

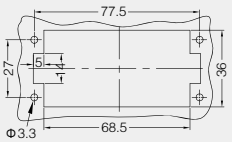
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



HVE-010 High voltage inserts

830V 16A 10+2+⏚

Inserts

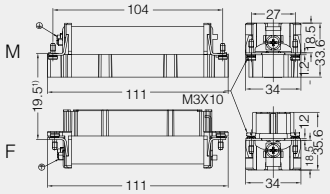
Hoods/Housings: size 24B, please find the details on page 15-108~15-150.

Spring terminal, See P00–35 for the structural characteristics of spring.

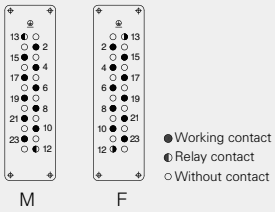


Insert	Designation	Order No.
Male	HVE–010–MS	124 010 012 0001
Female	HVE–010–FS	124 010 022 0001

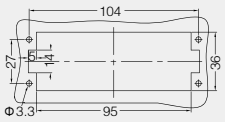
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



HVE-012 High voltage inserts

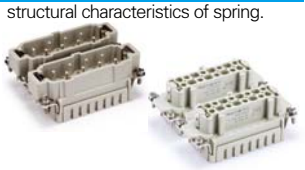
830V 16A 12+4+⏚

EAC

Inserts

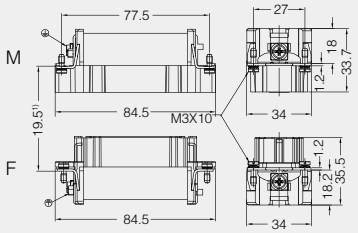
Hoods/Housings: size 32B, please find the details on page 15-151~15-159.

Spring terminal, See P00–35 for the structural characteristics of spring.

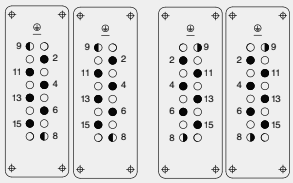


Insert	Designation	Order No.
Male	HVE–006–MS	124 006 012 0001
	HVE–006–MS(7–12)	124 006 012 0002
Female	HVE–006–FS	124 006 022 0001
	HVE–006–FS(7–12)	124 006 022 0002

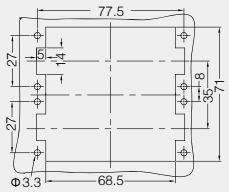
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



High voltage inserts

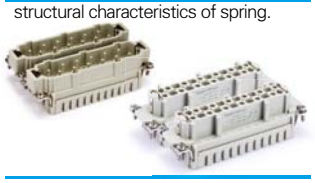
830V 16A 20+4+⏚

EAC

Inserts

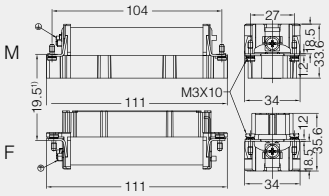
Hoods/Housings: size 48B, please find the details on page 15-160~15-162.

Spring terminal, See P00–35 for the structural characteristics of spring.

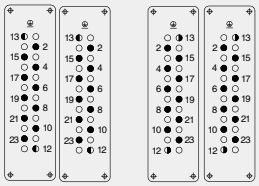


Insert	Designation	Order No.
Male	HVE–010–MS	124 010 012 0001
	HVE–010–MS(11–20)	124 010 012 0002
Female	HVE–010–FS	124 010 022 0001
	HVE–010–FS(11–20)	124 010 022 0002

1) Distance for contact max. 21 mm



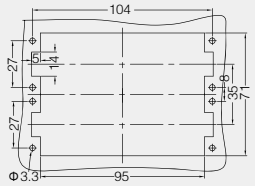
Contact arrangement view from termination side



M F

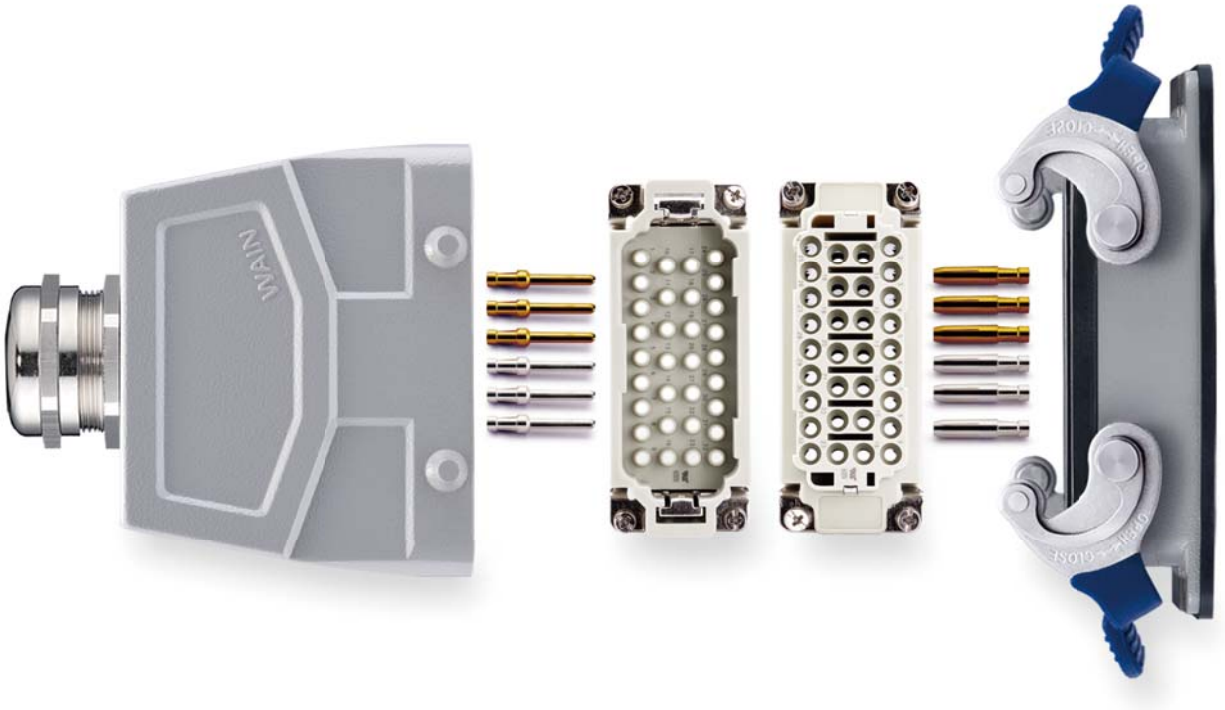
● Working contact
◐ Relay contact
○ Without contact

Panel cut out for inserts for use without hoods/housings



HEE SERIES

High density connector



HEE SERIES High density inserts

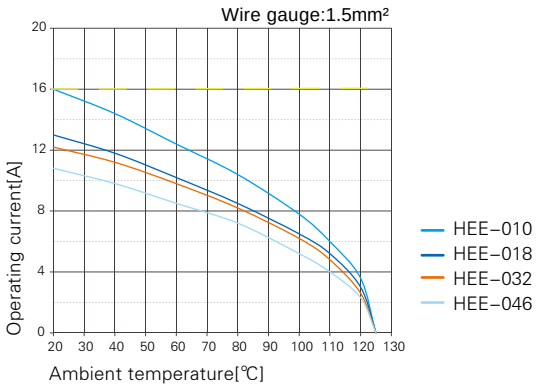
Technical characteristics

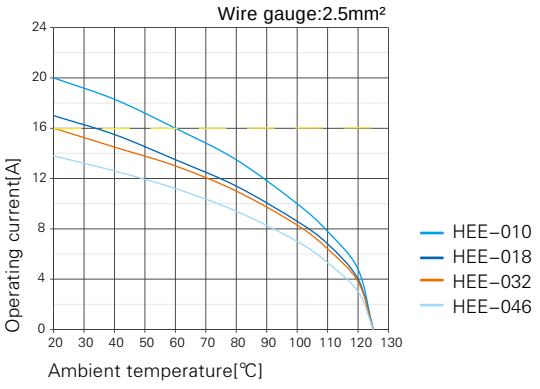
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	10,18,32,40,46,64,64(2x32), 92(2x46)+PE
Electrical data acc. to EN 61 984	
–Rated current	16A
–Rated voltage	500V
–Rated impulse voltage	6kV
–Pollution degree	3
–Pollution degree 2 also	16A 830V 8kV 2
Rated voltage acc. to UL/CSA	600V
Insulation resistance	$\geqslant 10^{10}\,\Omega$
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–gold plated hard–silver plated
Crimp terminal	
–Wire gauge	0.14–4.0mm²
–AWG	26–12
–Stripping length	7.5mm
–Contact resistance	$\leqslant 1\,m\Omega$
Spring terminal(Quick–in)	
–Wire gauge	0.5–2.5mm²
–AWG	20–14
–Stripping length	10 ± 0.5mm
–Contact resistance	$\leqslant 3\,m\Omega$

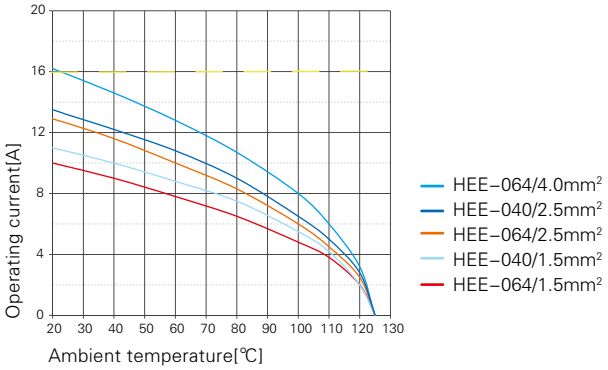
Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5





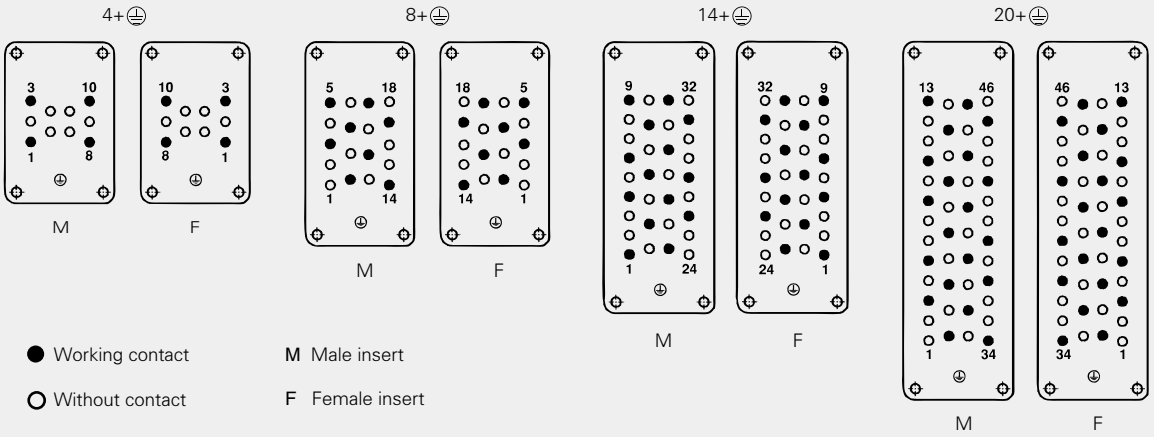


HEE Modified contact arrangement up to 1000 V

The connector series HEE equipped with all contacts may be used for voltages up to 500 V~ pollution degree 3. A modified contact loading arrangement permits use up to 1000 V ~ pollution degree 3 also in pollution degree C. Fully equipped connectors may also be used up to 1000 V ~ but in a lower pollution degree. According to DIN EN 61 984 connectors should not be coupled or decoupled under electrical load.

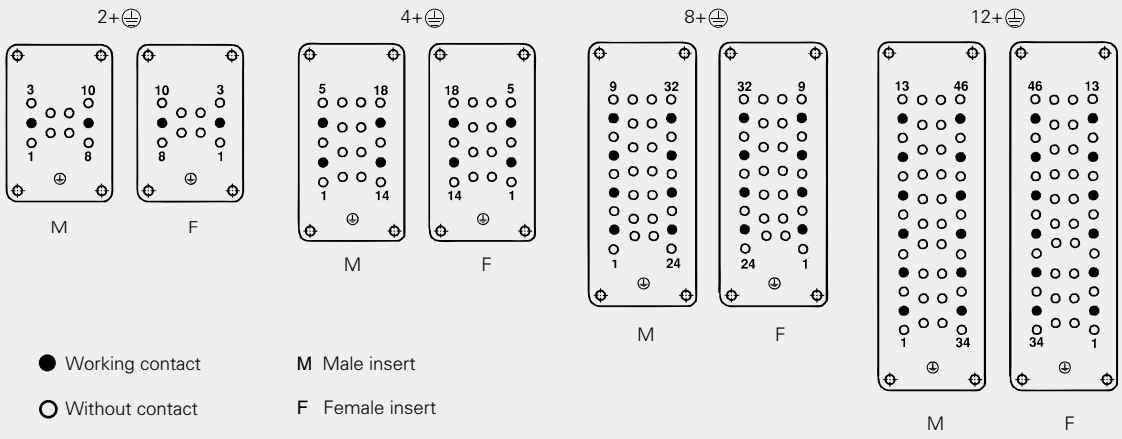
Contact arrangement view from termination side

690 V Pollution degree 3



Contact arrangement view from termination side

1000 V Pollution degree 3



HEE-010 High density inserts

500V 16A 10+⏚

Inserts

Hoods/Housings: size 6B, please find the details on page 15-25~15-38.

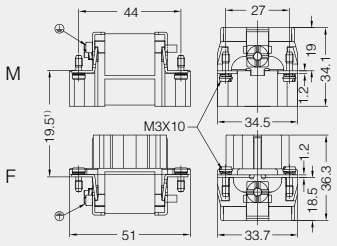
Crimp terminal

order crimp contacts separately

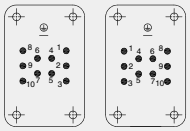


Insert	Designation	Order No.
Male	HEE–010–MC	123 010 010 0001
Female	HEE–010–FC	123 010 020 0001

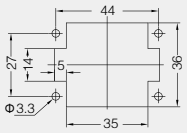
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ

silver plated

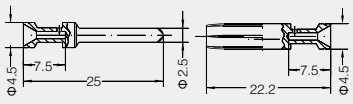


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Contact removal tool



Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HEE-018 High density inserts

500V 16A 18+⏚

Inserts

Hoods/Housings：size 10B,detail please find the page15-39~15-69.

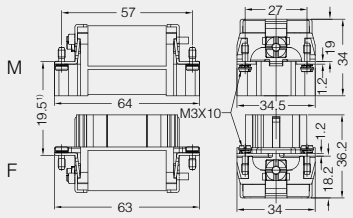
Crimp terminal

Order crimp contacts separately

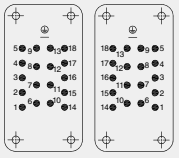


Insert	Designation	Order No.
Male	HEE–018–MC	123 018 010 0001
Female	HEE–018–FC	123 018 020 0001

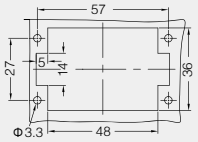
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ

silver plated

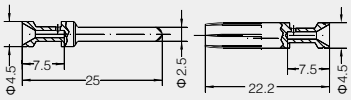


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Contact removal tool



Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HEE-032 High density inserts

500V 16A 32+⏚

Inserts

Hoods/Housings: size 16B, please find the details on page 15-70~15-107.

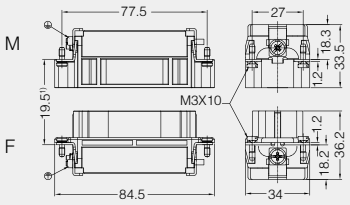
Crimp terminal

Order crimp contacts separately

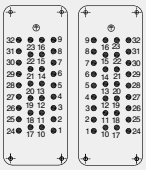


Insert	Designation	Order No.
Male	HEE–032–MC	123 032 010 0001
Female	HEE–032–FC	123 032 020 0001

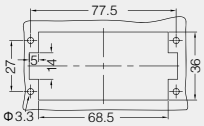
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ

silver plated

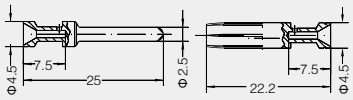


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Contact removal tool



Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HEE-046 High density inserts

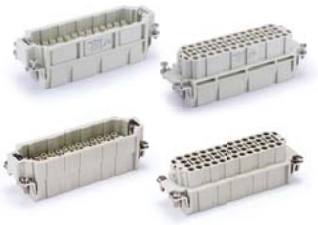
500V 16A 46+⏚

Inserts

Hoods/Housings: size 24B, please find the details on page 15-108~15-150.

Crimp terminal

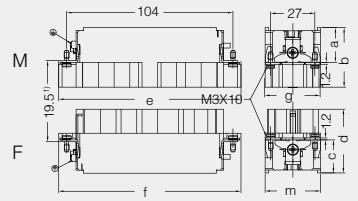
Order crimp contacts separately



Insert	Designation	Order No.
Male	HEE–046–MC	123 046 010 0011
Female	HEE–046–FC	123 046 020 0011
Male	HEE–046–MC/N[2)]	123 046 010 0101
Female	HEE–046–FC/N[2)]	123 046 020 0101

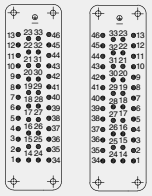
2).for crimp contacts 16A–Enhanced Ⅲ ,see page 13–04.

1) Distance for contact max. 21 mm



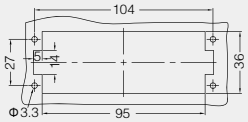
	a	b	e	g	c	d	f	m
M/F	18.5	33.8	110.5	34.4	18.3	36.2	110	34.4
MC/FC	18.3	33.8	110	34.4	18.2	36.2	110	34.4

Contact arrangement view from termination side



M F

Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ

silver plated

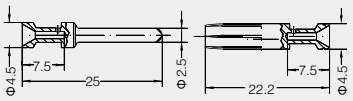


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



M F

Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

Contact removal tool



More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HEE-046 Quick-in Module

500V 16A 46+⏚

Inserts

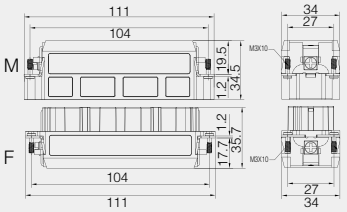
Hoods/Housings: size 24B, please find the details on page 15-108~15-150.

Spring terminal (Quick–in)

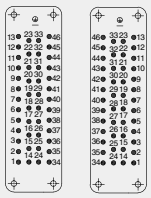


Insert	Designation	Order No.
Male	HEE–046–MQ	123 046 001 0001
Female	HEE–046–FQC	123 046 002 0001

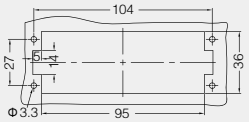
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



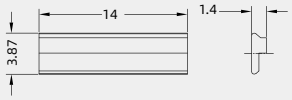
Panel cut out for inserts for use without hoods/housings



Coding element



Description	Designation	Order No.
coding、pokayoke	CODE–I	198 002 005 0035



HEE-032x2 High density inserts

500V 16A 64+⏚

Inserts

Hoods/Housings: size 32B, please find the details on page 15-151~15-159.

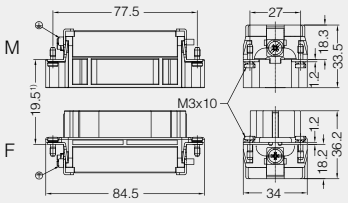
Crimp terminal

Order crimp contacts separately

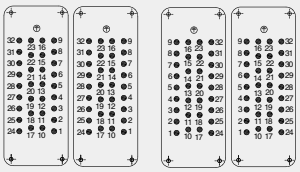


Insert	Designation	Order No.
Male	HEE–032–MC	123 032 010 0001
	HEE–032–MC(33–64)	123 032 010 0002
Female	HEE–032–FC	123 032 020 0001
	HEE–032–FC(33–64)	123 032 020 0002

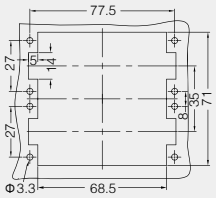
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ

silver plated

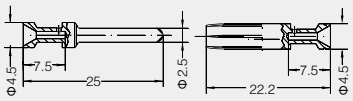


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Contact removal tool



Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HEE-092 High density inserts

500V 16A 92+⏚

Inserts

Hoods/Housings: size 48B, please find the details on page 15-160~15-162.

Crimp terminal

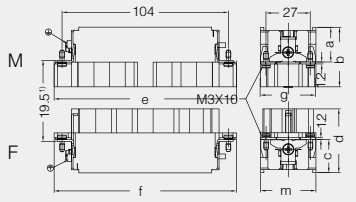
Order crimp contacts separately



Insert	Designation	Order No.
Male	HEE–046–MC	123 046 010 0011
	HEE–046–MC(47–92)	123 046 010 0012
Female	HEE–046–FC	123 046 020 0011
	HEE–046–FC(47–92)	123 046 020 0012
Male	HEE–046–MC/N[2)]	123 046 010 0101
	HEE–046–MC/N(47–92)[2)]	123 046 010 0102
Female	HEE–046–FC/N[2)]	123 046 020 0101
	HEE–046–FC/N(47–92)[2)]	123 046 020 0102

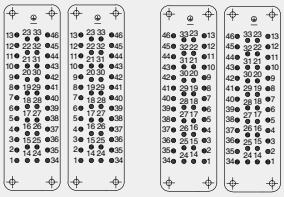
2).for crimp contacts 16A–Enhanced Ⅲ ,see page 13–04.

1) Distance for contact max. 21 mm

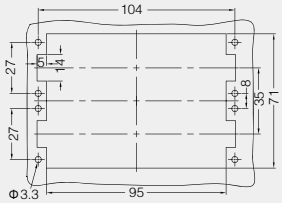


	a	b	e	g	c	d	f	m
M/F	18.5	33.8	110.5	34.4	18.3	36.2	110	34.4
MC/FC	18.3	33.8	110	34.4	18.2	36.2	110	34.4

Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ

silver plated

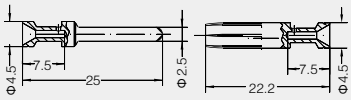


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



M F

Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HEE-040 High density inserts

500V 16A 40+⏚

Inserts

Hoods/Housings: size 16B, please find the details on page 15-70~15-107.

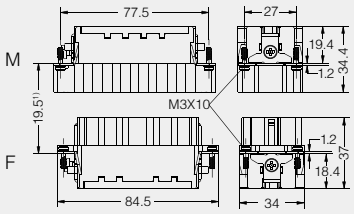
Crimp terminal

Order crimp contacts separately

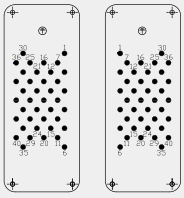


Insert	Designation	Order No.
Male	HEE–040–MC	123 040 010 0001
Female	HEE–040–FC	123 040 020 0001

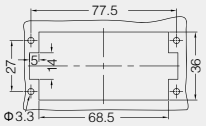
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ

silver plated

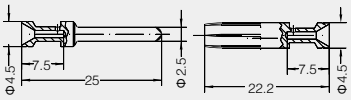


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Contact removal tool



Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HEE-064 High density inserts

500V 16A 64+⏚

Inserts

Hoods/Housings: size 24B, please find the details on page 15-108~15-150.

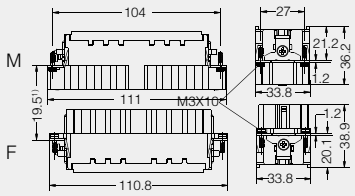
Crimp terminal

Order crimp contacts separately

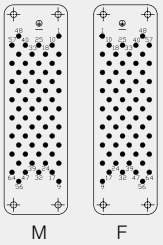


Insert	Designation	Order No.
Male	HEE–064–MC	123 064 010 0001
Female	HEE–064–FC	123 064 020 0001

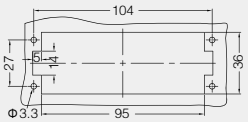
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

Contact resistance ⩽1mΩ

silver plated

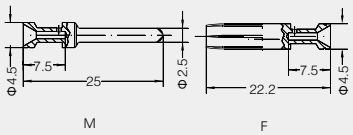


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.5–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Contact removal tool



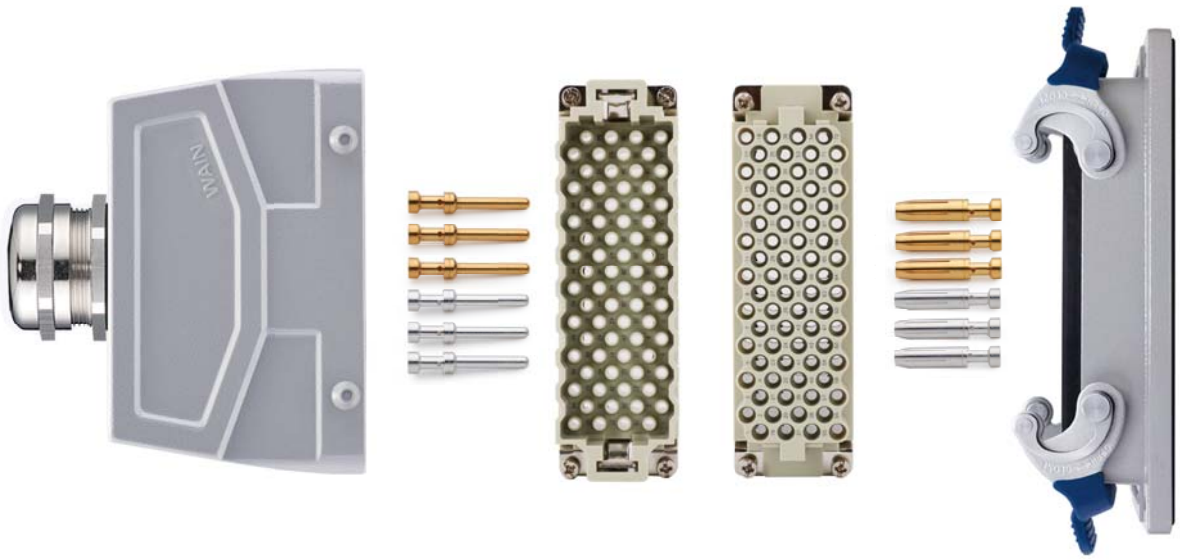
Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HEEE SERIES

Ultra high density type insert



HEEE SERIES ultra high density type insert



Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	32+PE,72+PE
Electrical data acc. to EN 61 984	
–Rated current	16A
–Rated voltage	400V
–Rated impulse voltage	6kV
–Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–gold plated
	hard–silver plated
Contact resistance	⩽1mΩ
Crimp terminal	
–Wire gauge	0.14–4.0mm²
–AWG	26–12
–Stripping length	7.5mm
Tools	
Crimping tool	TL02G(0.5–4mm²)
	TL02(0.14–0.37mm²)
Contact removal tool	TL01

HEEE–032 Ultra high density type insert

400V 16A 32+⏚

Inserts

Hoods/Housings: size 10B, please find the details on page 15-39~15-69.

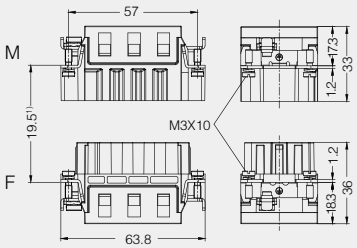
Crimp terminal

Order crimp contacts separately

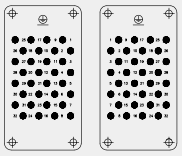


Insert	Designation	Order No.
Male	HEEE–032–MC	136 032 010 0001
Female	HEEE–032–FC	136 032 020 0001

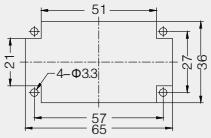
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ

silver plated

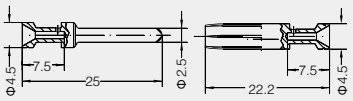


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Contact removal tool



Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HEEE-072 Ultra high density type insert

400V 16A 72+⏚

Inserts

Hoods/Housings: size 24B, please find the details on page 15-108~15-150.

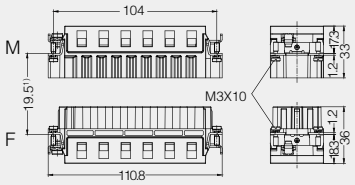
Crimp terminal

Order crimp contacts separately

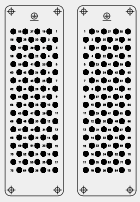


Insert	Designation	Order No.
Male	HEEE–072–MC	136 072 010 0001
Female	HEEE–072–FC	136 072 020 0001

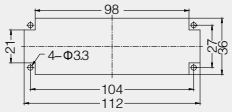
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

Contact resistance ⩽1mΩ

silver plated

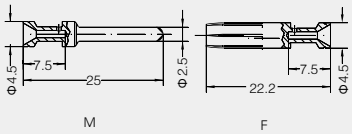


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Contact removal tool



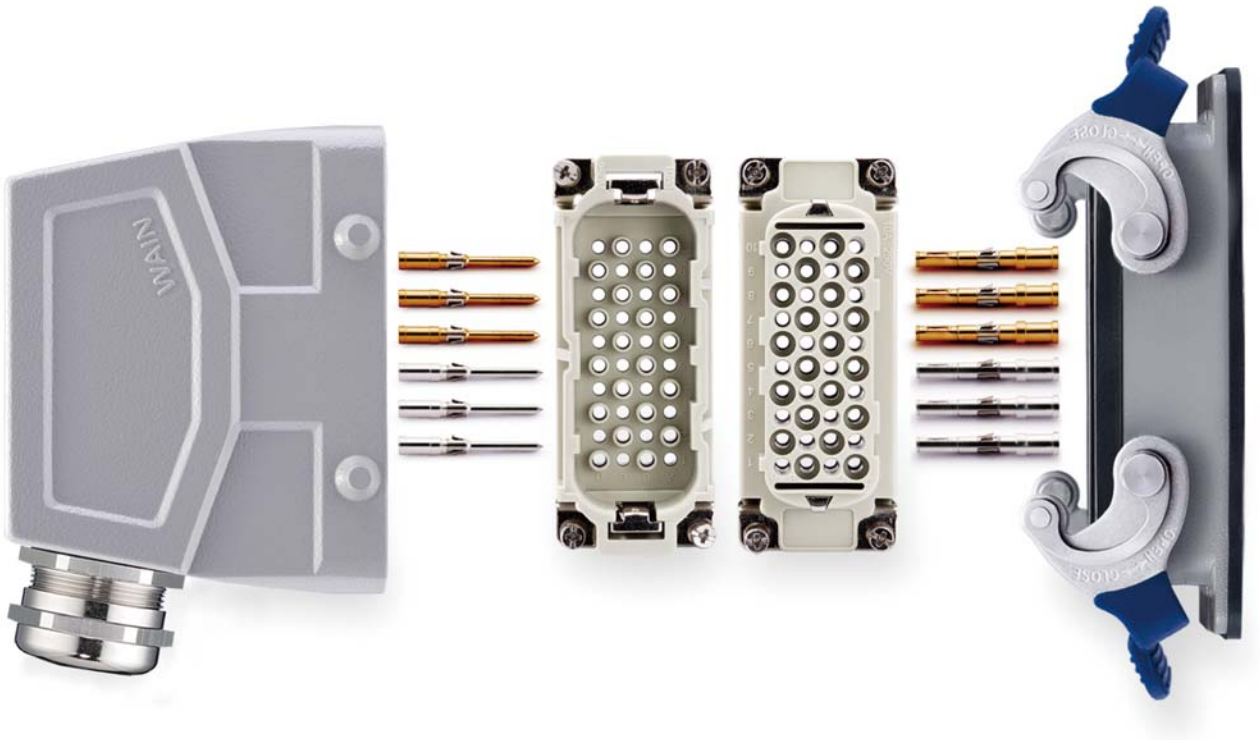
Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HD HDD SERIES

Ultra-high density connector



HD SERIES Ultra-high density inserts

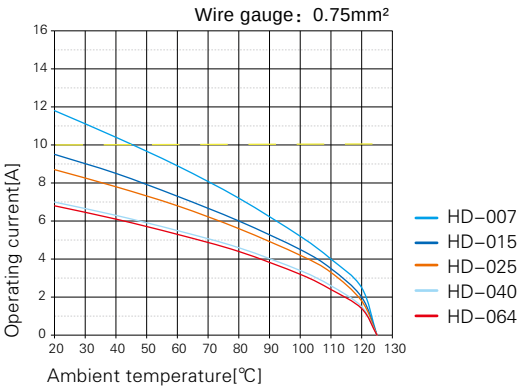
Technical characteristics

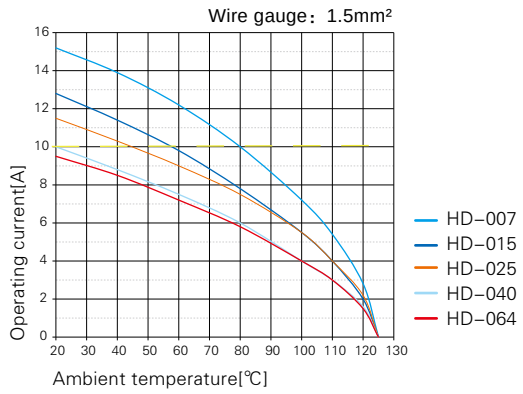
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	7,8,15,25,40,50(25x2),64,80(40x2),
	128(64x2)+PE
Electrical data acc. to EN 61 984	
–Rated current	10A
–Rated voltage	250V
–Rated impulse voltage	4kV
–Pollution degree	3
–Pollution degree 2 also	10A 230/400V 4kV 2
–Rated voltage acc. to UL	600V
HD–008 Electrical data	
–Rated current	10A
–Rated voltage	~50V/–120V
–Rated impulse voltage	0.8kV
–Pollution degree	3
–Rated voltage acc. to UL	50V
–Rated voltage(direct voltage)	120V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–gold plated
	hard–silver plated
Contact resistance	⩽3mΩ
Crimp terminal	
–Wire gauge	0.14–2.5mm²
–AWG	26–14
Contacts	
Material	copper alloy
Surface	hard–gold plated
	hard–silver plated
Contact resistance	⩽3mΩ
Crimp terminal	
–Wire gauge	0.14–2.5mm²
–AWG	26–14
Stamped contacts	
Material	copper alloy
Surface	hard–silver plated
Contact resistance	⩽5mΩ
Crimp terminal	
–Wire gauge	0.5–1.5mm²/1.5–2.5mm²
–AWG	20–16/16–14
–Stripping length	6mm

Current carrying capacity

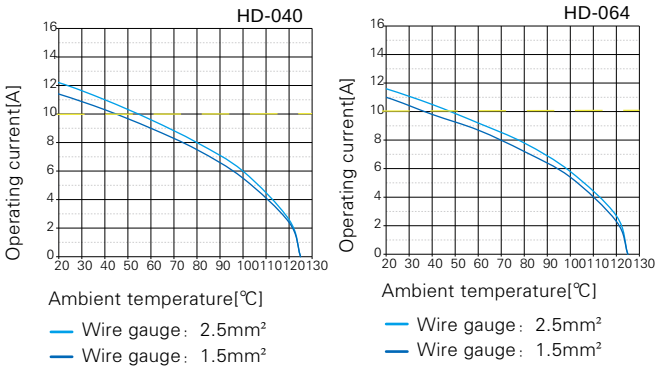
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5





Stamped contacts:



HDD SERIES Ultra-high density inserts

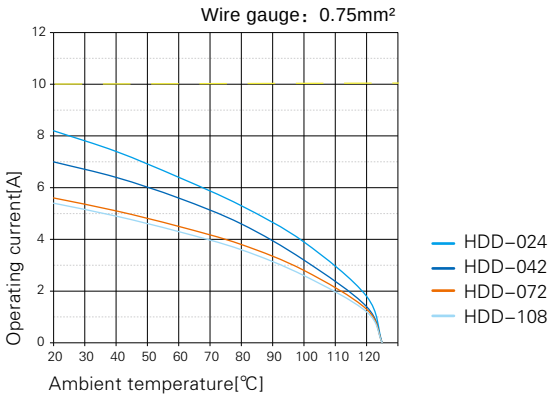
Technical characteristics

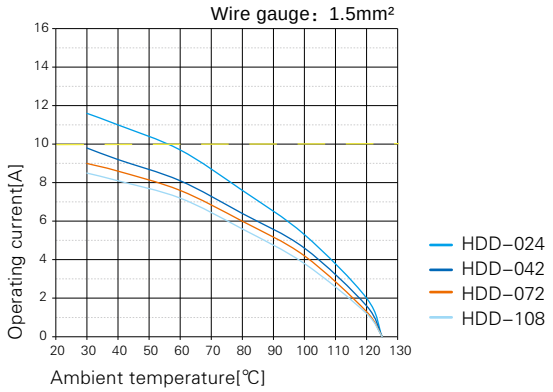
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	24,42,72,108,144(72x2), 216(108x2)+PE
Electrical data acc. to EN 61 984	
–Rated current	10A
–Rated voltage	250V
–Rated impulse voltage	4kV
–Pollution degree	3
–Pollution degree 2 also	10A 230/400V 4kV 2
Rated voltage acc. to UL	600V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–gold plated hard–silver plated
Contact resistance	⩽3mΩ
Crimp terminal	
–Wire gauge	0.14–2.5mm²
–AWG	26–14

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5





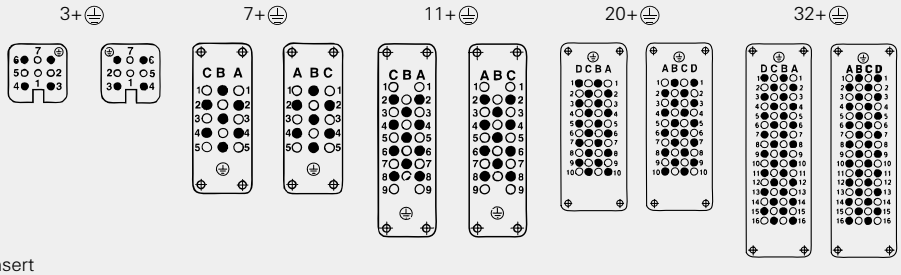
HD HDD Modified contact arrangement up to 500 V

The connector series HDD and HD equipped with all contacts may be used for voltages up to 250 V,pollution degree 3. A modified contact loading arrangement permits use up to 500 V also in the same pollution degree. According to DIN EN 61 984 connectors should not be coupled or decoupled under electrical load.

Contact arrangement view from termination side

HD SERIES

10A 500V 6kV 3



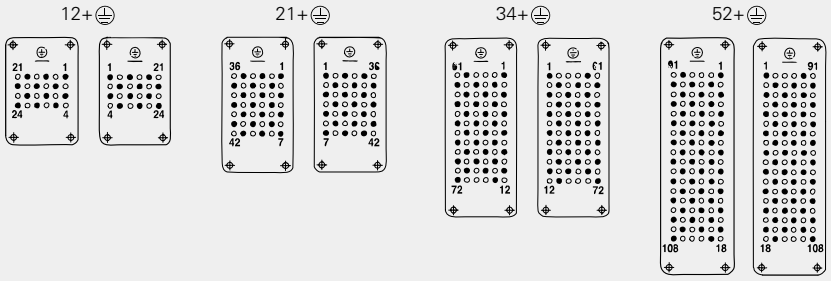
● Working contact
O Without contact

M Male insert
F Female insert

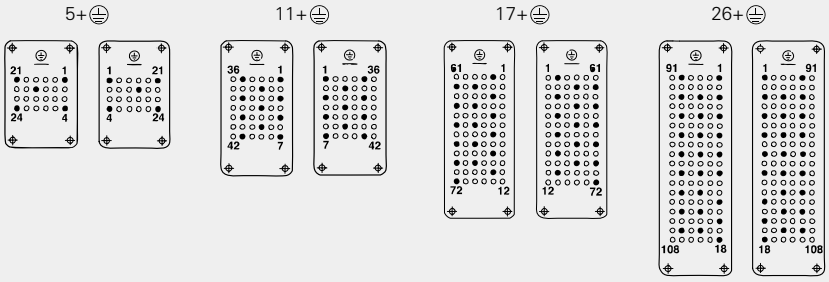
Contact arrangement view from termination side

HDD SERIES

10A 400V 6kV 3



10A 500V 6kV 3



● Working contact
O Without contact

M Male insert
F Female insert

HD-007 Ultra-high density inserts

250V 10A 7+⏚

Inserts

Hoods/Housings: size 3A(only for plastic), please find the details on page 15-06~15-07.

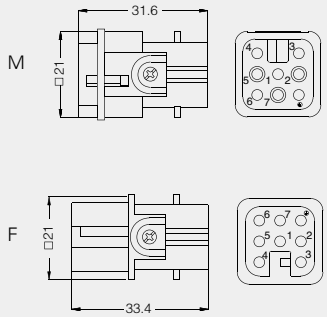
Crimp terminal

Order crimp contacts separately

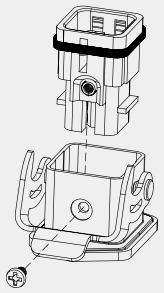


Insert	Designation	Order No.
Male	HD–007–MC	125 007 010 0001
Female	HD–007–FC	125 007 020 0001

Contact arrangement view from termination side:



Mounting example



Crimp contacts

Crimp contacts 10A

Contact resistance≤3mΩ

silver plated



gold plated



More crimp contacts 10A see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

For the crimping contacts and removing contacts instructions, please find the page 06–23~06–24.

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HD-008 Ultra-high density inserts

–120V/~50V 10A 8

Inserts

Hoods/Housings: size 3A, please find the details on page 15-06~15-16.

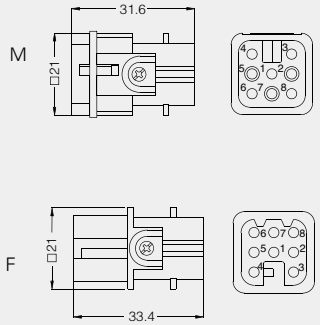
Crimp terminal

Order crimp contacts separately

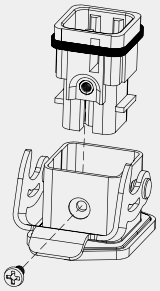


Insert	Designation	Order No.
Male	HD–008–MC	125 008 010 0001
Female	HD–008–FC	125 008 020 0001

Contact arrangement view from termination side:



Mounting example



Crimp contacts

Crimp contacts 10A

Contact resistance≤3mΩ
silver plated



gold plated



More crimp contacts 10A
see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

For the crimping contacts and removing contacts instructions, please find the page 06–23~06–24.

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HD–008 Quick–in



Technical specirication

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	8
Electrical data acc. to EN 61 984	
–Rated current	10A
–Rated voltage	50/~120V
–Rated impulse voltage	0.8kV
–Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Materia	polycarbonate
Colour	RAL 7032(light grey)
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500

Contacts	
Terminal	spring terminal(Quick–in)
Material	copper alloy
Surface	silver plated
Contact resistance	⩽3mΩ
Crimp terminal	
–Wire gauge	0.5–2.5mm^2
–AWG	20–14
(For wires with crimpped ferrule)	
–Wire gauge	0.14–1.5mm^2
–AWG	26–16
Stripping length	10±0.5mm

HD-008 Qulck-in

50V /~120V 10A 8

Inserts

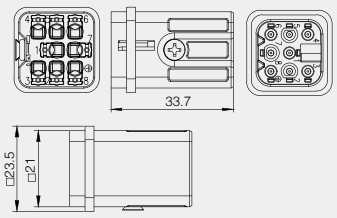
Hoods/Housings: size 3A, please find the details on page 15-06~15-16.

Spring Terminal(Quick–in)

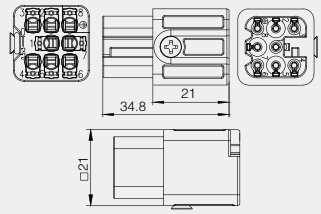


Insert	Designation	Order No.
Male	HD–008–MQ	125 008 001 0001
Female	HD–008–FQ	125 008 002 0001

M



F



HD-015 Ultra-high density inserts

250V 10A 15+⏚

Inserts

Hoods/Housings：size 10A,detail please find the page15-17~15-18.

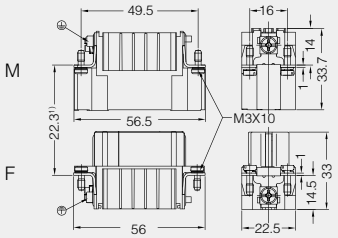
Crimp terminal

Order crimp contacts separately

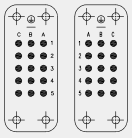


Insert	Designation	Order No.
Male	HD–015–MC	125 015 010 0001
Female	HD–015–FC	125 015 020 0001

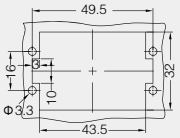
1) Distance for contact max. 24 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 10A

Contact resistance≤3mΩ

silver plated



gold plated



More crimp contacts 10A see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

For the crimping contacts and removing contacts instructions, please find the page 06–23~06–24.

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HD-025 Ultra-high density inserts

250V 10A 25+⏚

Inserts

Hoods/Housings：size 16A,detail please find the page15-19~15-20.

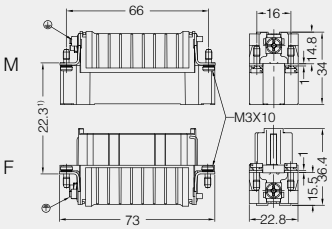
Crimp terminal

Order crimp contacts separately

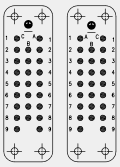


Insert	Designation	Order No.
Male	HD–025–MC	125 025 010 0001
Female	HD–025–FC	125 025 020 0001

1) Distance for contact max. 24 mm

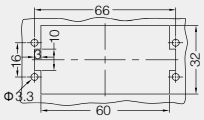


Contact arrangement view from termination side



M F

Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 10A

Contact resistance⩽3mΩ
silver plated



gold plated



More crimp contacts 10A
see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

For the crimping contacts and removing contacts instructions, please find the page 06–23~06–24.

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HD-050 Ultra-high density inserts

250V 10A 50+⏚

Inserts

Hoods/Housings: size 32A, please find the details on page 15-21~15-24.

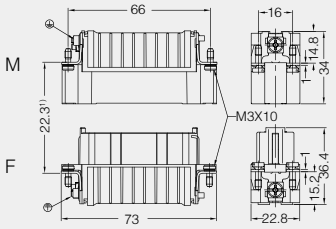
Crimp terminal

Order crimp contacts separately

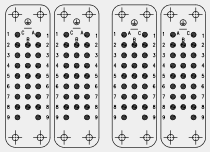


Insert	Designation	Order No.
Male	HD–025–MC	125 025 010 0001
	HD–025–MC(Z)	125 025 010 0002
Female	HD–025–FC	125 025 020 0001
	HD–025–FC(Z)	125 025 020 0002

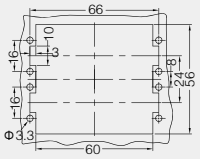
1) Distance for contact max. 24 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 10A

Contact resistance≤3mΩ
silver plated



gold plated



More crimp contacts 10A
see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

For the crimping contacts and removing contacts instructions, please find the page 06–23~06–24.

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HD-040 Ultra-high density inserts

250V 10A 40+⏚

EAC

Inserts

Hoods/Housings: size 16B, please find the details on page 15-70~15-107.

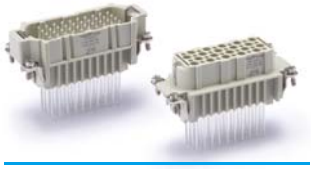
Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HD–040–MC	125 040 010 0001
Female	HD–040–FC	125 040 020 0001

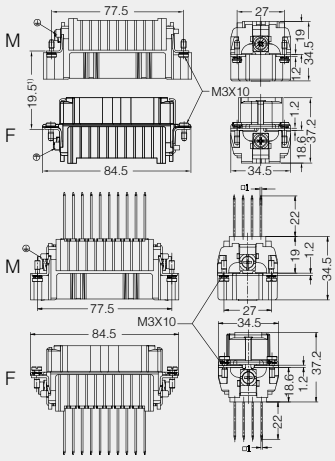
Wrap terminal[1] 1x1 mm



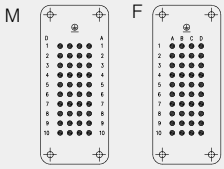
Insert	Designation	Order No.
Male	HD–040–MTHT	125 040 014 0001
Female	HD–040–FTHT	125 040 024 0001

1) See P00–35 for the structural characteristics of wrap terminal.

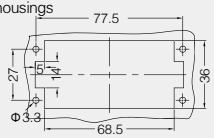
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 10A

Contact resistance≤3mΩ
silver plated



gold plated



More crimp contacts 10A
see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

For the crimping contacts and removing contacts instructions, please find the page 06–23~06–24.

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HD-040 Ultra-high density inserts

250V 10A 40+

CE EAC

Inserts

Hoods/Housings: size 16B, please find the details on page 15-70~15-107.

Crimp terminal

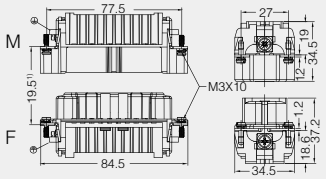
Order stamped contacts separately



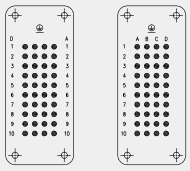
The insert only matches 10A stamped contacts.

Insert	Designation	Order No.
Male	HD–040–MC/P	125 040 010 0021
Female	HD–040–FC/P	125 040 020 0021

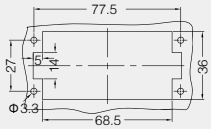
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Stamped contacts10A

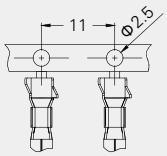
silver plated



coil stock



Wire gauge	contacts	Designation	Order No.
0.5–1.5mm²	male	CDSM–1.5P	101 017 110 0905
	female	CDSF–1.5P	101 017 120 0905
1.5–2.5mm²	male	CDSM–2.5P	101 017 110 1005
	female	CDSF–2.5P	101 017 120 1005



Distance map

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.5–2.5mm²	TL14	198 001 001 0022

Contact removal tool



Application	Designation	Order No.
10A male contacts	TL00	198 001 000 0001
10A female contacts	TL13	198 001 000 0025

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HD-064 Ultra-high density inserts

250V 10A 64+⏚

EAC

Inserts

Hoods/Housings: size 24B, please find the details on page 15-108~15-150.

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HD–064–MC	125 064 010 0001
Female	HD–064–FC	125 064 020 0001

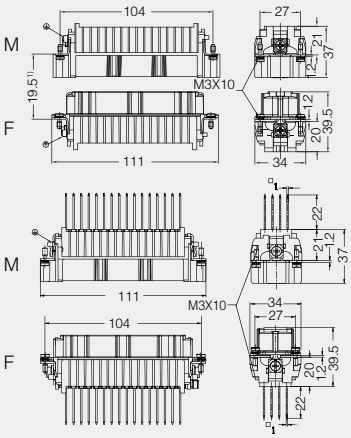
Wrap terminal[1] 1x1 mm



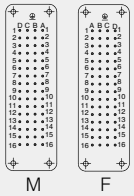
Insert	Designation	Order No.
Male	HD–064–MTHT	125 064 014 0001
Female	HD–064–FTHT	125 064 024 0001

1) See P00–35 for the structural characteristics of wrap terminal.

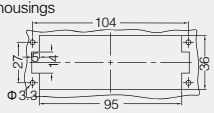
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 10A

Contact resistance≤3mΩ
silver plated



gold plated



More crimp contacts 10A
see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

For the crimping contacts and removing contacts instructions, please find the page 06–23~06–24.

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HD-064 Ultra-high density inserts

250V 10A 64+⏚

Inserts

Hoods/Housings: size 24B, please find the details on page 15-108~15-150.

Crimp terminal

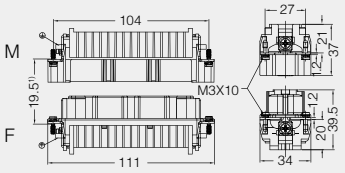
Order stamped contacts separately



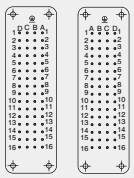
The insert only matches 10A stamped contacts.

Insert	Designation	Order No.
Male	HD–064–MC/P	125 064 010 0021
Female	HD–064–FC/P	125 064 020 0021

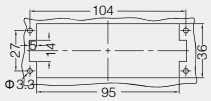
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Stamped contacts10A

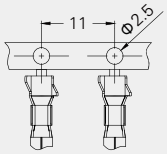
silver plated



coil stock



Wire gauge	contacts	Designation	Order No.
0.5–1.5mm²	male	CDSM–1.5P	101 017 110 0905
	female	CDSF–1.5P	101 017 120 0905
1.5–2.5mm²	male	CDSM–2.5P	101 017 110 1005
	female	CDSF–2.5P	101 017 120 1005



Distance map

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.5–2.5mm²	TL14	198 001 001 0022

Contact removal tool



Application	Designation	Order No.
10A male contacts	TL00	198 001 000 0001
10A female contacts	TL13	198 001 000 0025

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HD-080 Ultra-high density inserts

250V 10A 80+⏚

Inserts

Hoods/Housings: size 32B, please find the details on page 15-151~15-159.

Crimp terminal

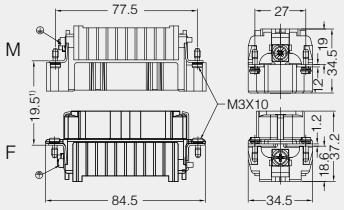
Order crimp contacts separately



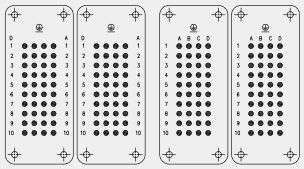
Insert	Designation	Order No.
Male	HD–040–MC	125 040 010 0001
	HD–040–MC(Z)[1)]	125 040 010 0002
Female	HD–040–FC	125 040 020 0001
	HD–040–FC(Z)[1)]	125 040 020 0002

1) Z represents large size digital plug.

1) Distance for contact max. 21 mm

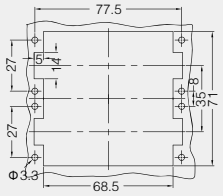


Contact arrangement view from termination side



M F

Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 10A

Contact resistance≤3mΩ
silver plated



gold plated



More crimp contacts 10A
see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

For the crimping contacts and removing contacts instructions, please find the page 06–23~06–24.

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HD-128 Ultra-high density inserts

250V 10A 128+⏚

Inserts

Hoods/Housings: size 48B, please find the details on page 15-160~15-162.

Crimp terminal

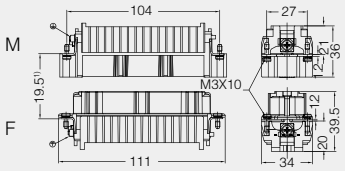
Order crimp contacts separately



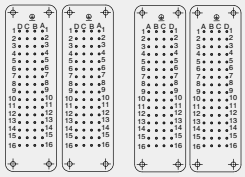
Insert	Designation	Order No.
Male	HD–064–MC	125 064 010 0001
	HD–064–MC(Z)[1]	125 064 010 0002
Female	HD–064–FC	125 064 020 0001
	HD–064–FC(Z)[1]	125 064 020 0002

1) Z represents large size digital plug.

1) Distance for contact max. 21 mm

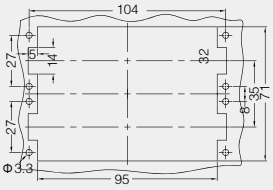


Contact arrangement view from termination side



M F

Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 10A

Contact resistance≤3mΩ
silver plated



gold plated



More crimp contacts 10A
see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

For the crimping contacts and removing contacts instructions, please find the page 06–23~06–24.

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HDD-024 Ultra-high density inserts

250V 10A 24+⏚

Inserts

Hoods/Housings: size 6B, please find the details on page 15-25~15-38.

Crimp terminal

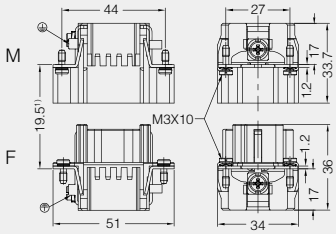
Order crimp contacts separately



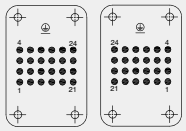
Insert	Designation	Order No.
Male	HDD–024–MC[1)]	126 024 010 0001
Female	HDD–024–FC[1)]	126 024 020 0001

1).can match PCB adapter,see page 14–02~14–03.

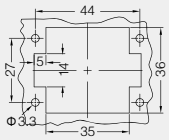
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 10A

Contact resistance≤3mΩ
silver plated



gold plated



More crimp contacts 10A
see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

For the crimping contacts and removing contacts instructions, please find the page 06–23~06–24.

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HDD-042 Ultra-high density inserts

250V 10A 42+⏚

Inserts

Hoods/Housings: size 10B, please find the details on page 15-39~15-69.

Crimp terminal

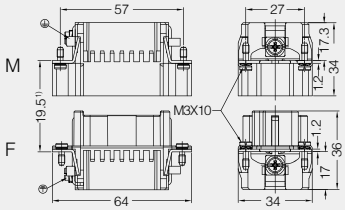
Order crimp contacts separately



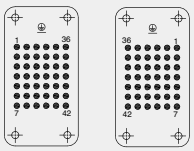
Insert	Designation	Order No.
Male	HDD–042–MC[1)]	126 042 010 0001
Female	HDD–042–FC[1)]	126 042 020 0001

1).can match PCB adapter,see page 14–02~14–03.

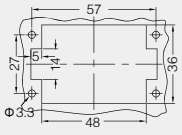
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 10A

Contact resistance≤3mΩ

silver plated



gold plated



More crimp contacts 10A see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

For the crimping contacts and removing contacts instructions, please find the page 06–23~06–24.

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HDD-072 Ultra-high density inserts

250V 10A 72+⏚

Inserts

Hoods/Housings: size 16B, please find the details on page 15-70~15-107.

Crimp terminal

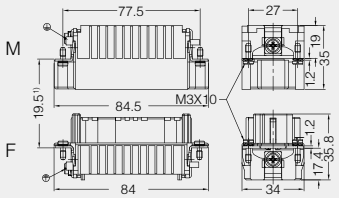
Order crimp contacts separately



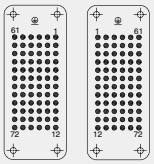
Insert	Designation	Order No.
Male	HDD–072–MC[1)]	126 072 010 0001
Female	HDD–072–FC[1)]	126 072 020 0001

1).can match PCB adapter,see page 14–02~14–03.

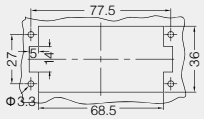
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 10A

Contact resistance≤3mΩ

silver plated



gold plated



More crimp contacts 10A see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

For the crimping contacts and removing contacts instructions, please find the page 06–23~06–24.

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HDD-108 Ultra-high density inserts

250V 10A 108+⏚

Inserts

Hoods/Housings: size 24B, please find the details on page 15-108~15-150.

Crimp terminal

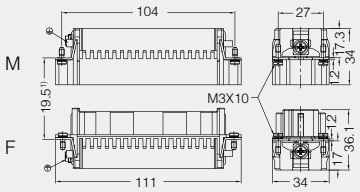
Order crimp contacts separately



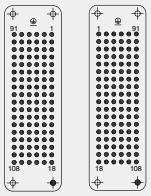
Insert	Designation	Order No.
Male	HDD–108–MC[1)]	126 108 010 0001
Female	HDD–108–FC[1)]	126 108 020 0001

1).can match PCB adapter,see page 14–02~14–03.

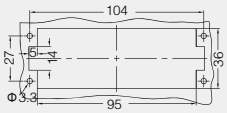
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 10A

Contact resistance≤3mΩ
silver plated



gold plated



More crimp contacts 10A
see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

For the crimping contacts and removing contacts instructions, please find the page 06–23~06–24.

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HDD-108 Ultra-high density inserts

200V 7.5A 108+⏚

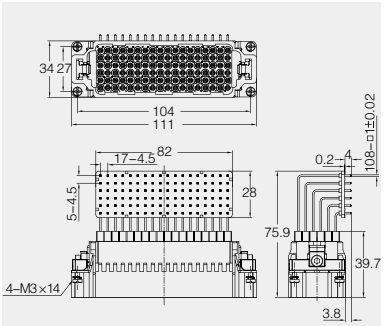
Inserts

Hoods/Housings: This kind of insert only match with W24B-RBK housing

Soldered PCB connection



Insert	Designation	Order No.
Male	HDD–108–MSHT	126 108 013 1001



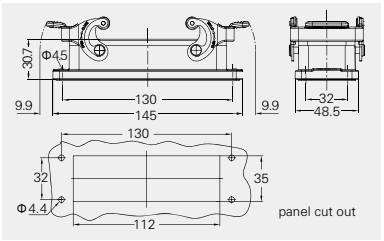
Bulkhead Mounted Housings

(Assemble the inserts in reverse direction)

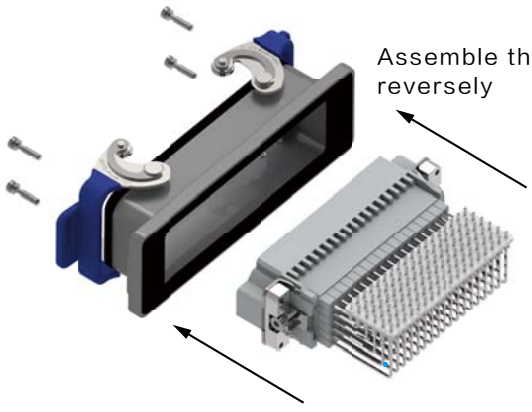


Thread	Designation	Order No.
–––	W24B–RBK–2L/SC	111 124 341 1003

Please refer to page 15–02 for choosing proper model of lock.



Product features



Assemble the insert reversely

1. Ultra–high density insert: 108pin.
2. By welding manner, the assembly efficiency is much higher than the traditional wiring methods.
3. Specially designed housing makes sure that the insert can be assembled in reverse, which is convenient for installation and maintenance in practical application.
4. 90 degree pcb soldering termination design，quick and convenient.

HDD-144 Ultra-high density inserts

250V 10A 144+⏚

Inserts

Hoods/Housings: size 32B, please find the details on page 15-151~15-159.

Crimp terminal

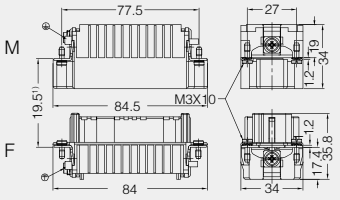
Order crimp contacts separately



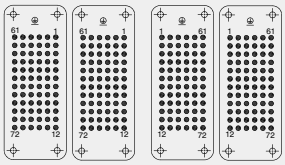
Insert	Designation	Order No.
Male	HDD–072–MC[1)]	126 072 010 0001
	HDD–072–MC(73–144)[1)]	126 072 010 0002
Female	HDD–072–FC[1)]	126 072 020 0001
	HDD–072–FC(73–144)[1)]	126 072 020 0002

1).can match PCB adapter,see page 14–02~14–03.

1) Distance for contact max. 21 mm

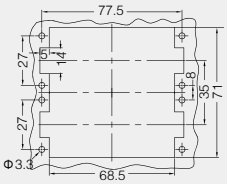


Contact arrangement view from termination side



M F

Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 10A

Contact resistance≤3mΩ
silver plated



gold plated



More crimp contacts 10A
see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

For the crimping contacts and removing contacts instructions, please find the page 06–23~06–24.

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HDD-216 Ultra-high density inserts

250V 10A 216+⏚

Inserts

Hoods/Housings: size 48B, please find the details on page 15-160~15-162.

Crimp terminal

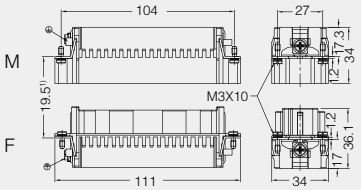
Order crimp contacts separately



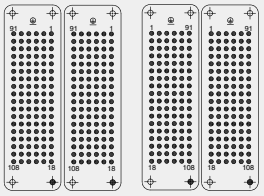
Insert	Designation	Order No.
Male	HDD–108–MC[1)]	126 108 010 0001
	HDD–108–MC(109–216)[1)]	126 108 010 0002
Female	HDD–108–FC[1)]	126 108 020 0001
	HDD–108–FC(109–216)[1)]	126 108 020 0002

1).can match PCB adapter,see page 14–02~14–03.

1) Distance for contact max. 21 mm

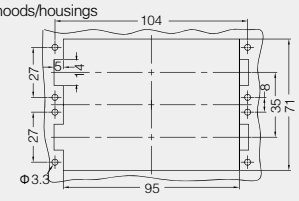


Contact arrangement view from termination side



M F

Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 10A

Contact resistance≤3mΩ
silver plated



gold plated



More crimp contacts 10A
see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

For the crimping contacts and removing contacts instructions, please find the page 06–23~06–24.

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

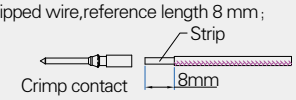
More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

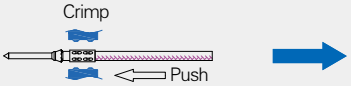
Assembly and removal instructions of D Crimp contact

Assembly

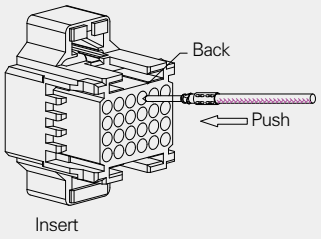
1.Stripped wire,reference length 8 mm;



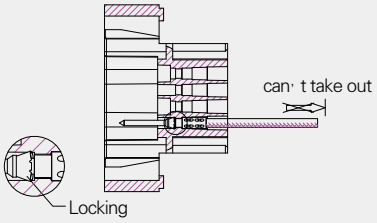
2.Push the wire into the wire guide hole，and crimp;



3.Push the terminal into the socket;

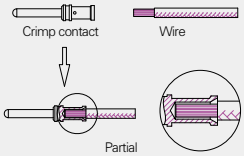


4.Push the terminal at the bottom of hole until heard a 'tick '.



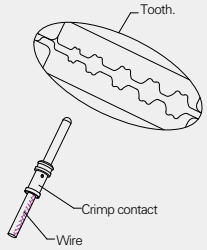
Crimp contact

1.insert the wire into Crimp contact.

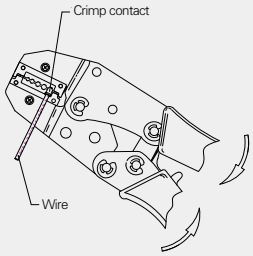


Attention: The pinhole and the wire must match, otherwise it might cause a difficulty during installing wire or a loose connection.

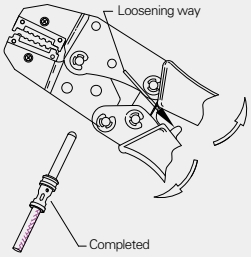
2.Insert the contact into the appropriate tooth.



3.Press tightly



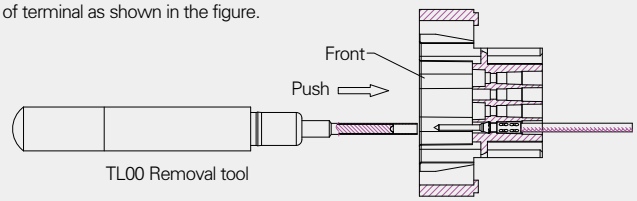
4.loosen the Crimping tool,take out the crimp contact



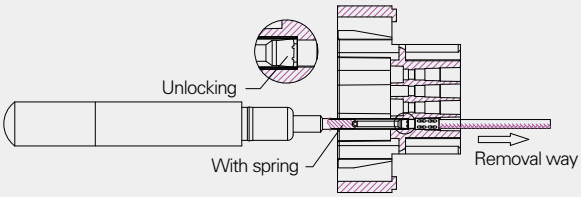
Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Removal

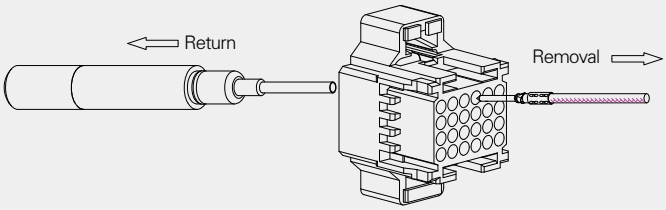
1.Pull the tool into the hole of terminal as shown in the figure.



2.Push the tool at the bottom of hole ,then spring the terminal.

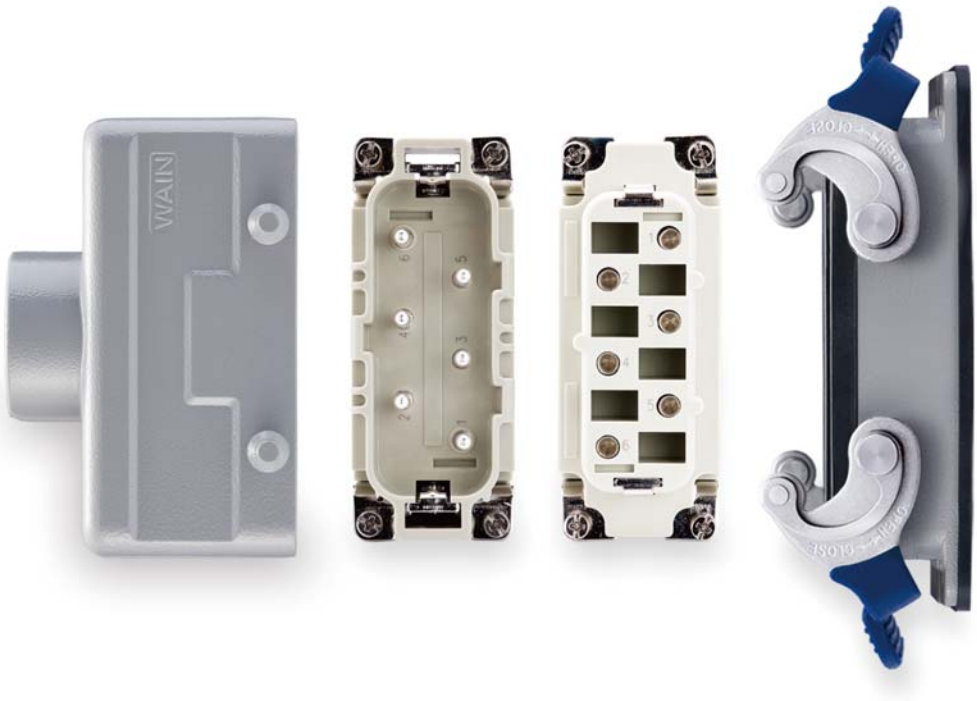


3.Removal the terminal.



HSB SERIES

35A heavy-current connector



HSB SERIES Heavy-current inserts

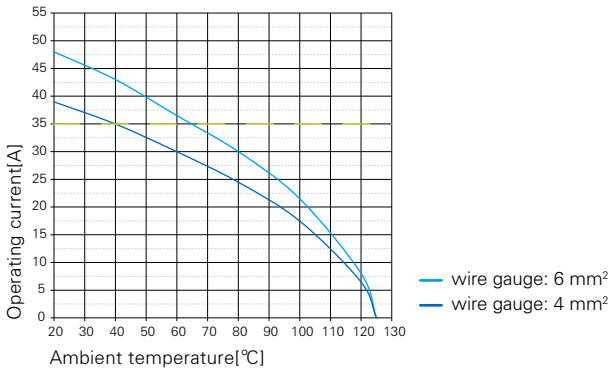
Technical characteristics

Technical characteristics	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	6,12+PE
Electrical data acc. to EN 61 984	
–Rated current	35A
–Rated voltage conductor – ground	400V
–Rated voltage conductor – conductor	690V
–Rated impulse voltage	6kV
–Pollution degree	3
–or	35A 500V 6kV 3
Rated voltage acc. to UL	600V
Insulation resistance	$\geqslant 10^{10}\,\Omega$
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–silver plated
Contact resistance	$\leqslant 1\,m\Omega$
Screw terminal	
– Wire gauge	1.5–6mm²
– AWG	10
– Tightening torque	1.2Nm

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HSB-006 Heavy-current inserts

400/690V 35A 6+⏚

Inserts

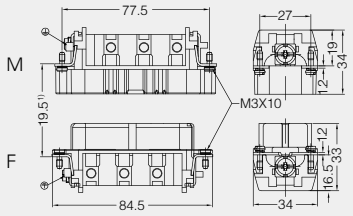
Hoods/Housings: size 16B, please find the details on page 15-70~15-107.

Screw terminal

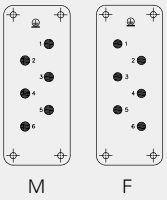


Insert	Designation	Order No.
Male	HSB–006–M	127 006 011 0001
Female	HSB–006–F	127 006 021 0001

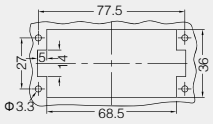
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



HSB-012 Heavy-current inserts

400/690V 35A 12+⏚

Inserts

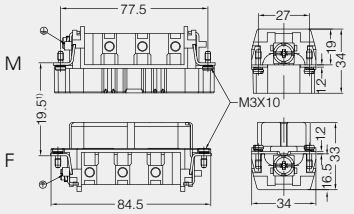
Hoods/Housings: size 32B, please find the details on page 15-151~15-159.

Screw terminal

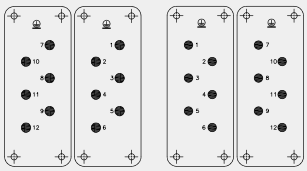


Insert	Designation	Order No.
Male	HSB–006–M	127 006 011 0001
	HSB–006–M(7–12)	127 006 011 0002
Female	HSB–006–F	127 006 021 0001
	HSB–006–F(7–12)	127 006 021 0002

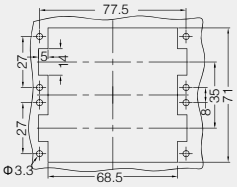
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



HSB-004/2 Heavy-current inserts(Quick-in)

Technical characteristics

Technical characteristics	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	4/2+PE
Electrical data acc. to EN 61 984	
–Rated current	40A/16A
–Rated voltage conductor – ground	690V/500V
–Rated impulse voltage	6kV/6kV
–Pollution degree	3
–Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Colour	RAL 7032(light grey)
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mating cycles	⩾500

Contacts	
Termingal	spring terminal(Quick–in)
Material	copper alloy
Surface	hard–silver plated
Contact resistance	⩽3mΩ
Wire gauge	0.5–2.5mm^2（20–14AWG）
	0.5–6mm^2（20–10AWG）
Stripping length	12.5mm/12mm

HSB-004/2 Heavy-current inserts(Quick-in)

690/500V 40/16A 4/2+ ⏚

Inserts

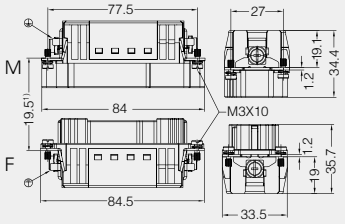
Hoods/Housings: size 16B, please find the details on page 15-70~15-107.

Spring terminal(Quick-in)

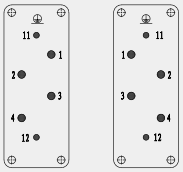


Insert	Designation	Order No.
Male	HSB–004/2–MQ	127 006 001 0001
Female	HSB–004/2–FQ	127 006 002 0001

1) Distance for contact max. 21 mm



Contact arrangement view from termination side

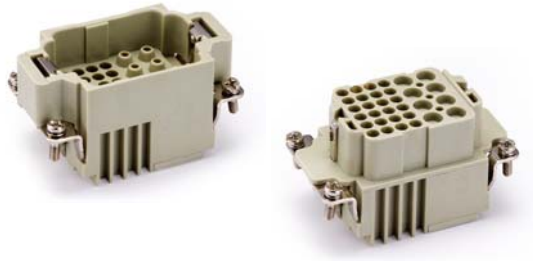


HK SERIES

Combination connector



HK-008/24 Combination inserts



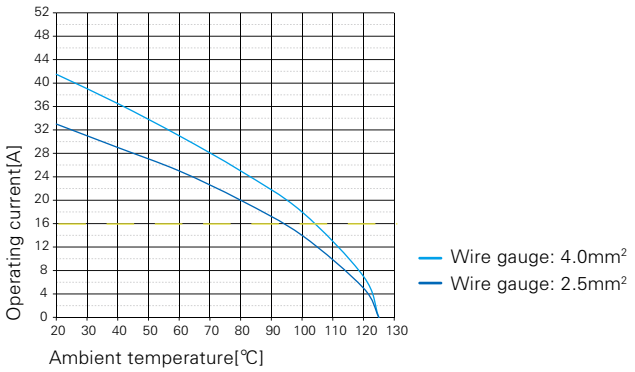
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	8/24+PE
Electrical data acc. to EN 61 984	
Power area	
–Rated current	16A
–Rated voltage conductor	400V
–Rated impulse voltage	6kV
–Pollution degree	3
Signal area	
–Rated current	10A
–Rated voltage	250V
–Rated impulse voltage	4kV
–Pollution degree	3
Rated voltage acc. to UL	600/300V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life (mating cycles)	⩾500
Contacts	
Power contacts	
–Material	copper alloy
–Surface	hard–silver plated
	hard–gold plated
–Contact resistance	⩽1mΩ
–Crimp terminal	
–mm^2	0.5–4mm^2
–AWG	20–12
Signal contacts	
–Material	copper alloy
–Surface	hard–silver plated
	hard–gold plated
–Contact resistance	⩽3mΩ
–Crimp terminal	
–mm^2	0.14–2.5mm^2
–AWG	25–14

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HK-008/24 Combination inserts

400/250V 16/10A 8/24+⏚

Inserts

Hoods/Housings: size 10B, please find the details on page 15-39~15-69.

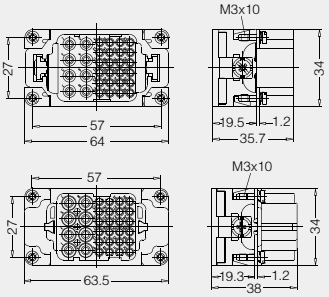
Crimp terminal

Order crimp contacts separately

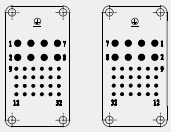


Insert	Designation	Order No.
Male	HK–008/24–MC	128 032 010 0001
Female	HK–008/24–FC	128 032 020 0001

1)Distance for contact max. 21 mm



Contact arrangement view from termination side



M F

Crimp contacts

Crimp contacts 10A

silver plated

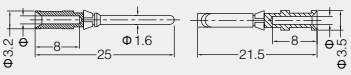


gold plated



More crimp contacts 10A see P13–02,P13–02.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Crimp contacts 16A

silver plated

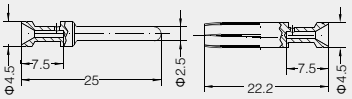


gold plated



More crimp contacts 16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



M F

Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



For the crimping contacts and removing contacts instructions, please find the page 06–23~06–24.

Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

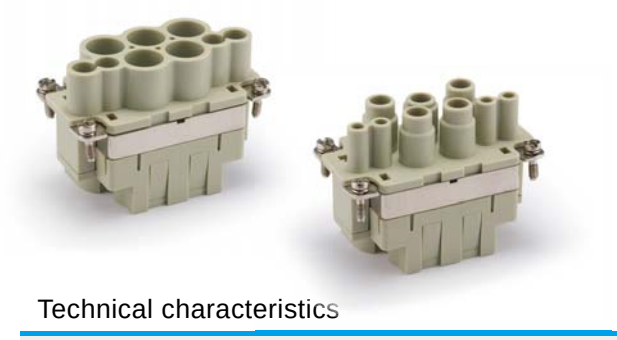
Wire gauge:16A crimp contacts 0.14–0.37mm² please select TL02 crimping tool.

Application	Designation	Order No.
for 10A crimp contacts	TL00	198 001 000 0001

16A contact removal tool:cross–slotted screw driver(size 0 acc. to DIN 5260).

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HK–004/4 Combination crimp inserts



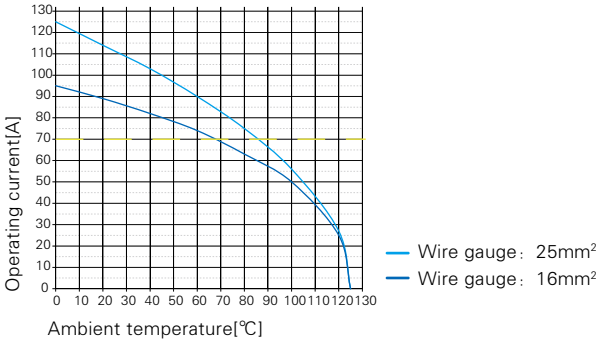
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	4/4+PE
Electrical data acc. to EN 61 984	
Power area	
–Rated current	70A
–Rated voltage	690V
–Rated impulse voltage	8kV
–Pollution degree	3
Signal area	
–Rated current	16A
–Rated voltage	250V
–Rated impulse voltage	4kV
–Pollution degree	3
Rated voltage acc. to UL	600/230V
Insulation resistance	$\geqslant 10^{10}\,\Omega$
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life (mating cycles)	⩾500
Contacts	
Power contacts	
–Material	copper alloy
–Surface	hard–silver plated
–Contact resistance	⩽0.5mΩ
–Crimp terminal	
– wire gauge	10–25mm²
–Max. insulation diameter	11mm
Stripping length	15.5mm
Signal contacts	
–Material	copper alloy
–Surface	hard–silver plated
–Contact resistance	⩽1mΩ
–Crimp terminal	
–mm²	0.14–4mm²
–AWG	26–12

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HK–004/4 Combination crimp inserts

690/250V 70/16A 4/4+⏚

CE EAC

Inserts

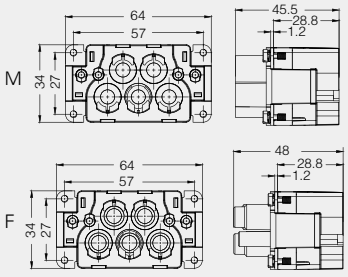
Hoods/Housings: size 10B, please find the details on page 15-39~15-69.

Crimp terminal Order crimp contacts separately

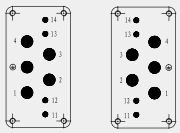


Insert	Designation	Order No.
Male	HK–004/4–MC	128 008 010 0001
Female	HK–004/4–FC	128 008 020 0001

1)Distance for contact max. 21 mm



Contact arrangement view from termination side



Crimp contacts

Crimp contacts 70A

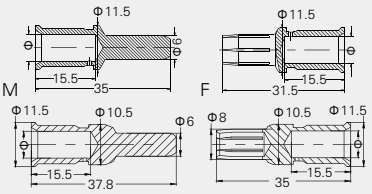
silver plated
Contact resistance≤0.5mΩ



PE Contact



Male	Order No.	Female	Order No.
CKSM70–6	101 034 110 1301	CKSF70–6	101 034 120 1301
CKSM70–10	101 034 110 1401	CKSF70–10	101 034 120 1401
CKSM70–16	101 034 110 1501	CKSF70–16	101 034 120 1501
CKSM70–25	101 034 110 1601	CKSF70–25	101 034 120 1601
CKSM70PE–10	101 034 110 1404	CKSF70PE–10	101 034 120 1404
CKSM70PE–16	101 034 110 1504	CKSF70PE–16	101 034 120 1504
CKSM70PE–25	101 034 110 1604	CKSF70PE–25	101 034 120 1604



Wire gauge	Φ	Stripping length
10 mm²	4.3	19 mm
16mm²	5.5	19 mm
25 mm²	7	19 mm
35 mm²	8.2	16 mm
for stranded wires acc. to IEC 60 228 class 5		

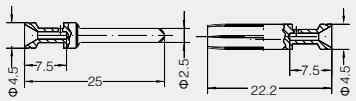
Crimp contacts 16A

silver plated
Contact resistance≤1mΩ



Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201

More crimp contacts 16A see P13–04.



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Manual hydraulic clamp



Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
10–240mm²	TL05	198 001 001 0005
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge:16A crimp contacts 0.14–0.37mm² please select TL02 crimping tool.

Application	Designation	Order No.
for crimp contacts 70A	TL12	198 001 000 0024
for crimp contacts 16A	TL01	198 001 000 0002

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HK-004/4 Combination inserts



Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	4/4+PE
Electrical data acc. to EN 61 984	
Power area	
–Rated current	63A
–Rated voltage	690V
–Rated impulse voltage	8kV
–Pollution degree	3
Signal area	
–Rated current	16A
–Rated voltage	250V
–Rated impulse voltage	4kV
–Pollution degree	3
Rated voltage acc. to UL	600/230V
Insulation resistance	$\geqslant 10^{10}\,\Omega$
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Power contacts	
–Material	copper alloy
–Surface	hard–silver plated
–Contact resistance	$\leqslant 0.5\text{m}\,\Omega$
–Screw terminal	
– geometric wire gauge	6–22mm²
– AWG	8–4
–Max. insulation diameter	11mm
–Stripping length	11mm
Signal contacts	
–Material	copper alloy
–Surface	hard–silver plated
–Contact resistance	$\leqslant 3\text{m}\,\Omega$
–Spring terminal	
–mm²	0.14–2.5mm²
–AWG	26–14
–Stripping length	7–9mm

HK-004/4 Combination inserts

690/250V 63/16A 4/4+

Inserts

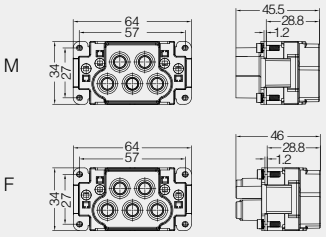
Hoods/Housings: only suitable for size 10B high structure shells, please find the details on page 15-39~15-69.

Screw terminal

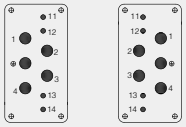


Insert	Designation	Order No.
Male	HK–004/4.1–M(6–16mm²)	128 008 011 0002
	HK–004/4.2–M(14–22mm²)	128 008 011 0003
Female	HK–004/4.1–F(6–16mm²)	128 008 021 0002
	HK–004/4.2–F(14–22mm²)	128 008 021 0003

1)Distance for contact max. 21 mm



Contact arrangement view from termination side



Accessories

Tool

hexagonal driver



Description	Designation	Order No.
for axial setscrew with grip	SW–2.5*100	198 001 003 0003

HK-004/0,004/2 Combination inserts



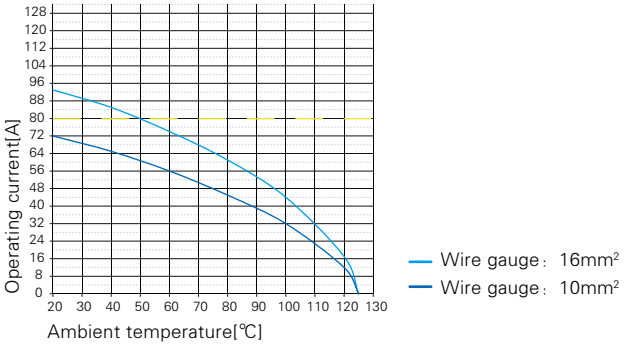
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	4/0+PE,4/2+PE
Electrical data acc. to EN 61 984	
Power area	
–Rated current	80A
–Rated voltage	830V
–Rated impulse voltage	8kV
–Pollution degree	3
–Pollution degree 2 also	80A 1000V 8kV 2
Signal area	
–Rated current	16A
–Rated voltage	400V
–Rated impulse voltage	6kV
–Pollution degree	3
–Pollution degree 2 also	16A 400/690V 6kV 2
Rated voltage acc. to UL	600/300V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Power contacts	
–Material	copper alloy
–Surface	hard–silver plated
–Contact resistance	⩽0.3mΩ
–Screw terminal	
– geometric wire gauge	1.5–16mm²
– AWG	16–6
–Tightening tourque	
–mm²	1.5 2.5 4 6 10 16
–N.m	1.2 2 3 3 3 3
–Stripping length	14mm
Signal contacts	
–Material	copper alloy
–Surface	hard–silver plated
–Contact resistance	⩽1mΩ
–Screw terminal	
–mm²	0.5–2.5mm²
–AWG	20–14
–Tightening tourque	0.5Nm
–Stripping length	7.5mm

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HK-004/0,004/2 Combination inserts

830/400V 80/16A 4/0,4/2+⏚

Inserts

Hoods/Housings: size16B, please find the details on page 15-70~15-107.

Screw terminal



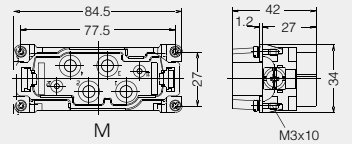
Insert	Designation	Order No.
Male	HK–004/0–M	128 004 011 0001
Female	HK–004/0–F	128 004 021 0001

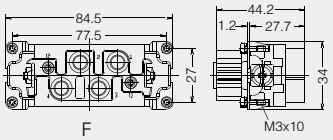
Screw terminal



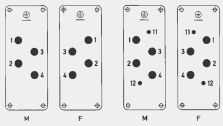
Insert	Designation	Order No.
Male	HK–004/2–M	128 006 011 0001
Female	HK–004/2–F	128 006 021 0001

1)Distance for contact max. 21 mm





Contact arrangement view from termination side



HK-004/8 Combination inserts



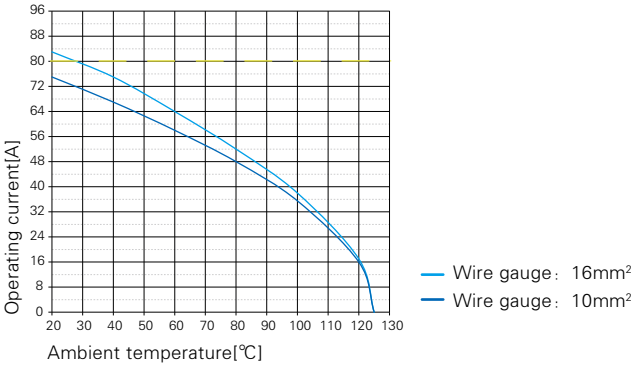
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	4/8+PE
Electrical data acc. to EN 61 984	
Power area	
–Rated current	80A
–Rated voltage	400V
–Rated impulse voltage	6kV
–Pollution degree	3
Signal area	
–Rated current	16A
–Rated voltage	400V
–Rated impulse voltage	6kV
–Pollution degree	3
Rated voltage acc. to UL	600/600V
Insulation resistance	$\geqslant 10^{10}\Omega$
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Power contacts	
–Material	copper alloy
–Surface	hard–silver plated
–Contact resistance	⩽0.3mΩ
–Screw terminal	
– geometric wire gauge	1.5–16mm²
– AWG	16–6
–Tightening tourque	
–mm²	1.5 2.5 4 6 10 16
–N.m	1.2 2 3 3 3 3
–Stripping length	14mm
Signal contacts	
–Material	copper alloy
–Surface	hard–silver plated
–Contact resistance	⩽1mΩ
–Screw terminal	
–mm²	0.5–2.5mm²
–AWG	20–14
–Tightening tourque	0.5Nm
–Stripping length	7.5mm

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HK-004/8 Combination inserts

400/400V 80/16A 4/8+⏚

Inserts

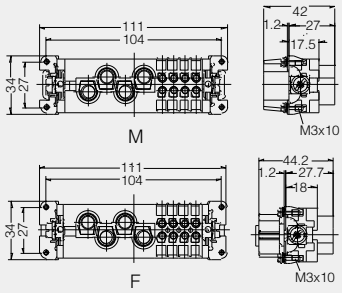
Hoods/Housings: size24B, please find the details on page 15-108~15-150.

Screw terminal

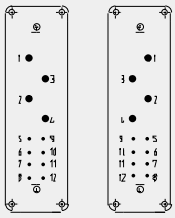


Insert	Designation	Order No.
Male	HK–004/8–M	128 012 011 0001
Female	HK–004/8–F	128 012 021 0001

1)Distance for contact max. 21 mm



Contact arrangement view from termination side



HWK-006/6 Combination inserts



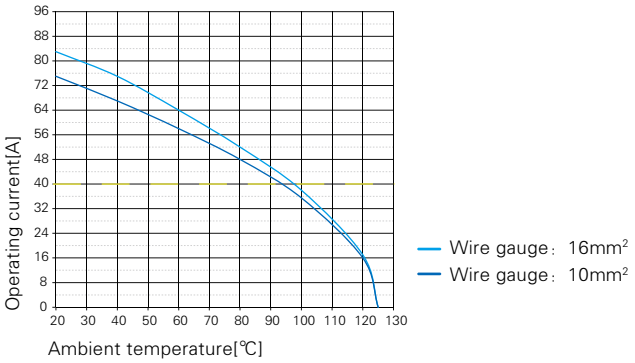
Technical characteristics

Technical characteristics	DIN EN 60 664 DIN EN 61 984
Approvals	CE EAC
Inserts	
Number of contacts	6/6+PE
Electrical data acc. to EN 61 984	
Power area	
–Rated current	40A
–Rated voltage	690V
–Rated impulse voltage	8kV
–Pollution degree	3
Signal area	
–Rated current	16A
–Rated voltage	400V
–Rated impulse voltage	6kV
–Pollution degree	3
Rated voltage acc. to UL	600/600V
Insulation resistanc	$\geqslant 10^{10}\Omega$
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–silver plated
Terminal	screw terminal
Contact resistance	
–power area	$\leqslant 1m\Omega$
–signal area	$\leqslant 1m\Omega$
Wire gauge	
–power area	
–mm^2	4–10mm^2
–AWG	12–8
–signal area	
–mm^2	1–2.5mm^2
–AWG	18–4
Tightening tourque	
–power area	mm^2 1.5 2.5 4 6 10
	N.m 1.2 2 3 3 3
–signal area	0.5N.m

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



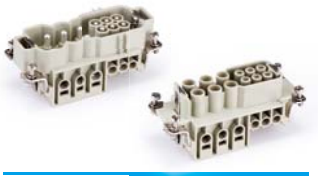
HWK-006/6 Combination inserts

690/400V 40/16A 6/6+⏚

Inserts

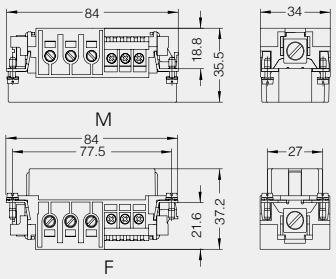
Hoods/Housings: size16B, please find the details on page 15-70~15-107.

Screw terminal

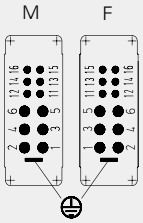


Insert	Designation	Order No.
Male	HWK–006/6–M	128 012 011 0201
Female	HWK–006/6–F	128 012 021 0201

1)Distance for contact max. 21 mm



Contact arrangement view from termination side



HK-006/12 Combination inserts



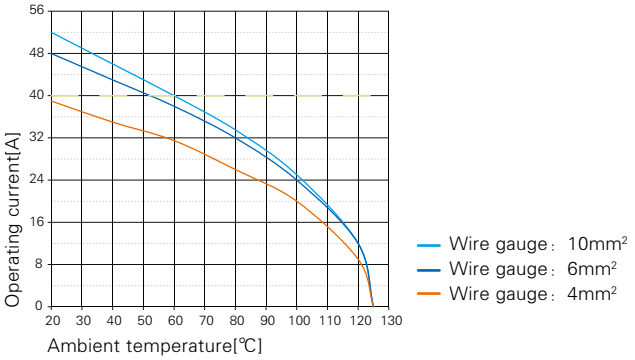
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	6/12+PE
Electrical data acc. to EN 61 984	
Power area	
Rated current	40A
Rated voltage	690V
Rated impulse voltage	6kV
Pollution degree	3
Signal area	
Rated current	10A
Rated voltage conductor	230/400V
Rated impulse voltage	4kV
Pollution degree	3
Rated voltage acc. to UL	600/300V
Insulation resistance	$\geqslant 10^{10}\,\Omega$
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Power contacts	
–Material	copper alloy
–Surface	hard–silver plated
–Contact resistance	$\leqslant 1\,m\Omega$
–Axial screw termination	
– geometric wire gauge	2.5–10mm²
– AWG	14–8
–Max. insulation diameter	6.1mm
–Tightening tourque	
–mm²	2.5 4 6 10
–Nm	1.5 1.5 2 2
–Stripping length	
–mm²	2.5 4 6 10
–mm	5^{+1} 5^{+1} 8^{+1} 8^{+1}
Signal contacts	
–Material	copper alloy
–Surface	hard–silver plated
–Contact resistance	$\leqslant 3\,m\Omega$
–Screw terminal	
– geometric wire gauge	0.2–2.5mm²
– AWG	24–14
–Tightening tourque	0.8Nm
–Stripping length	7.5mm

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HK-006/12 Combination inserts

690/400V 40/10A 6/12+⏚

Inserts

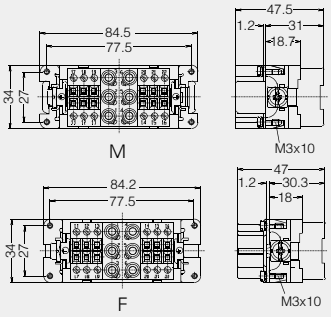
Hoods/Housings: size16B, please find the details on page 15-70~15-107.

Axial screw terminal[1]/Screw terminal

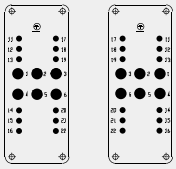


Insert	Wire gauge	Designation	Order No.
Male	2.5–8mm²	HK–006.1/12–M(2.5–8mm²)	128 018 011 0001
	6–10mm²	HK–006.2/12–M(6–10mm²)	128 018 011 0002
Female	2.5–8mm²	HK–006.1/12–F(2.5–8mm²)	128 018 021 0001
	6–10mm²	HK–006.2/12–F(6–10mm²)	128 018 021 0002

1)Distance for contact max. 21 mm



Contact arrangement view from termination side



Accessories

Tool

hexagonal driver



Description	Designation	Order No.
for axial setscrew with grip	SW–2*100	198 001 003 0002

1) See P00–33~00–34 for the structural characteristics and description of Axial screw terminal.

HK-006/36 Combination inserts



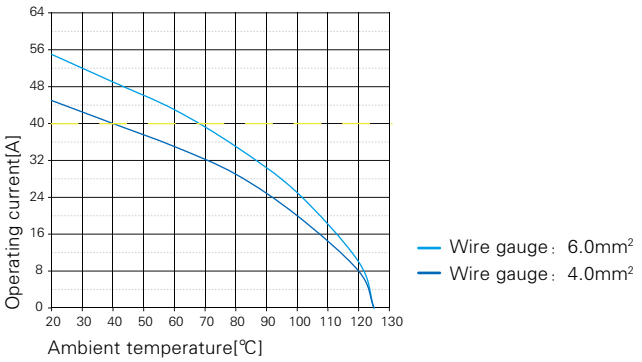
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	6/36+PE
Electrical data acc. to EN 61 984	
Power area	
–Rated current	40A
–Rated voltage	690V
–Rated impulse voltage	8kV
–Pollution degree	3
Signal area	
–Rated current	10A
–Rated voltage	160V
–Rated impulse voltage	2.5kV
–Pollution degree	3
–Pollution degree 2 also	10A 250V 4kV 2
Rated voltage acc. to UL	600/300V
Insulation resistance	≥10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	≥500
Contacts	
Power contacts	
–Material	copper alloy
–Surface	hard–silver plated
	hard–gold plated
–Contact resistance	≤1mΩ
–Crimp terminal	
– mm^2	1.5–6mm^2
– AWG	16–10
–Max. insulation diameter	5mm
Signal contacts	
–Material	copper alloy
–Surface	hard–silver plated
	hard–gold platedi
–Contact resistance	≤3mΩ
–Crimp terminal	
– mm^2	0.14–2.5mm^2
– AWG	26–14

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HK-006/36 Combination inserts

690/160V 40/10A 6/36+⏚

Inserts

Hoods/Housings: size16B, please find the details on page 15-70~15-107.

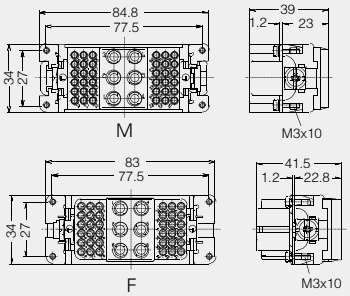
Crimp terminal

Order crimp contacts separately

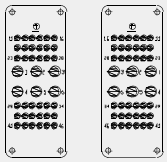


Insert	Designation	Order No.
Male	HK–006/36–MC	128 042 010 0001
Female	HK–006/36–FC	128 042 020 0001

1)Distance for contact max. 21 mm



Contact arrangement view from termination side



Crimp contacts

Crimp contacts 10A

silver plated



gold plated



More crimp contacts 10A
see P13–02,P13–03..

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Crimp contacts 40A

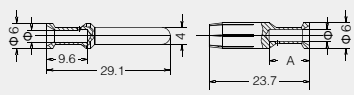
silver plated



gold plated



Male	Designation	Female	Order No.
CCSM–1.5	101 023 110 0901	CCSF–1.5	101 023 120 0901
CCSM–2.5	101 023 110 1001	CCSF–2.5	101 023 120 1001
CCSM–4.0	101 023 110 1201	CCSF–4.0	101 023 120 1201
CCSM–6.0	101 023 110 1301	CCSF–6.0	101 023 120 1301
CCGM–1.5	101 023 210 0901	CCGF–1.5	101 023 220 0901
CCGM–2.5	101 023 210 1001	CCGF–2.5	101 023 220 1001
CCGM–4.0	101 023 210 1201	CCGF–4.0	101 023 220 1201
CCGM–6.0	101 023 210 1301	CCGF–6.0	101 023 220 1301



M F

Wire gauge		Φ	Stripping length
1.5 mm²	AWG 16	1.75	9.6 mm
2.5mm²	AWG 14	2.25	9.6 mm
4 mm²	AWG 12	2.85	9.6 mm
6 mm²	AWG 10	3.5	9.6 mm

Tools

Crimping tool



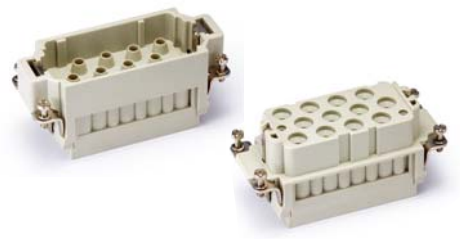
Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011
1.5–6mm²	TL02–0G	198 001 001 0012
Application	**Designation**	**Order No.**
for crimp contacts 10A	TL00	198 001 000 0001
Application	**Designation**	**Order NO.**
for crimp contacts 40A	TL06G	198 001 000 0009

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HK-012/2 Combination inserts



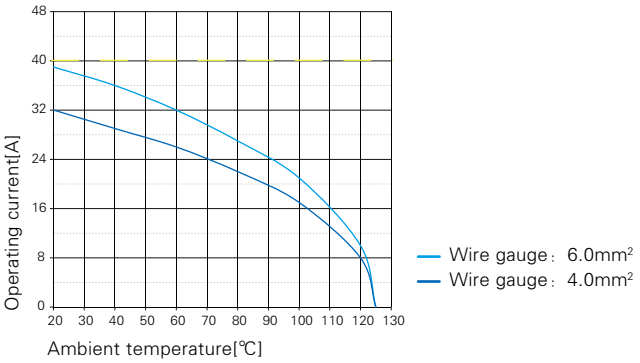
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	12/2+PE
Electrical data acc. to EN 61 984	
Power area	
–Rated current	40A
–Rated voltage	690V
–Rated impulse voltage	8kV
–Pollution degree	3
Signal area	
–Rated current	10A
–Rated voltage	250V
–Rated impulse voltage	4kV
–Pollution degree	3
Rated voltage acc. to UL	600/300V
Insulation resistance	≥10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	≥500
Contacts	
Power contacts	
–Material	copper alloy
–Surface	hard–silver plated
	hard–gold plated
–Contact resistance	≤1mΩ
–Crimp terminal	
– mm^2	1.5–6mm^2
– AWG	16–10
Signal contacts	
–Material	copper alloy
–Surface	hard–silver plated
	hard–gold plated
–Contact resistance	≤3mΩ
–Crimp terminal	
– mm^2	0.14–2.5mm^2
– AWG	26–14

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HK-012/2 Combination inserts

690/250V 40/10A 12/2+⏚

Inserts

Hoods/Housings: size16B, please find the details on page 15-70~15-107.

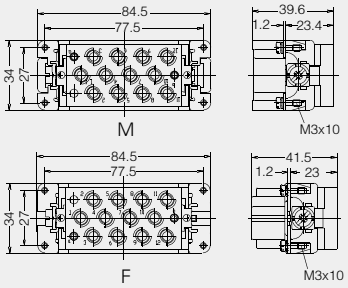
Crimp terminal

Order crimp contacts separately

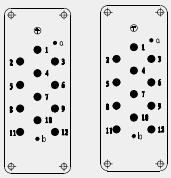


Insert	Designation	Order No.
Male	HK–012/2–MC	128 014 010 0001
Female	HK–012/2–FC	128 014 020 0001

1)Distance for contact max. 21 mm



Contact arrangement view from termination side



Crimp contacts

Crimp contacts 10A

silver plated

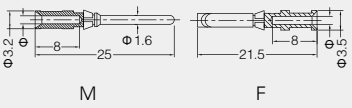


gold plated



More crimp contacts 10A
see P13–02,P13–03..

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Crimp contacts 40A

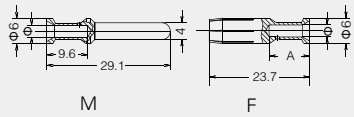
silver plated



gold plated



Male	Designation	Female	Order No.
CCSM–1.5	101 023 110 0901	CCSF–1.5	101 023 120 0901
CCSM–2.5	101 023 110 1001	CCSF–2.5	101 023 120 1001
CCSM–4.0	101 023 110 1201	CCSF–4.0	101 023 120 1201
CCSM–6.0	101 023 110 1301	CCSF–6.0	101 023 120 1301
CCGM–1.5	101 023 210 0901	CCGF–1.5	101 023 220 0901
CCGM–2.5	101 023 210 1001	CCGF–2.5	101 023 220 1001
CCGM–4.0	101 023 210 1201	CCGF–4.0	101 023 220 1201
CCGM–6.0	101 023 210 1301	CCGF–6.0	101 023 220 1301



Wire gauge		Φ	Stripping length
1.5 mm²	AWG 16	1.75	9.6 mm
2.5mm²	AWG 14	2.25	9.6 mm
4 mm²	AWG 12	2.85	9.6 mm
6 mm²	AWG 10	3.5	9.6 mm

Tools

Crimping tool



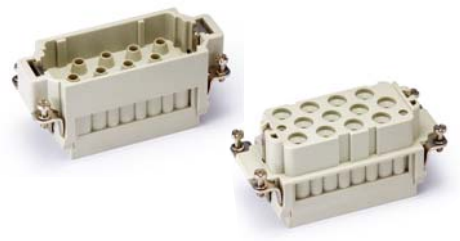
Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011
1.5–6mm²	TL02–0G	198 001 001 0012
Application	**Designation**	**Order No.**
for crimp contacts 10A	TL00	198 001 000 0001
Application	**Designation**	**Order NO.**
for crimp contacts 40A	TL06G	198 001 000 0009

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HKH-012/0 Combination high mating cycle inserts



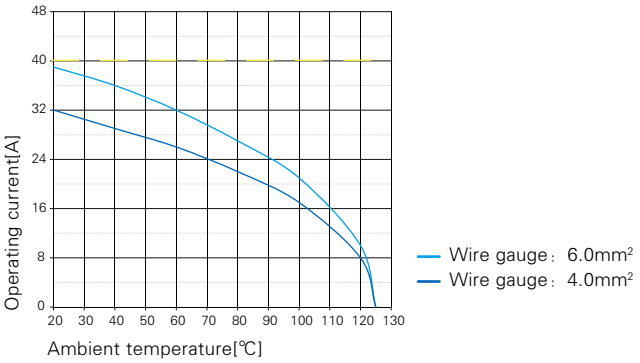
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	12/0+PE
Electrical data acc. to EN 61 984	
Power area	
–Rated current	40A
–Rated voltage	690V
–Rated impulse voltage	8kV
–Pollution degree	3
Rated voltage acc. to UL	600/300V
Insulation resistance	$\geqslant 10^{10}\,\Omega$
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	≥5000
Contacts	
Power contacts	
–Material	copper alloy
–Surface	hard–gold plated
–Contact resistance	≤1mΩ
–Crimp terminal	
– mm^2	1.5–6mm^2
– AWG	16–10

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HKH-012/0 Combination high mating cycle inserts

690/250V 40/10A 12/0+⏚

CE EAC

Inserts

Hoods/Housings: size16B, please find the details on page 15-70~15-107.

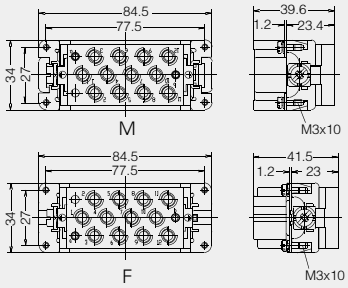
Crimp terminal

Order crimp contacts separately

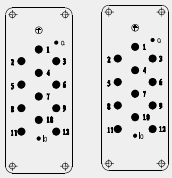


Insert	Designation	Order No.
Male	HKH–012/0–MC	128 012 010 0001
Female	HKH–012/0–FC	128 012 020 0001

1)Distance for contact max. 21 mm



Contact arrangement view from termination side



Crimp contacts

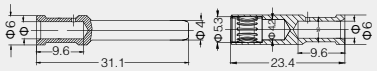
Crimp contacts 40A-high mating cycle

gold plated

Mechanical working life (mating cycles)≥5000



Male	Designation	Female	Order No.
CCGMH–1.5	101 023 210 0909	CCGFH–1.5G	101 023 220 0909
CCGMH–2.5	101 023 210 1009	CCGFH–2.5G	101 023 220 1009
CCGMH–4.0	101 023 210 1209	CCGFH–4.0G	101 023 220 1209
CCGMH–6.0	101 023 210 1309	CCGFH–6.0G	101 023 220 1309
CCGMH–10.0	101 023 210 1409	CCGFH–10.0G	101 023 220 1409



Wire gauge		Φ	Stripping length
1.5 mm²	AWG 16	1.75	9.6 mm
2.5mm²	AWG 14	2.25	9.6 mm
4 mm²	AWG 12	2.85	9.6 mm
6 mm²	AWG 10	3.5	9.6 mm
10 mm²	AWG 8	4.3	12 mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
1.5–6mm²	TL02–0G	198 001 001 0012
4/6/10mm²	TL02–3G	198 001 001 0013

Contact removal tool



Application	Designation	Order NO.
for crimp contacts 40A	TL06G	198 001 000 0009

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HK-006/6 Combination inserts



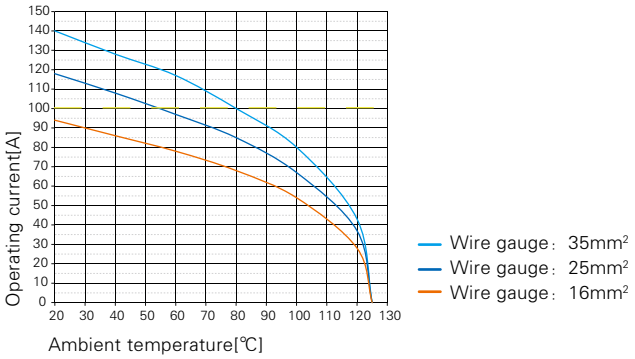
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	6/6+PE
Electrical data acc. to EN 61 984	
Power area	
–Rated current	100A
–Rated voltage	690V
–Rated impulse voltage	8kV
–Pollution degree	3
–Pollution degree 2 also	100A 1000V 8kV 2
Signal area	
–Rated current	16A
–Rated voltage	400V
–Rated impulse voltage	6kV
–Pollution degree	3
Rated voltage acc. to UL	600/300V
Insulation resistance	$\geqslant 10^{10}\,\Omega$
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Power contacts	
–Material	copper alloy
–Surface	hard–silver plated
–Contact resistance	⩽0.5mΩ
–Axial screw termination	
– geometric wire gauge	16–35mm²
– AWG	5–2
–Max. insulation diameter	11.4mm
–Tightening tourque	
–mm²	16 25 35
–Nm	6 7 8
–Stripping length	$13^{\pm 1}$ mm
Signal contacts	
–Material	copper alloy
–Surface	hard–silver plated
–Contact resistance	⩽3mΩ
–Screw terminal	
– geometric wire gauge	0.2–2.5mm²
– AWG	24–13
–Tightening tourque	0.8Nm
–Stripping length	7.5mm

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HK-006/6 Combination inserts

690/400V 100/16A 6/6+⏚

Hoods/Housings: Only suitable for size 24B high structure shells, please find the details on page 15-108~15-135.
Not suitable for high structure shells with side entry and without sleeve.

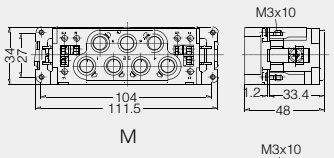
Inserts

Axial screw terminal[1]/Screw terminal

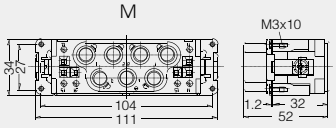


Insert	Designation	Order No.
Male	HK–006/6–M	128 012 011 0101
Female	HK–006/6–F	128 012 021 0101

1)Distance for contact max. 21 mm

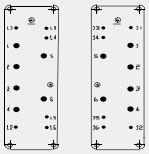


M



F

Contact arrangement view from termination side



M F

Accessories

Tool

hexagonal driver



Description	Designation	Order No.
for axial setscrew with grip	SW–4*150	198 001 003 0001

1) See P00–33~00–34 for the structural characteristics and description of Axial screw terminal.

HK-008/0 Combination inserts



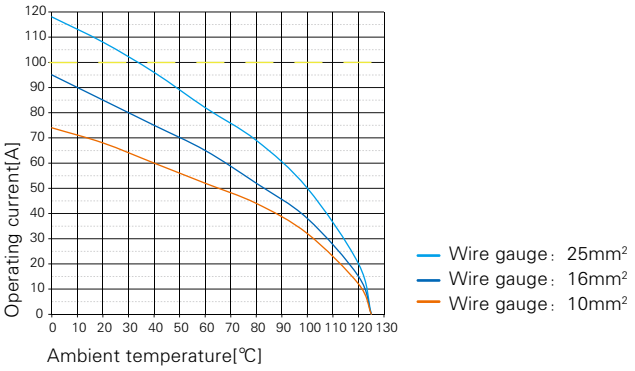
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	8/0+PE
Electrical data acc. to EN 61 984	
Power area	
Rated current	100A
Rated voltage	690V
Rated impulse voltage	8kV
Pollution degree	3
Pollution degree 2 also	100A 1000V 8kV 2
Rated voltage acc. to UL	600V
Rated current acc. to UL	82A
Insulation resistance	$\geqslant 10^{10}\,\Omega$
Material	polycarbonate
Limiting temperatures	−40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard−silver plated
Contact resistance	⩽0.5mΩ
Axial screw termination	
− geometric wire gauge	10−25mm²
− AWG	7−3
Max. insulation diameter	11.4mm
Tightening tourque	
−mm²	10 16 25
−Nm	6 6 7
Stripping length	$13^{\pm 1}$mm

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512−5



HK-008/0 Combination inserts

690V 100A 8/0+⏚

Inserts

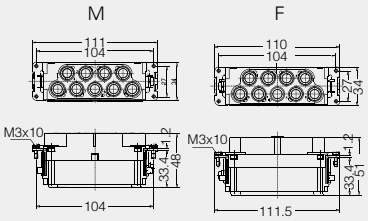
Hoods/Housings: size 24B, please find the details on page 15-108~15-135.
Not suitable for high structure shells with side entry and without sleeve.

Axial screw termination[1)]

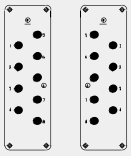


Insert	Designation	Order No.
Male	HK–008/0–M	128 008 011 0001
Female	HK–008/0–F	128 008 021 0001

1)Distance for contact max. 21 mm



Contact arrangement view from termination side



Accessories

Tool

hexagonal driver



Description	Designation	Order No.
for axial setscrew with grip	SW–4*150	198 001 003 0001

1) See P00–33~00–34 for the structural characteristics and description of Axial screw terminal.

HK-032/55 Combination inserts



Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	32/55
Electrical data acc. to EN 61 984	
Signal area	
Rated current	4A
Rated voltage	50V
Rated impulse voltage	0.8kV
Pollution degree	2
Power area	
Rated current	10A
Rated voltage	250V
Rated impulse voltage	4kV
Pollution degree	2
Rated voltage acc. to UL	600V
Insulation resistance	$\geqslant 10^{10}\,\Omega$
Material	polycarbonate
Limiting temperatures	−40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard−silver plated
	hard−gold plated
Contact resistance	⩽3mΩ
Crimp terminal	
−mm^2	0.09−0.52mm^2/0.14−2.5mm^2
−AWG	28−20/26−14
Stripping length	5/8mm

HK-032/55 Combination inserts

250/50V 10/4A 32/55+ ⏚

Inserts

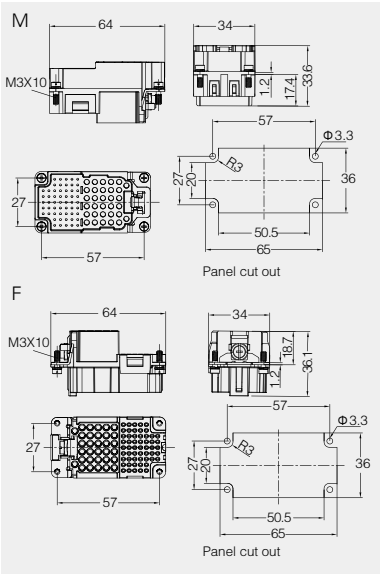
Hoods/Housings: size 10B, please find the details on page 15-39~15-69.

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HK–032/55–MC	128 087 010 0001
Female	HK–032/55–FC	128 087 020 0001



Crimp contacts

Crimp contacts 5A

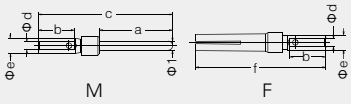
Contact resistance≤3mΩ
silver plated



gold plated



Male	Order No.	Female	Order No.
CSSM–0.25	101 014 110 0101	CSSF–0.25	101 014 120 0101
CSSM–0.33	101 014 110 0201	CSSF–0.33	101 014 120 0201
CSSM–0.52	101 014 110 0501	CSSF–0.52	101 014 120 0501
CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501



a	b	c	d	e	f
8.10	4.0	14.8	0.64	1.66	14.4
8.10	4.0	14.8	0.90	1.66	14.4
8.10	4.0	14.8	1.12	1.66	14.4

Wire gauge		Stripping length
0.09–0.25 mm²	AWG 28–24	5 mm
0.13–0.33 mm²	AWG 26–22	5 mm
0.33–0.52 mm²	AWG 22–20	5 mm

Crimp contacts 10A

contact resistance≤3mΩ
silver plated

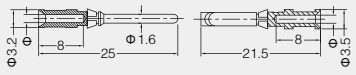


gold plated



More crimp contacts10A
see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.09–0.82mm²	TL03	198 001 001 0002

Contact removal tool



Application	Designation	Order No.
for 5A crimp contact	TL08	198 001 000 0006

Tools

More tools detail please find the page32–03~32–06.

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Contact removal tool



Application	Designation	Order No.
for 10A crimp contact	TL00	198 001 000 0001

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HK-009/12/25 Combination inserts



Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	9/12/25
Electrical data acc. to EN 61 984	
Signal area	
Rated current	5A
Rated voltage	50V
Rated impulse voltage	0.8kV
Pollution degree	3
Power area	
Rated current	10A/40A
Rated voltage	250V/630V
Rated impulse voltage	4kV/8kV
Pollution degree	3
Insulation resistance	$\geqslant 10^{10}\Omega$
Material	polycarbonate
Limiting temperatures	−40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard−silver plated
	hard−gold plated
Contact resistance	⩽3mΩ/1mΩ
Crimp terminal	
−mm^2	0.09−0.52mm^2/0.14−2.5mm^2/
	1.5−6mm^2
−AWG	28−20/26−14/16−10
Stripping length	5/8/9(9.6)mm

HK-009/12/25 Combination inserts

630/250/50V 40/10/5A 009/12/25+ ⏚

Inserts

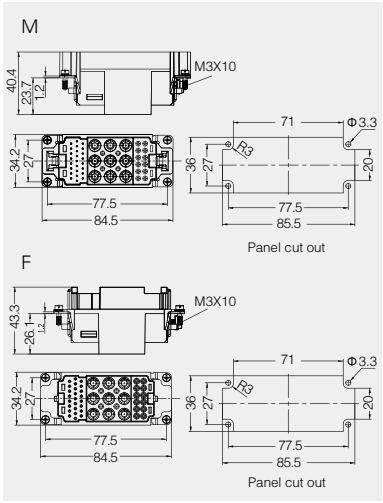
Hoods/Housings: size16B, please find the details on page 15-70~15-107.

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HK–009/12/25–MC	128 009 010 0002
Female	HK–009/12/25–FC	128 009 020 0002



Crimp contacts

Crimp contacts 5A

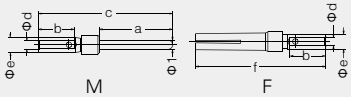
Contact resistance≤3mΩ
silver plated



gold plated



Male	Order No.	Female	Order No.
CSSM–0.25	101 014 110 0101	CSSF–0.25	101 014 120 0101
CSSM–0.33	101 014 110 0201	CSSF–0.33	101 014 120 0201
CSSM–0.52	101 014 110 0501	CSSF–0.52	101 014 120 0501
CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501



a	b	c	d	e	f
8.10	4.0	14.8	0.64	1.66	14.4
8.10	4.0	14.8	0.90	1.66	14.4
8.10	4.0	14.8	1.12	1.66	14.4

Wire gauge		Stripping length
0.09–0.25 mm²	AWG 28–24	5 mm
0.13–0.33 mm²	AWG 26–22	5 mm
0.33–0.52 mm²	AWG 22–20	5 mm

Crimp contacts 10A

contact resistance≤3mΩ
silver plated

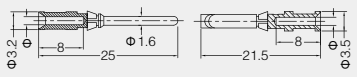


gold plated



More crimp contacts10A
see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Crimp contacts 40A

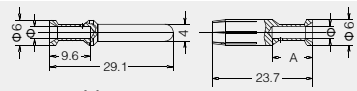
silver plated



gold plated



Male	Designation	Female	Order No.
CCSM–1.5	101 023 110 0901	CCSF–1.5	101 023 120 0901
CCSM–2.5	101 023 110 1001	CCSF–2.5	101 023 120 1001
CCSM–4.0	101 023 110 1201	CCSF–4.0	101 023 120 1201
CCSM–6.0	101 023 110 1301	CCSF–6.0	101 023 120 1301
CCGM–1.5	101 023 210 0901	CCGF–1.5	101 023 220 0901
CCGM–2.5	101 023 210 1001	CCGF–2.5	101 023 220 1001
CCGM–4.0	101 023 210 1201	CCGF–4.0	101 023 220 1201
CCGM–6.0	101 023 210 1301	CCGF–6.0	101 023 220 1301



Wire gauge		Φ	Stripping length
1.5 mm²	AWG 16	1.75	9.6 mm
2.5mm²	AWG 14	2.25	9.6 mm
4 mm²	AWG 12	2.85	9.6 mm
6 mm²	AWG 10	3.5	9.6 mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.09–0.82mm2	TL03	198 001 001 0002
0.14–4mm2	TL02G	198 001 001 0011
1.5–6mm2	TL02–0G	198 001 001 0012

Tools

Contact removal tool



Application	Designation	Order No.
for 5A crimp contact	TL08	198 001 000 0006
for 10A crimp contact	TL00	198 001 000 0001
for 40A crimp contact	TL06G	198 001 000 0009

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.
More tools detail please find the page32–03~32–06.

HY-004/RJ45 Combination inserts



Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	
Electrical data acc. to EN 61 984	
Power area	
Number of contacts	4+PE
Rated current	16A
Rated voltage	240V
Rated impulse voltage	4kV
Pollution degree	3
Insulation resistance	≥10^{10}Ω
Material	polycarbonate
Color	RAL 7032（Light grey）
Limiting temperatures	−40℃ – +85℃
Signal area	
Number of contacts	8
Rated current	1A
–Rated voltage	50V
–Rated impulse voltage	0.8kV
–Pollution degree	3
Insulation resistance	≥10^{10}Ω
Material	polycarbonate
Limiting temperatures	−40℃...+85℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	≥500
Transmission characteristics:	over 6 type jumper up to 500MHz According to ISO/IEC 24 702; ISO/IEC 11 801
Transmission rate:	10/100/1000Mbit/10Gbit/s
Contacts	
Material	copper alloy
Surface	hard–silver plated
	hard–gold plated
Contact resistance	≤1mΩ
Crimp terminal	
–mm^2	0.37–4mm^2
–AWG	22–12

HY-004/RJ45 Combination inserts

240/50V 16/1A 4+⏚ /RJ45

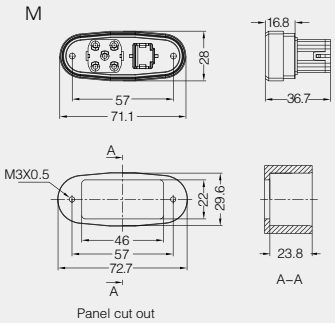
Inserts

Crimp terminal

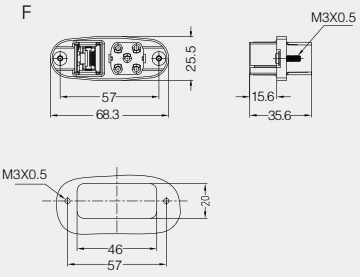
Order crimp contacts separately



Insert	Designation	Order No.
Male	HY–004/RJ45–MC	138 004 010 0001
Female	HY–004/RJ45–FC	138 004 020 0001



Panel cut out



Panel cut out

Crimp contacts

Crimp contacts 16A

Contact resistance≤1mΩ
silver plated

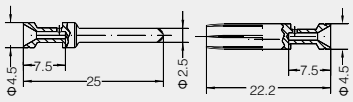


gold plated



More crimp contacts16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



M F

Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HE AV SERIES

Extendible connector





HE AV SERIES Extendible inserts

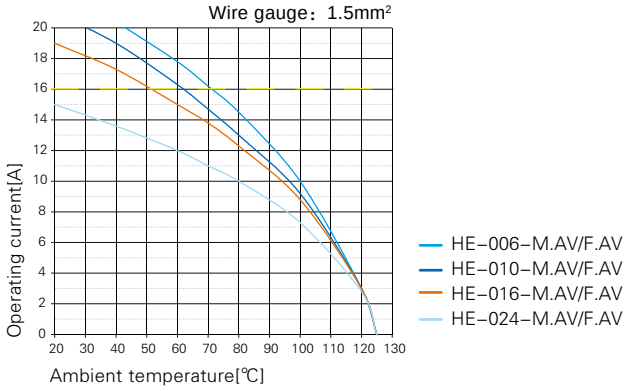
Technical characteristics

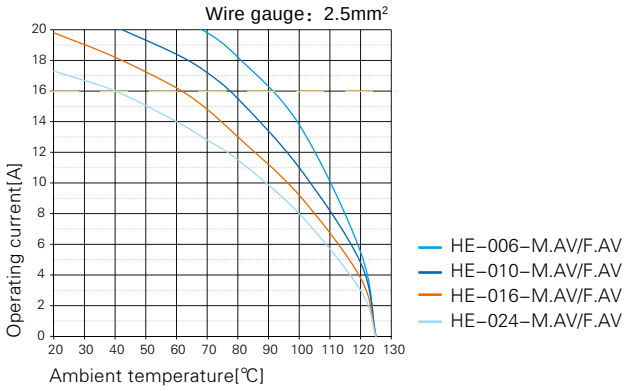
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	6,10,16,24+PE
Electrical data acc. to EN 61 984	
–Rated current	16A
–Rated voltage	500V
–Rated impulse voltage	6kV
–Pollution degree	3
–Pollution degree 2 also	16A 400/690V 6kV 2
Rated voltage acc. to UL	600V
Insulation resistance	$\geqslant 10^{10}\Omega$
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	
– mating side	hard–silver plated
– termination side	tin plated
Contact resistance	⩽4mΩ
Screw terminal	
– Wire gauge	0.2–2.5mm²
– AWG	24–14
– Tightening/test torque	0.5Nm
Cage clamp terminal	
– Wire gauge	0.14–2.5mm²
– AWG	26–14

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5





HE AV Extendible inserts

500V 16A 6+⏚

Hoods/Housings：size 6B bulkhead mounted housings.
For the HEAV extendible inserts assembly instructions pls see the 09-13 page

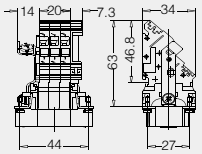
Inserts

Male, Screw terminal

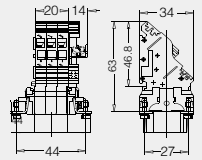


Size	Description	Designation	Order No.
6B	left hand version	HE–006–M.AV.L	122 006 011 0101
6B	right hand version	HE–006–M.AV.R	122 006 011 0102

Left hand version



Right hand version

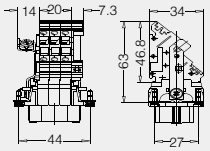


Female, Screw terminal

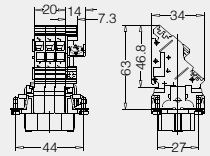


Size	Description	Designation	Order No.
6B	left hand version	HE–006–F.AV.L	122 006 021 0101
6B	right hand version	HE–006–F.AV.R	122 006 021 0102

Left hand version



Right hand version



HE AV Extendible inserts

500V 16A 10+⏚

Inserts

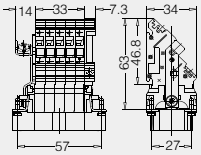
Hoods/Housings：size 10B bulkhead mounted housings.
For the HEAV extendible inserts assembly instructions pls see the 09-13 page

Male, Screw terminal

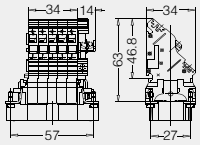


Size	Description	Designation	Order No.
10B	left hand version	HE–010–M.AV.L	122 010 011 0101
10B	right hand version	HE–010–M.AV.R	122 010 011 0102

Left hand version



Right hand version

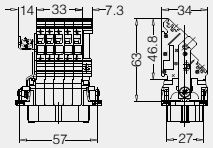


Female, Screw terminal

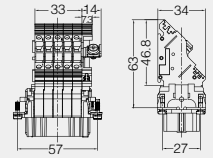


Size	Description	Designation	Order No.
10B	left hand version	HE–010–F.AV.L	122 010 021 0101
10B	right hand version	HE–010–F.AV.R	122 010 021 0102

Left hand version



Right hand version



HE AV Extendible inserts

500V 16A 16+⏚

Inserts

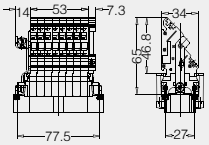
Hoods/Housings：size 16B bulkhead mounted housings.
For the HEAV extendible inserts assembly instructions pls see the 09-13 page

Male, Screw terminal

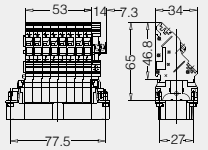


Size	Description	Designation	Order No.
16B	left hand version	HE–016–M.AV.L	122 016 011 0101
16B	right hand version	HE–016–M.AV.R	122 016 011 0102

Left hand version



Right hand version

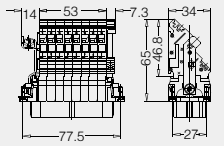


Female, Screw terminal

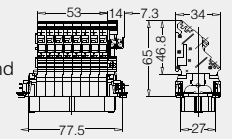


Size	Description	Designation	Order No.
16B	left hand version	HE–016–F.AV.L	122 016 021 0101
16B	right hand version	HE–016–F.AV.R	122 016 021 0102

Left hand version



Right hand version



HE AV Extendible inserts

500V 16A 24+

Inserts

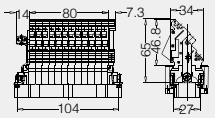
Hoods/Housings：size 24B bulkhead mounted housings.
For the HEAV extendible inserts assembly instructions pls see the 09-13 page

Male, Screw terminal

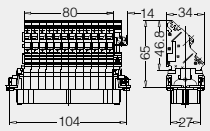


Size	Description	Designation	Order No.
24B	left hand version	HE–024–M.AV.L	122 024 011 0101
24B	right hand version	HE–024–M.AV.R	122 024 011 0102

Left hand version



Right hand version

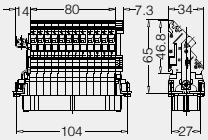


Female, Screw terminal

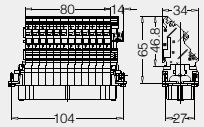


Size	Description	Designation	Order No.
24B	left hand version	HE–024–F.AV.L	122 024 021 0101
24B	right hand version	HE–024–F.AV.R	122 024 021 0102

Left hand version



Right hand version

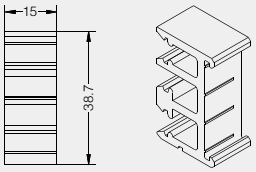


Using the fixing element can secure the HE AV insert inside the switch cabinet on standard rails.

Fixing element



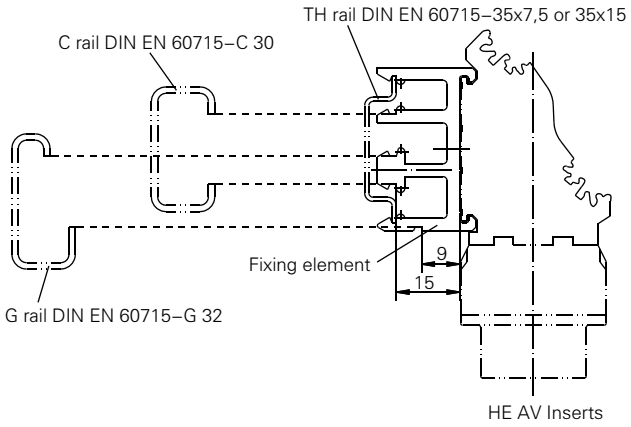
Description	Designation	Order No.
for terminal block connector	FE–EAV	198 002 003 0022



Examples for Installstion

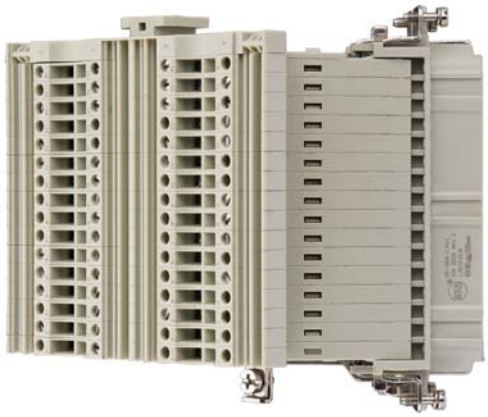
Introductions

HE–006 =1pcs
HE–010,HE–016,HE–024 =2pcs



HD AV SERIES

Extendible connector





HD AV SERIES

Technical characteristics

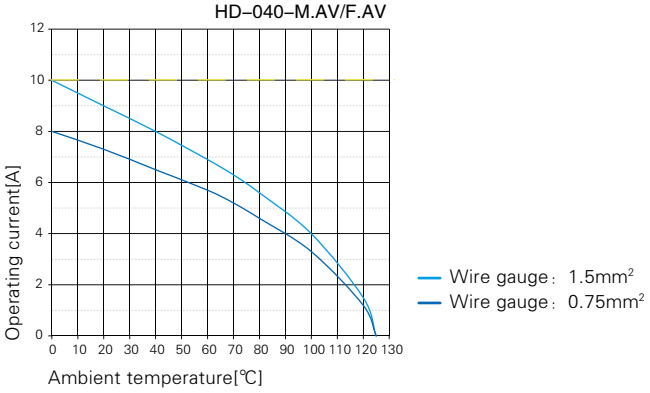
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	EAC
Inserts	
Number of contacts	40,64+PE
Electrical data acc. to EN 61 984	
–Rated current	10A
–Rated voltage	250V
–Rated impulse voltage	4kV
–Pollution degree	3
–Pollution degree 2 also	10A 230/400V 4kV 2
Rated voltage acc. to UL	600V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	
– mating side	hard–silver plated
– termination side	tin plated
Contact resistance	⩽10mΩ
Screw terminal	
– Wire gauge	0.2–2.5mm²
– AWG	24–14
– Tightening/test torque	0.5Nm

Current carrying capacity

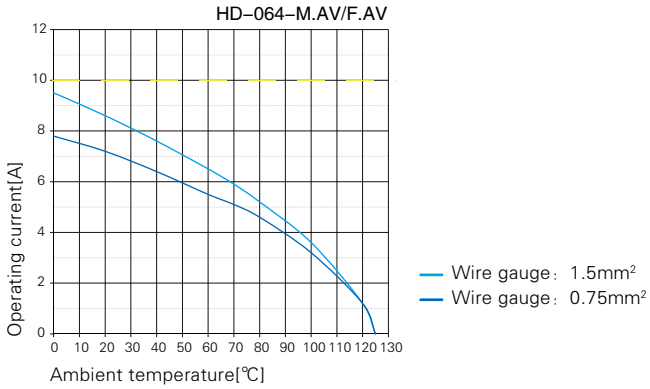
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5

HD–040–M.AV/F.AV



HD–064–M.AV/F.AV



HD AV Extendible inserts

250V 10A 40+⏚

EAC

Inserts

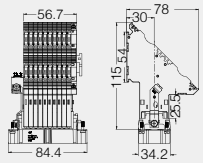
Hoods/Housings：size 16B bulkhead mounted housings.
For the HDAV extendible inserts assembly instructions pls see the 09-13 page

Male, Screw terminal

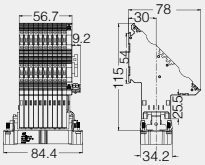


Size	Description	Designation	Order No.
16B	left hand version	HD–040–M.AV.L	125 040 011 0101
16B	right hand version	HD–040–M.AV.R	125 040 011 0102

Left hand version



Right hand version

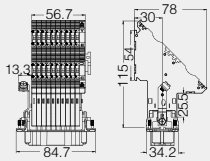


Female, Screw terminal

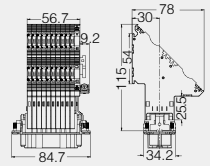


Size	Description	Designation	Order No.
16B	left hand version	HD–040–F.AV.L	125 040 021 0101
16B	right hand version	HD–040–F.AV.R	125 040 021 0102

Left hand version



Right hand version



HD AV Extendible inserts

250V 10A 64+⏚

EAC

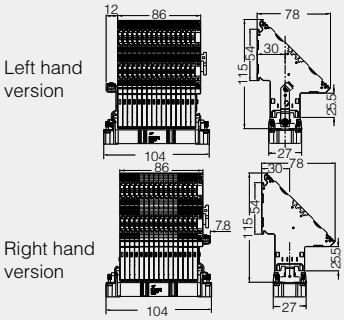
Inserts

Hoods/Housings：size 24B bulkhead mounted housings.
For the HDAV extendible inserts assembly instructions pls see the 09-13 page

Male, Screw terminal



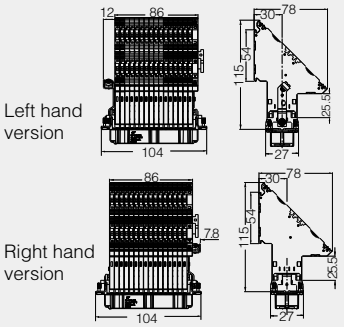
Size	Description	Designation	Order No.
24B	left hand version	HD–064–M.AV.L	125 064 011 0101
24B	right hand version	HD–064–M.AV.R	125 064 011 0102



Female, Screw terminal



Size	Description	Designation	Order No.
24B	left hand version	HD–064–F.AV.L	125 064 021 0101
24B	right hand version	HD–064–F.AV.R	125 064 021 0102

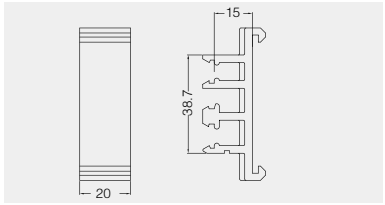


Using the fixing element can secure the HD AV insert inside the switch cabinet on standard rails.

Fixing element



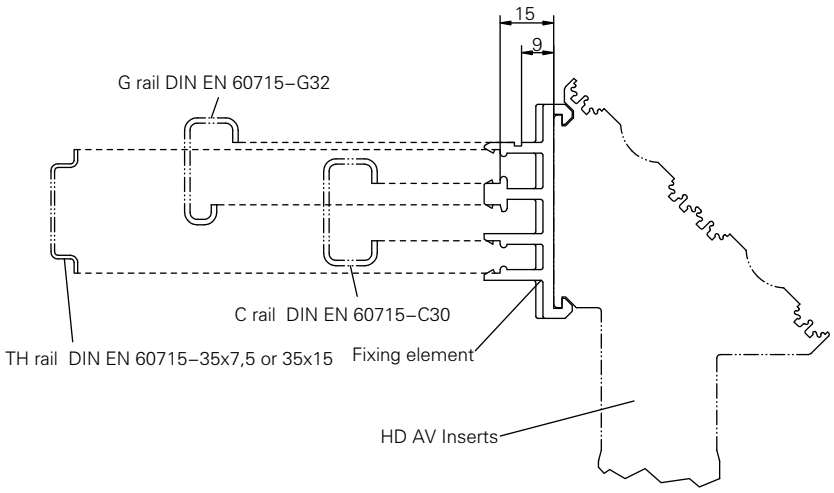
Description	Designation	Order No.
for terminal block connector	FE–DAV	198 002 003 0034



Examples for Installstion

Introductions

HD–040,HD–064 =2pcs

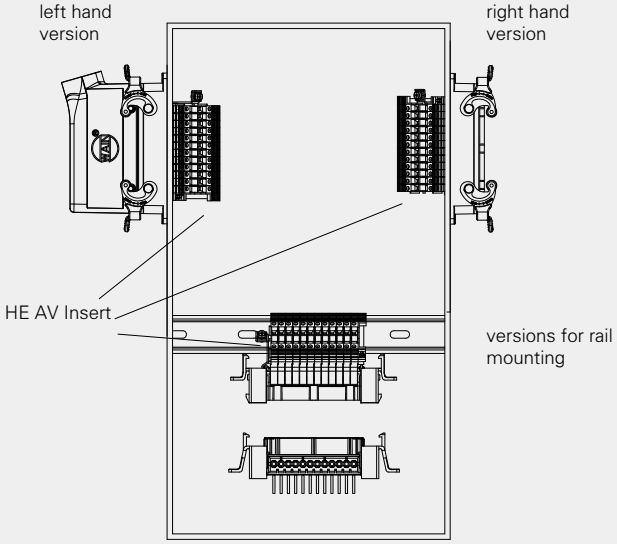


HE AV/HD AV Assembly

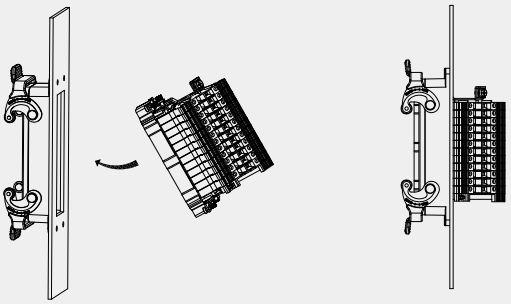
HE AV Assembly

Possibilities in switch cabinet

The connector can be mounted in the switch cabinet on the left or right side, therefore it is allowed to use the same prepared interface cable.



Assembly of terminal block connectors



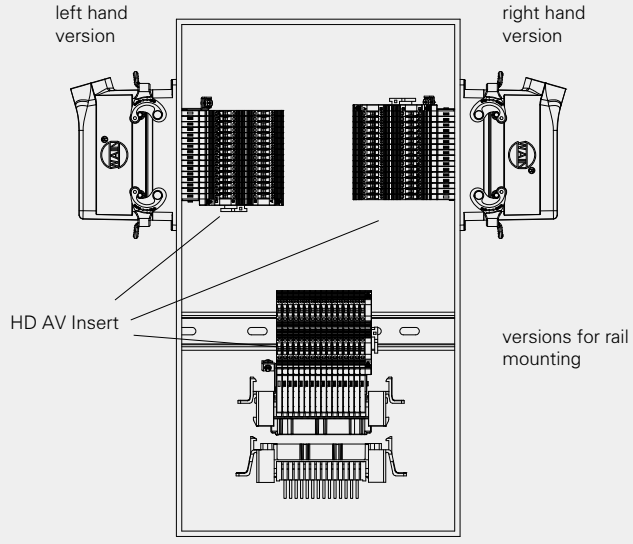
Method I: installed on standard 24B bulkhead housings

Install the insert on the housing from the the inside of the cabinet with a 45° angle, and the gound connection must be installed first. After the insert is completely installed in the housing, lock the insert with four grounding screws.

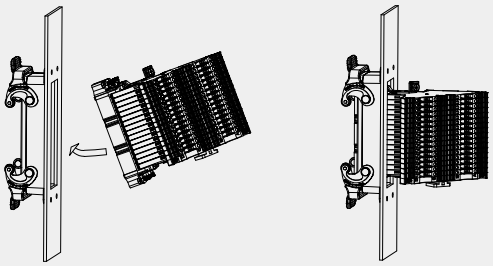
HD AV Assembly

Possibilities in switch cabinet

The connector can be mounted in the switch cabinet on the left or right side, therefore it is allowed to use the same prepared interface cable.



Assembly of terminal block connectors

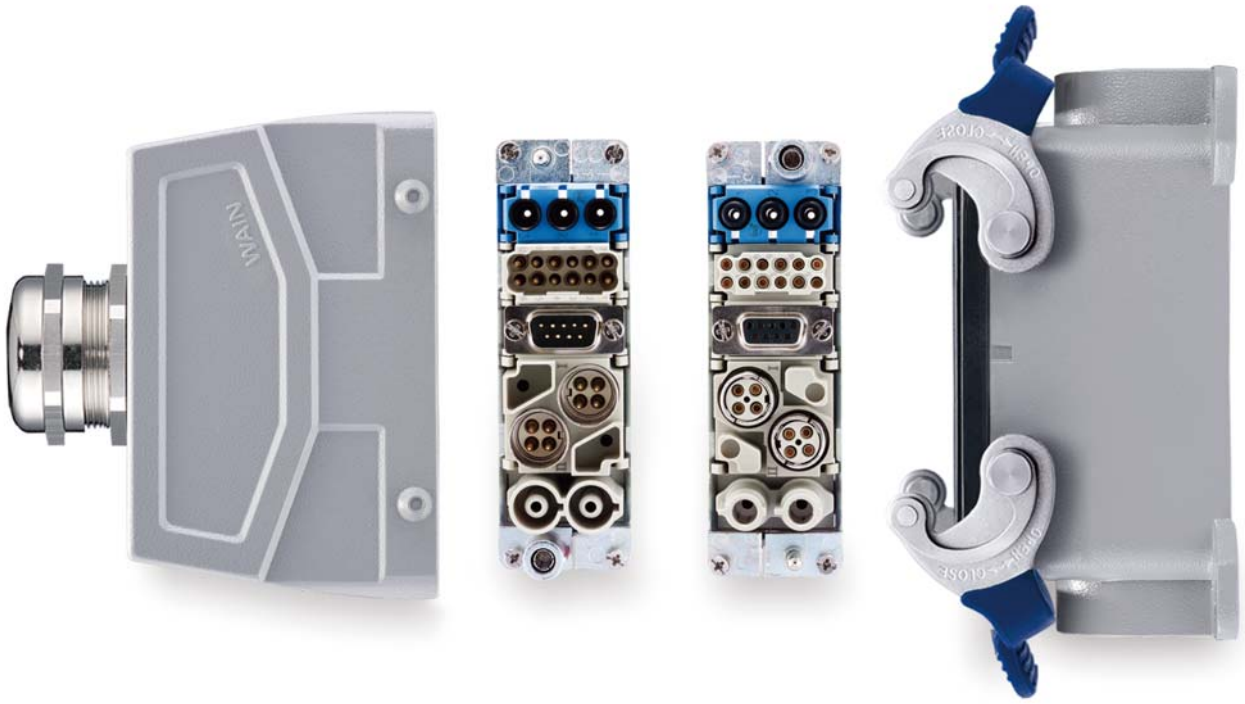


Method I: installed on standard 24B bulkhead housings

Install the insert on the housing from the the inside of the cabinet with a 45° angle, and the gound connection must be installed first. After the insert is completely installed in the housing, lock the insert with four grounding screws.

HM SERIES

Flexible and combined connector



Summary

Insert	200A Axial module	200A Axial grounding module	200A Crimp module	100A Crimp module
Contacts	1	1	1	1
Terminal	Axial screw terminal	Axial screw terminal	Crimp terminal	Crimp terminal
				
Rated current	200A	200A	200A	100A
Rated voltage	1000V	1000V	1000V	830V
Wire gauge	25–70mm²	25–70mm²	25–70mm²	10–35mm²

Insert	100A Axial module	100A Crimp module	70A Axial module	70A Crimp module
Contacts	2	2	2	2
Terminal	Axial screw terminal	Crimp terminal	Axial screw terminal	Crimp terminal
				
Rated current	100A	100A	70A	70A
Rated voltage	1000V	1000V	1000V	1000V
Wire gauge	10–35mm²	10–35mm²	6–22mm²	10–25mm²

Insert	40A Axial module	40A Crimp module	40A Axial module	40A Crimp module
Contacts	2	2	3	3
Terminal	Axial screw terminal	Crimp terminal	Axial screw terminal	Crimp terminal
				
Rated current	40A	40A	40A	40A
Rated voltage	1000V	1000V	690V	500V
Wire gauge	2.5–10mm²	1.5–10mm²	2.5–10mm²	1.5–10mm²

Insert	40A Crimp module	40/10A Crimp module	40A Crimp module	40A High voltage module
Contacts	3	3/4	4	2
Terminal	Crimp terminal	Crimp terminal	Crimp terminal	Crimp terminal
				
Rated current	40A	40A/10A	40A	40A
Rated voltage	690V	830V	830V	2900/5000V
Wire gauge	1.5–6mm²	1.5–6mm²/0.37–2.5mm²	1.5–6mm²	1.5–10mm²

Summary

Insert	16A High voltage module	16A Screw module	16A Cage-clamp module	16A Crimp module
Contacts	2	5	5	6
Terminal	Crimp terminal	Screw terminal	Cage clamp terminal	Crimp terminal
				
Rated current	16A	16A	16A	16A
Rated voltage	2900/5000V	230/400V	400V	500V
Wire gauge	0.37–4mm²	0.14–4mm²	0.14–2.5mm²	0.14–4mm²

Insert	16A Spring module	16A Protected module	16A Crimp module	16A Spring module
Contacts	6	6	8	8
Terminal	spring terminal(Quick–in)	Crimp terminal	Crimp terminal	spring terminal(Quick–in)
				
Rated current	16A	16A	16A	16A
Rated voltage	500V	830V	400V	400V
Wire gauge	0.5–4mm²	0.14–4mm²	0.14–4mm²	0.5–4mm²

Insert	16A Crimp module	10A Crimp module	10A Spring module
Contacts	20	12	12
Terminal	Crimp terminal	Crimp terminal	spring terminal(Quick–in)
			
Rated current	16A	10A	10A
Rated voltage	500V	250V	250V
Wire gauge	0.14–4mm²	0.14–2.5mm²	0.5–2.5mm²

Summary

Insert	10A Crimp module	10A Crimp module	MegaBit Insert	GigaBit Insert
Contacts	17	42	2x4+Shielded	8+Shielded
Terminal	Crimp terminal	Crimp terminal	Crimp terminal	Crimp terminal
				
Rated current	10A	10A	10A	5A
Rated voltage	160V	150V	50V	50V
Wire gauge	0.14–2.5mm²	0.14–2.5mm²	0.14–2.5mm²	0.09–0.82mm²

Insert	Shielded module	Adapter module	Adapter module	Cable clamp
Contacts	24+Shielded	1	1	
Terminal	Crimp terminal	for MegaBit Insert and GigaBit Insert	for 24 pins shielded module	for 100M,1000M and 24 pins modules
				
Rated current	4A			
Rated voltage	32V			
Wire gauge	0.09–0.52mm²			Clamping range:5–12mm

Insert	5A D-Sub module	5A D-Sub module	5A D-Sub module 2	4A High Density module
Contacts	9	9	9	25
Terminal	Crimp terminal	Crimp terminal	Crimp terminal	Crimp terminal
				
Rated current	5A	5A	5A	4A
Rated voltage	50V	50V	50V	50V
Wire gauge	0.09–0.82mm²	0.09–0.82mm²	0.09–0.82mm²	0.09–0.52mm²

Insert	4A High Density module	1A RJ45 module
Contacts	36	8
Terminal	Crimp terminal	Module for patch cable
		
Rated current	4A	1A
Rated voltage	50V	50V
Wire gauge	0.09–0.52mm²	

Summary

Insert	Pneumatic module	Pneumatic module	Pneumatic Module(Metal Contact)	Pneumatic Module(Metal Contact)
Contacts	2	3	3	3
				
	 Φ6 mm	 Φ1.6 mm Φ3.0 mm Φ4.0 mm	 Φ3.0 mm Φ4.0 mm Φ6.0 mm	 Φ3.0 mm Φ4.0 mm Φ6.0 mm

Insert	Electromagnetic screening module				Fiber module	
Contacts	2				4	
						
Contact						
	Q–Coax 4+shielding	High Density Q–Coax 8+shielding	D Coax 1+shielding	E Coax 1+shielding	single: 9/125 µ m	multimode: 50/125 µ m or 62.5/125 µ m

Hoods/Housings: size 3A

Insert	SC Fiber	H3A RJ45	Electromagnetic screening module			
Contacts	4	8	1			
						
Contact						
	single: 9/125 µ m	multimode: 50/125 µ m or 62.5/125 µ m	Q–Coax 4+shielding	High Density Q–Coax 8+shielding	D Coax 1+shielding	E Coax 1+shielding

Hinged frames

Technical characteristics

Number of modules	2,3,4,6
PE contact(Wire gauge)	
– Power side	4–10mm² 【Use PE–E16,expandable to 16mm2;(see page P10–20 for details).
	Only suitable for high structure hood or BK housing. 】
	AWG 12–8
– Signal side	1–2.5mm²
	18–14
Material	zinc die–cast
Limiting temperatures	–40℃...+125℃
Mechanical working life(mating cycles)	⩾500

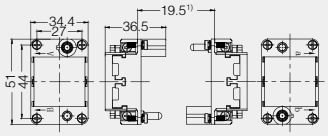
frame construction version 1

Unit：mm

6B frame, size 6B hoods/housings



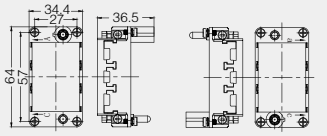
Application	Marking	Designation	Order No.
for 2 modules	A–B	HF6B–NUA3	129 006 000 1004
for 2 modules	a–b	HF6B–NLA3	129 006 000 1003



10B frame, size10B hoods/housings



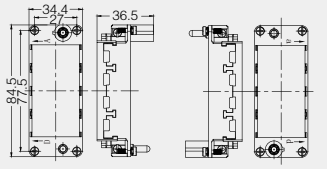
Application	Marking	Designation	Order No.
for 3 modules	A–C	HF10B–NUA3	129 010 000 1004
for 3 modules	a–c	HF10B–NLA3	129 010 000 1003



16B frame, size 16B hoods/housings



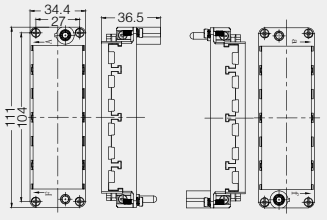
Application	Marking	Designation	Order No.
for 4 modules	A–D	HF16B–NUA3	129 016 000 1004
for 4 modules	a–d	HF16B–NLA3	129 016 000 1003



24B frame, size 24B hoods/housings



Application	Marking	Designation	Order No.
for 6 modules	A–F	HF24B–NUA3	129 024 000 1004
for 6 modules	a–f	HF24B–NLA3	129 024 000 1003



Hinged frames

Technical characteristics

Number of modules	2,3,4,6
PE contact(Wire gauge)	
– Power side	4–10mm² 【Use PE–E16,expandable to 16mm2;Use PE–E25,expandable to 25mm2;(see page P10–20 for details).
	Only suitable for high structure hood or BK housing. 】
	AWG 12–8
– Signal side	1–2.5mm²
	18–14
Material	zinc die–cast
Limiting temperatures	–40℃...+125℃
Mechanical working life(mating cycles)	⩾500

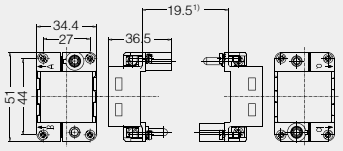
frame construction version 2

Unit：mm

6B frame, size 6B hoods/housings



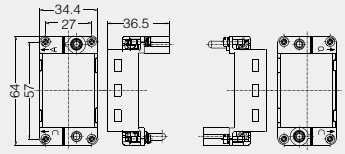
Application	Marking	Designation	Order No.
for 2 modules	A–B	HF6B–NUA2	129 006 000 1002
for 2 modules	a–b	HF6B–NLA2	129 006 000 1001



10B frame, size 10B hoods/housings



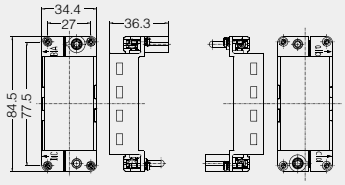
Application	Marking	Designation	Order No.
for 3 modules	A–C	HF10B–NUA2	129 010 000 1002
for 3 modules	a–c	HF10B–NLA2	129 010 000 1001



16B frame, size 16B hoods/housings



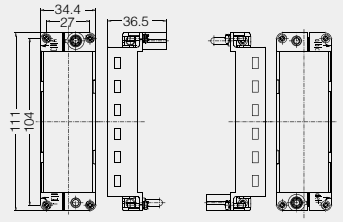
Application	Marking	Designation	Order No.
for 4 modules	A–D	HF16B–NUA2	129 016 000 1002
for 4 modules	a–d	HF16B–NLA2	129 016 000 1001



24B frame, size 24B hoods/housings



Application	Marking	Designation	Order No.
for 6 modules	A–F	HF24B–NUA2	129 024 000 1002
for 6 modules	a–f	HF24B–NLA2	129 024 000 1001



Locking element



Application	Designation	Order No.
Ideal topre–assemble the hinged frames	HF–LE2	198 002 003 0024

Metal Docking Frame

Technical characteristics

Number of modules	2+PE, 3+PE, 4+PE, 6+PE
Material	zinc die–cast
Limiting temperatures	–40℃...+125℃
Mechanical working life(mating cycles)	⩾500

Metal Docking Frame

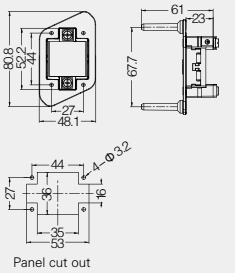
Unit：mm

6B Metal Docking Frame



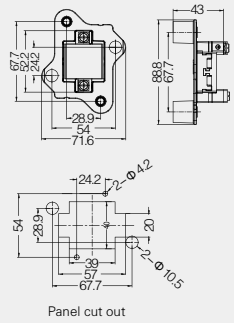
Application	Marking	Designation	Order No.
for 2 modules	A–B	HF6B–MADK	131 006 000 1006
for 2 modules	a–b	HF6B–FADK	131 006 000 1005

MADK



Panel cut out

FADK



Panel cut out

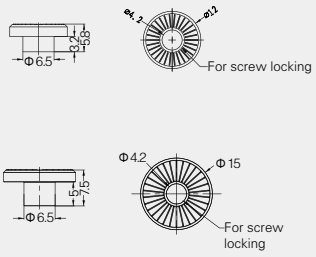
Floating washer

Unit：mm

Floating washer



describe	Designation	Order No.
Floating tolerance ± 4	HF–ADK–D12	198 002 001 0004
Floating tolerance ± 3	HF–ADK–D15	198 002 001 0003



Metal Docking Frame

Technical characteristics

Number of modules	2+PE, 3+PE, 4+PE, 6+PE
Material	zinc die-cast
Limiting temperatures	-40℃...+125℃
Mechanical working life(mating cycles)	⩾500

Metal Docking Frame

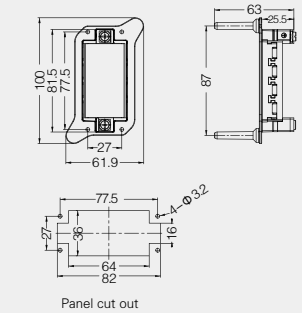
Unit：mm

16B Metal Docking Frame



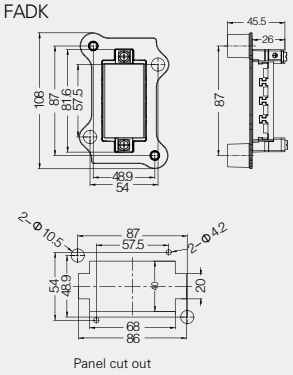
Application	Marking	Designation	Order No.
for 4 modules	A–D	HF16B–MADK	131 016 000 1005
for 4 modules	a–d	HF16B–FADK	131 016 000 1004

MADK



Panel cut out

FADK



Panel cut out

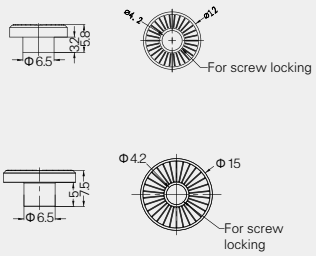
Floating washer

Unit：mm

Floating washer



describe	Designation	Order No.
Floating tolerance ± 4	HF–ADK–D12	198 002 001 0004
Floating tolerance ± 3	HF–ADK–D15	198 002 001 0003



Metal Docking Frame

Technical characteristics

Number of modules	6+PE
Material	zinc die-cast
Limiting temperatures	-40℃...+125℃
Mechanical working life(mating cycles)	⩾500

Metal Docking Frame

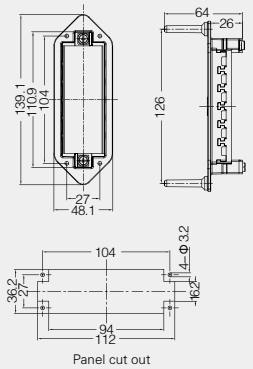
Unit：mm

24B Metal Docking Frame

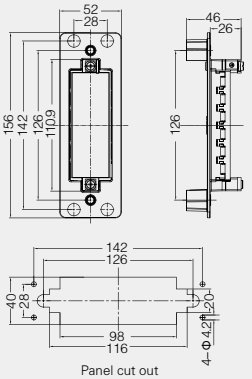


Application	Marking	Designation	Order No.
for 6 modules	A–F	HF24B–MADK	131 024 000 1004
for 6 modules	a–f	HF24B–FADK	131 024 000 1014

MADK



FADK



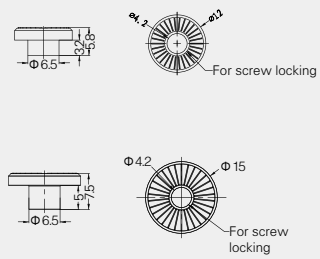
Floating washer

Unit：mm

Floating washer



describe	Designation	Order No.
Floating tolerance ± 4	HF–ADK–D12	198 002 001 0004
Floating tolerance ± 3	HF–ADK–D15	198 002 001 0003



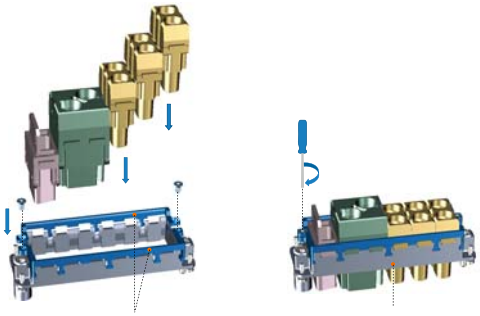
Modules dismounting instructions



Frame construction version 1 Modules dismounting instructions

Assembly instructions

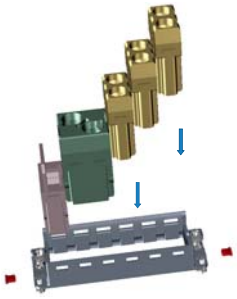
Disassembly process is on the contrary.



Loosen sliding border before assembly After finished assembly,close sliding border,lock screw

Frame construction version 2 Modules dismounting instructions

Assembly instructions

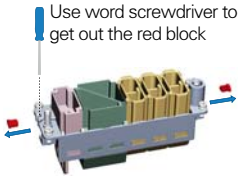


After finished assembly,
put the red block on both sides

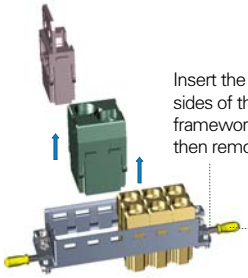


Disassembly instructions

Use word screwdriver to
get out the red block



Insert the tool into both
sides of the corresponding
framework hole site,
then remove the module



HF-TL01
198 001 003 0009

PE contact Assembly instructions

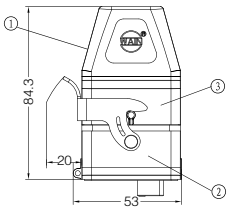
Step 1: insert the stripped wire into
the hole of the PE contact for crimping.
(Reference stripping length 15mm^{+1})



Step 2:iInsert the crimped PE contact
into the frame's grounding pin power cable (large hole)
and lock the locking screw of the frame ground pin (Recommended tightening torque is 1.2Nm)



Metal enclosure for single module



Component

The connector is only applicable to one module, and it provides a degree of protection of IP65.

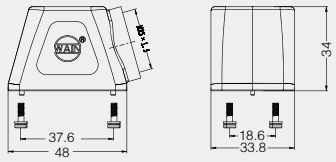
① Top entry of the hood;
② Housing with a stainless steel locking lever;
③ Carrier hood.

Hoods/Housings

Hoods,side entry



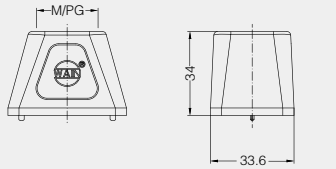
Thread	Designation	Order No.
M25	H1M–SE–M25	129 001 590 1003



Hoods, top entry



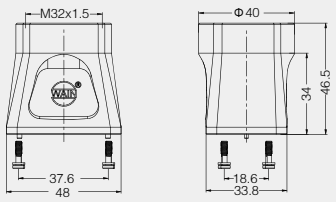
Thread	Designation	Order No.
M25	H1M–TE–M25	129 001 490 1003



Hoods, top entry



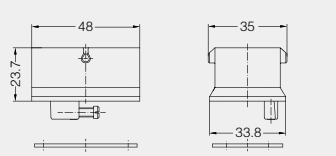
Thread	Designation	Order No.
M32	H1M–TE–M32	129 001 490 1004



Carrier hood



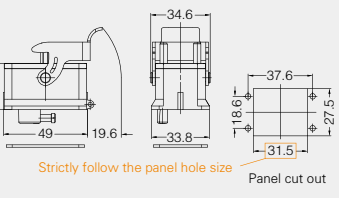
Thread	Designation	Order No.
---	H1M–MBK–2B	129 001 310 1001



Bulkhead mounted housings



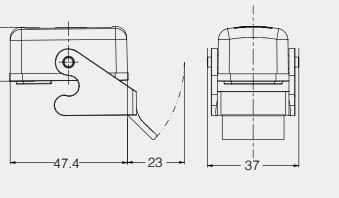
Thread	Designation	Order No.
---	H1M–BK–1L/S	129 001 325 1001



Protection covers,plastic



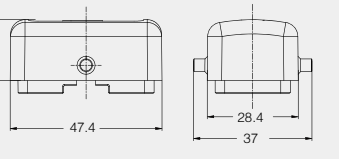
Thread	Designation	Order No.
---	H1M–CV–1L/1	129 001 025 8001



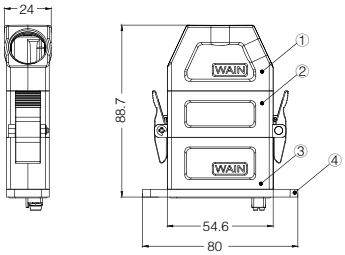
Protection covers(for Housings),plastic



Thread	Designation	Order No.
---	H1M–CV–2B/2	129 001 010 8002



PUSH LOCK
- Metal enclosure for single module(EMC)



Component

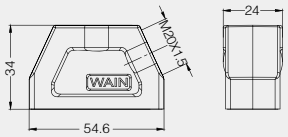
① Hood with top or side entry;
② Carrier hood with locking device;
③ Housing, bulkhead mounted;
④ Mounting plate.

Hoods/Housings

Hoods, side entry



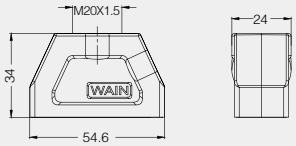
Thread	Designation	Order No.
M20	EMC.H1M.WU–SE–M20	129 001 590 1102



Hoods, top entry



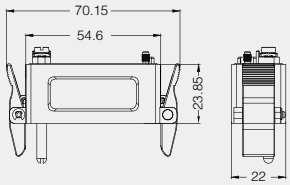
Thread	Designation	Order No.
M20	EMC.H1M.WU–TE–M20	129 001 490 1102



Carrier hood



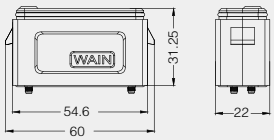
Thread	Designation	Order No.
---	EMC.H1M.WU–MBK–2L	129 001 340 1001



Bulkhead mounted housings



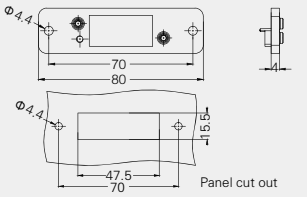
Thread	Designation	Order No.
---	EMC.H1M.WU–BK	129 001 300 1001



Mounting plate



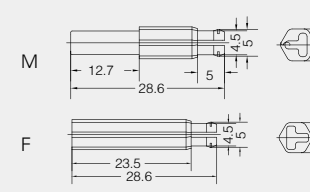
Thread	Designation	Order No.
---	EMC.H1M.WU–MP	129 001 000 1101



Coding element



Description	Category	Designation	Order No.
for Carrier hood	Male	CODE–Q7M	198 002 005 0007
for Housings	Female	CODE–Q7F	198 002 005 0008



Metal enclosure for single module(EMC)

Product features

1. More compact, more powerful
2. Robust metal hoods/housings: zinc die–cast
3. Easy installation with the innovative PUSH LOCK
4. Protection against mismatching, thanks to hexagonal coding
5. Grounding solution for potential equalization
6. Large selection of standard modules
7. EMC design。

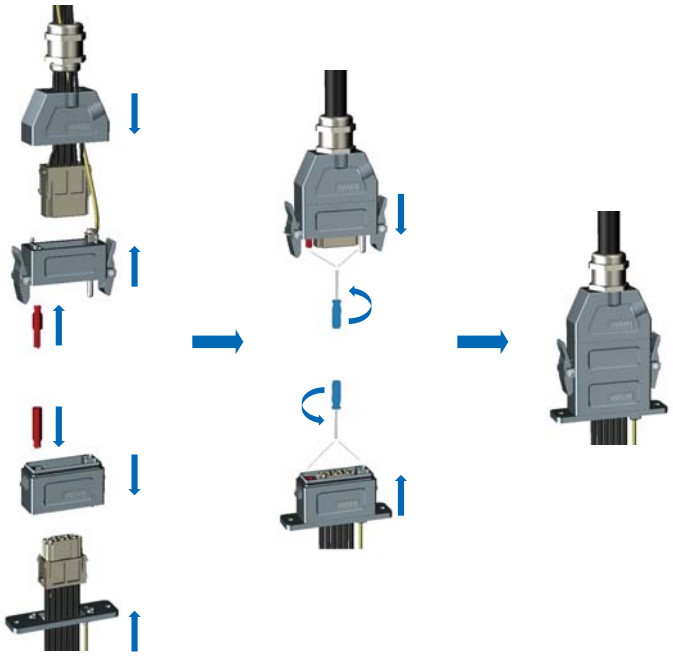


Assembly instructions

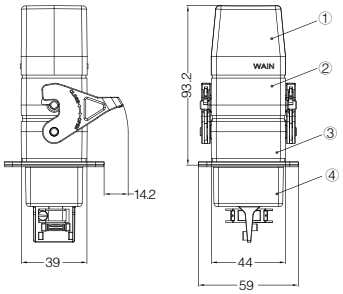
Step 1: cable will pass through cable connector. After crimping with pin (taking cold pressing pin as an example), it will be installed in male module (taking male module as an example), grounding wire will be locked at corresponding binding post of middle housing; the cable will pass through installation plate, which will be installed in the female module after crimping with pin, grounding wire will be locked at corresponding binding post; coding plug pin will be installed at selected direction, CODE–Q7M will be installed on middle housing and CODE–Q7F will be installed on the lower housing;

Step 2: cross screwdriver will be used to lock M3 screws on the middle housing and upper housing tightly to fix the male module; cross screwdriver will be used to lock M3 screws on the lower housing and face plate tightly to fix the female module; the cable connector will be tightened;

Step 3: after insertion, installation is completed.



H2M metal enclosure for double module (EMC)



Component

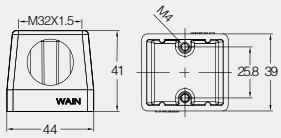
① Hood with top or side entry;
② Carrier hood;
③ Housing with lever;
④ Mounting plate.

Hoods/Housings

Hoods, side entry



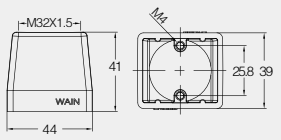
Thread	Designation	Order No.
M25	H2M–SE–M25	129 002 500 1001



Hoods, top entry



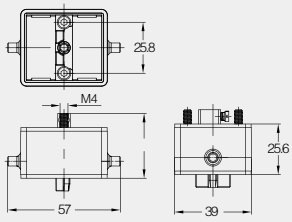
Thread	Designation	Order No.
M25	H2M–TE–M25	129 002 400 1002
M32	H2M–TE–M32	129 002 400 1001



Carrier hood



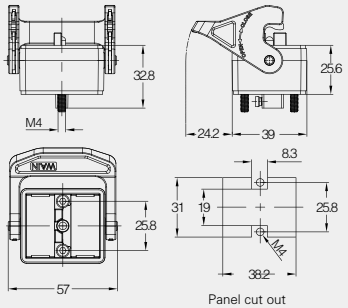
Thread	Designation	Order No.
---	H2M–MBK–2B	129 002 310 1001



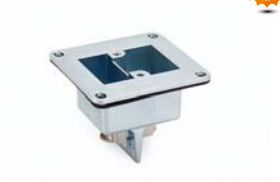
Bulkhead mounted housings



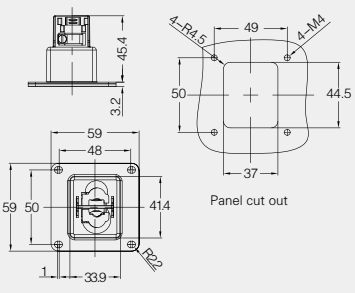
Thread	Designation	Order No.
---	H2M–BK–1L	129 002 320 1001



Mounting plate



Thread	Designation	Order No.
---	H2M–2CLP/BK	129 002 300 1001



H2M metal enclosure for double module (EMC)

Product features

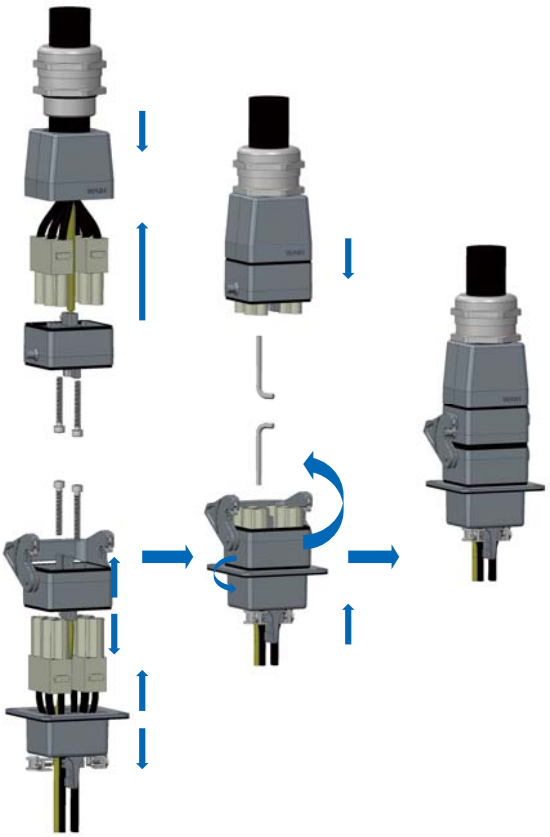
1. More compact, more powerful;
2. Five entry choices for hood;
3. Grounding solution for potential equalization;
4. Protection against mismatching;
5. EMC design;
6. Matching a variety of single module inserts,
   and can be used any two single module inserts at the same time.

Assembly instructions

Step 1: Cable will pass through cable gland. After crimping with contact (taking crimp contact as an example), it will be installed in male module (taking male module as an example), grounding wire will be locked at corresponding binding post of middle housing; the cable will pass through installation plate, which will be installed in the female module after crimping with contact, grounding wire will be locked at corresponding binding post;

Step 2: SW3 internal hexagonal wrench will be used to lock M4 screws on the middle housing and hood tightly to fix the male module; internal hexagonal wrench will be used to lock M4 screws on the housing and installation plate tightly to fix the female module; the cable gland will be tightened;

Step 3: After insertion and locking the lever, installation is completed.



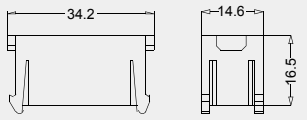
Modular Accessories

Unit：mm

Dummy module



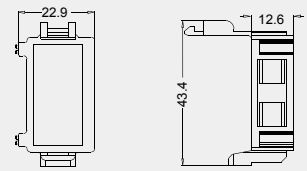
Description	Designation	Order No.
It is used to fill the spare module space in the fixed frame	HM–000	198 002 099 0008



Module clamp



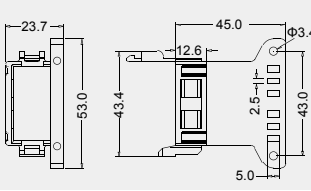
Description	Designation	Order No.
Applicable to with claw module , without strain relief	HM–CP1	198 002 003 0026



Module clamp



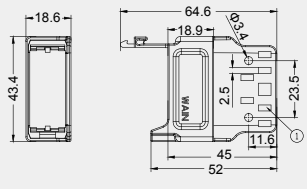
Description	Designation	Order No.
Applicable to with claw module, with strain relief –available to fix wires	HM–CP2	198 002 003 0027



Module clamp



Description	Designation	Order No.
Applicable to module, with strain relief –available to fix wires	HM–CP2/2	198 002 003 0030



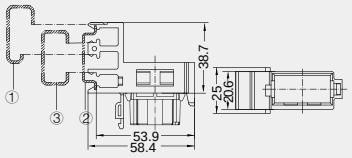
Modular Accessories

Unit：mm

Module clamp



Description	Designation	Order No.
Applicable to with claw module module , for rail	HM–CP3	198 002 003 0028

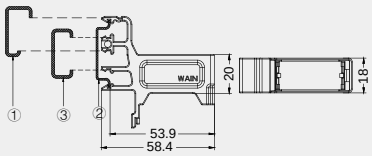


① G-rail DIN EN 60 715-G32
② rail DIN EN 60 715-35 x 7.5 with 1 mm thickness or -35 x 15 with 1.5 mm thickness
③ C-rail DIN EN 60 715-C30

Module clamp



Description	Designation	Order No.
Applicable to module, for rail	HM–CP3/2	198 002 003 0029

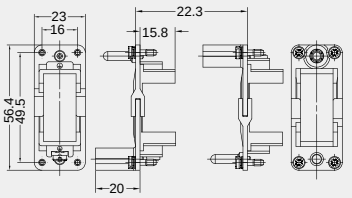


① G-rail DIN EN 60 715-G32
② rail DIN EN 60 715-35 x 7.5 with 1 mm thickness or -35 x 15 with 1.5 mm thickness
③ C-rail DIN EN 60 715-C30

Hinged frame, size 10A hoods/housings



Description	Designation	Order No.
for 1 module	HF10A	129 010 000 1091

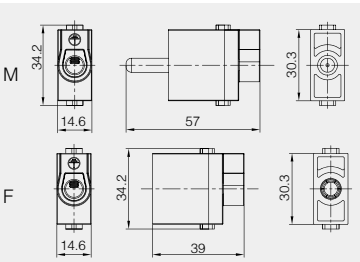


Grounding module



Description	Designation	Order No.
Only suitable for modular type plastic hoods/housings	HMPE–001–M	129 001 001 0505
	HMPE–001–F	129 001 002 0503

Only suitable for modular type plastic hoods/housings，
Please refer to P15–39.1, P15–39.2, P15–108.2, P15–108.3



H2MK-001 Axial module

1000V 200A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

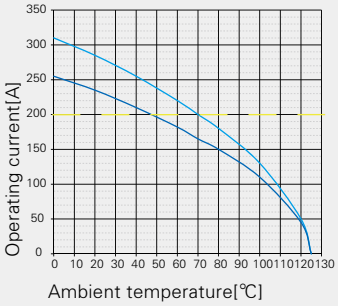
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts		Contacts	
Number of contacts	1	Material	copper alloy
Electrical dataacc. to EN 61 984		Surface	hard–silver plated
–Rated current	200A	Contact resistance	0.2mΩ
–Rated voltage	1000V	For stranded wire according	
–Rated impulse voltage	8kV	to IEC 60 228 Class 5	
–Pollution degree	3	Screw terminal	
Rated voltage acc. to UL	600V	– Wire gauge	25–70mm²
Insulation resistance	⩾10¹⁰Ω	– AWG	2–0
Material	polycarbonate	– Hexagonal driver	SW 5
Limiting temperatures	–40℃...+125℃	– Stripping length	16mm
Flammability acc. to UL 94	V0	– Tightening tourque	
Mechanical working life		–mm²	25 35 50 70
– mating cycles	⩾500	–Nm	8 8 9 10

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



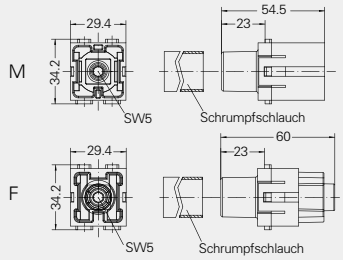
— 24 B hoods/housings with 3 modules, wire gauge: 70mm²

— 24 B hoods/housings with 3 modules, wire gauge: 50mm²

Axial screw terminal[1)]



Insert	Wire gauge	Designation	Order No.
Male	25–40mm²	H2MK–001.1–M (25–40mm²)	129 001 011 0101
	40–70mm²	H2MK–001.2–M (40–70mm²)	129 001 011 0102
Female	25–40mm²	H2MK–001.1–F (25–40mm²)	129 001 021 0101
	40–70mm²	H2MK–001.2–F (40–70mm²)	129 001 021 0102



Accessories

Tool

hexagonal driver



Description	Designation	Order No.
for axial setscrew with grip	SW–5*150	198 001 003 0007

1) See P00–33~00–34 for the structural characteristics and description of Axial screw terminal.

H2MKPE-001 Axial grounding module

1000V 200A +

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

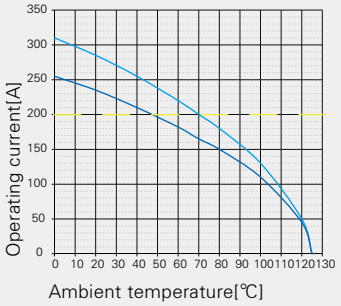
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts		Contacts	
Number of contacts	1	Material	copper alloy
Electrical dataacc. to EN 61 984		Surface	hard–silver plated
–Rated current	200A	Contact resistance	0.2mΩ
–Rated voltage	1000V	For stranded wire according	
–Rated impulse voltage	8kV	to IEC 60 228 Class 5	
–Pollution degree	3	Screw terminal	
Rated voltage acc. to UL	600V	– Wire gauge	25–70mm²
Insulation resistance	⩾10^{10}Ω	– AWG	2–0
Material	polycarbonate	– Hexagonal driver	SW 5
Limiting temperatures	–40℃...+125℃	– Stripping length	16mm
Flammability acc. to UL 94	V0	– Tightening tourque	
Mechanical working life		–mm²	25 35 50 70
– mating cycles	⩾500	–Nm	8 8 9 10

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



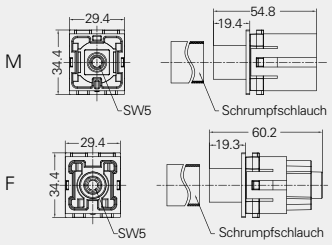
— 24 B hoods/housings with 3 modules, wire gauge: 70mm²

— 24 B hoods/housings with 3 modules, wire gauge: 50mm²

Axial screw terminal[1)]



Insert	Wire gauge	Designation	Order No.
Male	25–40mm²	H2MKPE–001.1–M(25–40mm²)	129 001 011 0001
	40–70mm²	H2MKPE–001.2–M(40–70mm²)	129 001 011 0002
Female	25–40mm²	H2MKPE–001.1–F(25–40mm²)	129 001 021 0001
	40–70mm²	H2MKPE–001.2–F(40–70mm²)	129 001 021 0002



Accessories

Tool

hexagonal driver



Description	Designation	Order No.
for axial setscrew with grip	SW–5*150	198 001 003 0007

1) See P00–33~00–34for the structural characteristics and description of Axial screw terminal.

H2MK-001 Crimp module

1000V 200A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

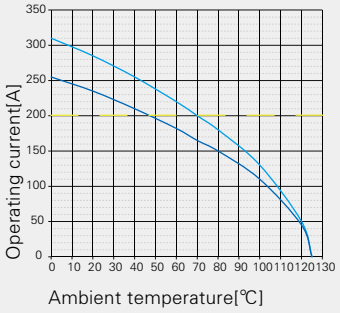
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts		Contacts	
Number of contacts	1	Material	copper alloy
Electrical dataacc. to EN 61 984		Surface	hard–silver plated
–Rated current	200A	Contact resistance	⩽0.3mΩ
–Rated voltage	1000V	Crimp terminal	
–Rated impulse voltage	8kV	– mm^2	25–70mm^2
–Pollution degree	3	Stripping length	22.5mm
Insulation resistance	⩾10^{10}Ω	Max. insulation diameter	18mm
Material	polycarbonate		
Limiting temperatures	–40℃...+125℃		
Flammability acc. to UL 94	V0		
Mechanical working life			
– mating cycles	⩾500		

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



— 24 B hoods/housings with 3 modules, wire gauge: 70mm^2

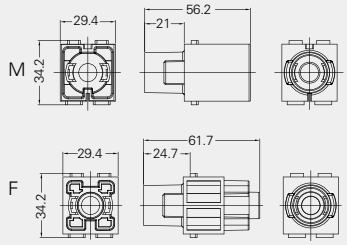
— 24 B hoods/housings with 3 modules, wire gauge: 50mm^2

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	H2MK–001–MC	129 001 010 0101
Female	H2MK–001–FC	129 001 020 0101



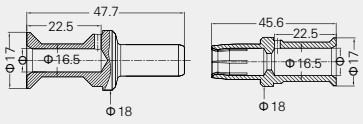
Crimp contacts

Crimp contacts 200A

Contact resistance ⩽ 0.3 mΩ silver plated



Male	Order No.	Female	Order No.
CHSM200–25	101 027 110 1601	CHSF200–25	101 027 120 1601
CHSM200–35	101 027 110 1701	CHSF200–35	101 027 120 1701
CHSM200–50	101 027 110 1801	CHSF200–50	101 027 120 1801
CHSM200–70	101 027 110 1901	CHSF200–70	101 027 120 1901



Wire gauge	Φ	Stripping length
25 mm^2	7	22.5 mm
35 mm^2	8.2	22.5 mm
50 mm^2	10	22.5 mm
70 mm^2	11.5	22.5 mm
for stranded wire according to IEC 60 228 Class 5		

Tools

Manual hydraulic clamp



Wire gauge	Designation	Order No.
10–240mm^2	TL05	198 001 001 0005

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMK-001 Crimp module

830V 100A

Inserts



Combination with hinged frame and other modules possible.
Cannot match the metal hood with side entry:EMC.H1M.WU–SE–M20.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts	
Number of contacts	1
Electrical dataacc. to EN 61 984	
–Rated current	100A
–Rated voltage	830V
–Rated impulse voltage	8kV
–Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycles	⩾500
Max. insulation diameter	13mm

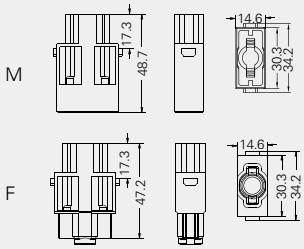
Contacts	
Material	copper alloy
Surface	hard–silver plated
Contact resistance	⩽0.3mΩ
Crimp terminal	
– mm²	10–35mm²

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMK–001–MC	129 001 010 0001
Female	HMK–001–FC	129 001 020 0001



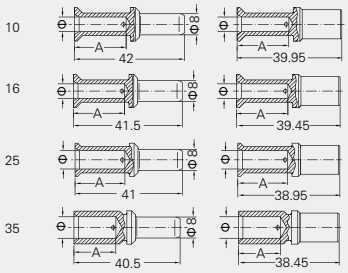
Crimp contacts

Crimp contacts 100A

Contact resistance ⩽ 0.3 mΩ
silver plated



Male	Order No.	Female	Order No.
CKSM–10	101 026 110 1401	CKSF–10G	101 026 120 1403
CKSM–16	101 026 110 1501	CKSF–16G	101 026 120 1503
CKSM–25	101 026 110 1601	CKSF–25G	101 026 120 1603
CKSM–35	101 026 110 1701	CKSF–35G	101 026 120 1703



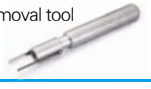
Wire gauge	Φ	Stripping length(A)
10 mm²	4.3	19 mm
16 mm²	5.5	19 mm
25 mm²	7	19 mm
35 mm²	8.2	16 mm
for stranded wire acc. to IEC 60 228 Class 5		

Tools

Manual hydraulic clamp



Contact removal tool



Wire gauge	Designation	Order No.
10–240mm²	TL05	198 001 001 0005

Application	Designation	Order No.
for crimp contacts 100A	TL11	198 001 000 0018

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

H2MK-002 Axial module

1000V 100A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

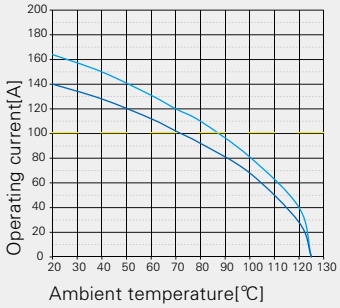
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts		Contacts	
Number of contacts	2	Material	copper alloy
Electrical dataacc. to EN 61 984		Surface	hard–silver plated
–Rated current	100A	Contact resistance	0.3mΩ
–Rated voltage	1000V	For stranded wire according	
–Rated impulse voltage	8kV	to IEC 60 228 Class 5	
–Pollution degree	3	Screw terminal	
Rated voltage acc. to UL	600V	– Wire gauge	10–35mm²
Insulation resistance	⩾10¹⁰Ω	– AWG	6–2
Material	polycarbonate	– Hexagonal driver	SW 4
Limiting temperatures	–40℃...+125℃	– Stripping length	13mm
Flammability acc. to UL 94	V0	– Tightening tourque	
Mechanical working life		–mm²	10 16 25 35
– mating cycles	⩾500	–Nm	6 6 7 8

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



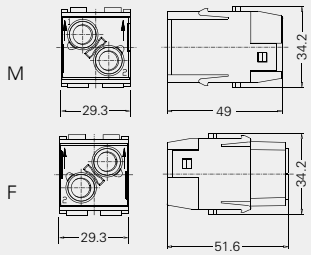
— 24 B hoods/housings with 3 modules, wire gauge: 35mm²

— 24 B hoods/housings with 3 modules, wire gauge: 25mm²

Axial screw terminal



Insert	Wire gauge	Designation	Order No.
Male	10–25mm²	H2MK–002.1–M (10–25mm²)	129 002 011 0101
	16–35mm²	H2MK–002.2–M (16–35mm²)	129 002 011 0102
Female	10–25mm²	H2MK–002.1–F (10–25mm²)	129 002 021 0101
	16–35mm²	H2MK–002.2–F (16–35mm²)	129 002 021 0102



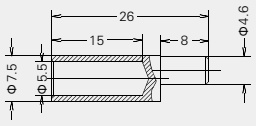
Accessories

Cable shoe 16mm²



Description	Designation	Order No.
for PE extension	PE–E16 2)	198 002 006 0014

2) Use of PE pin is shown in P10–08.

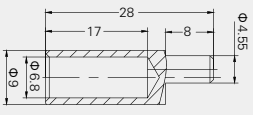


Cable shoe 25mm²



Description	Designation	Order No.
for PE extension	PE–E25 2)	198 002 006 0020

2) Use of PE pin is shown in P10–08.
Suitable for metal frame:HFXB–NUA2/HFXB–NLA2

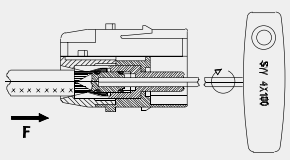


Tool

hexagonal driver



Description	Designation	Order No.
for axial setscrew with grip	SW–4*150	198 001 003 0001



1) See P00–33~00–34 for the structural characteristics and description of Axial screw terminal.

H2MK-002 Crimp module

1000V 100A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

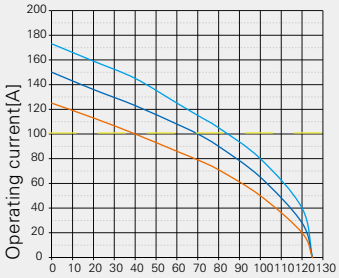
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts		Contacts	
Number of contacts	2	Material	copper alloy
Electrical dataacc. to EN 61 984		Surface	hard–silver plated
–Rated current	100A	Contact resistance	⩽0.3mΩ
–Rated voltage	1000V	Crimp terminal	
–Rated impulse voltage	8kV	– mm^2	10–35mm^2
–Pollution degree	3	Max. insulation diameter	14mm
Insulation resistance	⩾10^{10}Ω		
Material	polycarbonate		
Limiting temperatures	–40℃...+125℃		
Flammability acc. to UL 94	V0		
Mechanical working life			
– mating cycles	⩾500		

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



— 24 B hoods/housings with 3 modules, wire gauge: 35mm^2

— 24 B hoods/housings with 3 modules, wire gauge: 25mm^2

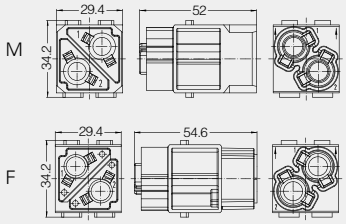
— 24 B hoods/housings with 3 modules, wire gauge: 16mm^2

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	H2MK–002–MC	129 002 010 0101
Female	H2MK–002–FC	129 002 020 0101



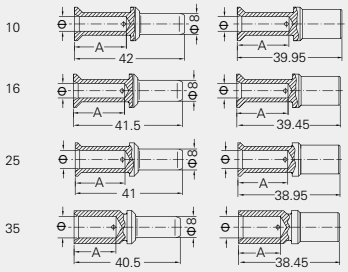
Crimp contacts

Crimp contacts 100A

Contact resistance ⩽ 0.3 mΩ
silver plated



Male	Order No.	Female	Order No.
CKSM–10	101 026 110 1401	CKSF–10G	101 026 120 1403
CKSM–16	101 026 110 1501	CKSF–16G	101 026 120 1503
CKSM–25	101 026 110 1601	CKSF–25G	101 026 120 1603
CKSM–35	101 026 110 1701	CKSF–35G	101 026 120 1703



Wire gauge	Φ	Stripping length(A)
10 mm^2	4.3	19 mm
16 mm^2	5.5	19 mm
25 mm^2	7	19 mm
35 mm^2	8.2	16 mm
for stranded wire acc. to IEC 60 228 Class 5		

Tools

Manual hydraulic clamp



Wire gauge	Designation	Order No.
10–240mm^2	TL05	198 001 001 0005

Contact removal tool



Application	Designation	Order No.
for crimp contacts 100A	TL07	198 001 000 0011

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMK70-002 Axial module

1000V 70A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

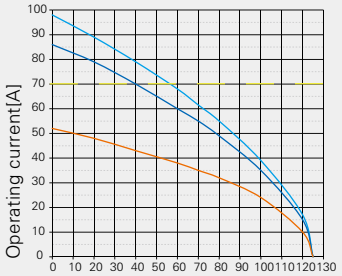
Inserts	
Number of contacts	2
Electrical dataacc. to EN 61 984	
–Rated current	70A
–Rated voltage	1000V
–Rated impulse voltage	8kV
–Pollution degree	3
Rated voltage acc. to UL	600V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycles	⩾500

Contacts				
Contacts	copper alloy			
Surface	hard–silver plated			
Contact resistance	0.5mΩ			
For stranded wire according				
to IEC 60 228 Class 5				
Screw terminal				
–Wire gauge	6–22mm²			
–AWG	8–4			
–Hexagonal driver	SW 2.5			
–Stripping length				
–mm	6	10	16	22
–AWG	11^{+1}	11^{+1}	11^{+1}	12.5^{+1}
–Tightening tourque				
–mm²	6	10	16	22
–Nm	2	3	4	5

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5

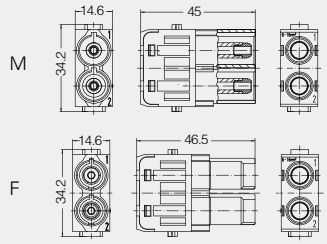


— 24 B hoods/housings with 6 modules, wire gauge: 22mm²
— 24 B hoods/housings with 6 modules, wire gauge: 16mm²
— 24 B hoods/housings with 6 modules, wire gauge: 6mm²

Axial screw terminal[1)]



Insert	Wire gauge	Designation	Order No.
Male	6–16mm²	HMK70–002.1–M (6–16mm²)	129 002 011 0201
	14–22mm²	HMK70–002.2–M (14–22mm²)	129 002 011 0202
Female	6–16mm²	HMK70–002.1–F (6–16mm²)	129 002 021 0201
	14–22mm²	HMK70–002.2–F (14–22mm²)	129 002 021 0202



Accessories

Tool

hexagonal driver



Description	Designation	Order No.
for axial setscrew with grip	SW–2.5*100	198 001 003 0003

1) See P00–33~00–34 for the structural characteristics and description of Axial screw terminal.

HMK70-002 Crimp Module

1000V 70A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts	
Number of contacts	2
Electrical dataacc. to EN 61 984	
–Rated current	70A
–Rated voltage	1000V
–Rated impulse voltage	8kV
–Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycles	⩾500

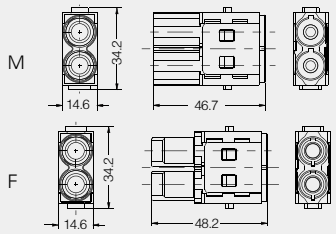
Contacts	
Material	copper alloy
Surface	hard–silver plated
Contact resistance	⩽0.5mΩ
Crimp terminal	
– wire gauge	10–25mm²
Max. insulation diameter	11mm
Stripping length	15.5mm

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMK70–002–MC	129 002 010 0201
Female	HMK70–002–FC	129 002 020 0201



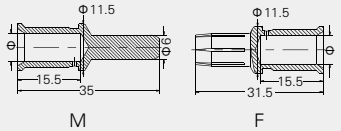
Crimp contacts

Crimp contacts 70A

Contact resistance ⩽ 0.5 mΩ
silver plated



Male	Order No.	Female	Order No.
CKSM70–6	101 034 110 1301	CKSF70–6	101 034 120 1301
CKSM70–10	101 034 110 1401	CKSF70–10	101 034 120 1401
CKSM70–16	101 034 110 1501	CKSF70–16	101 034 120 1501
CKSM70–25	101 034 110 1601	CKSF70–25	101 034 120 1601



Wire gauge	Φ	Stripping length
10 mm²	4.3	19 mm
16mm²	5.5	19 mm
25 mm²	7	19 mm
35 mm²	8.2	16 mm

for stranded wires acc. to IEC 60 228 class 5

Tools

Manual hydraulic clamp



Wire gauge	Designation	Order No.
10–240mm²	TL05	198 001 001 0005

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMK-002 Axial module

1000V 40A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

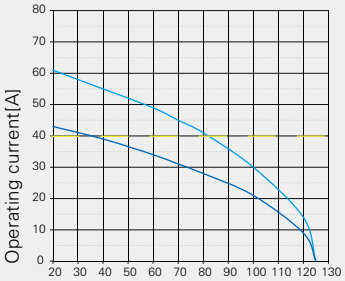
Inserts	
Number of contacts	2
Electrical dataacc. to EN 61 984	
–Rated current	40A
–Rated voltage	1000V
–Rated impulse voltage	8kV
–Pollution degree	3
Rated voltage acc. to UL	600V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycles	⩾500

Contacts				
Material	copper alloy			
Surface	hard–silver plated			
Contact resistance	1mΩ			
Screw terminal				
– Wire gauge	2.5–10mm²			
–AWG	14–8			
–Hexagonal driver	SW 2			
– Stripping length				
–mm²	2.5	4	6	10
–mm	5^{+1}	5^{+1}	8^{+1}	11^{+1}
–Tightening tourque				
–mm²	2.5	4	6	10
–Nm	1.5	1.5	2	2

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



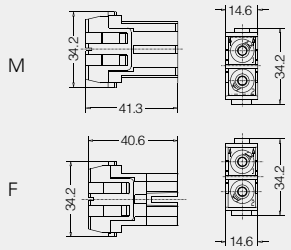
— 24 B hoods/housings with 6 modules, wire gauge: 10mm²

— 24 B hoods/housings with 6 modules, wire gauge: 6mm²

Axial screw terminal[1)]



Insert	Wire gauge	Designation	Order No.
Male	2.5–8mm²	HMK–002.1–M (2.5–8mm²)	129 002 011 0003
	6–10mm²	HMK–002.2–M (6–10mm²)	129 002 011 0004
Female	2.5–8mm²	HMK–002.1–F (2.5–8mm²)	129 002 021 0003
	6–10mm²	HMK–002.2–F (6–10mm²)	129 002 021 0004



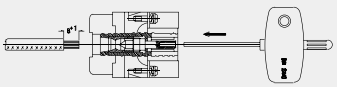
Accessories

Tool

hexagonal driver



Description	Designation	Order No.
for axial setscrew with grip	SW–2*100	198 001 003 0002



1) See P00–33~00–34 for the structural characteristics and description of Axial screw terminal.

HMK-002 Crimp module

1000V 40A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

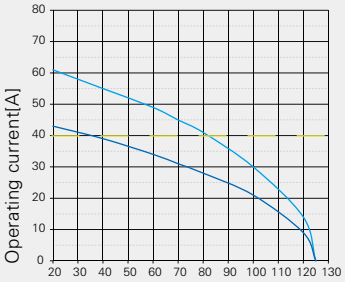
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts		Contacts	
Number of contacts	2	Material	copper alloy
Electrical dataacc. to EN 61 984		Surface	hard–silver plated
–Rated current	40A	Contact resistance	⩽1mΩ
–Rated voltage	1000V	Crimp terminal	
–Rated impulse voltage	8kV	–mm^2	1.5–10mm^2
–Pollution degree	3	–AWG	16–8
Insulation resistance	⩾10^{10}Ω		
Material	polycarbonate		
Limiting temperatures	–40℃...+125℃		
Flammability acc. to UL 94	V0		
Mechanical working life			
– mating cycles	⩾500		

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



— 24 B hoods/housings with 6 modules, wire gauge: 10mm^2

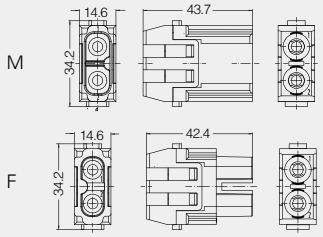
— 24 B hoods/housings with 6 modules, wire gauge: 6mm^2

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMK–002–MC	129 002 010 0001
Female	HMK–002–FC	129 002 020 0001



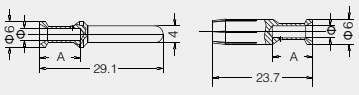
Crimp contacts

Crimp contacts 40A

Contact resistance ⩽ 1 mΩ
silver plated



Male	Order No.	Female	Order No.
CCSM–1.5	101 023 110 0901	CCSF–1.5	101 023 120 0901
CCSM–2.5	101 023 110 1001	CCSF–2.5	101 023 120 1001
CCSM–4.0	101 023 110 1201	CCSF–4.0	101 023 120 1201
CCSM–6.0	101 023 110 1301	CCSF–6.0	101 023 120 1301
CCSM–10.0	101 023 110 1401	CCSF–10.0	101 023 120 1401



Wire gauge		Φ	Stripping length
1.5 mm^2	AWG 16	1.75	9.6 mm
2.5mm^2	AWG 14	2.25	9.6 mm
4 mm^2	AWG 12	2.85	9.6 mm
6 mm^2	AWG 10	3.5	9.6 mm
10 mm^2	AWG 8	4.3	12 mm

Stripping length A = 15 mm for cables ⩾ 5 mm
Stripping length A = 18 mm for cables ⩾ 6.4 mm

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
1.5–6mm^2	TL02–0G	198 001 001 0012
4/6/10mm^2	TL02–3G	198 001 001 0013

Application	Designation	Order No.
for crimp contacts 40A	TL06G	198 001 000 0009

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMK-003 Axial module

690V 40A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

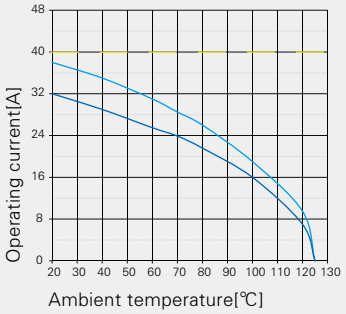
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts		Contacts				
Number of contacts	3	Material	copper alloy			
Electrical dataacc. to EN 61 984		Surface	hard–silver plated			
–Rated current	40A	Contact resistance	1mΩ			
–Rated voltage	690V	Screw terminal				
–Rated impulse voltage	8kV	– Wire gauge	2.5–10mm²			
–Pollution degree	3	–AWG	14–8			
Rated voltage acc. to UL	600V	–Hexagonal driver	SW 2			
Insulation resistance	⩾10^{10}Ω	– Stripping length				
Material	polycarbonate	–mm²	2.5	4	6	10
Limiting temperatures	–40℃...+125℃	–mm	5^{+1}	5^{+1}	8^{+1}	11^{+1}
Flammability acc. to UL 94	V0	–Tightening tourque				
Mechanical working life		–mm²	2.5	4	6	10
– mating cycles	⩾500	–Nm	1.5	1.5	2	2

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



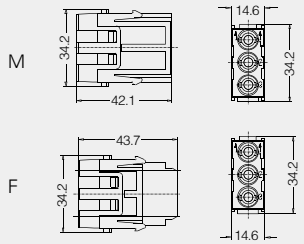
— 24 B hoods/housings with 6 modules, wire gauge：6mm²

— 24 B hoods/housings with 6 modules, wire gauge：4mm²

Axial screw terminal[1)]



Insert	Wire gauge	Designation	Order No.
Male	2.5–8mm²	HMK–003.1–M (2.5–8mm²)	129 003 011 0001
	6–10mm²	HMK–003.2–M (6–10mm²)	129 003 011 0002
Female	2.5–8mm²	HMK–003.1–F (2.5–8mm²)	129 003 021 0001
	6–10mm²	HMK–003.2–F (6–10mm²)	129 003 021 0002



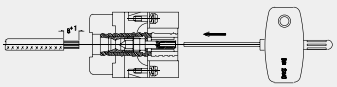
Accessories

Tool

hexagonal driver



Description	Designation	Order No.
for axial setscrew with grip	SW–2*100	198 001 003 0002



1) See P00–33~00–34 for the structural characteristics and description of Axial screw terminal.

HMK-003 Crimp module

500V 40A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

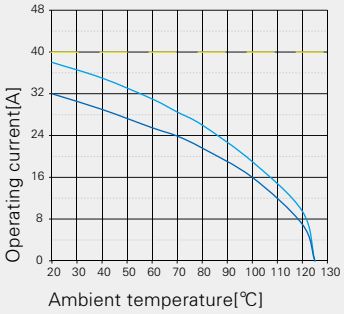
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts		Contacts	
Number of contacts	3	Material	copper alloy
Electrical dataacc. to EN 61 984		Surface	hard–silver plated
Cable diameter up to 7.5 mm		Contact resistance	⩽1mΩ
–Rated current	40A	Crimp terminal	
–Rated voltage	500V	–mm^2	1.5–10mm^2
–Rated impulse voltage	6kV	–AWG	16–8
–Pollution degree	3		
Rated voltage acc. to UL	600V		
Rated current acc. to UL	32A		
Insulation resistance	⩾10^{10}Ω		
Material	polycarbonate		
Limiting temperatures	–40℃...+125℃		
Flammability acc. to UL 94	V0		
Mechanical working life			
– mating cycles	⩾500		

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



— 24 B hoods/housings with 6 modules, wire gauge: 6mm^2

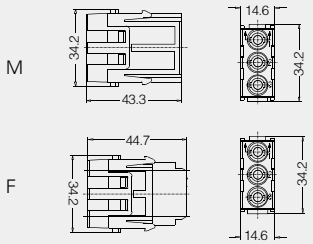
— 24 B hoods/housings with 6 modules, wire gauge: 4mm^2

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMK–003–MC	129 003 010 0001
Female	HMK–003–FC	129 003 020 0001



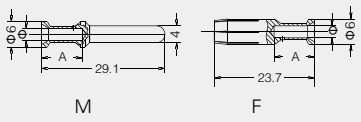
Crimp contacts

Crimp contacts 40A

Contact resistance ⩽ 1 mΩ
silver plated



Male	Order No.	Female	Order No.
CCSM–1.5	101 023 110 0901	CCSF–1.5	101 023 120 0901
CCSM–2.5	101 023 110 1001	CCSF–2.5	101 023 120 1001
CCSM–4.0	101 023 110 1201	CCSF–4.0	101 023 120 1201
CCSM–6.0	101 023 110 1301	CCSF–6.0	101 023 120 1301
CCSM–10.0	101 023 110 1401	CCSF–10.0	101 023 120 1401



Wire gauge		Φ	Stripping length
1.5 mm^2	AWG 16	1.75	9.6 mm
2.5mm^2	AWG 14	2.25	9.6 mm
4 mm^2	AWG 12	2.85	9.6 mm
6 mm^2	AWG 10	3.5	9.6 mm
10 mm^2	AWG 8	4.3	12 mm

Stripping length A = 15 mm for cables ⩾ 5 mm
Stripping length A = 18 mm for cables ⩾ 6.4 mm

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
1.5–6mm^2	TL02–0G	198 001 001 0012
4/6/10mm^2	TL02–3G	198 001 001 0013

Application	Designation	Order No.
for crimp contacts 40A	TL06G	198 001 000 0009

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMK-003 Crimp module

690V 40A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

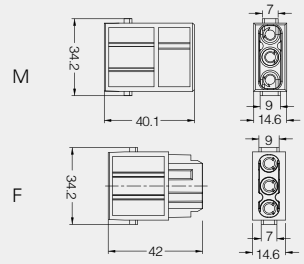
Inserts		Contacts	
Number of contacts	3	Material	copper alloy
Electrical dataacc. to EN 61 984		Surface	hard–silver plated
Cable diameter up to 7.5 mm		Contact resistance	⩽1mΩ
–Rated current	40A	Crimp terminal	
–Rated voltage	690V	–mm²	1.5–6mm²
–Rated impulse voltage	8kV	–AWG	16–10
–Pollution degree	3		
Rated voltage acc. to UL	600V		
Rated current acc. to UL	40A		
Insulation resistance	⩾10¹⁰Ω		
Material	polycarbonate		
Limiting temperatures	–40℃...+125℃		
Flammability acc. to UL 94	V0		
Mechanical working life			
– mating cycles	⩾500		

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMK–003–MC–V2	129 003 010 0504
Female	HMK–003–FC–V2	129 003 020 0504



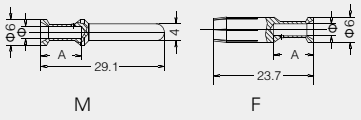
Crimp contacts

Crimp contacts 40A

Contact resistance ⩽ 1 mΩ
silver plated



Male	Order No.	Female	Order No.
CCSM–1.5	101 023 110 0901	CCSF–1.5	101 023 120 0901
CCSM–2.5	101 023 110 1001	CCSF–2.5	101 023 120 1001
CCSM–4.0	101 023 110 1201	CCSF–4.0	101 023 120 1201
CCSM–6.0	101 023 110 1301	CCSF–6.0	101 023 120 1301



Wire gauge		Φ	Stripping length
1.5 mm²	AWG 16	1.75	9.6 mm
2.5mm²	AWG 14	2.25	9.6 mm
4 mm²	AWG 12	2.85	9.6 mm
6 mm²	AWG 10	3.5	9.6 mm

Stripping length A = 15 mm for cables ⩾ 5 mm
Stripping length A = 18 mm for cables ⩾ 6.4 mm

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
1.5–6mm²	TL02–0G	198 001 001 0012
4/6/10mm²	TL02–3G	198 001 001 0013

Application	Designation	Order No.
for crimp contacts 40A	TL06G	198 001 000 0009

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMK-003/4 Crimp module

830/830V 40/10A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

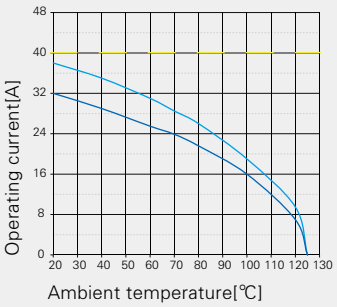
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts		Contacts	
Number of contacts	3/4	Material	copper alloy
Electrical data acc. to EN 61 984		Surface	hard–silver plated
Power contacts			hard–gold plated
–Rated current	40A	Contact resistance	
–Rated voltage	830V	–Power contacts	⩽1mΩ
–Rated impulse voltage	8kV	–Signal contacts	⩽3mΩ
–Pollution degree	3	Crimp terminal	
Signal contacts		– mm^2	
–Rated current	10A	–Power contacts	1.5–6mm^2
–Rated voltage	830V	–Signal contacts	0.14–2.5mm^2
–Rated impulse voltage	8kV	– AWG	
–Pollution degree	3	–Power contacts	16–10
Rated voltage acc. to UL	600V	–Signal contacts	26–14
Insulation resistance	⩾10^{10}Ω	Max. insulation diameter	
Material	polycarbonate	– Power contacts	5mm
Limiting temperatures	–40℃...+125℃		
Flammability acc. to UL 94	V0		
Mechanical working life	⩾500		

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



— 24 B hoods/housings with 6 modules, wire gauge: 6mm^2

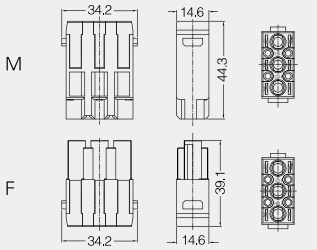
— 24 B hoods/housings with 6 modules, wire gauge: 4mm^2

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMK–003/4–MC	129 007 010 0001
Female	HMK–003/4–FC	129 007 020 0001



Crimp contacts

Crimp contacts 40A/10A

Contact resistance ⩽1mΩ silver plated



Contact resistance ⩽3mΩ silver plated

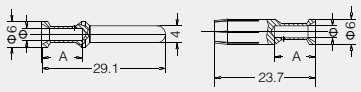


Contact resistance ⩽3mΩ gold plated



More crimp contacts 10A see P13–02,P13–03.

Male	Order No.	Female	Order No.
CCSM–1.5	101 023 110 0901	CCSF–1.5	101 023 120 0901
CCSM–2.5	101 023 110 1001	CCSF–2.5	101 023 120 1001
CCSM–4.0	101 023 110 1201	CCSF–4.0	101 023 120 1201
CCSM–6.0	101 023 110 1301	CCSF–6.0	101 023 120 1301
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



Wire gauge		Φ	Stripping length
1.5 mm^2	AWG 16	1.75	9.6 mm
2.5mm^2	AWG 14	2.25	9.6 mm
4 mm^2	AWG 12	2.85	9.6 mm
6 mm^2	AWG 10	3.5	9.6 mm



Wire gauge		Φ	Stripping length
0.09-0.25 mm^2	AWG 28-24	0.65	5 mm
0.14-0.37 mm^2	AWG 26-22	0.9	8 mm
0.5 mm^2	AWG 20	1.1	8 mm
0.75 mm^2	AWG 18	1.3	8 mm
1 mm^2	AWG 18	1.45	8 mm
1.5 mm^2	AWG 16	1.75	8 mm
2.5 mm^2	AWG 14	2.25	6 mm

*Please find the details of crimp contact tools on page 32-02~32-05.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMK-004 Crimp module

830V 40A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

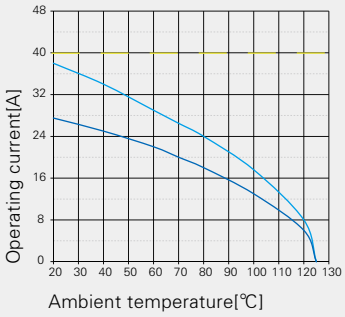
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts		Contacts	
Number of contacts	4	Material	copper alloy
Electrical data acc. to EN 61 984		Surface	hard–silver plated
Rated current	40A	Contact resistance	⩽1mΩ
Rated voltage	830V	Crimp terminal	
Rated impulse voltage	8kV	–mm²	1.5–6mm²
Pollution degree	3	–AWG	16–10
Rated voltage acc. to UL	600V		
Insulation resistance	⩾10^{10}Ω		
Material	polycarbonate		
Limiting temperatures	–40℃...+125℃		
Flammability acc. to UL 94	V0		
Mechanical working life			
– mating cycles	⩾500		

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



— 24 B hoods/housings with 6 modules, wire gauge: 6mm²

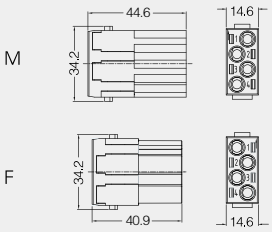
— 24 B hoods/housings with 6 modules, wire gauge: 4mm²

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMK–004–MC	129 004 010 0001
Female	HMK–004–FC	129 004 020 0001



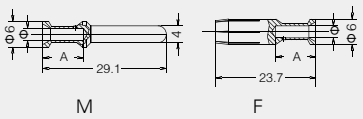
Crimp contacts

Crimp contacts 40A

Contact resistance ⩽ 1 mΩ
silver plated



Male	Order No.	Female	Order No.
CCSM–1.5	101 023 110 0901	CCSF–1.5	101 023 120 0901
CCSM–2.5	101 023 110 1001	CCSF–2.5	101 023 120 1001
CCSM–4.0	101 023 110 1201	CCSF–4.0	101 023 120 1201
CCSM–6.0	101 023 110 1301	CCSF–6.0	101 023 120 1301



Wire gauge		Φ	Stripping length
1.5 mm²	AWG 16	1.75	9.6 mm
2.5mm²	AWG 14	2.25	9.6 mm
4 mm²	AWG 12	2.85	9.6 mm
6 mm²	AWG 10	3.5	9.6 mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
1.5–6mm²	TL02–0G	198 001 001 0012
4/6/10mm²	TL02–3G	198 001 001 0013

Contact removal tool



Application	Designation	Order No.
for crimp contacts 40A	TL06G	198 001 000 0009

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

H2MVC-002 High voltage module

2900/5000V 40A

Inserts



Combination with hinged frame and other modules possible.
Only suitable for high structure shells.

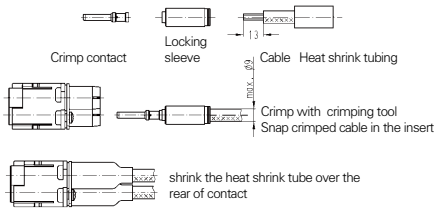
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts	
Number of contacts	2
Electrical dataacc. to EN 61 984	
–Rated current	40A
–Rated voltage conductor(ground)	2900V
–Rated voltage conductor(conductor)	5000V
–Rated impulse voltage	15kV
–Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate/ PTFE
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Max. cable diameter	9mm
Mechanical working life	
– mating cycles	⩾500

Contacts	
Material	copper alloy
Surface	hard–silver plated
Contact resistance	⩽1mΩ
Crimp terminal	
– mm²	1.5–10mm²
– AWG	16–8

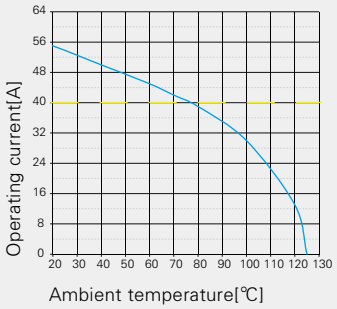
Assembly instructions



Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



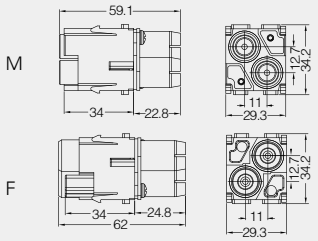
— 24 B hoods/housings with 3 modules, wire gauge: 6mm²

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	H2MVC–002–MC	129 002 010 0401
Female	H2MVC–002–FC	129 002 020 0401



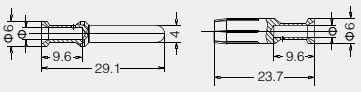
Crimp contacts

Crimp contacts 40A

Contact resistance⩽1mΩ
silver plated



Male	Order No.	Female	Order No.
CCSM–1.5	101 023 110 0901	CCSF–1.5	101 023 120 0901
CCSM–2.5	101 023 110 1001	CCSF–2.5	101 023 120 1001
CCSM–4.0	101 023 110 1201	CCSF–4.0	101 023 120 1201
CCSM–6.0	101 023 110 1301	CCSF–6.0	101 023 120 1301
CCSM–10.0	101 023 110 1401	CCSF–10.0	101 023 120 1401



Wire gauge		Φ	Stripping length
1.5 mm²	AWG 16	1.75	9.6 mm
2.5mm²	AWG 14	2.25	9.6 mm
4 mm²	AWG 12	2.85	9.6 mm
6 mm²	AWG 10	3.5	9.6 mm
10 mm²	AWG 8	4.3	12 mm

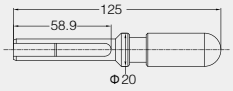
Tools

Crimping tool



Wire gauge	Designation	Order No.
1.5–6mm²	TL02–0G	198 001 001 0012
4/6/10mm²	TL02–3G	198 001 001 0013

Description	Designation	Order No.
for locking sleeve	TL10	198 001 000 0014



Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

H2MVE-002 High voltage module

2900/5000V 16A

Inserts



Combination with hinged frame and other modules possible.
Only suitable for high structure shells.

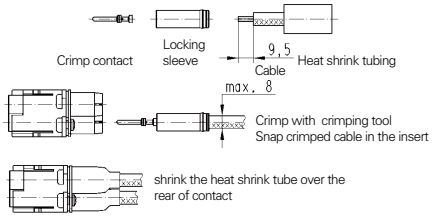
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts	
Number of contacts	2
Electrical dataacc. to EN 61 984	
–Rated current	16A
–Rated voltage conductor(ground)	2900V
–Rated voltage conductor(conductor)	5000V
–Rated impulse voltage	15kV
–Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate/PTFE
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycles	⩾500

Contacts	
Material	copper alloy
Surface	– hard–silver plated
	– hard–gold plated
Contact resistance	⩽1mΩ
Crimp terminal	
– mm^2	0.5–4mm^2
– AWG	22–12

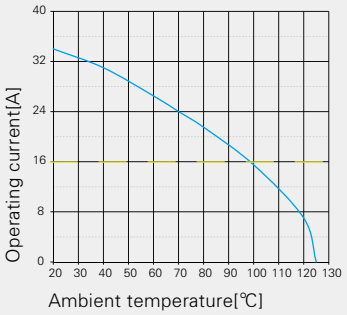
Assembly instructions



Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



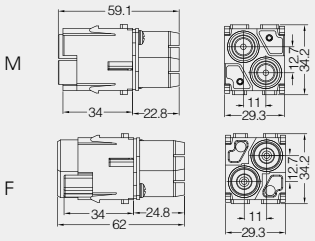
— 16 B hoods/housings with 1 modules,
wire gauge: 2.5mm²

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	H2MVE–002–MC	129 002 010 0301
Female	H2MVE–002–FC	129 002 020 0301



Crimp contacts

Crimp contacts 16A

Contact resistance⩽1mΩ
silver plated

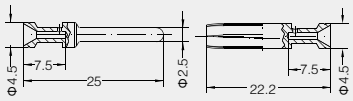


gold plated



More crimp contacts 16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.5	101 019 110 0401	CESF–0.5	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.5	101 019 210 0401	CEGF–0.5	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 groove	1.5 mm²	AWG 16	7.5mm
3 groove	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL16.

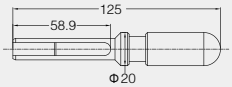
Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Description	Designation	Order No.
for locking sleeve	TL10	198 001 000 0014



Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HME-005 Screw module

230/400V 16A
Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

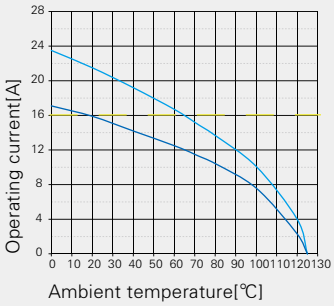
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts		Contacts	
Number of contacts	5	Material	copper alloy
Electrical data acc. to IEC 61984		Surface	hard–silver plated
Rated current	16A	Contact resistance	⩽1mΩ
Rated voltage conductor –ground	230V	Screw terminal	
Rated voltage conductor – conductor	400V	–mm^2	0.5–4mm^2
Rated impulse voltage	4kV	–AWG	20–14
Pollution degree	3		
Insulation resistance	⩾10^{10}Ω		
Material	polycarbonate		
Limiting temperatures	–40℃...+125℃		
Flammability acc. to UL 94	V0		
Mechanical working life			
– mating cycles	⩾500		

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



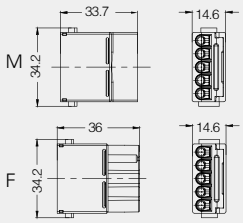
— 24 B hoods/housings with 6 modules, wire gauge: 2.5mm^2

— 24 B hoods/housings with 6 modules, wire gauge: 1.5mm^2

Screw terminal



Insert	Designation	Order No.
Male	HME–005–M	129 005 011 0001
Female	HME–005–F	129 005 021 0001

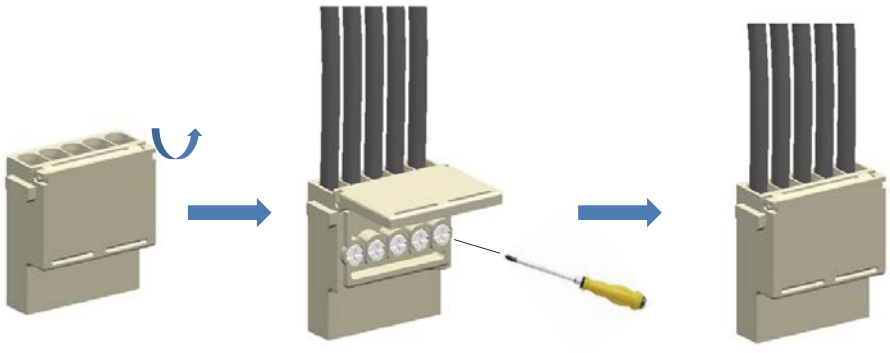


Assembly instructions

Step 1:remove the cover.

Step 2:install the wire from the top and fasten the side screw.

Step 3: put the cover on.



HME-005 Cage-clamp module

400V 16A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

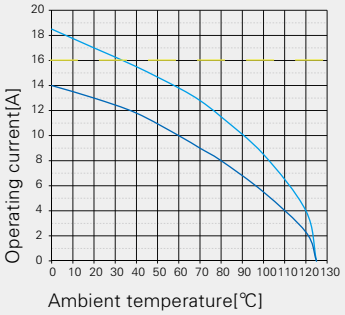
Inserts	
Number of contacts	5
Electrical data acc. to EN 61 984	
–Rated current	16A
–Rated voltage	400V
–Rated impulse voltage	6kV
–Pollution degree	3
Rated voltage acc. to UL	600V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycles	⩾500

Contacts	
Material	copper alloy
Surface	hard–silver plated
Contact resistance	⩽3mΩ
Cage clamp terminal	
–mm^2	0.14–2.5mm^2
–AWG	26–14

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



— 24 B hoods/housings with 6 modules, wire gauge: 2.5mm^2

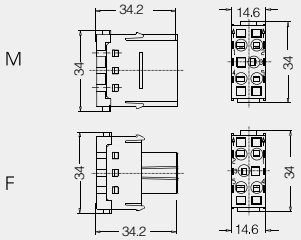
— 24 B hoods/housings with 6 modules, wire gauge: 1.5mm^2

Cage-clamp terminal

See P00–33 for the structural characteristics of spring.



Insert	Designation	Order No.
Male	HME–005–MS	129 005 012 0001
Female	HME–005–FS	129 005 022 0001



HME-006 Crimp module

500V 16A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

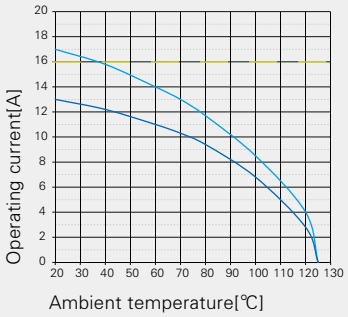
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts		Contacts	
Number of contacts	6	Material	copper alloy
Electrical data acc. to EN 61 984		Surface	hard–silver plated
Rated current	16A		hard–gold plated
Rated voltage	500V	Contact resistance	⩽1mΩ
Rated impulse voltage	6kV	Crimp terminal	
Pollution degree	3	– mm^2	0.14–4mm^2
Rated voltage acc. to UL	600V	– AWG	26–12
Insulation resistance	⩾10^{10}Ω		
Material	polycarbonate		
Limiting temperatures	–40℃...+125℃		
Flammability acc. to UL 94	V0		
Mechanical working life			
– mating cycles	⩾500		

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



— 24 B hoods/housings with 6 modules, wire gauge: 2.5mm^2

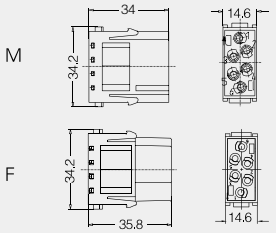
— 24 B hoods/housings with 6 modules, wire gauge: 1.5mm^2

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HME–006–MC	129 006 010 0001
Female	HME–006–FC	129 006 020 0001



Crimp contacts

Crimp contacts 16A

Contact resistance⩽1mΩ
silver plated

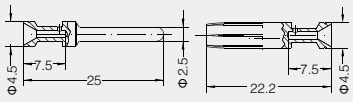


gold plated



More crimp contacts 16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm^2	AWG 26–22	7.5mm
no groove	0.5 mm^2	AWG 20	7.5mm
1 groove	0.75 mm^2	AWG 18	7.5mm
1 groove	1 mm^2	AWG 18	7.5mm
2 grooves	1.5 mm^2	AWG 16	7.5mm
3 grooves	2.5 mm^2	AWG 14	7.5mm
wide groove	3 mm^2	AWG 12	7.5mm
no groove	4 mm^2	AWG 12	7.5mm

When the wire gauge is less than 0.75mm^2,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm^2	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm^2 please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts 16A	TL01	198 001 000 0002

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HME-006 Quick-in module

500V 16A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

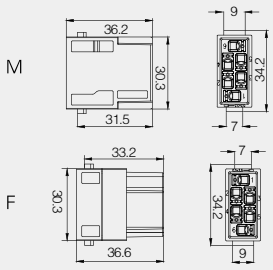
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts		Contacts	
No.of contact	6	Teminal	spring terminal(Quick–in)
Electrical dataacc. to EN 61 984		Material	copper alloy
–Rated current	16A	Surface	hard–silver plated
–Rated voltage	500V	Contact resistance	≤3mΩ
–Rated impulse voltage	6kV	Wire gauge	
–Pollution degree	3	–mm^2	0.5–4.0mm^2
Insulation resistance	≥10^{10}Ω	–AWG	20–12
Material	polycarbonate	(For wires with crimpedferrule,wire gauge)	
Colour	RAL 7032(light grey)	–mm^2	0.14–2.5mm^2
Limiting temperatures	–40℃...+125℃	–AWG	26–14
Flammability acc. to UL 94	V0	Stripping length	10±0.5mm
Mating cycles	≥500		

spring terminal(Quick–in)



Insert	Designation	Order No.
Male	HME–006–MQ	129 006 010 0002
Female	HME–006–FQ	129 006 020 0002



HVME-006 Protected module

830V 16A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

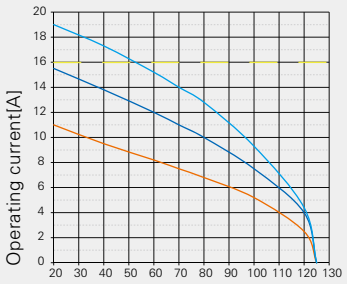
Inserts	
Number of contacts	6
Electrical dataacc. to EN 61 984	
–Rated current	16A
–Rated voltage	830V
–Rated impulse voltage	8kV
–Pollution degree	3
Rated voltage acc. to UL	600V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycles	⩾500

Contacts	
Material	copper alloy
Surface	hard–silver plated
	hard–gold plated
Contact resistance	⩽1mΩ
Crimp terminal	
–mm²	0.14–4mm²
–AWG	26–12

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



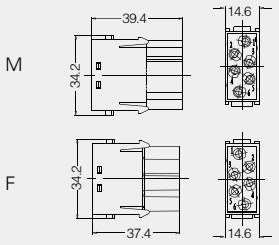
— 24 B hoods/housings with 6 modules, wire gauge：4.0mm²
— 24 B hoods/housings with 6 modules, wire gauge：2.5mm²
— 24 B hoods/housings with 6 modules, wire gauge：1.5mm²

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HVME–006–MC	129 006 010 0101
Female	HVME–006–FC	129 006 020 0101



Crimp contacts

Crimp contacts 16A

Contact resistance⩽1mΩ
silver plated

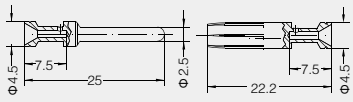


gold plated



More crimp contacts 16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts 16A	TL01	198 001 000 0002

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMEE-008 Crimp module

400V 16A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

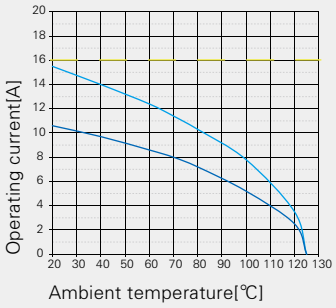
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts		Contacts	
Number of contacts	8	Material	copper alloy
Electrical dataacc. to EN 61 984		Surface	hard–silver plated
–Rated current	16A		hard–gold plated
–Rated voltage	400V	Contact resistance	⩽1mΩ
–Rated impulse voltage	6kV	Crimp terminal	
–Pollution degree	3	–mm²	0.14–4mm²
Rated voltage acc. to UL	600V	–AWG	26–12
Insulation resistance	⩾10^{10}Ω		
Material	polycarbonate		
Limiting temperatures	–40℃...+125℃		
Flammability acc. to UL 94	V0		
Mechanical working life			
– mating cycles	⩾500		

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



— 24 B hoods/housings with 6 modules, wire gauge：2.5mm²

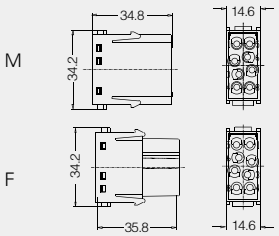
— 24 B hoods/housings with 6 modules, wire gauge：1.5mm²

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMEE–008–MC	129 008 010 0001
Female	HMEE–008–FC	129 008 020 0001



Crimp contacts

Crimp contacts 16A

Contact resistance⩽1mΩ

silver plated

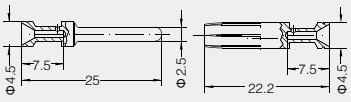


gold plated



More crimp contacts 16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts 16A	TL01	198 001 000 0002

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMEE-008 Quick-in module

400V 16A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

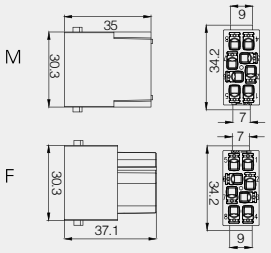
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts		Contacts	
No.of contact	8	Teminal	spring terminal(Quick–in)
–Rated current	16A	Material	copper alloy
–Rated voltage	400V	Surface	hard–silver plated
–Rated impulse voltage	6kV	Contact resistance	≤3mΩ
–Pollution degree	3	Wire gauge	
Insulation resistance	≥10^{10}Ω	–mm^2	0.5–4mm^2
Material	polycarbonate	–AWG	20–12
Colour	RAL 7032(light grey)	(For wires with crimpedferrule,wire gauge)	
Limiting temperatures	–40℃...+125℃	–mm^2	0.14–2.5mm^2
Flammability acc. to UL 94	V0	–AWG	26–14
Mating cycles	≥500	Stripping length	10±0.5mm

spring terminal(Quick–in)



Insert	Designation	Order No.
Male	HMEE–008–MQ	129 008 001 0001
Female	HMEE–008–FQ	129 008 002 0001



H2MEE-020 Crimp module

500V 16A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

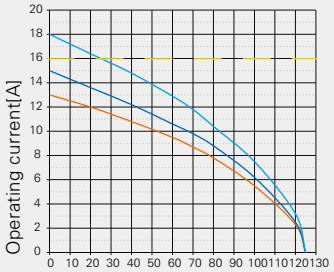
Inserts	
Number of contacts	20
Electrical dataacc. to EN 61 984	
–Rated current	16A
–Rated voltage	500V
–Rated impulse voltage	6kV
–Pollution degree	3
Rated voltage acc. to UL	600V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycles	⩾500

Contacts	
Material	copper alloy
Surface	hard–silver plated
	hard–gold plated
Contact resistance	⩽1mΩ
Crimp terminal	
–mm²	0.14–4mm²
–AWG	26–12

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



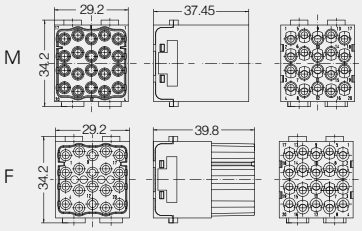
— 24 B hoods/housings with 3 modules, wire gauge: 4.0mm²
— 24 B hoods/housings with 3 modules, wire gauge: 2.5mm²
— 24 B hoods/housings with 3 modules, wire gauge: 1.5mm²

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	H2MEE–020–MC	129 020 010 0001
Female	H2MEE–020–FC	129 020 020 0001



Accessories

Crimp contacts 16A

Contact resistance⩽1mΩ
silver plated

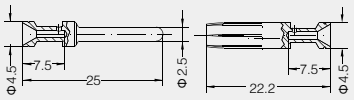


gold plated



More crimp contacts 16A see P13–04.

Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts 16A	TL01	198 001 000 0002

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMD-012 Crimp module

250V 10A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

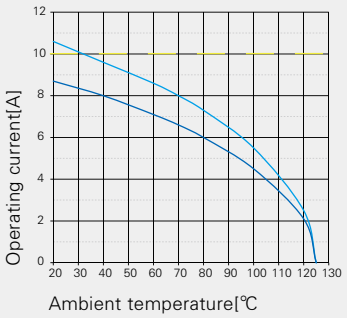
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts		Contacts	
Number of contacts	12	Material	copper alloy
Electrical dataacc. to EN 61 984		Surface	hard–silver plated
–Rated current	10A		hard–gold plated
–Rated voltage	250V	Contact resistance	⩽3mΩ
–Rated impulse voltage	4kV	Crimp terminal	
–Pollution degree	3	–mm²	0.14–2.5mm²
Rated voltage acc. to UL	600V	–AWG	26–14
Insulation resistance	⩾10^{10}Ω		
Material	polycarbonate		
Limiting temperatures	–40℃...+125℃		
Flammability acc. to UL 94	V0		
Mechanical working life			
– mating cycles	⩾500		

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



— 24 B hoods/housings with 6 modules, wire gauge：1.5mm²

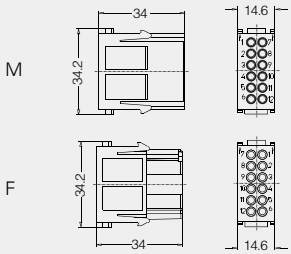
— 24 B hoods/housings with 6 modules, wire gauge：1.0mm²

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMD–012–MC	129 012 010 0001
Female	HMD–012–FC	129 012 020 0001



Crimp contacts

Crimp contacts 10A

Contact resistance⩽3mΩ
silver plated

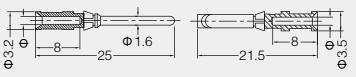


gold plated



More crimp contacts 10A
see P13–02,P13–02.

Male	Order No.	Female	Order No.
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMD-012 Quick-in module

250V 10A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

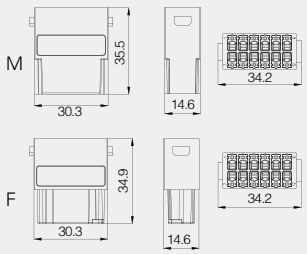
Inserts	
No.of contact	12
Electrical dataacc. to EN 61 984	
–Rated current	10A
–Rated voltage	250V
–Rated impulse voltage	4kV
–Pollution degree	3
Rated voltage acc. to UL	250V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Colour	RAL 7032(light grey)
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mating cycles	⩾500

Contacts	
Teminal	spring terminal(Quick–in)
Material	copper alloy
Surface	hard–silver plated
Contact resistance	⩽3mΩ
Wire gauge	
–mm^2	0.5–2.5mm^2
–AWG	20–14
(For wires with crimpedferrule,wire gauge)	
–mm^2	0.14–1.5mm^2
–AWG	26–16
Stripping length	10±0.5mm

spring terminal(Quick–in)



Insert	Designation	Order No.
Male	HMD–012–MQ	129 012 001 0001
Female	HMD–012–FQ	129 012 002 0001



HMDD-017 Crimp module

160V 10A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

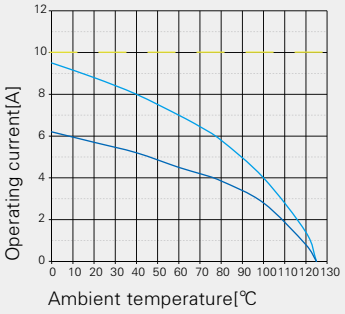
Inserts	
Number of contacts	17
Electrical dataacc. to EN 61 984	
–Rated current	10A
–Rated voltage	160V
–Rated impulse voltage	2.5kV
–Pollution degree	3
Rated voltage acc. to UL	250V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycle	⩾500

Contacts	
Material	copper alloy
Surface	hard–silver plated
	hard–gold plated
Contact resistance	⩽3mΩ
Crimp terminal	
–mm²	0.14–2.5mm²
–AWG	26–14

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



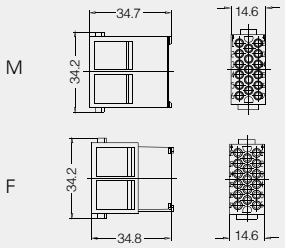
— 24 B hoods/housings with 6 modules, wire gauge：1.5mm²
— 24 B hoods/housings with 6 modules, wire gauge：1.0mm²

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMDD–017–MC	129 017 010 0001
Female	HMDD–017–FC	129 017 020 0001



Crimp contacts

Crimp contacts 10A

Contact resistance⩽3mΩ
silver plated

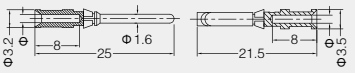


gold plated



More crimp contacts 10A
see P13–02,P13–02.

Male	Order No.	Female	Order No.
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

H2MDD-042 Crimp module

150V 10A
Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts	
Number of contacts	42
Electrical dataacc. to EN 61 984	
–Rated current	10A
–Rated voltage	150V
–Rated impulse voltage	2.5kV
–Pollution degree	3
Rated voltage acc. to UL	250V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycles	⩾500

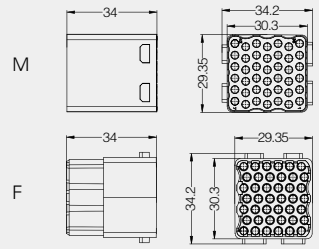
Contacts	
Material	copper alloy
Surface	hard–silver plated
	hard–gold plated
Contact resistance	⩽3mΩ
Crimp terminal	
–mm^2	0.14–2.5mm^2
–AWG	26–14

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	H2MDD–042–MC	129 042 010 0001
Female	H2MDD–042–FC	129 042 020 0001



Crimp contacts

Crimp contacts 10A

Contact resistance⩽3mΩ
silver plated



gold plated



More crimp contacts 10A
see P13–02,P13–02.

Male	Order No.	Female	Order No.
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm^2	AWG 28-24	0.65	5 mm
0.14-0.37 mm^2	AWG 26-22	0.9	8 mm
0.5 mm^2	AWG 20	1.1	8 mm
0.75 mm^2	AWG 18	1.3	8 mm
1 mm^2	AWG 18	1.45	8 mm
1.5 mm^2	AWG 16	1.75	8 mm
2.5 mm^2	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm^2,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm^2	TL02G	198 001 001 0011

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMMB-008 MegaBit module

50V 10A
Inserts



Only suitable for high constructure top entry hood/BK.
Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Adapter module

Number of contacts	1
Insulation resistance	⩾10^{10} Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycle	⩾500

Contacts

Crimp terminal	hard–gold plated
–mm²	0.14–2.5 mm²
–AWG	26–14

MegaBit Insert

Contacts	2x4+shielding
Electrical dataacc. to EN 61 984	
–Rated current	10A
–Rated voltage	50V
–Rated impulse voltage	0.8kV
–Pollution degree	3
Material	
–insert	polycarbonate
–outer conductor	zinc alloy
Insulation resistance	⩽4m Ω
Limiting temperatures	–40℃...+85℃
Flammability acc. to UL 94	V0
Surface	passivated
Clamping range	5–12 mm

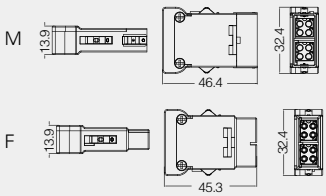
MegaBit Insert, Crimp terminal

Order the adapter module separately.
Order crimp contacts separately.



Insert	Designation	Order No.
Male	HMMB–008–MC	129 008 010 0503
Female	HMMB–008–FC	129 008 020 0503

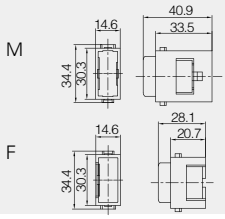
Order cable clamp separately.



Adapter module



Insert	Designation	Order No.
Male	HMB.C–M	129 000 001 0001
Female	HMB.C–F	129 000 002 0001



Crimp contacts

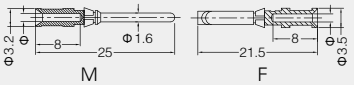
Crimp contacts 10A

Contact resistance⩽3m Ω
gold plated



More crimp contacts 10A see P13–02,P13–02.

Male	Order No.	Female	Order No.
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



Detail please find the crimp contacts series

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Contact removal tool



Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMGB-008 GigaBit module

50V 5A
Inserts



Only suitable for high constructure top entry hood/BK.
Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Adapter module	
Number of contacts	1
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycle	⩾500
D-Sub Contacts	
Crimp terminal	hard–gold plated
–mm²	0.09–0.52 mm²
–AWG	28–20

GigaBit module	
Contacts	8+shielding
Electrical dataacc. to EN 61 984	
–Rated current	5A
–Rated voltage	50V
–Rated impulse voltage	0.8kV
–Pollution degree	3
Material	
–insert	polycarbonate
–outer conductor	zinc alloy
Insulation resistance	⩽4mΩ
Limiting temperatures	–40℃...+85℃
Flammability acc. to UL 94	V0
Surface	passivated
Clamping range	5–12 mm

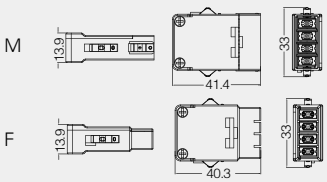
MegaBit Insert, Crimp terminal

Order the adapter module separately.
Order crimp contacts separately



Insert	Designation	Order No.
Male	HMGB–008–MC	129 008 010 0002
Female	HMGB–008–FC	129 008 020 0002

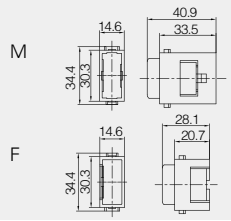
Order cable clamp separately.



Adapter module



Insert	Designation	Order No.
Male	HMB.C–M	129 000 001 0001
Female	HMB.C–F	129 000 002 0001



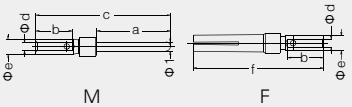
Crimp contacts

Crimp contacts 5A

Contact resistance⩽3mΩ
gold plated



Male	Order No.	Female	Order No.
CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501



Detail please find the crimp contacts series

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.09–0.82mm²	TL03	198 001 001 0002

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMMB-008 MegaBit module

50V 10A
Inserts



Only suitable for high constructure top entry hood/BK.
Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Adapter module	
Number of contacts	1
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycle	⩾500

Contacts	
Crimp terminal	hard–gold plated
–mm²	0.14–2.5 mm²
–AWG	26–14

MegaBit Insert	
Contacts	2x4+shielding
Electrical dataacc. to EN 61 984	
–Rated current	10A
–Rated voltage	50V
–Rated impulse voltage	0.8kV
–Pollution degree	3
Material	
–insert	polycarbonate
–outer conductor	zinc alloy
Insulation resistance	⩽4mΩ
Limiting temperatures	–40℃...+85℃
Flammability acc. to UL 94	V0
Surface	passivated
Clamping range	5–12 mm

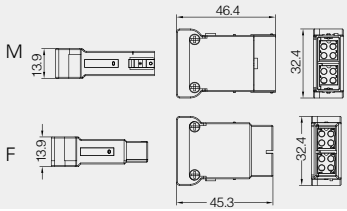
MegaBit Insert, Crimp terminal

Order the adapter module separately.
Order crimp contacts separately



Insert	Designation	Order No.
Male	HMMB–008–MC 3SP	129 008 010 0508
Female	HMMB–008–FC 3SP	129 008 020 0508

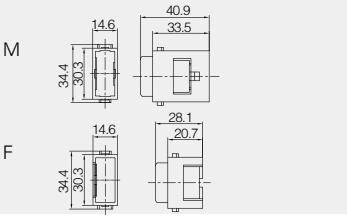
Not allow to connect with the frame shield
Order cable clamp separately.



Adapter module



Insert	Designation	Order No.
Male	HMB.C–M	129 000 001 0001
Female	HMB.C–F	129 000 002 0001



Crimp contacts

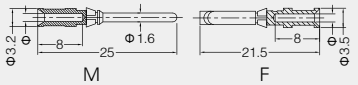
Crimp contacts 10A

Contact resistance⩽3mΩ
gold plated



More crimp contacts 10A see P13–02,P13–02.

Male	Order No.	Female	Order No.
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



Detail please find the crimp contacts series

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMGB-008 GigaBit module

50V 5A
Inserts



Only suitable for high constructure top entry hood/BK.
Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Adapter module	
Number of contacts	1
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycle	⩾500
D-Sub Contacts	
Crimp terminal	hard–gold plated
–mm²	0.09–0.52 mm²
–AWG	28–20

GigaBit module	
Contacts	8+shielding
Electrical dataacc. to EN 61 984	
–Rated current	5A
–Rated voltage	50V
–Rated impulse voltage	0.8kV
–Pollution degree	3
Material	
–insert	polycarbonate
–outer conductor	zinc alloy
Insulation resistance	⩽4mΩ
Limiting temperatures	–40℃...+85℃
Flammability acc. to UL 94	V0
Surface	passivated
Clamping range	5–12 mm

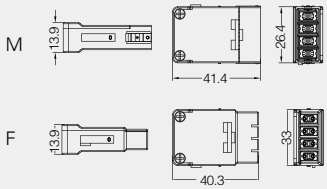
MegaBit Insert, Crimp terminal

Order the adapter module separately.
Order crimp contacts separately



Insert	Designation	Order No.
Male	HMGB–008–MC 3SP	129 008 010 0004
Female	HMGB–008–FC 3SP	129 008 020 0004

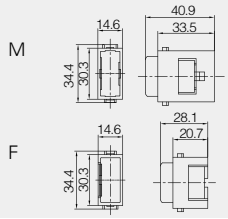
Not allow to connect with the frame shield
Order cable clamp separately.



Adapter module



Insert	Designation	Order No.
Male	HMB.C–M	129 000 001 0001
Female	HMB.C–F	129 000 002 0001



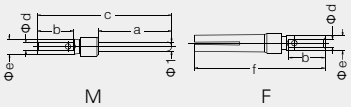
Crimp contacts

Crimp contacts 5A

Contact resistance⩽3mΩ
gold plated



Male	Order No.	Female	Order No.
CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501



Detail please find the crimp contacts series

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.09–0.82mm²	TL03	198 001 001 0002

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMSB-024 Shielding Module

32V 4A
Inserts



Only suitable for high constructure top entry hood/BK.
Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Adapter module	
Number of contacts	1
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycle	⩾500
D-Sub Contacts	
Crimp terminal	hard–gold plated
–mm²	0.09–0.52 mm²
–AWG	28–20

HMSB–024 module	
Contacts	24+shielding
Electrical dataacc. to EN 61 984	
–Rated current	4A
–Rated voltage	32V
–Rated impulse voltage	0.8kV
–Pollution degree	3
Material	polycarbonate
–insert	zinc alloy
–outer conductor	⩽4mΩ
Insulation resistance	–40℃...+85℃
Limiting temperatures	V0
Flammability acc. to UL 94	passivated
Surface	5–12 mm
Clamping range	

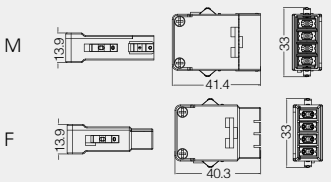
MegaBit Insert, Crimp terminal

Order the adapter module separately.
Order crimp contacts separately



Insert	Designation	Order No.
Male	HMSB–024–MC	129 024 010 0001
Female	HMSB–024–FC	129 024 020 0001

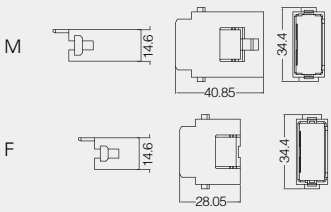
Order cable clamp separately.



Adapter module



Insert	Designation	Order No.
Male	HMSB.C–M	129 000 011 1001
Female	HMSB.C–F	129 000 021 1001



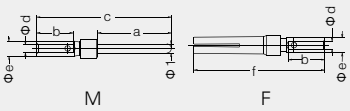
Crimp contacts

Crimp contacts 5A

Contact resistance⩽3mΩ
gold plated



Male	Order No.	Female	Order No.
CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501



Detail please find the crimp contacts series

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.09–0.82mm²	TL03	198 001 001 0002

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Cable clamp
-Accessories for GigaBit, MegaBit and HMSB-024 shielding module

Technical characteristics

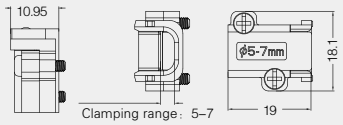
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Cable clamp	
Material	zinc alloy
Surface	passivated
Clamping range	5–12mm

Cable clamp



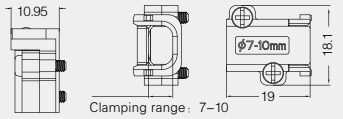
Clamping range	Designation	Order No.
5–7 mm	HM–CLP5–7	198 002 003 0031



Cable clamp



Clamping range	Designation	Order No.
7–10 mm	HM–CLP7–10	198 002 003 0032

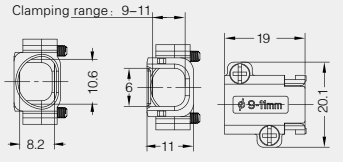


Cable clamp



Clamping range	Designation	Order No.
9–11 mm	HM–CLP9–11	198 002 003 0037

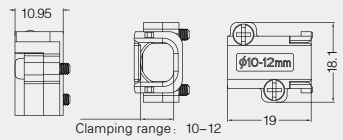
No suit for MegaBit module.



Cable clamp



Clamping range	Designation	Order No.
10–12 mm	HM–CLP10–12	198 002 003 0033



HMDS-009 D-Sub module
- for one cable

50V 5A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

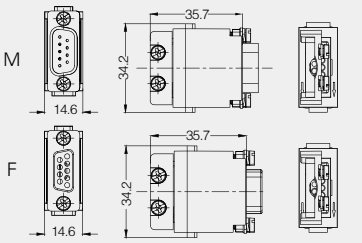
Inserts		Contacts	
Number of contacts	9	Material	copper alloy
Electrical dataacc. to EN 61 984		Surface	hard–silver plated
–Rated current	5A		hard–gold plated
–Rated voltage	50V	Contact resistance	⩽3mΩ
–Rated impulse voltage	0.8kV	Crimp terminal	
–Pollution degree	3	–mm²	0.09–0.82mm²
Insulation resistance	⩾10^{10}Ω	–AWG	28–18
Material	polycarbonate		
Limiting temperatures	–40℃...+125℃		
Flammability acc. to UL 94	V0		
Mechanical working life			
– mating cycles	⩾500		

Crimp terminal

Order crimp contacts separately



Insert	Description	Designation	Order No.
Male	for one cable	HMDS/2.1–009–MC	129 009 010 0101
Female	for one cable	HMDS/2.1–009–FC	129 009 020 0101



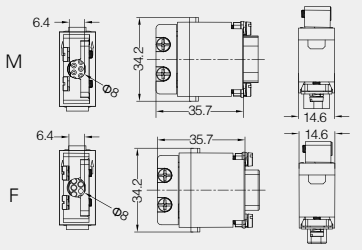
Crimp terminal

Order crimp contacts separately



Insert	Description	Designation	Order No.
Male	for one cable	HMDS/2.1–009–MC 3SP01	129 009 010 0506
Female	for one cable	HMDS/2.1–009–FC 3SP01	129 009 020 0506

Clamp locking range: Φ 7mm



Crimp contacts

Crimp contacts 5A

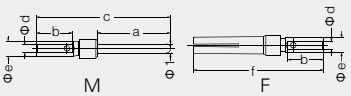
Contact resistance⩽3mΩ
silver plated



gold plated



Male	Order No.	Female	Order No.
CSSM–0.25	101 014 110 0101	CSSF–0.25	101 014 120 0101
CSSM–0.33	101 014 110 0201	CSSF–0.33	101 014 120 0201
CSSM–0.52	101 014 110 0501	CSSF–0.52	101 014 120 0501
CSSM–0.82	101 014 110 0701	CSSF–0.82	101 014 120 0701
CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501
CSGM–0.82	101 014 210 0701	CSGF–0.82	101 014 220 0701



a	b	c	d	e	f
8.10	4.0	14.8	0.64	1.66	14.4
8.10	4.0	14.8	0.90	1.66	14.4
8.10	4.0	14.8	1.12	1.66	14.4
8.23	4.2	14.0	1.35	1.75	13.6

Wire gauge		Stripping length
0.09–0.25 mm²	AWG 28–24	5 mm
0.13–0.33 mm²	AWG 26–22	5 mm
0.33–0.52 mm²	AWG 22–20	5 mm
0.52–0.82 mm²	AWG 22–18	5 mm

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.09–0.82mm²	TL03	198 001 001 0002

Application	Designation	Order No.
for 5A crimp contact	TL08	198 001 000 0006

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMDS-009 D-Sub module
- for two cables

50V 5A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts	
Number of contacts	9
Electrical dataacc. to EN 61 984	
–Rated current	5A
–Rated voltage	50V
–Rated impulse voltage	0.8kV
–Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycles	⩾500

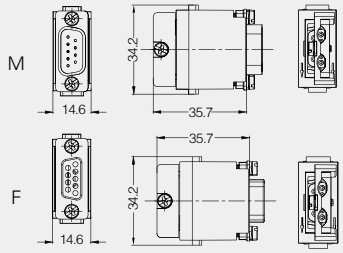
Contacts	
Material	copper alloy
Surface	hard–silver plated
	hard–gold plated
Contact resistance	⩽3mΩ
Crimp terminal	
–mm^2	0.09–0.82mm^2
–AWG	28–18

Crimp terminal

Order crimp contacts separately



Insert	Description	Designation	Order No.
Male	for two cables	HMDS/2.2–009–MC	129 009 010 0102
Female	for two cables	HMDS/2.2–009–FC	129 009 020 0102



Crimp contacts

Crimp contacts 5A

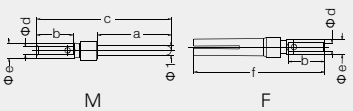
Contact resistance⩽3mΩ
silver plated



gold plated



Male	Order No.	Female	Order No.
CSSM–0.25	101 014 110 0101	CSSF–0.25	101 014 120 0101
CSSM–0.33	101 014 110 0201	CSSF–0.33	101 014 120 0201
CSSM–0.52	101 014 110 0501	CSSF–0.52	101 014 120 0501
CSSM–0.82	101 014 110 0701	CSSF–0.82	101 014 120 0701
CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501
CSGM–0.82	101 014 210 0701	CSGF–0.82	101 014 220 0701



a	b	c	d	e	f
8.10	4.0	14.8	0.64	1.66	14.4
8.10	4.0	14.8	0.90	1.66	14.4
8.10	4.0	14.8	1.12	1.66	14.4
8.23	4.2	14.0	1.35	1.75	13.6

Wire gauge		Stripping length
0.09–0.25 mm^2	AWG 28–24	5 mm
0.13–0.33 mm^2	AWG 26–22	5 mm
0.33–0.52 mm^2	AWG 22–20	5 mm
0.52–0.82 mm^2	AWG 22–18	5 mm

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.09–0.82mm^2	TL03	198 001 001 0002

Application	Designation	Order No.
for 5A crimp contact	TL08	198 001 000 0006

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

50V 4A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

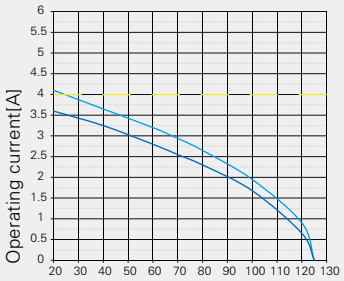
Inserts	
Number of contacts	25
Electrical dataacc. to EN 61 984	
–Rated current	4A
–Rated voltage	50V
–Rated impulse voltage	0.8kV
–Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycles	⩾500

Contacts	
Material	copper alloy
Surface	hard–silver plated
	hard–gold plated
Contact resistance	⩽3mΩ
Crimp terminal	
–mm^2	0.09–0.52mm^2
–AWG	28–20

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



— 24 B hoods/housings with 6 modules, wire gauge: 0.5mm^2(turned contacts)

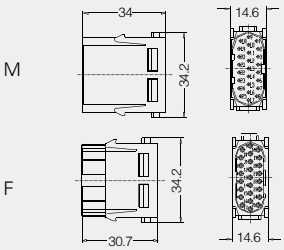
— 24 B hoods/housings with 6 modules, wire gauge: 0.5mm^2(stamped contacts)

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMDS–025–MC	129 025 010 0001
Female	HMDS–025–FC	129 025 020 0001



Crimp contacts

Crimp contacts 5A

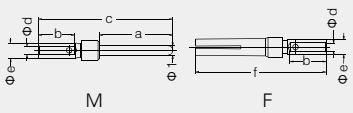
Contact resistance⩽3mΩ
silver plated



gold plated



Male	Order No.	Female	Order No.
CSSM–0.25	101 014 110 0101	CSSF–0.25	101 014 120 0101
CSSM–0.33	101 014 110 0201	CSSF–0.33	101 014 120 0201
CSSM–0.52	101 014 110 0501	CSSF–0.52	101 014 120 0501
CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501



a	b	c	d	e	f
8.10	4.0	14.8	0.64	1.66	14.4
8.10	4.0	14.8	0.90	1.66	14.4
8.10	4.0	14.8	1.12	1.66	14.4

Wire gauge		Stripping length
0.09–0.25 mm^2	AWG 28–24	5 mm
0.13–0.33 mm^2	AWG 26–22	5 mm
0.33–0.52 mm^2	AWG 22–20	5 mm

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.09–0.82mm^2	TL03	198 001 001 0002

Application	Designation	Order No.
for 5A crimp contact	TL08	198 001 000 0006

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HMDS-036 High Density module

32V 4A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

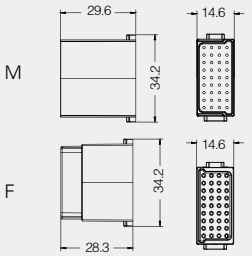
Inserts		Contacts	
Number of contacts	36	Material	copper alloy
Electrical dataacc. to EN 61 984		Surface	hard–silver plated
–Rated current	4A		hard–gold plated
–Rated voltage	32V	Contact resistance	⩽3mΩ
–Rated impulse voltage	0.8kV	Crimp terminal	
–Pollution degree	3	–mm²	0.09–0.52mm²
Insulation resistance	⩾10^{10}Ω	–AWG	28–22
Material	polycarbonate		
Limiting temperatures	–40℃...+125℃		
Flammability acc. to UL 94	V0		
Mechanical working life			
– mating cycles	⩾500		

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMDS–036–MC	129 036 010 0001
Female	HMDS–036–FC	129 036 020 0001



Crimp contacts

Crimp contacts 5A

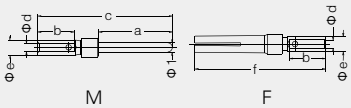
Contact resistance⩽3mΩ
silver plated



gold plated



Male	Order No.	Female	Order No.
CSSM–0.25	101 014 110 0101	CSSF–0.25	101 014 120 0101
CSSM–0.33	101 014 110 0201	CSSF–0.33	101 014 120 0201
CSSM–0.52	101 014 110 0501	CSSF–0.52	101 014 120 0501
CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501



a	b	c	d	e	f
8.10	4.0	14.8	0.64	1.66	14.4
8.10	4.0	14.8	0.90	1.66	14.4
8.10	4.0	14.8	1.12	1.66	14.4

Wire gauge		Stripping length
0.09–0.25 mm²	AWG 28–24	5 mm
0.13–0.33 mm²	AWG 26–22	5 mm
0.33–0.52 mm²	AWG 22–20	5 mm

Tools

Crimping tool



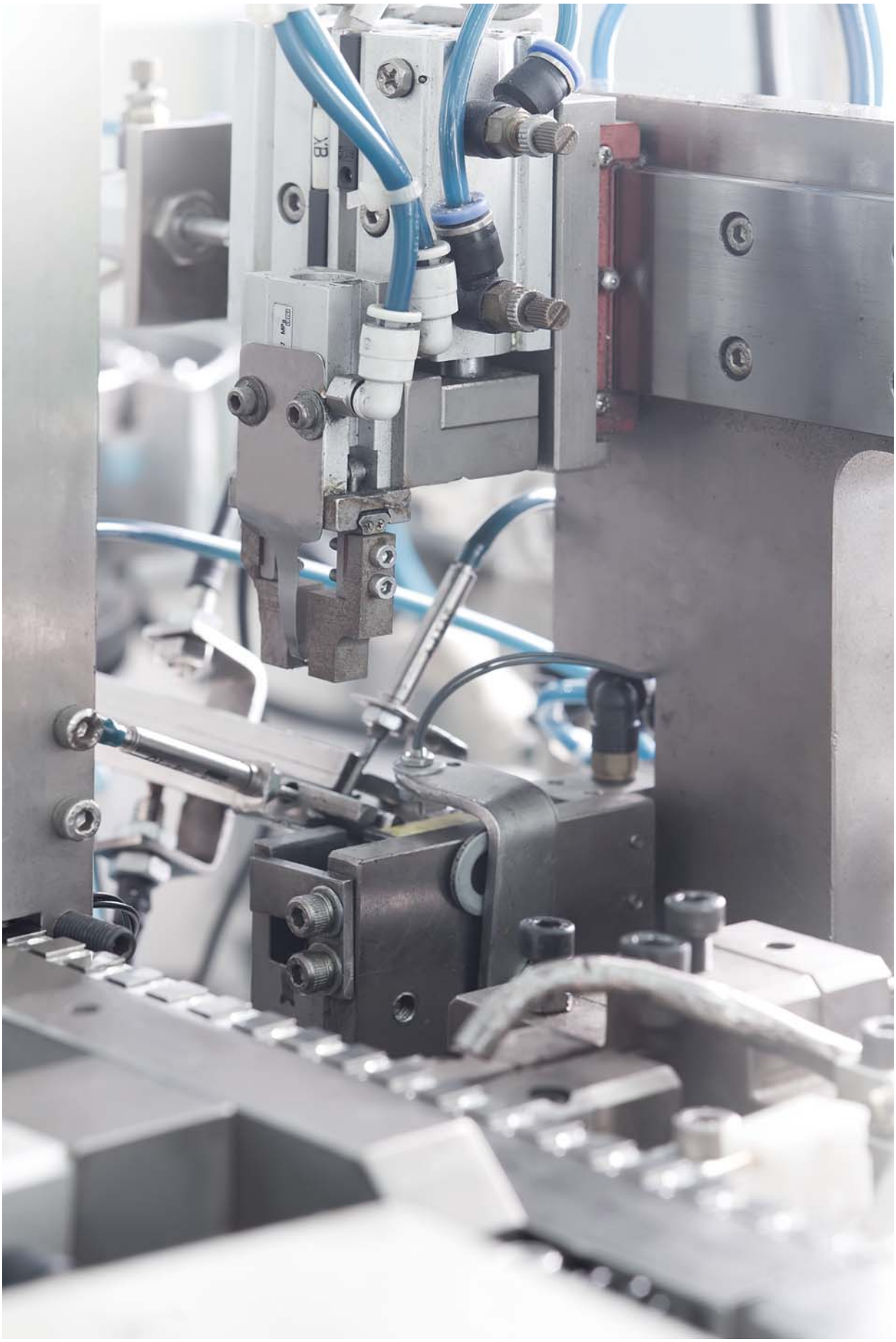
Contact removal tool



Wire gauge	Designation	Order No.
0.09–0.82mm²	TL03	198 001 001 0002

Application	Designation	Order No.
for 5A crimp contact	TL08	198 001 000 0006

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.



HM-RJ45 module

50V 1A

Inserts



Male inserts only suitable for high structure shells.
Combination with hinged frame and other modules possible.

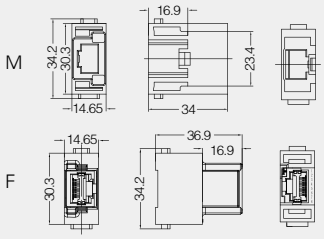
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	8
Electrical dataacc. to EN 61 984	
–Rated current	1A
–Rated voltage	50V
–Rated impulse voltage	0.8kV
–Pollution degree	3
Rated voltage acc. to UL	< 30 V
Transmission features	Category 6 /Class E
	up to 500 MHz; acc. to
	ISO/IEC 11 801:2002
	and EN 50 173–1
Transmission rate	10/100/1000Mbit/10Gbit/s
Insulation resistance	⩾10^{10} Ω
Material	polycarbonate
Limiting temperatures	–40℃...+85℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycle	⩾500

Inserts for patch cable



Insert	Designation	Order No.
Male	HM–RJ45–M	229 001 001 0001
Female	HM–RJ45–F	129 001 002 0092

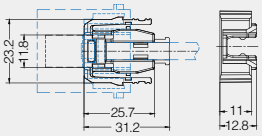


Adapter



Description	Designation	Order No.
go with male insert for standard cable	HM–RJ45–APT/2	229 001 000 0005

Please refer to page 10–50 for matching cable (no plastic cable)
go with male insert:HM–RJ45–M/APT/2 129 001 001 0002

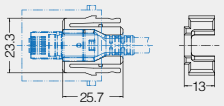


Adapter



Description	Designation	Order No.
go with male insert for patch cable	HM–RJ45–APT	229 001 000 0003

Please refer to page 10–50.1 for matching cable
go with male insert: HM–RJ45–M/APT 129 001 001 0001



HM-RJ45 Patch cables

50V 1A

Technical characteristics

Specifications	ISO/IEC 24 702 ISO/IEC 11 801 ISO/IEC 61 935–2

Cat.5 e RJ45 Patch cables	
Transmission features	Category 5 /Class D up to
	100 MHz;acc. to ISO/IEC
	24 702 or ISO/IEC 11 801
Transmission rate	10/100/1000 Mbit/s
Cable type	1:1 EIA/TIA 568 B, 8 poles
Material cables	SF/UTP, PVC, blue
Limiting temperatures	
– mobile	0℃...+60℃
– stationary	–40℃...+80℃
Flammability	flame retardant,
	halogen–free
Degree of protection	IP20

Cat.6A RJ45 Patch cables	
Transmission features	Category 6 /Class D up to
	500 MHz;acc. to ISO/IEC
	24 702 or ISO/IEC 11 801
Transmission rate	10/100/1000 Mbit/10Gbit/s
Cable type	EIA/TIA 568 B,8 poles
Material cables	S/FTP,PUR,Water blue
Limiting temperatures	
– mobile	0℃...+60℃
– stationary	–40℃...+80℃
Flammability	flame retardant,
	halogen–free
Degree of protection	IP20

Assembly diagram

HM–RJ45–APT/2

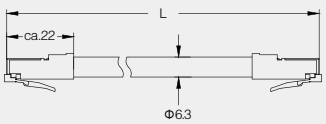


Standard cable[1)]

1) Further cable length upon request.



Length(L)	Designation	Order No.
1.5m	PC/2–RJ45–1.5(Cat.5e)	906 010000 0048
2m	PC/2–RJ45–2.0(Cat.5e)	906 010000 0049
3m	PC/2–RJ45–3.0(Cat.5e)	906 010000 0050
4m	PC/2–RJ45–4.0(Cat.5e)	906 010000 0051
5m	PC/2–RJ45–5.0(Cat.5e)	906 010000 0052
7m	PC/2–RJ45–7.0(Cat.5e)	906 010000 0053
9m	PC/2–RJ45–9.0(Cat.5e)	906 010000 0054
10m	PC/2–RJ45–10.0(Cat.5e)	906 010000 0055

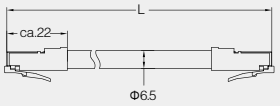


Standard cable[1)]

1) Further cable length upon request.



Length(L)	Designation	Order No.
1.5m	PC/2–RJ45–1.5(Cat.6A)–PUR	198 002 010 0005
2m	PC/2–RJ45–2.0(Cat.6A)–PUR	198 002 010 0006
3m	PC/2–RJ45–3.0(Cat.6A)–PUR	198 002 010 0007
4m	PC/2–RJ45–4.0(Cat.6A)–PUR	198 002 010 0008



HM-RJ45 Patch cables

50V 1A

Technical characteristics

Specifications	ISO/IEC 24 702 ISO/IEC 11 801 ISO/IEC 61 935–2

Cat.6A RJ45 Patch cables	
Transmission features	Category 6 /Class D up to
	500 MHz;acc. to ISO/IEC
	24 702 or ISO/IEC 11 801
Transmission rate	10/100/1000 Mbit/10Gbit/s
Cable type	EIA/TIA 568 B,8 poles
Material cables	S/FTP,PUR,Water blue
Limiting temperatures	
– mobile	0℃...+60℃
– stationary	–40℃...+80℃
Flammability	flame retardant,
	halogen–free
Degree of protection	IP20

Assembly diagram

HM–RJ45–APT

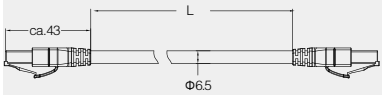


Standard cable[1)]

1) Further cable length upon request.



Length(L)	Designation	Order No.
0.5m	2RJ45–M08–T–0.5–PUR–Cat.6a	172 008 401 4026
1.0m	2RJ45–M08–T–1.0–PUR–Cat.6a	172 008 401 4020
1.5m	2RJ45–M08–T–1.5–PUR–Cat.6a	172 008 401 4027
2m	2RJ45–M08–T–2.0–PUR–Cat.6a	172 008 401 4019
3m	2RJ45–M08–T–3.0–PUR–Cat.6a	172 008 401 4025
4m	2RJ45–M08–T–4.0–PUR–Cat.6a	172 008 401 4021
7m	2RJ45–M08–T–7.0–PUR–Cat.6a	172 008 401 4018



HMP-002 Pneumatic module

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

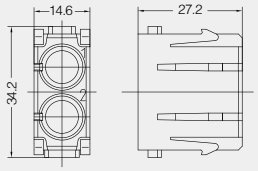
Inserts		Contacts	
Number of contacts	2	Material	delrin acetal
Colour	blue	Colour	black
Material	polycarbonate	Tube termination	
Limiting temperatures	–40℃...+80℃	– Internal diameter (ID)	6.0mm / 1/4 “
Flammability acc. to UL 94	V0	Working pressure	up to 8 bar / 116 psi
Mechanical working life		Sealing	
– mating cycles	⩾500	–Material	FPM
		Shut off valve	
		–Material	polyformaldehyde

Pneumatic module

Order contacts separately



Description	Designation	Order No.
for 6 mm	HMP–002	129 002 000 0001



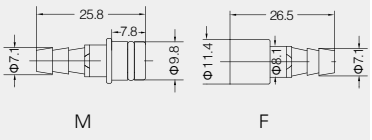
Contacts

Pneumatic contacts

for tubeinternal diameter(ID)



Description	Category	ID	Designation	Order No.
without shut off	Male	6.0 mm	PCM–6.0	101 100 001 0004
without shut off	Female	6.0 mm	PCF–6.0	101 100 002 0004

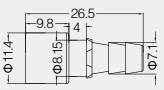


Pneumatic contacts

for tubeinternal diameter(ID)



Description	Category	ID	Designation	Order No.
with shut off	Female	6.0 mm	PCFS–6.0	101 100 002 0014



HMP-003 Pneumatic module

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

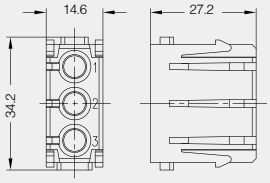
Inserts		Contacts	
Number of contacts	3	Material	polyformaldehyde
Colour	blue	Colour	black
Material	polycarbonate	Tube termination	
Limiting temperatures	–40℃...+80℃	– Internal diameter (ID)	1.6mm / 1/16 “
Flammability acc. to UL 94	V0		3.0mm
Mechanical working life			4.0mm / 1/8 “
– mating cycles	⩾500	Working pressure	up to 8 bar / 116 psi
		Sealing	
		–Material	FPM
		Shut off valve	
		–Material	polyformaldehyde

Pneumatic module

Order contacts separately



Description	Designation	Order No.
for 1.6; 3; 4 mm	HMP–003	129 003 000 0001



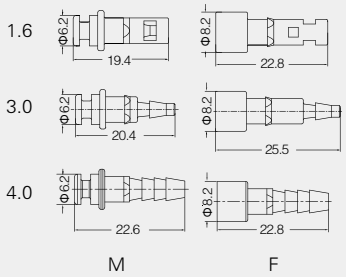
Contacts

Pneumatic contacts

for tubeinternal diameter(ID)



Description	Category	ID	Designation	Order No.
without shut off	Male	1.6 mm	PCM–1.6	101 100 001 0001
		3.0 mm	PCM–3.0	101 100 001 0002
		4.0 mm	PCM–4.0	101 100 001 0003
without shut of	Female	1.6 mm	PCF–1.6	101 100 002 0001
		3.0 mm	PCF–3.0	101 100 002 0002
		4.0 mm	PCF–4.0	101 100 002 0003

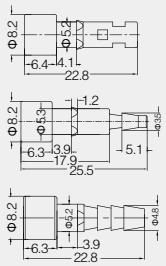


Pneumatic contacts

for tubeinternal diameter(ID)



Description	Category	ID	Designation	Order No.
with shut off	Female	1.6 mm	PCFS–1.6	101 100 002 0011
		3.0 mm	PCFS–3.0	101 100 002 0012
		4.0 mm	PCFS–4.0	101 100 002 0013



HMP-003 Metal Pneumatic Module

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

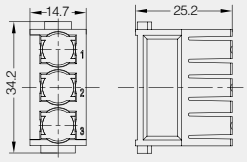
Inserts		Contacts	
Number of contacts	3	Material	copper
Material	polycarbonate	Colour	nickel plating
Limiting temperatures	–40℃...+80℃	Tube termination	
Flammability acc. to UL 94	V0	– Outer diameter (OD)	3.0mm / 4.0mm / 6.0mm
Mechanical working life		Working pressure	up to 10 bar / 145 psi
– mating cycles	⩾500	Sealing	
		–Material	FPM
		Shut off valve	
		–Material	polyformaldehyde

Metal Pneumatic Module

Order contacts separately



Description	Designation	Order No.
	HMP–003–V2	129 003 000 0505



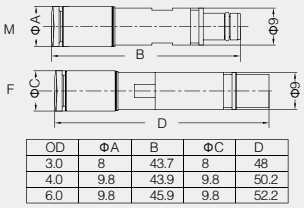
Contacts

Metal Pneumatic Contacts

Used for Flexible Tube(OD)



Description	Category	OD	Designation	Order No.
without shut off	Male	3.0mm	MPCM–OD3.0	101 100 001 0005
		4.0mm	MPCM–OD4.0	101 100 001 0006
		6.0mm	MPCM–OD6.0	101 100 001 0007
without shut off	Female	3.0mm	MPCF–OD3.0	101 100 002 0017
		4.0mm	MPCF–OD4.0	101 100 002 0019
		6.0mm	MPCF–OD6.0	101 100 002 0021



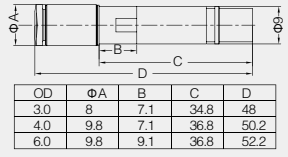
OD	ΦA	B	ΦC	D
3.0	8	43.7	8	48
4.0	9.8	43.9	9.8	50.2
6.0	9.8	45.9	9.8	52.2

Metal Pneumatic Contacts

Used for Flexible Tube(OD)



Description	Category	OD	Designation	Order No.
with shut off	Female	3.0mm	MPCFS–OD3.0	101 100 002 0016
		4.0mm	MPCFS–OD4.0	101 100 002 0018
		6.0mm	MPCFS–OD6.0	101 100 002 0020



OD	ΦA	B	C	D
3.0	8	7.1	34.8	48
4.0	9.8	7.1	36.8	50.2
6.0	9.8	9.1	36.8	52.2

Tools

Contact removal tool



Application	Designation	Order NO.
for HMP–003–V2 Metal Pneumatic Module	TL26	198 001 000 0030

HMP-003 Metal Pneumatic Module

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

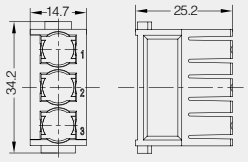
Inserts		Contacts	
Number of contacts	3	Material	copper
Material	polycarbonate	Colour	nickel plating
Limiting temperatures	–40℃...+80℃	Tube termination	
Flammability acc. to UL 94	V0	– Internal diameter (ID)	3.0mm / 4.0mm / 6.0mm
Mechanical working life		Working pressure	up to 10 bar / 145 psi
– mating cycles	⩾500	Sealing	
		–Material	FPM
		Shut off valve	
		–Material	polyformaldehyde

Metal Pneumatic Module

Order contacts separately



Description	Designation	Order No.
	HMP–003–V2	129 003 000 0505



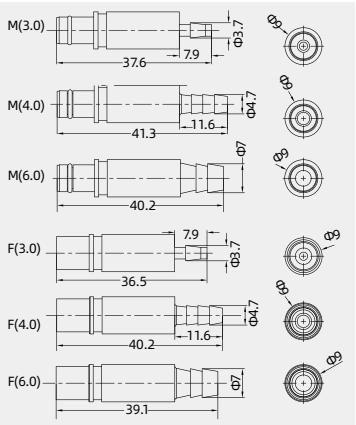
Contacts

Metal Pneumatic Contacts NEW

Used for Flexible Tube(ID)



Description	Category	ID	Designation	Order No.
without shut off	Male	3.0mm	MPCM–ID3.0	101 100 001 1102
		4.0mm	MPCM–ID4.0	101 100 001 1201
		6.0mm	MPCM–ID6.0	101 100 401 1301
without shut off	Female	3.0mm	MPCF–ID3.0	101 100 002 1102
		4.0mm	MPCF–ID4.0	101 100 002 1202
		6.0mm	MPCF–ID6.0	101 100 402 1302

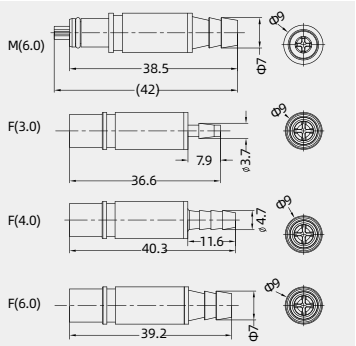


Metal Pneumatic Contacts NEW

Used for Flexible Tube(ID)



Description	Category	ID	Designation	Order No.
with shut off	Male	6.0mm	MPCMS–ID6.0	101 100 400 1301
with shut off	Female	3.0mm	MPCFS–ID3.0	101 100 002 1101
		4.0mm	MPCFS–ID4.0	101 100 002 1201
		6.0mm	MPCFS–ID6.0	101 100 402 1301



Tools

Contact removal tool



Application	Designation	Order NO.
for HMP–003–V2 Metal Pneumatic Module	TL26	198 001 000 0030

HMSC-004 SC Fiber module

Inserts



Combination with hinged frame and other modules possible.

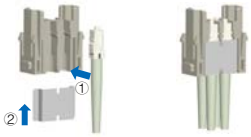
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts	
Number of contacts	4
Insertion loss	< 0.5 dB
Material polycarbonate	polycarbonate
Limiting temperatures	–40 ° C ... +85 ° C
Flammability acc. to UL 94	V 0
Mechanical working life	
– mating cycles	⩾ 500

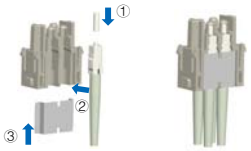
Assembly instructions

HMSC–004–MC



Assemble the SC contact
Push the SC contact from the side into the relevant insert (1)
Push the fixing plate from the side over the contacts (2)
B:SC contact fixed in the module

HMSC–004–FC



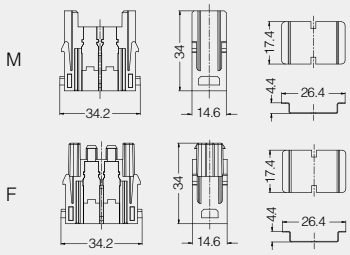
Assemble the SC contact
Push the centering ferrule (included in delivery) on the SCcontact (1)
Push the SC contact from the side into the relevant insert (2)
Push the fixing plate from the side over the contacts (3)
B: SC contact fixed in the module

SC module

Order SC Optical fiber connector separately



Insert	Designation	Order No.
Male	HMSC–004–MC	129 004 010 0091
Female	HMSC–004–FC	129 004 020 0091



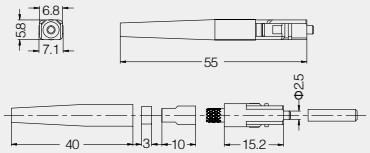
SC Optical fiber connector[1)]

SC Optical fiber connector

single mode: 9/125 μ m ,for GI fibre



Describtion	Designation	Order No.
Spare parts[2)]	SC–PC/SM–3.0	295 000 001 0002
Fiber jumper	PC–SC/UPC–SC/UPC–1.0(9/125 μ m– ϕ3.0)	906 010 000 0099
	PC–SC/UPC–SC/UPC–2.0(9/125 μ m– ϕ3.0)	906 010 000 0100

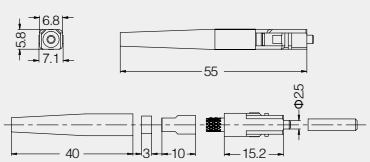


SC Optical fiber connector

multimode: 50/125 μ m or 62.5/125 μ m, for GI fibre



Describtion	Designation	Order No.
Spare parts[2)]	SC–PC/MM–3.0	295 000 001 0001
Fiber jumper	PC–SC/UPC–SC/UPC–1.0(50/125 μ m– ϕ3.0)	906 010 000 0097
	PC–SC/UPC–SC/UPC–2.0(50/125 μ m– ϕ3.0)	906 010 000 0098
	PC–SC/UPC–SC/UPC–1.0(62.5/125 μ m– ϕ3.0)	906 010 000 0095
	PC–SC/UPC–SC/UPC–2.0(62.5/125 μ m– ϕ3.0)	906 010 000 0096



1) SC、FC、ST、LC、MTRJ,different specifications and lengths of fiber optic jumper can be customized

2) Order spare parts should be equiped with corresponding equipment

HASC-004 SC Fiber module

Hoods/Housings: size 3A with sealing, please find the details on page 15-54~15-60.
cannot match the metal hood：HP3A/H-BK-SE,
HP3A/H-SF-2H-M20,HP3A/H-SF-2H-PG13.5,HP3A/H-SF-2H

Inserts

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts

Number of contacts	4
Insertion loss	< 0.5 dB
Material polycarbonate	polycarbonate
Limiting temperatures	–40 ° C ... +85 ° C
Flammability acc. to UL 94	V 0
Mechanical working life	
– mating cycles	⩾ 500

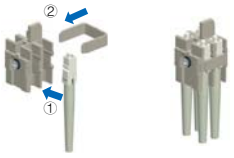
• Degree of protection up to IP 65/IP68

• For WAIN fibre optic SC Optical fiber connector ; up to 4 SC Optical fiber connector

• For Multimode fibre 50 – 62.5 / 125 µm and Singlemode fibre 9 / 125 µm

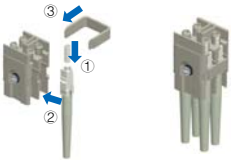
Assembly instructions

HASC–004–MC



Assemble the SC contact
(1) Push the SC contact from the side into the relevant insert
(2) Push the spring clip over the contact body.

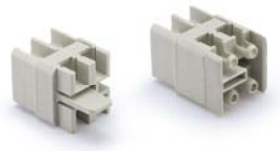
HASC–004–FC



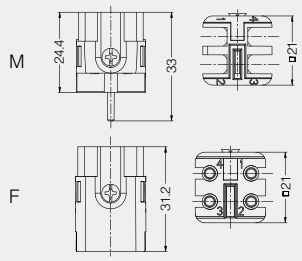
Assemble the SC contact
(1) Push the centering ferrule (included in delivery) on the SC contact
(2) Push the SC contact from the side into the relevant insert
(3) Push the spring clip over the contact body.

SC module

Order SC Optical fiber connector separately



Insert	Designation	Order No.
Male	HASC–004–MC	121 004 010 0001
Female	HASC–004–FC	121 004 020 0001



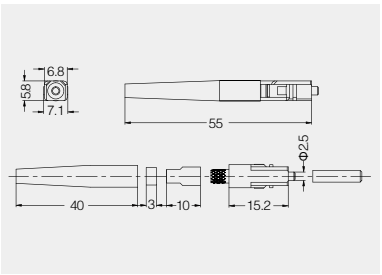
SC Optical fiber connector[1)]

SC Optical fiber connector

single mode: 9/125 µm ,for GI fibre



Describtion	Designation	Order No.
Spare parts[2)]	SC–PC/SM–3.0	295 000 001 0002
Fiber jumper	PC–SC/UPC–SC/UPC–1.0(9/125 µm– ϕ3.0)	906 010 000 0099
	PC–SC/UPC–SC/UPC–2.0(9/125 µm– ϕ3.0)	906 010 000 0100

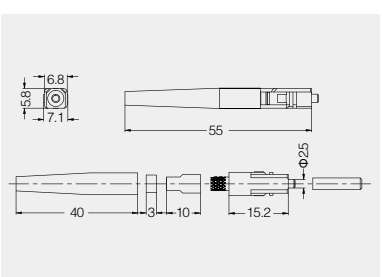


SC Optical fiber connector

multimode: 50/125 µm or 62.5/125 µm, for GI fibre



Describtion	Designation	Order No.
Spare parts[2)]	SC–PC/MM–3.0	295 000 001 0001
Fiber jumper	PC–SC/UPC–SC/UPC–1.0(50/125 µm– ϕ3.0)	906 010 000 0097
	PC–SC/UPC–SC/UPC–2.0(50/125 µm– ϕ3.0)	906 010 000 0098
	PC–SC/UPC–SC/UPC–1.0(62.5/125 µm– ϕ3.0)	906 010 000 0095
	PC–SC/UPC–SC/UPC–2.0(62.5/125 µm– ϕ3.0)	906 010 000 0096



1) SC、FC、ST、LC、MTRJ,different specifications and lengths of fiber optic jumper can be customized
2) Order spare parts should be equiped with corresponding equipment

125V AC 1.5A Combination of RJ45 and H3A Hoods/Housings

Technical characteristics

Specifications	ISO/IEC 11 801:2002 EN 50 173–1

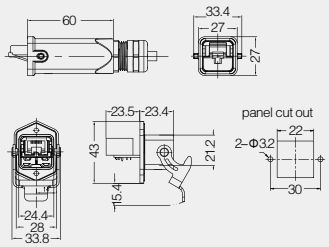
Inserts	
Number of contacts	8
Transmission performance	Category 5 /Class E up
	to100 MHz acc. to ISO/IEC
	11 801:2002, EN 50 173–1
Transmission rate	10/100 Mbit/s,1 Gbit/s
Shielding	fully shielded,360°
	shielding contact
Cable termination	with piercing
Limiting temperatures	–40℃...+70℃
Mechanical working life	
– mating cycle	⩾500

Hoods/Housings	
Material	Zinc alloy,SprayingRAL7037
Degree of protection	IP65

H3A RJ45 With cable gland



Insert	Designation	Order No.
Male	H3A–TE/S–2B–PG11–RJ45/M	110 003 410 1191
	H3A–TE/S–2B–M20–RJ45/M	110 003 400 1192
Female	H3A–BK–1L/W–RJ45/F	110 003 324 1091
	H3A–BK–1L/W–MCV–RJ45/F	110 003 324 1092

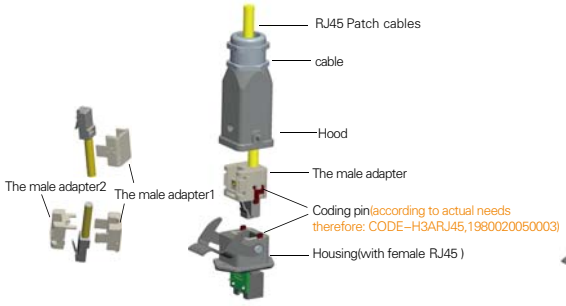


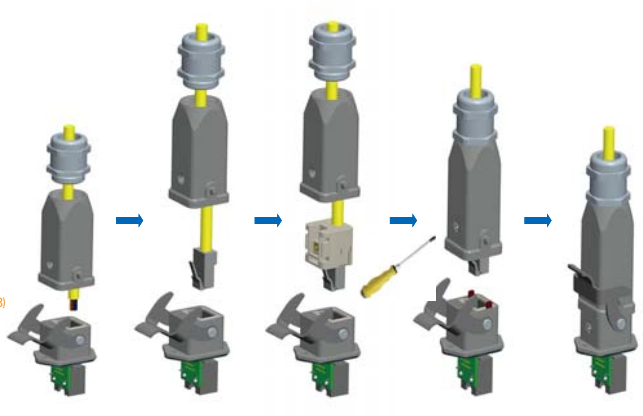
Structural characteristics and assembly instruction

Functional characteristics:
①Compatible with standard shielding CAT5 RJ45 connector on the market;
②Coding pin provides coding function.

Innovation:
①The boss of male adapter 1 positioned together with the groove of network cable of ordinary shielding RJ45;
②Male adapter has groove to fix the network cable;
③Male adapter 1 and male adapter 2 cooperate by a hook;
④Coding pin provides coding function.

Assembly instructions:
Step 1: Put one end of the network cable through the cable gland, strip length is about 15 mm, straighten the cable;
Step 2: Use the wire crimper to connect the cable and the crystal head;
Step 3: Install the crystal head in the adapter;
Step 4: Lock the adapter in the hood with a screwdriver (Torque 0.5 N.M), lock the cable gland with a wrench. If needed, a coding pin can also be used, and be careful about the mating of the hood and the housing, and the installation direction of the coding pin;
Step 5: Lock the hood and the housing with the lever.





HM

Q-Coax Electromagnetic screening module





Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	1,2
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Q-Coax contacts	
Number of contacts	
– Q–Coax	4 + shielding
– High Density Q–Coax	8 + shielding
Electrical data acc. to EN 61 984	
– Q–Coax	10A 50V 0.8kV 3
– High Density Q–Coax	5A 50V 0.8kV 3
Rated current	10/5A
Rated voltage	50V
Rated impulse voltage	0.8kV
Pollution degree	3
Material	
– Insulator	polycarbonate
– Outer conductor	zinc alloy
Contact resistance	⩽4mΩ
Limiting temperatures	–40℃...+85℃
Flammability acc. to UL 94	V0
Outer surface finish	nickel
Cable diameter	3–9.5mm
D-Sub crimp contacts(5A)	
Material	copper alloy
Surface	hard–gold plated
Contact resistance	⩽3mΩ
Crimp terminal	
–mm^2	0.09–0.52mm^2
–AWG	28–20
D contacts(10A)	
Material	copper alloy
Surface	hard–gold plated
Contact resistance	⩽3mΩ
Crimp terminal	
–mm^2	0.14–2.5mm^2
–AWG	26–14

- Features
- Shielding bus separate from housing potential
- Perfect for transmission of sensitive signals
- The four pole Q–Coax contact is suitable for Ethernet Cat. 5e and PROFIBUS when diagonally wiring of the data pairs.

Q-Coax Electromagnetic screening module

Assembly instructions see P10-63.

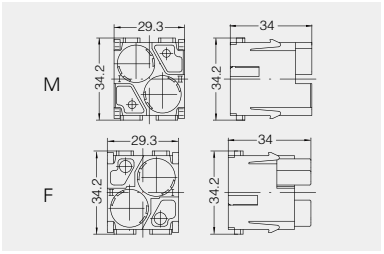


Combination with hinged frame and other modules possible.

Crimp terminal



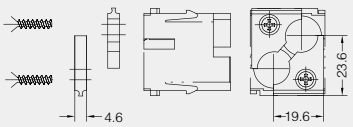
Insert	Designation	Order No.
Male	H2M–002–M	129 002 001 0001
Female	H2M–002–F	129 002 002 0001



Q-Coax metal adapter



Description	Designation	Order No.
	APT–H2MQ	198 002 007 0006

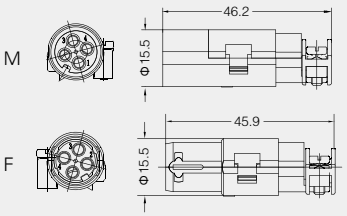


Q-Coax 4 + shielding

Crimp contacts 10A
Order crimp contacts separately
Cable diameter 3mm–9.5mm



Insert	Designation	Order No.
Male	EMC–004–MC	129 004 010 0082
Female	EMC–004–FC	129 004 020 0082

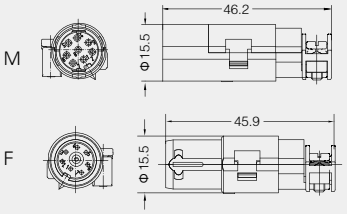


Q-Coax 8 + shielding

Crimp contacts 5A
Order crimp contacts separately
Cable diameter 3mm–9.5mm



Insert	Designation	Order No.
Male	EMC–008–MC	129 008 010 0082
Female	EMC–008–FC	129 008 020 0082



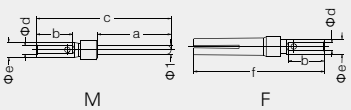
Crimp contacts

Crimp contacts 5A

Contact resistance≤3mΩ
gold plated



Wire gauge	Male	Order No.	Female	Order No.
0.09–0.25	CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
0.13–0.33	CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
0.33–0.52	CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501



Please find the details of crimp contacts on P13–02 to P13–07.

Crimp contacts 10A

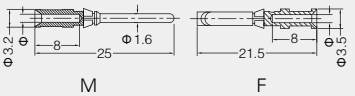
Contact resistance≤3mΩ
gold plated



More10A crimp contacts
see P13–02,P13–03.

Wire gauge	Male	Order No.	Female	Order No.
0.09–0.25	CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
0.14–0.37	CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
0.5	CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
0.75	CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
1	CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
1.5	CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
2.5	CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.



Please find the details of crimp contacts on P13–02 to P13–07.

*Please find the details of crimp contact tools on page 32-02~32-05.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Q-Coax Electromagnetic screening module

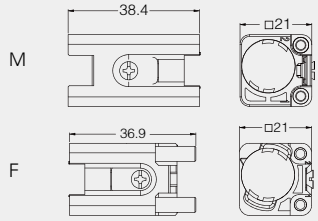
Assembly instructions see P10-63.

Hoods/Housings: size 3A with sealing, please find the details on page 10-64~10-70.

Crimp terminal



Insert	Designation	Order No.
Male	H3A–001–M	121 001 001 0001
Female	H3A–001–F	121 001 002 0001

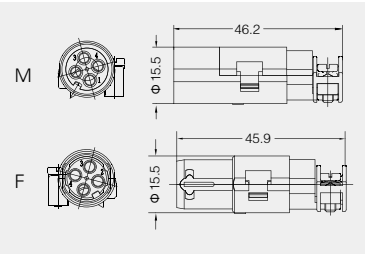


Q-Coax 4 + shielding

Crimp contacts 10A
Order crimp contacts separately
Cable diameter 3mm–9.5mm



Insert	Designation	Order No.
Male	EMC–004–MC	129 004 010 0082
Female	EMC–004–FC	129 004 020 0082

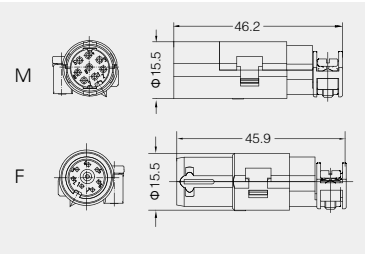


Q-Coax 8 + shielding

Crimp contacts 5A
Order crimp contacts separately
Cable diameter 3mm–9.5mm



Insert	Designation	Order No.
Male	EMC–008–MC	129 008 010 0082
Female	EMC–008–FC	129 008 020 0082



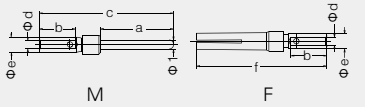
Crimp contacts

Crimp contacts 5A

Contact resistance≤3mΩ
gold plated



Wire gauge	Male	Order No.	Female	Order No.
0.09–0.25	CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
0.13–0.33	CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
0.33–0.52	CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501



Please find the details of crimp contacts on P13–02 to P13–07.

Crimp contacts 10A

Contact resistance≤3mΩ
gold plated

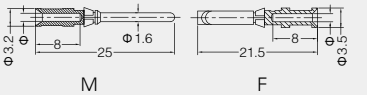


More10A crimp contacts see P13–02,P13–03.

Wire gauge	Male	Order No.	Female	Order No.
0.09–0.25	CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
0.14–0.37	CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
0.5	CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
0.75	CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
1	CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
1.5	CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
2.5	CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001

*Please find the details of crimp contact tools on page 32-02~32-05.

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.



Please find the details of crimp contacts on P13–02 to P13–07.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Coax Electromagnetic screening module





Technical characteristics

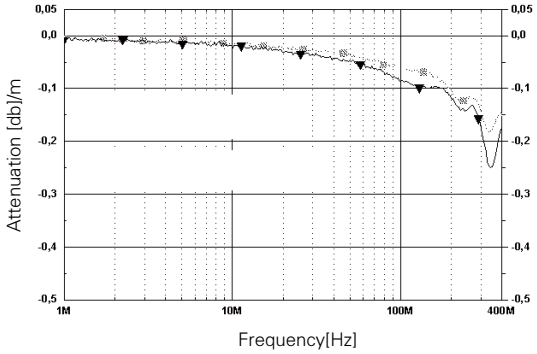
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	1,2
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+85℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Coax contacts	
Number of contacts	1 + shielding
Electrical data acc. to EN 61 984	
– D Coax	10A 50V 0.8kV 3
– E Coax	16A 50V 0.8kV 3
Rated current	10/16A
Rated voltage	50V
Rated impulse voltage	0.8kV
Pollution degree	3
Impedance	
– D Coax	75Ω
– E Coax	50Ω
Material	
– Insulator	polycarbonate
– Outer conductor	zinc alloy
Contact resistance	⩽4mΩ
Limiting temperatures	–40℃...+85℃
Flammability acc. to UL 94	V0
Outer surface finish	nickel
Cable diameter	3–9.5mm
D Coax contacts(10A)	
Material	copper alloy
Surface	hard–gold plated
Contact resistance	⩽3mΩ
Crimp terminal	
–mm^2	0.14–2.5mm^2
–AWG	26–14
E Coax contacts	
Material	copper alloy
Surface	hard–gold plated
Contact resistance	⩽1mΩ
Crimp terminal	
–mm^2	0.14–4mm^2
–AWG	26–12

• Features

- Shielding bus separate from housing potential
- Perfect for transmission of sensitive signals
- The four pole Q–Coax contact is suitable for Ethernet Cat. 5e and PROFIBUS when diagonally wiring of the data pairs.

Transmission characteristics

Impedance 75 Ω



75 Ω cable
75 Ω cable with D Coax contacts
75 Ω coax cable diameter shielding: 7.3 mm

Impedance 50 Ω

E Coax with ETCS S21 Eurobalise cable (4 mm^2)	27 MHz
Return loss [db]	35,4
Attenuation [db]	0,017

E Coax with RG 213 cable(2.5 mm^2)	200 MHz	500 MHz	1,0 GHz	1,2 GHz	1,5 GHz	2,0 GHz	2,5 GHz
Return loss [db]	23,8	21,1	>18,7	>17,7	>16,4	>14,1	>12,0
Attenuation [db]	0,07	0,11	0,17	0,2	<0,23	<0,53	<2,0

Coax Electromagnetic screening module

Assembly instructions see P10-63.

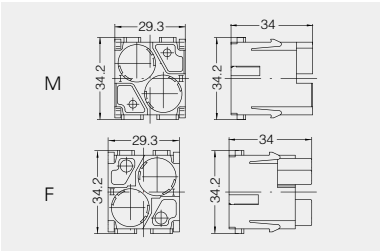


Combination with hinged frame and other modules possible.

Crimp terminal



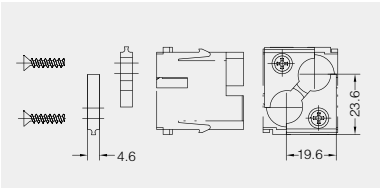
Insert	Designation	Order No.
Male	H2M–002–M	129 002 001 0001
Female	H2M–002–F	129 002 002 0001



Q-Coax metal adapter



Description	Designation	Order No.
	APT–H2MQ	198 002 007 0006

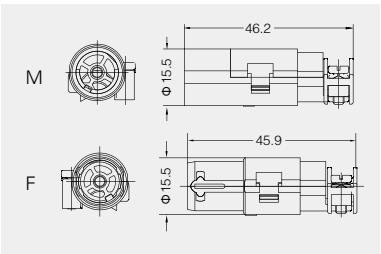


D Coax 1 + shielding

Impedance 75Ω
Crimp contacts 10A
Order crimp contacts separately
Cable diameter 3mm–9.5mm



Insert	Designation	Order No.
Male	EMC–001–MC	129 001 010 0082
Female	EMC–001–FC	129 001 020 0082

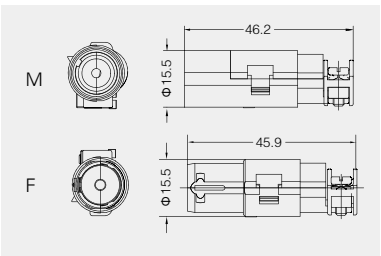


E Coax 1 + shielding

Impedance 50Ω
Crimp contacts 16A
Order crimp contacts separately
Cable diameter 3mm–9.5mm



Insert	Designation	Order No.
Male	EMC–001–MC/E	129 001 010 0083
Female	EMC–001–FC/E	129 001 020 0083



Crimp contacts

Crimp contacts 10A

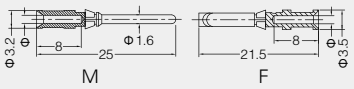
Contact resistance≤3mΩ
gold plated



More10A crimp contacts see P13–02,P13–03.

Wire gauge	Male	Order No.	Female	Order No.
0.09–0.25	CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
0.14–0.37	CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
0.5	CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
0.75	CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
1	CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
1.5	CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
2.5	CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.



Please find the details of crimp contacts on P13–02 to P13–07.

Crimp contacts 16A

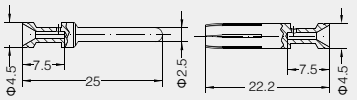
Contact resistance≤1mΩ
gold plated



More16A crimp contacts see P13–04.

Wire gauge	Male	Order No.	Female	Order No.
0.14–0.37	CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
0.5	CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
0.75	CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
1	CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
1.5	CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
2.5	CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
3	CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
4	CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.



Please find the details of crimp contacts on P13–02 to P13–07.

*Please find the details of crimping tools on 32-02~32-05.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Coax Electromagnetic screening module

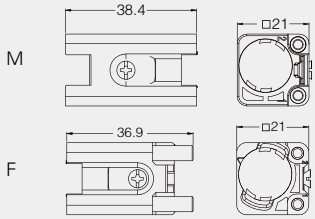
Assembly instructions see P10-63.

Hoods/Housings: size 3A(top entry) with sealing, please find the details on page 10-64~10-70.

Crimp terminal



Insert	Designation	Order No.
Male	H3A–001–M	121 001 001 0001
Female	H3A–001–F	121 001 002 0001

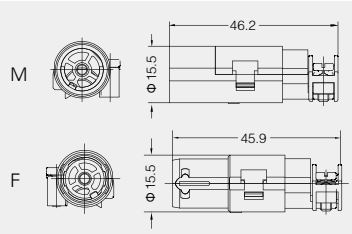


D Coax 1 + shielding

Impedance 75Ω
Crimp contacts 10A
Order crimp contacts separately
Cable diameter 3mm–9.5mm



Insert	Designation	Order No.
Male	EMC–001–MC	129 001 010 0082
Female	EMC–001–FC	129 001 020 0082

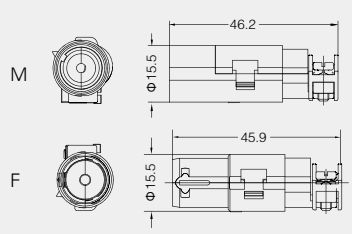


E Coax 1 + shielding

Impedance 50Ω
Crimp contacts 16A
Order crimp contacts separately
Cable diameter 3mm–9.5mm



Insert	Designation	Order No.
Male	EMC–001–MC/E	129 001 010 0083
Female	EMC–001–FC/E	129 001 020 0083



Crimp contacts

Crimp contacts 10A

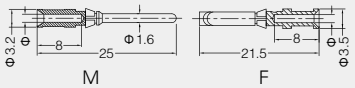
Contact resistance≤3mΩ
gold plated



More10A crimp contacts
see P13–02,P13–03.

Wire gauge	Male	Order No.	Female	Order No.
0.09–0.25	CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
0.14–0.37	CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
0.5	CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
0.75	CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
1	CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
1.5	CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
2.5	CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.



Please find the details of crimp contacts on P13–02 to P13–07.

Crimp contacts 16A

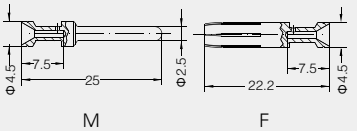
Contact resistance≤1mΩ
gold plated



More16A crimp contacts see P13–04.

Wire gauge	Male	Order No.	Female	Order No.
0.14–0.37	CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
0.5	CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
0.75	CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
1	CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
1.5	CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
2.5	CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
3	CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
4	CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.



Please find the details of crimp contacts on P13–02 to P13–07.

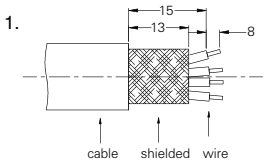
*Please find the details of crimp contact tools on page 32-03~32-06.

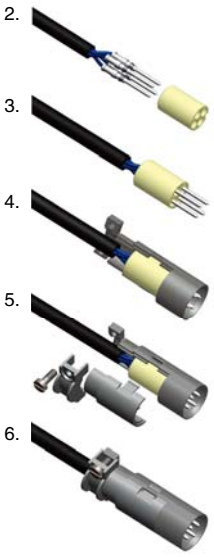
Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

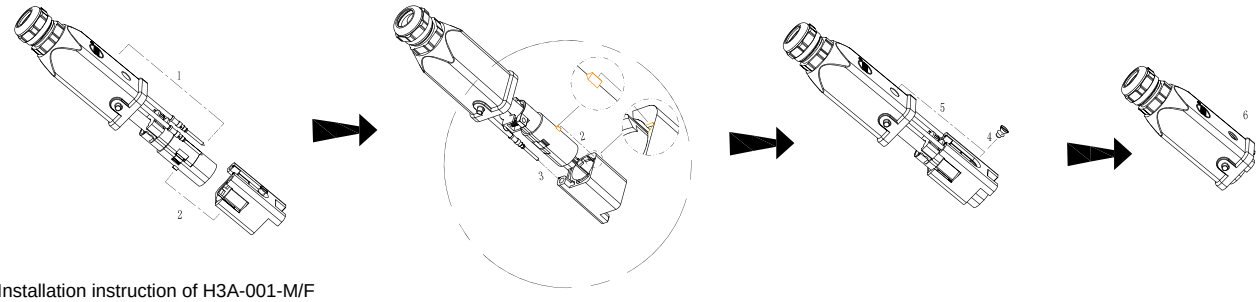
Assembly instructions

Q-Coax inserts

1. Strip cable acc. to drawing 1 and fold the shielding over the cable.
2. Crimp Dcontacts onto the wires.
3. Insert D contacts into corresponding cavaties of insulator until they are snapped in.
4. Fit the insert including the cable into the opened shielded bushing.
   The coding pin of the shielded bushing has to meet the groove of the insulator.
5. Clamp the tilt over the shielding onto the cable by means of the special clamp
   (small opening for cablediameter of 3 – 6 mm, large opening for cable diameter of 6 – 9.5 mm).
6. Check the wiring.
7. Close the shielded bushing with the cover and insert it into the corresponding cavity of the Quintax Module as usual.







Installation instruction of H3A-001-M/F

Step 1: cable conductor will pass through H3A housing and Coax mortise (assembly type shown in the above figure) and 2pin D–type cold pressing pin will be installed. Refer to figure 1.

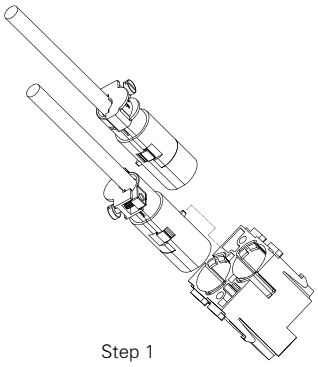
Step 2: “triangulation positioning key” on the housing of Coax mortise is directed at “triangulation positioning slot” on the H3A–001–M/F plug for installation, which is shown in the figure 2. In addition, assembly is completed if “click” is heard. Namely, step surface of Coax has been stuck by the card hook.

Step 3: 2 pin D–type pin will be installed in H3A–001–M/F mortise as per sequence of hole site.

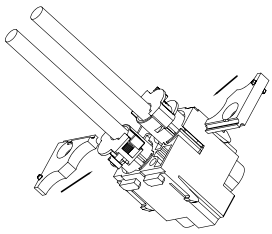
Step 4: grounding screw of H3A–001–M/F will be removed.

Step 5: In addition, H3A–001–M/F mortise will be installed in H3A housing, aiming at grounding hole.

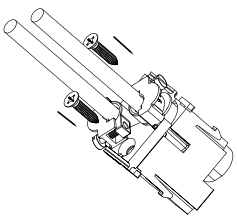
Step 6: At last, grounding screw will be locked and installation is completed.



Step 1



Step 2



Step 3

Installation instruction of H2M-002-M/F

Step 1: slug of Coax that has been installed will be installed in the plug of H2M–002–M/F. “triangulation positioning key” on the housing of Coax mortise must be directed at the “positioning slot” on the plug of H2M–002–M/F in the installation process. In addition, assembly is completed if “click” is heard. Namely, step surface of Coax has been stuck by the card hook.

Step 2: a pair of APT–H2MQ adapter will be horizontally installed at the fixed step surface of H2M–002–M/F and Coax slug as per the arrow direction. Refer to the figure 2.

Step 3: the adapter will be fixed with the screw lock, which means that H2M–002–M/F module has been installed.

H2MC-012 Coaxial module

50V 1.5A

Inserts



Combination with hinged frame and other modules possible.

Technical characteristics

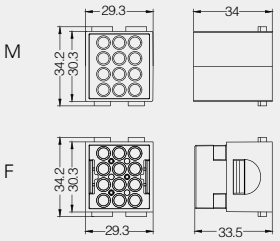
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	12
Electrical dataacc. to EN 61 984	
–Rated current	1.5A
–Rated voltage	50V
–Contact resistance	≤10mΩ
–Impedance	50Ω,75Ω
–Pollution degree	3
Insulation resistance	$\geqslant 10^{10}\Omega$
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life	
– mating cycle	≥500

Coaxial Module

Order Coaxial contacts separately



Insert	Designation	Order No.
Male	H2MC–012–MC	129 012 010 0503
Female	H2MC–012–FC	129 012 020 0503

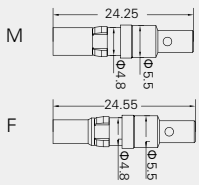


Coaxial contacts

Contact resistance≤10mΩ
Impedance 50Ohm
Gold plated



Male	Order No.	Female	Order No.
SCGM50–5.5	101 110 210 0002	SCGF50–5.5	101 110 220 0002



3A Plastic hoods/housings

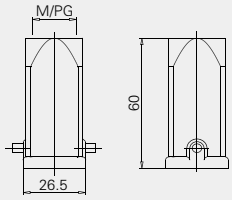
With sealing

Degree of protection： IP65

Hoods, top entry



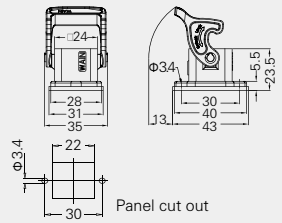
Thread	Designation	Order No.
M20	H3A.P–TE/S–2B–M20	118 003 410 1102
PG11	H3A.P–TE/S–2B–PG11	118 003 410 1108



Bulkhead mounted housings



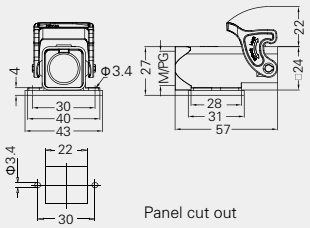
Thread	Designation	Order No.
---	H3A.P–BK–1L	118 003 327 1001



Surface mounted housings



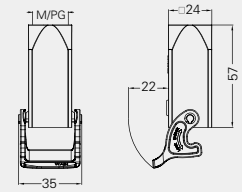
Thread	Designation	Order No.
M20	H3A.P–SF–1L–M20	118 003 227 1002
PG11	H3A.P–SF–1L–PG11	118 003 227 1008



Housings, cable to cable



Thread	Designation	Order No.
M20	H3A.P–CCT–1L–M20	118 003 727 1002
PG11	H3A.P–CCT–1L–PG11	118 003 727 1008



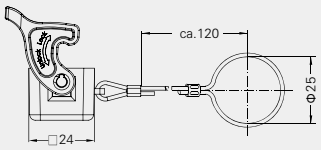
With sealing

Degree of protection： IP65

Protection covers



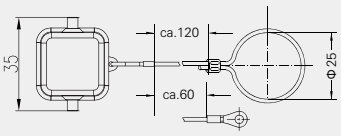
Connect way	Designation	Order No.
	H3A–CV–1L/1M (for male insert)	110 003 027 8001
	H3A–CV–1L/1F (for female insert)	110 003 027 8002



Protection covers



Connect way	Designation	Order No.
	H3A–CV/S–2B/1	110 003 010 8003
	H3A–CV/S–2B/2	110 003 010 8006



3A Metal hoods/housings

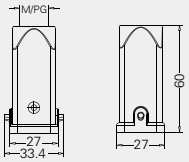
With sealing

Degree of protection： IP65

Hoods, top entry



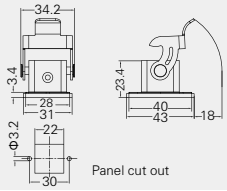
Thread	Designation	Order No.
M20	H3A–TE/S–2B–M20	110 003 410 1102
PG11	H3A–TE/S–2B–PG11	110 003 410 1108



Bulkhead mounted housings



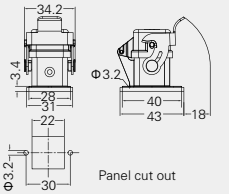
Thread	Designation	Order No.
---	H3A–BK–1L/W	110 003 324 1001



Bulkhead mounted housings



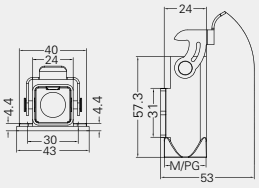
Thread	Designation	Order No.
---	H3A–BK–1L/W–MCV/S	110 003 364 1103



Surface mounted housings



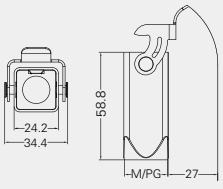
Thread	Designation	Order No.
M20	H3A–SF–1L/W–M20	110 003 224 1002
PG11	H3A–SF–1L/W–PG11	110 003 224 1008



Housings, cable to cable



Thread	Designation	Order No.
M20	H3A–CCT–1L/W–M20	110 003 724 1002
PG11	H3A–CCT–1L/W–PG11	110 003 724 1008



3A Metal hoods/housings(EMC)

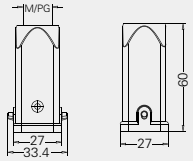
With sealing

Degree of protection： IP65

Hoods, top entry



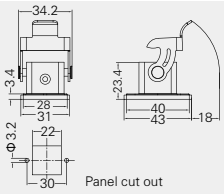
Thread	Designation	Order No.
M20	EMC.H3A–TE/S–2B–M20	110 603 410 1102
PG11	EMC.H3A–TE/S–2B–PG11	110 603 410 1108



Bulkhead mounted housings



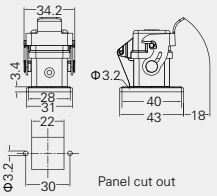
Thread	Designation	Order No.
---	EMCD.H3A–BK–1L/W	110 603 324 1101



Bulkhead mounted housings



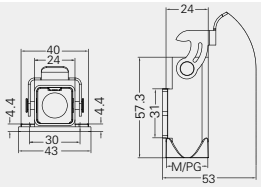
Thread	Designation	Order No.
---	EMCD.H3A–BK–1L/W–MCV/S	110 603 364 1103



Surface mounted housings



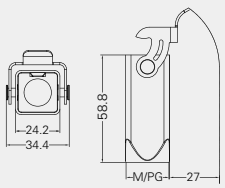
Thread	Designation	Order No.
M20	EMC.H3A–SF–1L/W–M20	110 603 224 1002
PG11	EMC.H3A–SF–1L/W–PG11	110 603 224 1008



Housings, cable to cable



Thread	Designation	Order No.
M20	EMC.H3A–CCT–1L/W–M20	110 603 724 1002
PG11	EMC.H3A–CCT–1L/W–PG11	110 603 724 1008



3A Metal hoods/housings

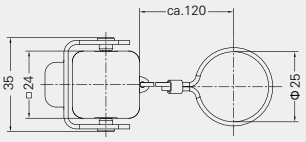
With sealing

Degree of protection： IP65

Protection covers



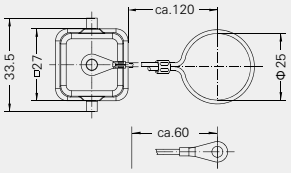
Connect way	Designation	Order No.
	H3A–MCV–1L/1M (for male insert)	110 003 024 8101
	H3A–MCV–1L/1F (for female insert)	110 003 024 8102



Protection covers



Connect way	Designation	Order No.
	H3A–MCV/S–2B/1	110 003 010 8103
	H3A–MCV/S–2B/2	110 003 010 8106



3A Pressure tight hoods/housings

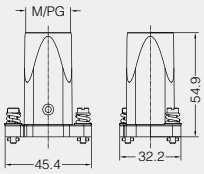
Epoxy power paint
Degree of protection： IP68

H version

Hoods, top entry



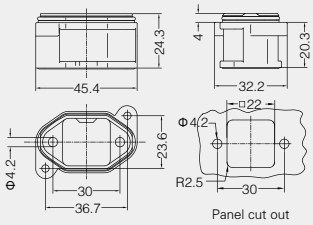
Thread	Designation	Order No.
	Epoxy power paint・Screw locking	
M20	HP3A/H–TE–2S–M20	113 003 420 1002
PG13.5	HP3A/H–TE–2S–PG13.5	113 003 420 1009
	Epoxy power paint・Toggle locking	
M20	HP3A/H–TE–2T–M20	113 003 440 1002
PG13.5	HP3A/H–TE–2T–PG13.5	113 003 440 1009



Bulkhead mounted housings



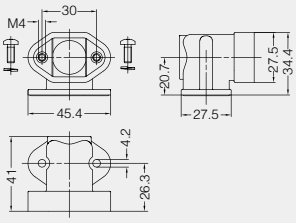
Thread	Designation	Order No.
	Epoxy power paint・Screw locking	
---	HP3A/H–BK–2H	113 003 320 1001
	Epoxy power paint・Toggle locking	
---	HP3A/H–BK–2T	113 003 340 1001



Adaptor for Housings*



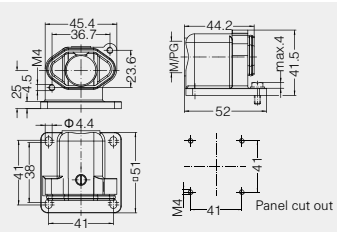
Thread	Designation	Order No.
	Epoxy power paint	
---	HP3A/H–BK–SE	113 003 900 1001



Surface mounted housings



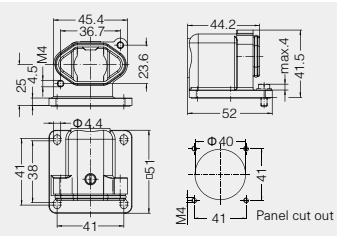
Thread	Designation	Order No.
	Epoxy power paint・Screw locking	
M20	HP3A/H–SF–2H–M20	113 003 220 1002
PG13.5	HP3A/H–SF–2H–PG13.5	113 003 220 1009



Bulkhead mounted housings



Thread	Designation	Order No.
	Epoxy power paint・Screw locking	
---	HP3A/H–SF–2H	113 003 220 1001



3A Pressure tight hoods/housings

Epoxy power paint

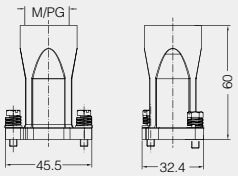
Degree of protection： IP68

H version

Hoods, top entry, high construction



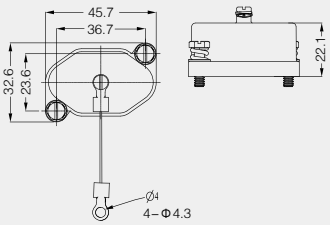
Thread	Designation	Order No.
	Epoxy power paint・Screw locking	
M25	HP3A/H–TEH–2S–M25	113 003 420 5003
	Epoxy power paint・Toggle locking	
M25	HP3A/H–TEH–2T–M25	113 003 440 5003



Protection covers



Thread	Designation	Order No.
	Epoxy power paint・Screw locking	
---	HP3A/H–MCV–2S	113 003 020 8103
	HP3A/H–MCV–2S/2S	113 003 020 8102
	Epoxy power paint・Toggle locking	
---	HP3A/H–MCV–2T	113 003 040 8103
	HP3A/H–MCV–2T/2S	113 003 040 8102



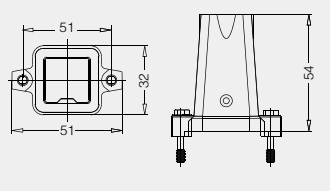
Degree of protection： IP68

W version

Hoods, top entry



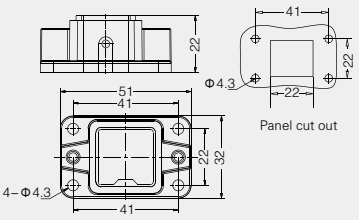
Thread	Designation	Order No.
M20	HP3A–TE–2S–M20	115 003 420 1002
PG11	HP3A–TE–2S–PG11	115 003 420 1008



Housings, bulkhead mounting



Thread	Designation	Order No.
---	HP3A–BK–2H	115 003 320 1001



HQ SERIES

Compact connector



HQ-002 Compact inserts



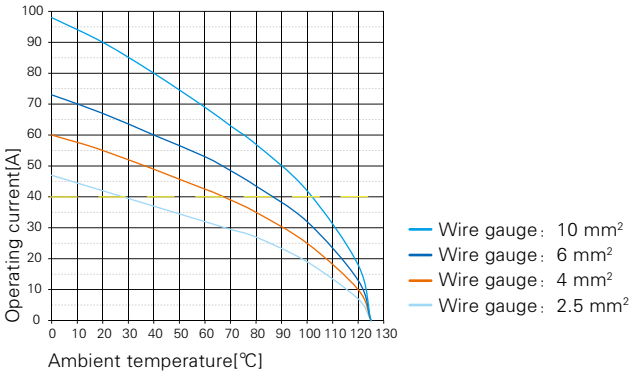
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	2+PE
Electrical data acc. to EN 61 984	
–Rated current	40A
–Rated voltage	830V
–Rated impulse voltage	6kV
–Pollution degree	3
Rated voltage acc. to UL	600V
Insulation resistance	⩾10^{10}Ω
Material polycarbonate	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–silver plated
Contact resistance	⩽1mΩ
Axial screw termination	
– mm^2	2.5–10mm^2
– AWG	14–8
Tightening torque	1.8Nm
Stripping length	8mm^{+1}
Hoods/Housings	
Plastic hoods/housings	
–Material	polycarbonate
–Flammability acc. to UL 94	V0
–Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65
Hoods/Housings, metal	
–Material	zinc die–cast
–Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65/IP68

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HQ-002 Compact inserts-high voltage

830V 40A 2+⏚

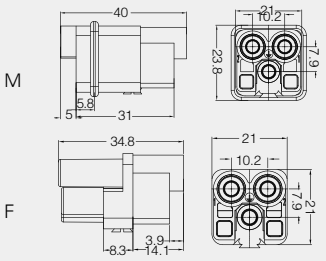
Inserts

Hoods/Housings: size 3A, please find the details on page 15-06~15-16.

Axial screw termination[1)]
with heat shrink tube[2)]



Insert	Wire gauge	Designation	Order No.
Male	2.5–6.0mm²	HQ–002.1–M (2.5–6.0mm²)	130 002 011 0001
	4–10mm²	HQ–002.2–M (4–10mm²)	130 002 011 0002
Female	2.5–6.0mm²	HQ–002.1–F (2.5–6.0mm²)	130 002 021 0001
	4–10mm²	HQ–002.2–F (4–10mm²)	130 002 021 0002



Accessories

Tool

Hex key SW 2

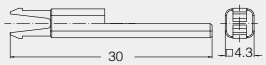


Description	Designation	Order No.
for axial setscrew with grip	SW–2*100	198 001 003 0002

Coding element



Description	Designation	Order No.
coding、pokayoke	CODE–Q2	198 002 005 0011



1) See P00–33~00–34 for the structural characteristics and description of Axial screw terminal.
2) Compared with HQV–002, HQ–002 has pressure–tight heat shrink tubing so that insulation performance has been increased and rated voltage has been enhanced.

HQV-002 Compact inserts



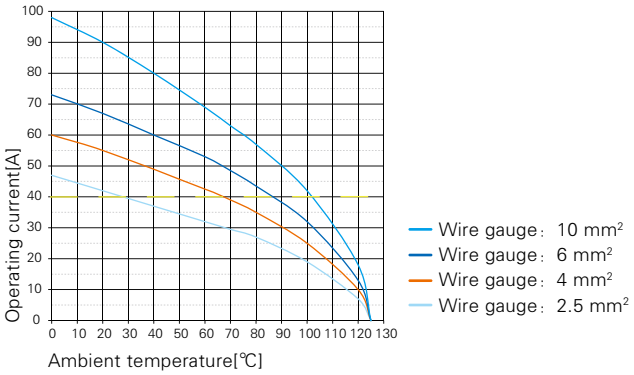
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	2+PE
Electrical data acc. to EN 61 984	
–Rated current	40A
–Rated voltage	400V
–Rated impulse voltage	6kV
–Pollution degree	3
Rated voltage acc. to UL	400V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–silver plated
Contact resistance	⩽1mΩ
Axial screw termination	
– mm^2	2.5–10mm^2
– AWG	14–8
Tightening torque	1.8Nm
Stripping length	$8mm^{+1}$
Hoods/Housings	
Plastic hoods/housings	
–Material	polycarbonate
–Flammability acc. to UL 94	V0
–Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65
Hoods/Housings, metal	
–Material	zinc die–cast
–Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65/IP68

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HQV-002 Compact inserts

400V 40A 2+⏚

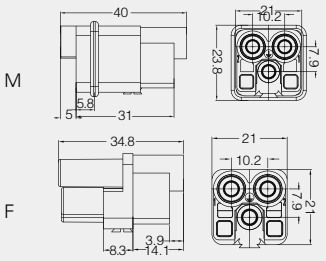
Inserts

Hoods/Housings: size3A, please find the details on page 15-06~15-16.

Axial screw termination[1)]



Insert	Wire gauge	Designation	Order No.
Male	2.5–6.0mm²	HQV–002.1–M (2.5–6.0mm²)	130 002 011 0101
	4–10mm²	HQV–002.2–M (4–10mm²)	130 002 011 0102
Female	2.5–6.0mm²	HQV–002.1–F (2.5–6.0mm²)	130 002 021 0101
	4–10mm²	HQV–002.2–F (4–10mm²)	130 002 021 0102



Accessories

Tool

Hex key SW 2

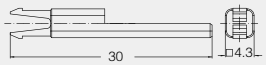


Description	Designation	Order No.
for axial setscrew with grip	SW–2*100	198 001 003 0002

Coding element



Description	Designation	Order No.
coding、pokayoke	CODE–Q2	198 002 005 0011



1) See P00–33~00–34 for the structural characteristics and description of Axial screw terminal.

HQ-003/0 Compact inserts

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	3+PE
Electrical data acc. to EN 61 984	
–Rated current	40A
–Rated voltage	400V
–Rated impulse voltage	6kV
–Pollution degree	3
Rated voltage acc. to UL/CSA	600V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Colour	RAL 7032 (light grey)
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Terminal:	crimp terminal
Material	copper alloy
Surface	hard–silver plated
	hard–gold plated
Contact resistance	⩽1mΩ
Wire gauge	
– mm^2	1.5–10mm^2
– AWG	16–8
Tools	
Crimp cntact tool:	
–TL02–0G	1.5–6mm^2
–TL02–3G	4/6/10mm^2
Contact removal tool;	TL06G

HQ-003/0 Compact inserts

400V 40A 3+ ⏚

Hoods/Housings: size3A, please find the details on page 15-06~15-16.
Note: it is not applicable to standard side entry structure shells.

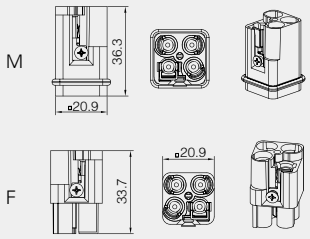
Inserts

Crimp terminal

order crimp contacts separately



Insert	Designation	Order No.
Male	HQ–003/0–MC	130 003 010 0002
Female	HQ–003/0–FC	130 003 020 0002



Accessories

Crimp contacts 40A Contact resistance≤1mΩ

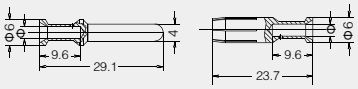
silver plated



gold plated



Male	Order No.	Female	Order No.
CCSM–1.5	101 023 110 0901	CCSF–1.5	101 023 120 0901
CCSM–2.5	101 023 110 1001	CCSF–2.5	101 023 120 1001
CCSM–4.0	101 023 110 1201	CCSF–4.0	101 023 120 1201
CCSM–6.0	101 023 110 1301	CCSF–6.0	101 023 120 1301
CCSM–10.0	101 023 110 1401	CCSF–10.0	101 023 120 1401
CCGM–1.5	101 023 210 0901	CCGF–1.5	101 023 220 0901
CCGM–2.5	101 023 210 1001	CCGF–2.5	101 023 220 1001
CCGM–4.0	101 023 210 1201	CCGF–4.0	101 023 220 1201
CCGM–6.0	101 023 210 1301	CCGF–6.0	101 023 220 1301
CCGM–10.0	101 023 210 1401	CCGF–10.0	101 023 220 1401



Wire gauge		Φ	Stripping length
1.5 mm²	AWG 16	1.75	9 mm
2.5mm²	AWG 14	2.25	9 mm
4 mm²	AWG 12	2.85	9.6 mm
6 mm²	AWG 10	3.5	9.6 mm
10 mm²	AWG 8	4.3	15 mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
1.5–6mm²	TL02–0G	198 001 001 0011
4/6/10mm²	TL02–3G	198 001 001 0012

Contact removal tool

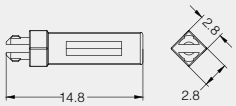


Application	Designation	Order No.
for crimp contacts 40A	TL06G	198 001 000 0009

Coding element



Description	Designation	Order No.
coding、pokayoke	CODE–Q3	198 002 005 0034



1) See P00–33~00–34 for the structural characteristics and description of Axial screw terminal.

HQ-005/0 Compact inserts





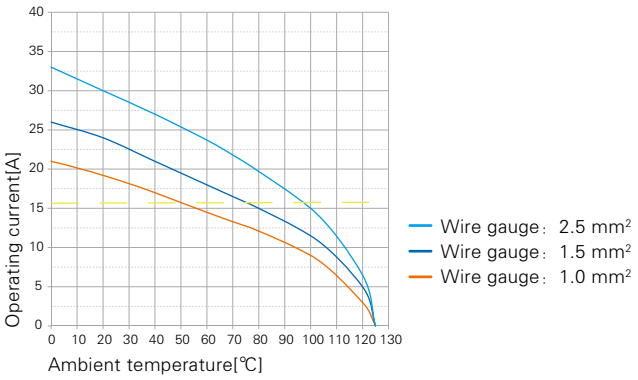
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	5+PE
Electrical data acc. to EN 61 984	
–Rated current	16A
–Rated voltage conductor – ground	230V
–Rated voltage conductor – conductor	400V
–Rated impulse voltage	4kV
–Pollution degree	3
–Pollution degree 2 also	16A 320/500V 4kV 2
Rated voltage acc. to UL	600V
Insulation resistance	$\geqslant 10^{10}\,\Omega$
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–silver plated
	hard–gold plated
Contact resistance	$\leqslant 1\,m\Omega$
Crimp terminal	
– mm^2	0.14–2.5mm^2
– AWG	26–14
PE screw terminal	
– mm^2	2.5mm^2
– AWG	14
Hoods/Housings	
Plastic hoods/housings	
–Material	polycarbonate
–Flammability acc. to UL 94	V0
–Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65
Hoods/Housings, metal	
–Material	zinc die–cast
–Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65/IP68

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HQ-005/0 Compact inserts

230/400V 16A 5+⏚

Inserts

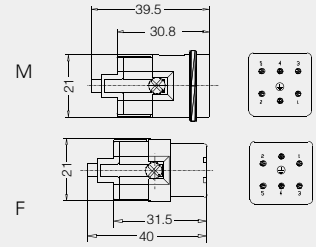
Hoods/Housings: size 3A, please find the details on page 15-06~15-16.

Crimp terminal

order crimp contacts separately



Insert	Designation	Order No.
Male	HQ–005/0–MC	130 005 010 0001
Female	HQ–005/0–FC	130 005 020 0001



Crimp contacts

Contact resistance≤1mΩ

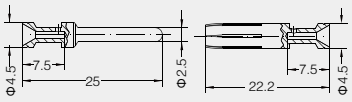
silver plated



gold plated



Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



M F

Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 groove	1.5 mm²	AWG 16	7.5mm
3 groove	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

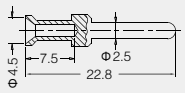
When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Relay contacts

silver plated



Wire gauge(mm²)	Designation	Order No.
1	CESM–1.0R	101 019 110 0808
1.5	CESM–1.5R	101 019 110 0908
2.5	CESM–2.5R	101 019 110 1008



Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

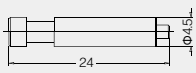
Application	Designation	Order No.
for crimp contacts16A	TL01	198 001 000 0002

More tools detail please find the page32–02~32–05.

Coding element



Description	Designation	Order No.
coding、pokayoke	CODE–E	198 002 005 0002



Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HQ-005/0 Quick-in



Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	5+PE
Electrical data acc. to EN 61 984	
–Rated current	16A
–Rated voltage	230V/400V
–Rated impulse voltage	4kV
–Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Colour	RAL 7032（light grey）
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500

Contacts	
Terminal:	Spring terminal(Quick–in)
Material	copper alloy
Surface	hard–silver plated
Contact resistance	⩽3mΩ
Wire gauge	0.5–4.0mm^2 / 20–12AWG
Wire gauge(For wires with crimped ferrule)	0.14–2.5mm^2 / 26–14AWG
Stripping length	10 ± 0.5mm

HQ-005/0 Quick-in

230/400V 16A 5+⏚

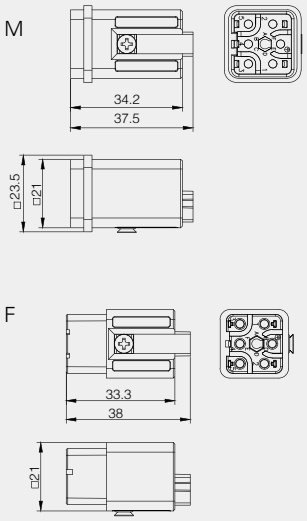
Inserts

Hoods/Housings: size 3A, please find the details on page 15-06~15-16.

Spring terminal(Quick-in)



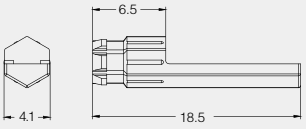
Insert	Designation	Order No.
Male	HQ-005/0-MQ	130 005 001 0001
Female	HQ-005/0-FQ	130 005 002 0001



Coding element



Description	Designation	Order No.
coding、pokayoke	CODE-Q5	198 002 005 0036



HQ-007 Compact inserts



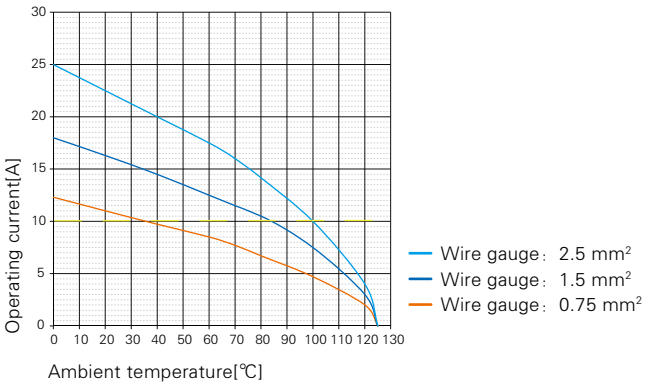
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	7+PE
Electrical dataacc. to EN 61 984	
–Rated current	10A
–Rated voltage	400V
–Rated impulse voltage	6kV
–Pollution degree	3
–Pollution degree 2 also	10A 400/690V 6kV 2
Rated voltage acc. to UL	600V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–silver plated
	hard–gold plated
Contact resistance	⩽3mΩ
Crimp terminal	
– mm^2	0.14–2.5mm^2
– AWG 26 ... 14	26–14
PE screw terminal	
– mm^2	2.5mm^2
– AWG	14
Hoods/Housings	
Plastic hoods/housings	
–Material	polycarbonate
–Flammability acc. to UL 94	V0
–Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65
Hoods/Housings, metal	
–Material	zinc die–cast
–Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65/IP68

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HQ-007 Compact inserts

400V 10A 7+⏚

Inserts

Hoods/Housings: size 3A, please find the details on page 15-06~15-16.

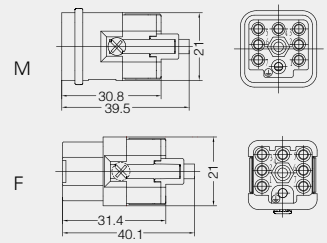
Crimp terminal

order crimp contacts separately



Insert	Designation	Order No.
Male	HQ–007/0–MC[1)]	130 007 010 0001
Female	HQ–007/0–FC[1)]	130 007 020 0001

1).can match PCB adapter,see page 14–08~14–09.



Crimp contacts

Crimp contacts 10A

contact resistance≤3mΩ
silver plated

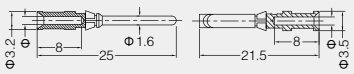


gold plated



More crimp contacts 10A
see P13–02,P13–03.

Male	Order No.	Female	Order No.
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

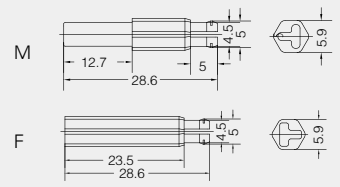
Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–02~32–05.

Coding element



Description	Category	Designation	Order No.
coding,pokayoke	Male	CODE–Q7M	198 002 005 0007
	Female	CODE–Q7F	198 002 005 0008



Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HQ-012/0 Compact inserts





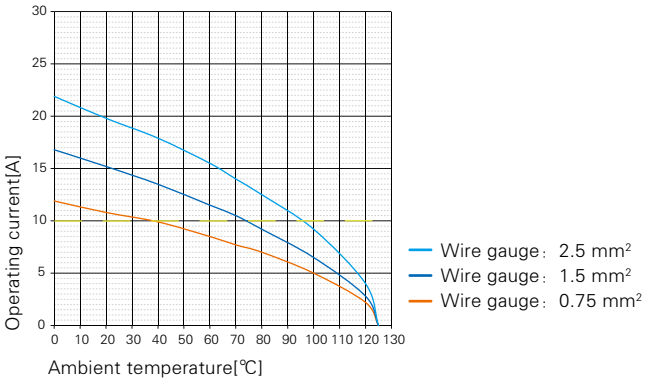
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	12+PE
Electrical data acc. to EN 61 984	
–Rated current	10A
–Rated voltage	400V
–Rated impulse voltage	6kV
–Pollution degree	3
–Pollution degree 2 also	10A 400/690V 6kV 2
Rated voltage acc. to UL	600V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–silver plated
	hard–gold plated
Contact resistance	⩽3mΩ
Crimp terminal	
– mm^2	0.14–2.5mm^2
– AWG	26–14
PE contact	Screw terminal
– mm^2	0.5–2.5mm^2
– AWG	20–14
Hoods/Housings	
Plastic hoods/housings	
–Material	polycarbonate
–Flammability acc. to UL 94	V0
–Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65
Hoods/Housings, metal	
–Material	zinc die–cast
–Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65/IP68

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HQ-012/0 Compact inserts

400V 10A 12+⏚

Inserts

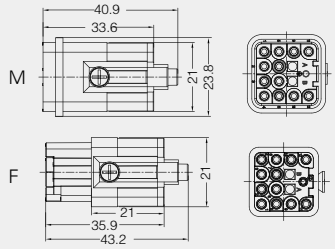
Hoods/Housings: size 3A, please find the details on page 15-06~15-16.

Crimp terminal

order crimp contacts separately



Insert	Designation	Order No.
Male	HQ–012/0–MC	130 012 010 0001
Female	HQ–012/0–FC	130 012 020 0001



Crimp contacts

Crimp contacts 10A

contact resistance≤3mΩ
silver plated

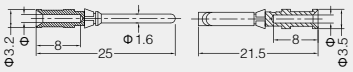


gold plated



More crimp contacts 10A
see P13–02,P13–03.

Male	Order No.	Female	Order No.
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

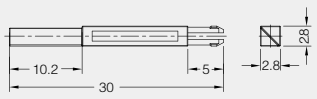
Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–02~32–05.

Coding element



Description	Designation	Order No.
coding,pokayoke	CODE–Q12	198 002 005 0010



Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HQ-008/0 Compact inserts



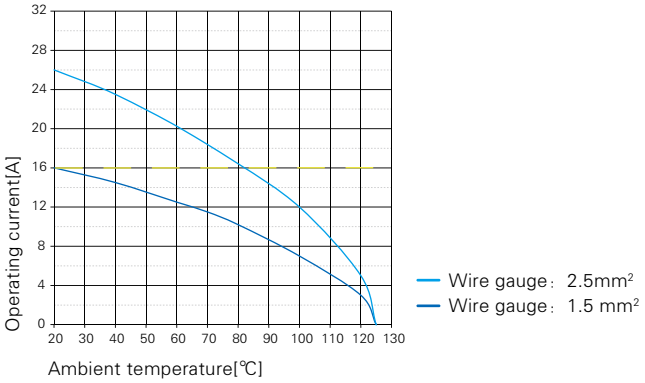
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	8+PE
Electrical dataacc. to EN 61 984	
–Rated current	16A
–Rated voltage	500V
–Rated impulse voltage	6kV
–Pollution degree	3
–Pollution degree 2 also	16A 400/690V 6kV 2
–Mounted metal hood	16A 230/400V 4kV 3
Rated voltageacc. to UL	600V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–silver plated
	hard–gold plated
Contact resistance	⩽1mΩ
Crimp terminal	
– mm^2	0.14–4mm^2
	partly loaded up to 4 mm^2 is possible
– AWG	26–12
Hoods/Housings	
Plastic hoods/housings	
Material	thermoplastic
–Locking element	Polyamide
–Hoods/Housings seal	NBR
–Limiting temperatures	–40℃...+125℃
–Flammability acc. to UL 94	V0
–Degree of protection acc. to DIN EN	
60 529 for coupled connector	IP65
Hoods/Housings, metal	
–Material	metal
–Locking element	Stainless steel
–Hoods/Housings seal	NBR
–Limiting temperatures	–40℃...+125℃
–Degree of protection acc. to DIN	
EN 60 529 for coupled connector	IP65

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HQ-008/0 Compact inserts

500V 16A 8+⏚

Inserts

Hoods/Housings: size HC, please find the details on page 15-163~15-168.

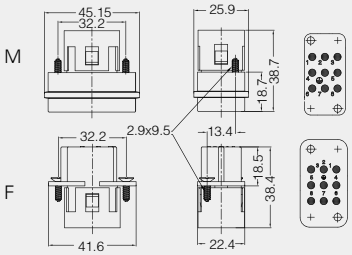
Crimp terminal

order crimp contacts separately



Insert	Designation	Order No.
Male	HQ–008/0–MC[1)]	130 008 010 0001
Female	HQ–008/0–FC[1)]	130 008 020 0001

1).can match PCB adapter,see page 14–10~14–11.



Crimp contacts

Crimp contacts 16A

contact resistance≤1mΩ

silver plated



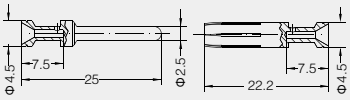
Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201

gold plated



CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.5	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201

More crimp contacts 16A see P13–04.



Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 grooves	1.5 mm²	AWG 16	7.5mm
3 grooves	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

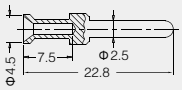
When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Relay contacts

silver plated



Wire gauge(mm²)	Designation	Order No.
1	CESM–1.0R	101 019 110 0808
1.5	CESM–1.5R	101 019 110 0908
2.5	CESM–2.5R	101 019 110 1008



Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Wire gauge: 0.14–0.37mm² please select TL02 Crimping tool.

Contact removal tool



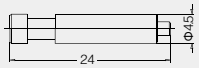
Application	Designation	Order No.
for crimp contact 16A	TL01	198 001 000 0002

More tools detail please find the page32–02~32–05.

Coding element



Description	Designation	Order No.
coding、pokayoke	CODE–E	198 002 005 0002



Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HQ-017 Compact inserts



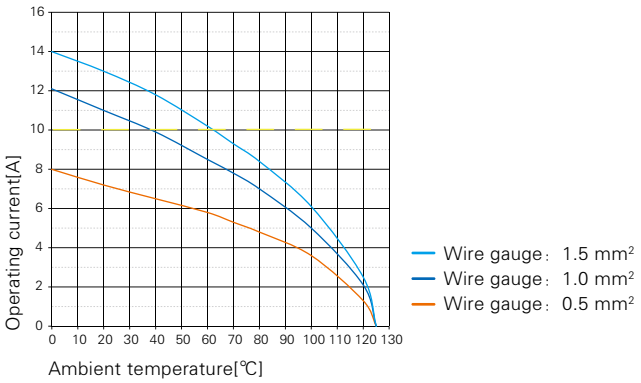
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	17+PE
Electrical data acc. to EN 61 984	
–Rated current	10A
–Rated voltage	250V
–Rated impulse voltage	4kV
–Pollution degree	2
Rated voltage acc. to UL	250V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–silver plated
	hard–gold plated
Contact resistance	⩽3mΩ
Crimp terminal	
– mm²	0.14–2.5mm²
– AWG	26–14
Hoods/Housings	
Plastic hoods/housings	
Material	thermoplastic
–Locking element	polyamide
–Hoods/Housings seal	NBR
–Limiting temperatures	–40℃...+125℃
–Flammability acc. to UL 94	V0
–Degree of protection acc. to DIN EN	
60 529 for coupled connector	IP65
Hoods/Housings, metal	
–Material	metal
–Locking element	stainless steel
–Hoods/Housings seal	NBR
–Limiting temperatures	–40℃...+125℃
–Degree of protection acc. to DIN EN	
60 529 for coupled connector	IP65

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HQ-017 Compact inserts

250V 10A 17+⏚

Inserts

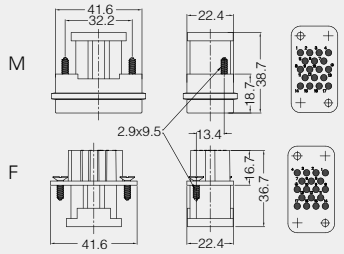
Hoods/Housings: size HC, please find the details on page 15-163~15-168.

Crimp terminal

order crimp contacts separately



Insert	Designation	Order No.
Male	HQ–017–MC	130 017 010 0001
Female	HQ–017–FC	130 017 020 0001



Crimp contacts

Crimp contacts 10A

contact resistance≤3mΩ
silver plated

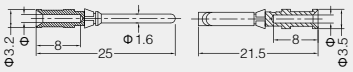


gold plated



More crimp contacts10A
see P13–02,P13–03.

Male	Order No.	Female	Order No.
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm²,it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–02~32–05.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HQ-004/2 Compact inserts



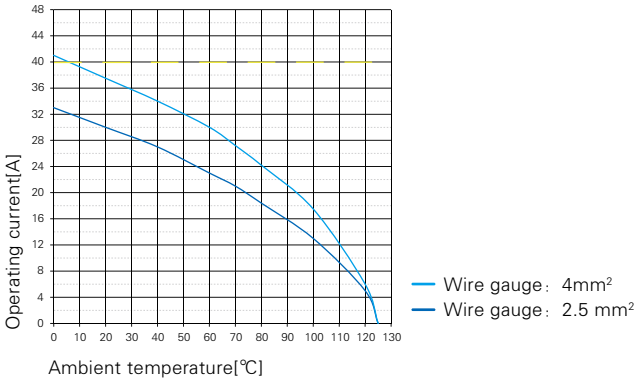
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	4/2+PE
Electrical data acc. to EN 61 984	
Power side	
–Rated current	40A
–Rated voltage conductor – ground	400V
–Rated voltage conductor – conductor	690V
–Rated impulse voltage	6kV
–Pollution degree	3
Signal side	
–Rated current	10A
–Rated voltage	250V
–Rated impulse voltage	4kV
–Pollution degree	3
Rated voltage acc. to UL	600/250V
Insulation resistance	$\geqslant 10^{10}\,\Omega$
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–silver plated
	hard–gold plated
Contact resistance	$\leqslant 1\,m\Omega$
Crimp terminal	
– mm^2	1.5–6mm^2 / 0.14–2.5mm^2
– AWG	16–10 / 26–14
Max. insulation diameter	
– Power contacts	5mm
Hoods/Housings	
Plastic hoods/housings	
Material	thermoplastic
–Locking element	polyamide
–Hoods/Housings seal	NBR
–Limiting temperatures	–40℃...+125℃
–Flammability acc. to UL 94	V0
–Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HQ-004/2 Compact inserts

400/690V 40/10A 4/2+⏚

Inserts

Hoods/Housings: size HC, please find the details on page 15-163~15-168.
(cannot match the metal hood with side entry:130 008 510 1003，130 608 510 1003)

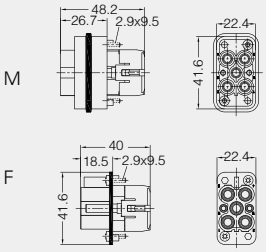
Crimp terminal

order crimp contacts separately



Insert	Designation	Order No.
Male	HQ–004/2–MC[1)]	130 006 010 0001
Female	HQ–004/2–FC[1)]	130 006 020 0001

1).can match PCB adapter,see page 14–06~14–07.



Crimp contacts

Crimp contacts 10A

contact resistance≤3mΩ
silver plated

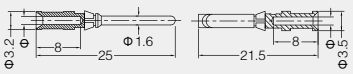


gold plated



More crimp contacts 10A
see P13–02,P13–03.

Male	Order No.	Female	Order No.
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



M F

Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

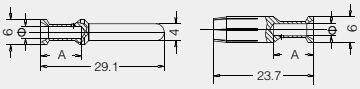
When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Crimp contacts 40A

contact resistance≤0.3mΩ
silver plated



Male	Order No.	Female	Order No.
CCSM–1.5	101 023 110 0901	CCSF–1.5	101 023 120 0901
CCSM–2.5	101 023 110 1001	CCSF–2.5	101 023 120 1001
CCSM–4.0	101 023 110 1201	CCSF–4.0	101 023 120 1201
CCSM–6.0	101 023 110 1301	CCSF–6.0	101 023 120 1301



M F

Wire gauge		Φ	Stripping length
1.5 mm²	AWG 16	1.75	9.6 mm
2.5mm²	AWG 14	2.25	9.6 mm
4 mm²	AWG 12	2.85	9.6 mm
6 mm²	AWG 10	3.5	9.6 mm

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011
1.5–6mm²	TL02–0G	198 001 001 0012

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

Application	Designation	Order No.
for crimp contacts 40A	TL06G	198 001 000 0009

More tools detail please find the page32–02~32–05.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HQ-RJ45/10 High Density inserts

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Inserts	
Number of contacts	10+RJ45
Electrical data acc. to EN 61 984	
–Rated current	
	5A
	1A
–Rated voltage	50V
–Rated impulse voltage	0.8kV
–Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+85℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Transmission characteristics:	over 6 type jumper up to 500MHz According to ISO/IEC 24 702; ISO/IEC 11 801
Transmission rate:	10/100/1000Mbit/10Gbit/s

Contacts	
Material	copper alloy
Surface	hard–silver plated/hard–gold plated
Contact resistance	⩽3mΩ
Crimp terminal	
–mm^2	0.09–0.82mm^2
–AWG	28–18

Current carrying capacity

HQ-RJ45/10 High Density inserts

50V 5/1A 10+RJ45

Inserts

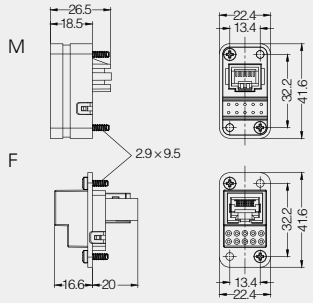
Hoods/Housings: size HC, please find the details on page 15-163~15-168.
Please refer to page 10-50 for matching cable (no plastic cable)

Crimp terminal

order crimp contacts separately



Insert	Designation	Order No.
Male	HQ–RJ45/10–MC	130 000 010 0001
Female	HQ–RJ45/10–FC	130 000 020 0001



Crimp contacts

Crimp contacts 5A

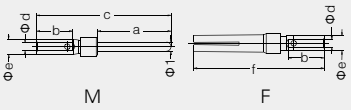
Contact resistance≤3mΩ
silver plated



gold plated



Male	Order No.	Female	Order No.
CSSM–0.25	101 014 110 0101	CSSF–0.25	101 014 120 0101
CSSM–0.33	101 014 110 0201	CSSF–0.33	101 014 120 0201
CSSM–0.52	101 014 110 0501	CSSF–0.52	101 014 120 0501
CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501



a	b	c	d	e	f
8.10	4.0	14.8	0.64	1.66	14.4
8.10	4.0	14.8	0.90	1.66	14.4
8.10	4.0	14.8	1.12	1.66	14.4

Wire gauge		Stripping length
0.09–0.25 mm²	AWG 28–24	5 mm
0.13–0.33 mm²	AWG 26–22	5 mm
0.33–0.52 mm²	AWG 22–20	5 mm

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.09–0.82mm²	TL03	198 001 001 0002

Application	Designation	Order No.
for 5A crimp contact	TL08	198 001 000 0006

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HQ-021 High Density inserts

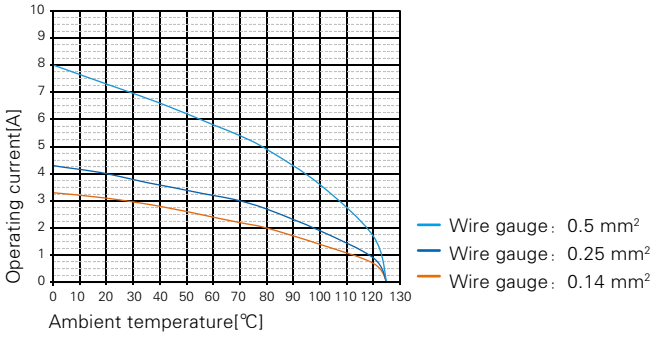
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Inserts	
Number of contacts	21
Electrical data acc. to EN 61 984	
–Rated current	6.5A
–Rated voltage	50V
–Rated impulse voltage	0.8kV
–Pollution degree	3
Rated voltage AC	50 V
Rated voltage DC	120 V
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–silver plated
	hard–gold plated
Contact resistance	⩽3mΩ
Crimp terminal	
–mm^2	0.09–0.52mm^2
–AWG	28–20

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



HQ-021 High Density inserts

50V 6.5A 21

Inserts

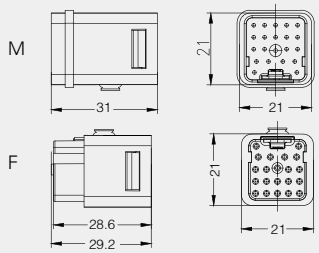
Hoods/Housings: size3A, please find the details on page 15-06~15-16.

Crimp terminal

order crimp contacts separately



Insert	Designation	Order No.
Male	HQ–021–MC	130 021 010 0001
Female	HQ–021–FC	130 021 020 0001



Crimp contacts

Crimp contacts 5A

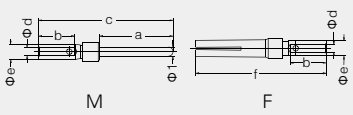
Contact resistance≤3mΩ
silver plated



gold plated



Male	Order No.	Female	Order No.
CSSM–0.25	101 014 110 0101	CSSF–0.25	101 014 120 0101
CSSM–0.33	101 014 110 0201	CSSF–0.33	101 014 120 0201
CSSM–0.52	101 014 110 0501	CSSF–0.52	101 014 120 0501
CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501



a	b	c	d	e	f
8.10	4.0	14.8	0.64	1.66	14.4
8.10	4.0	14.8	0.90	1.66	14.4
8.10	4.0	14.8	1.12	1.66	14.4

Wire gauge		Stripping length
0.09–0.25 mm²	AWG 28–24	5 mm
0.13–0.33 mm²	AWG 26–22	5 mm
0.33–0.52 mm²	AWG 22–20	5 mm

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.09–0.82mm²	TL03	198 001 001 0002

Application	Designation	Order No.
for 5A crimp contact	TL08	198 001 000 0006

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HK-003，HC SERIES

Modular Heavy-current connector



HK–003/0，HK–003/2 Heavy–current inserts



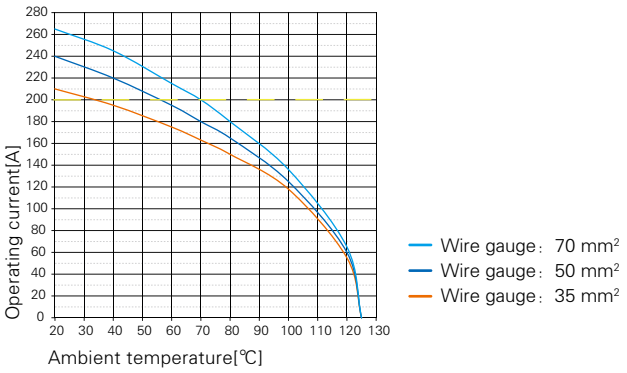
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	CE
Inserts	
Number of contacts	3/0+PE,3/2+PE
Electrical data acc. to EN 61 984	
Power area	
–Rated current	200A
–Rated voltage conductor	1150/2000V
–Rated impulse voltage	8kV
–Pollution degree	3
Pollution degree 2 also	200A 2000V 12kV 2
Signal area	
–Rated current	16A
–Rated voltage	400V
–Rated impulse voltage	6kV
–Pollution degree	3
Pollution degree 2 also	16A 500V 6kV 2
Insulation resistance	≥10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	≥500
Contacts	
Material	copper alloy
Surface	silver
Contact resistance	≤0.2mΩ
For stranded wire acc. to IEC 60 228 Class 5	
Axial screw termination	
Power contacts	
– Wire gauge	35–70mm²
– AWG	2–00
– Hexagonal driver	SW5
– Stripping length	22mm
	mm² 35 50 70
– Tightening torque	N.m 8 9 10
PE contact	
– Wire gauge	16–35mm²
– AWG	5–2
– Hexagonal driver	SW4
– Stripping length	14mm
– Tightening torque	6Nm
Signal contact (only HK 3/2)	
– Wire gauge	2.5mm²
– AWG	14
– Stripping length	7mm
– Tightening torque	0.5Nm

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



24B Pressure tight hoods/housings with 1 modules

HK-003/0,HK-003/2 Heavy-current inserts

1150/2000V 200A 3/0⏚,3/2+⏚

CE

Inserts

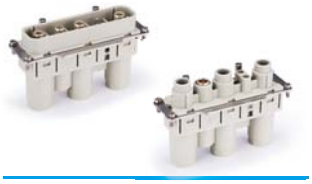
Hoods/Housings: size Pressure tight hoods/housings, please find the details on page 12-04~12-05.

Axial screw terminal [1)]



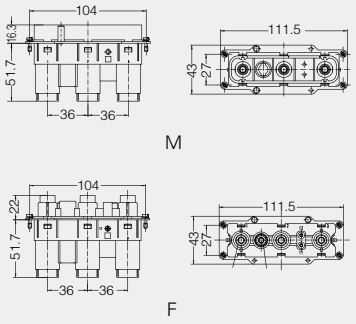
Insert	Designation	Order No.
Male	HK–003/0–M	128 003 011 0001
Female	HK–003/0–F	128 003 021 0001

Axial screw terminal [1)]



Insert	Designation	Order No.
Male	HK–003/2–M	128 005 011 0001
Female	HK–003/2–F	128 005 021 0001

Distance for contact max. 21 mm



1) See P00–30~00–31 for the structural characteristics and description of Axial screw terminal.

Pressure tight hoods/housings

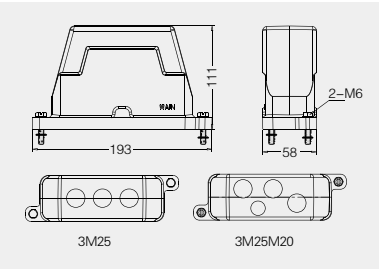
Degree of protection： IP68/IP69K

H version

Hoods, top entry, high construction



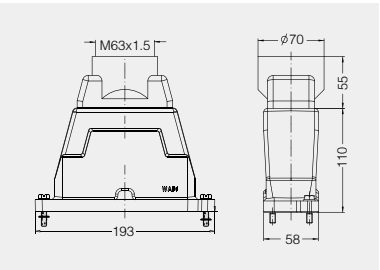
Thread	Designation	Order No.
	Screw locking	
3M25	HP24B/H–TEH–2S–3M25	113 624 420 5036
3M25,M20	HP24B/H–TEH–2S–3M25M20	113 624 420 5040
	Toggle locking	
3M25	HP24B/H–TEH–2T–3M25	113 624 440 5036
3M25,M20	HP24B/H–TEH–2T–3M25M20	113 624 440 5040



Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
M63	HP24B/H–TEH–2S–M63	113 624 420 5007
	Toggle locking	
M63	HP24B/H–TEH–2T–M63	113 624 440 5007

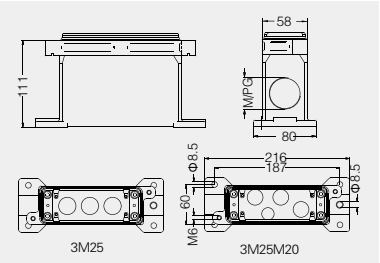


Surface mounted housings

high construction



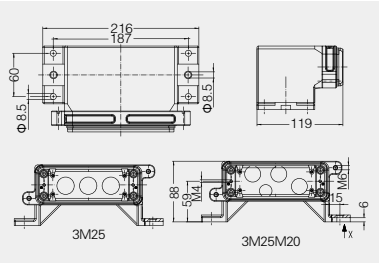
Thread	Designation	Order No.
	Screw locking	
3M25	HP24B/H–SFH–2H–3M25	113 624 220 5036
3M25,M20	HP24B/H–SFH–2H–3M25M20	113 624 220 5040
	Toggle locking	
3M25	HP24B/H–SFH–2T–3M25	113 624 240 5036
3M25,M20	HP24B/H–SFH–2T–3M25M20	113 624 240 5040



Surface mounted housings



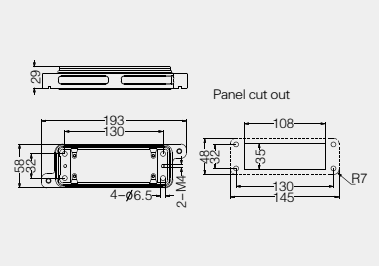
Thread	Designation	Order No.
	Screw locking	
3M25	HP24B/H–BK–SE–2H–3M25	113 624 920 1036
3M25,M20	HP24B/H–BK–SE–2H–3M25M20	113 624 920 1040
M50	HP24B/H–BK–SE–2H–M50	113 624 920 1006
	Toggle locking	
3M25	HP24B/H–BK–SE–2T–3M25	113 624 940 1036
3M25,M20	HP24B/H–BK–SE–2T–3M25M20	113 624 940 1040
M50	HP24B/H–BK–SE–2T–M50	113 624 940 1006



Bulkhead mounted housings



Thread	Designation	Order No.
	Screw locking	
---	HP24B/H–BK–2H	113 624 320 1001
	Toggle locking	
---	HP24B/H–BK–2T	113 624 340 1001



Pressure tight hoods/housings

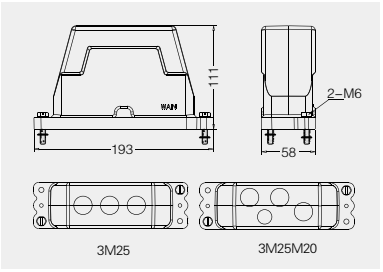
Degree of protection： IP68/IP69K

The following hoods/housings comply with the standards for rail transport industry in China. H version

Hoods, top entry, high construction



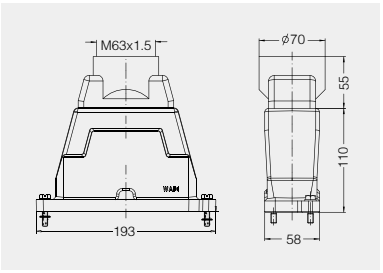
Thread	Designation	Order No.
	Screw locking	
3M25	HP24B/H–TEH–4S–3M25	113 624 430 5036
3M25,M20	HP24B/H–TEH–4S–3M25M20 3SP	113 624 430 5040



Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
M63	HP24B/H–TEH–4S–M63	113 624 430 5007

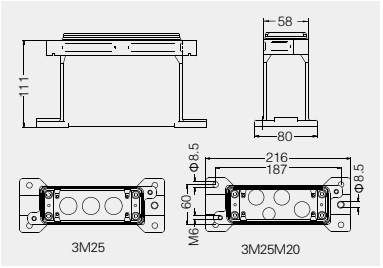


Surface mounted housings

high construction



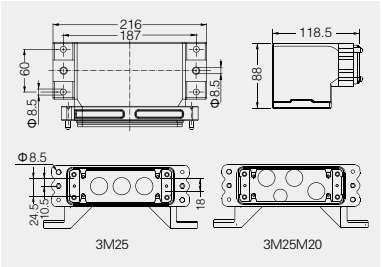
Thread	Designation	Order No.
	Screw locking	
3M25	HP24B/H–SFH/BK–4H–3M25	113 624 230 5036
3M25,M20	HP24B/H–SFH–4H–3M25M20	113 624 230 5040



Surface mounted housings



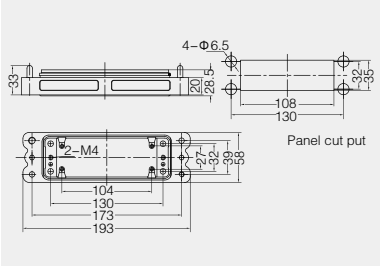
Thread	Designation	Order No.
	Screw locking	
3M25	HP24B/H–BK–SE–4H–3M25	113 624 930 1036
3M25,M20	HP24B/H–BK–SE–4H–3M25M20	113 624 930 1040
M50	HP24B/H–BK–SE–4H–M50	113 624 930 1006



Bulkhead mounted housings



Thread	Designation	Order No.
	Screw locking	
---	HP24B/H–BK–4H	113 624 330 1001



HC-250 Heavy-current inserts

Crimp terminal



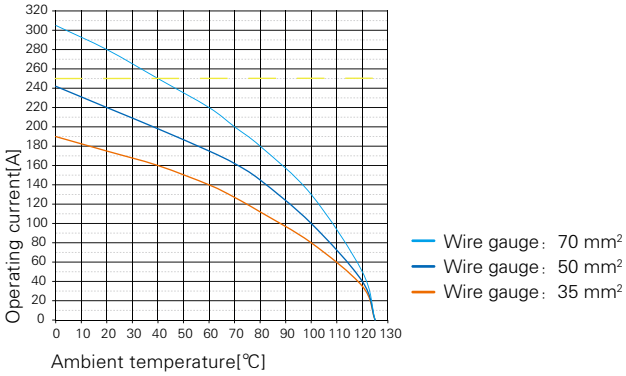
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	1,2,3,4,3+PE
Electrical data acc. to DIN EN 61 984	
Rated current	250A
–Rated voltage	2000V
–Rated impulse voltage	12kV
–Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	Copper alloy
Surface	hard–silver plated
Contact resistance	⩽0.3 mΩ
Crimp terminal	
– mm²	35 – 70 mm²
Max. insulation diameter	18 mm
Crimp dies	acc. to DIN 46 325
Pressing force requirement	130 kN
Frame	
Material	stainless steel
Tightening torque of the M3 fixing screws	0.5 Nm

Current carrying capacity

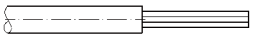
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5

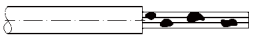


24B Pressure tight hoods/housings with 4 modules

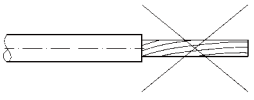
Assembly Details



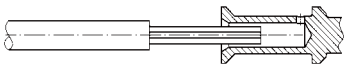
Cut the cable head square and strip the insulation



The copper strands must be cleaned from dirt and oxide film



Copper strands must not be twisted



Check if the cable strand is inserted completely into the crimp ferrule of the contact

HC-250 Heavy-current inserts

2000V 250A

Inserts

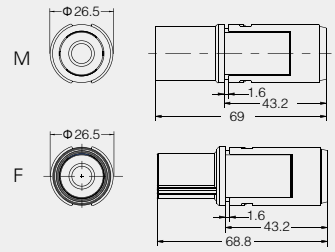
Hoods/Housings: size Pressure tight hoods/housings, please find the details on page 12-08~12-09.

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HC250–MC	131 001 010 0001
Female	HC250–FC	131 001 020 0001



Crimp contacts

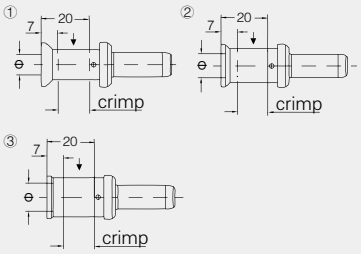
Crimp contacts 250A

Silver plated



NO.	Male	Order No.	Female	Order No.
①	CHSM250–35	101 028 110 1701	CHSF250–35G	101 028 120 1703
②	CHSM250–50	101 028 110 1801	CHSF250–50G	101 028 120 1803
③	CHSM250–70	101 028 110 1901	CHSF250–70G	101 028 120 1903

For stranded wire acc. to IEC 60 228–5
Crimp zone acc. to DIN 46 235



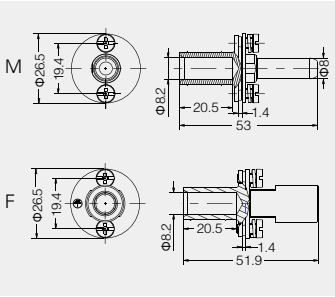
NO.	Wire gauge	Φ	Stripping length
①	35 mm²	8.45 mm	22 mm
②	50 mm²	10.25 mm	22 mm
③	70 mm²	11.75 mm	22 mm

PE crimp contacts 250A

Silver plated



Male	Order No.	Female	Order No.
CHSM250PE–35	101 028 110 1704	CHSF250PE–35	101 028 120 1704



Tools

Manual hydraulic clamp



Wire gauge	Designation	Order No.
10–240mm²	TL05	198 001 001 0005

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Pressure tight hoods/housings

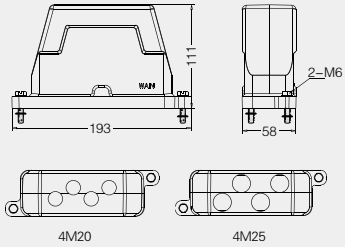
Degree of protection： IP68/IP69K

H version

Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
4M20	HP24B/H–TEH–2S–4M20	113 624 420 5038
4M25	HP24B/H–TEH–2S–4M25	113 624 420 5039
	Toggle locking	
4M20	HP24B/H–TEH–2T–4M20	113 624 440 5038
4M25	HP24B/H–TEH–2T–4M25	113 624 440 5039

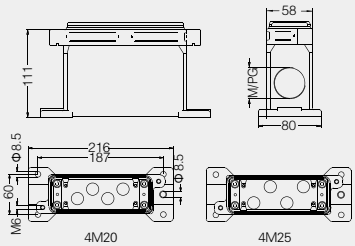


Surface mounted housings

high construction



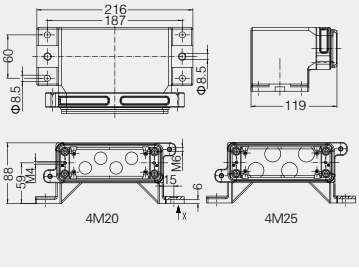
Thread	Designation	Order No.
	Screw locking	
4M20	HP24B/H–SFH–2H–4M20	113 624 220 5038
4M25	HP24B/H–SFH–2H–4M25	113 624 220 5039
	Toggle locking	
4M20	HP24B/H–SFH–2T–4M20	113 624 240 5038
4M25	HP24B/H–SFH–2T–4M25	113 624 240 5039



Surface mounted housings



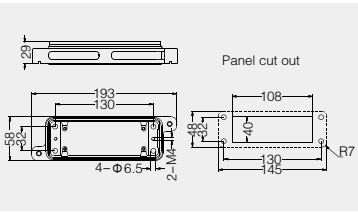
Thread	Designation	Order No.
	Screw locking	
4M20	HP24B/H–BK–SE–2H–4M20	113 624 920 1038
4M25	HP24B/H–BK–SE–2H–4M25	113 624 920 1039
	Toggle locking	
4M20	HP24B/H–BK–SE–2T–4M20	113 624 940 1038
4M25	HP24B/H–BK–SE–2T–4M25	113 624 940 1039



Bulkhead mounted housings



Thread	Designation	Order No.
	Screw locking	
---	HP24B/H–BK–2H	113 624 320 1001
	Toggle locking	
---	HP24B/H–BK–2T	113 624 340 1001

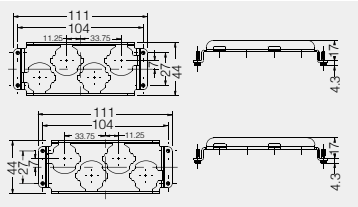


Frame

for 4 pins



Thread	Designation	Order No.
---	HF24B–004A–M	131 024 000 1011
---	HF24B–004A–F	131 024 000 1012



Pressure tight hoods/housings

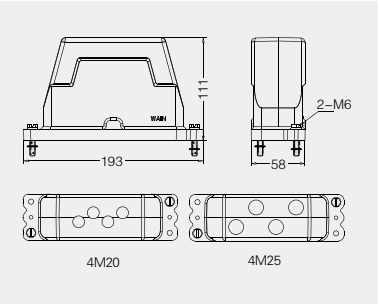
Degree of protection： IP68/IP69K

The following hoods/housings comply with the standards for rail transport industry in China. H version

Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
4M20	HP24B/H–TEH–4S–4M20	113 624 430 5038
4M25	HP24B/H–TEH–4S–4M25	113 624 430 5039

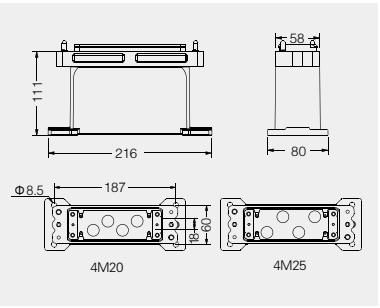


Surface mounted housings

high construction



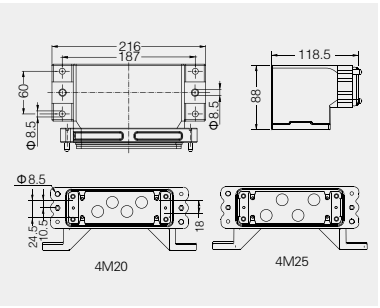
Thread	Designation	Order No.
	Screw locking	
4M20	HP24B/H–SFH–4H–4M20	113 624 230 5038
4M25	HP24B/H–SFH–4H–4M25	113 624 230 5039



Surface mounted housings



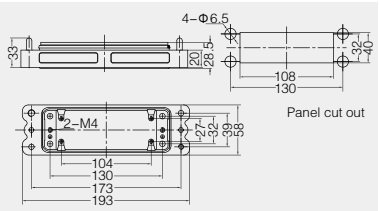
Thread	Designation	Order No.
	Screw locking	
4M20	HP24B/H–BK–SE–4H–4M20	113 624 930 1038
4M25	HP24B/H–BK–SE–4H–4M25	113 624 930 1039



Bulkhead mounted housings



Thread	Designation	Order No.
	Screw locking	
---	HP24B/H–BK–4H	113 624 330 1001

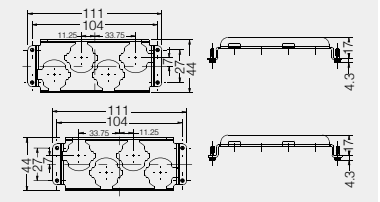


Frame

for 4 pins



Thread	Designation	Order No.
---	HF24B–004A–M	131 024 000 1011
---	HF24B–004A–F	131 024 000 1012



Pressure tight hoods/housings

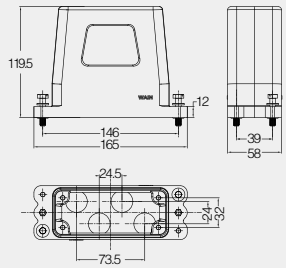
Degree of protection： IP68/IP69K
The following hoods/housings comply with the standards for rail transport industry in China.
Only suitable for cable with 18mm diameter

H version

Hoods, top entry, high construction



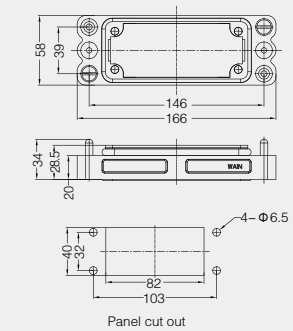
Thread	Designation	Order No.
	Screw locking	
4M25	HP16B/HE–TEHH–4S–4M25	113 016 430 5003



Bulkhead mounted housings



Thread	Designation	Order No.
	Screw locking	
---	HP16B/HE–BK–4H	113 016 330 1002

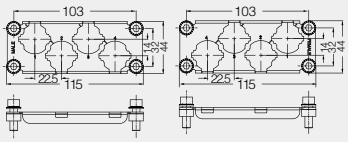


Frame

for 4 pins



Thread	Designation	Order No.
for 4 pins	HF16B–004A/E–M	131 016 000 1006
for 4 pins	HF16B–004A/E–F	131 016 000 1007





HC-350 Heavy-current inserts

Crimp terminal



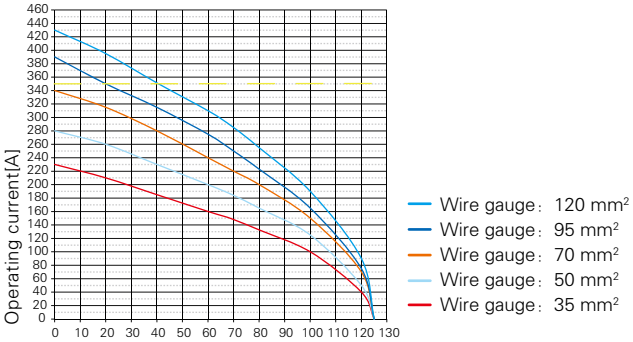
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Inserts	
Number of contacts	1,2,3,4
Electrical data acc. to EN 61 984	
without adapter	
–Rated current	350A
–Rated voltage	2000V
–Rated impulse voltage	12kV
–Pollution degree	3
with adapter	
–Rated voltage	4000V
–Rated impulse voltage	18kV
–Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Material	polyamide
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–silver plated
Contact resistance	⩽0.3mΩ
Crimp terminal	
– mm^2	35 – 120mm^2
Max. insulation diameter	22mm
Crimp dies	acc. to DIN 46 235
Pressing force	130kN
Frame	
Material	stainless steel
Tightening torque of the M3 fixing screws	0.5 Nm
Tightening torque of the M4 fixing screws	1.5 Nm
Tightening torque of the M6 fixing screws	4Nm

Current carrying capacity

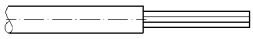
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5

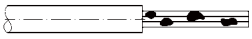


24B Pressure tight hoods/housings with 3 modules

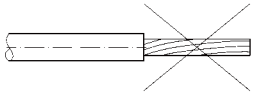
Assembly Details



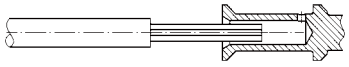
Cut the cable head square and strip the insulation



The copper strands must be cleaned from dirt and oxide film



Copper strands must not be twisted



Check if the cable strand is inserted completely into the crimp ferrule of the contact

HC-350 Heavy-current inserts

2000/4000V 350A

Inserts

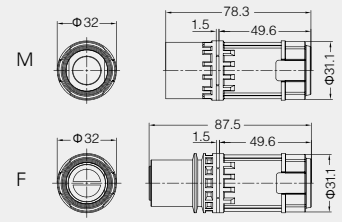
Hoods/Housings: size Pressure tight hoods/housings, please find the details on page 12-12~12-19.

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HC350–MC	131 001 010 0101
Female	HC350–FC	131 001 020 0101



Crimp contacts

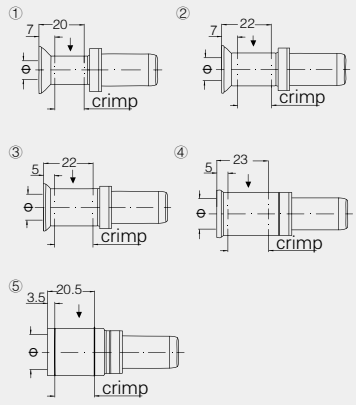
Crimp contacts 350A

Silver plated



NO.	Male	Order No.	Female	Order No.
①	CHSM350–35	101 029 110 1701	CHSF350–35G	101 029 120 1703
②	CHSM350–50	101 029 110 1801	CHSF350–50G	101 029 120 1803
③	CHSM350–70	101 029 110 1901	CHSF350–70G	101 029 120 1903
④	CHSM350–95	101 029 110 2001	CHSF350–95G	101 029 120 2003
⑤	CHSM350–120	101 029 110 2101	CHSF350–120G	101 029 120 2103

For stranded wire acc. to IEC 60 228–5
Crimp zone acc. to DIN 46 235



NO.	Wire gauge	Φ	Stripping length
①	35 mm²	8.2 mm	26 mm
②	50 mm²	10.0mm	28 mm
③	70 mm²	11.5 mm	28 mm
④	95 mm²	13.5 mm	30 mm
⑤	120 mm²	15.5 mm	24 mm

Tools

Manual hydraulic clamp



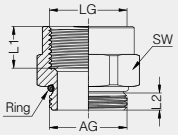
Wire gauge	Designation	Order No.
10–240mm²	TL05	198 001 001 0005

Hexagonal adapter[optional]

metal version
with O–Ring



Description	Designation	Order No.
for 350 Hoods/Housings	WNSC–M25M25/APT	102 103 018 1001
	WNSC–M32M32/APT	102 103 019 1001



	WNSC-M25M25/APT	WNSC-M32M32/APT
Thread(LG)	M25x1.5	M32x1.5
Thread(AG)	M25x1.5	M32x1.5
length of thread(L1)	13.5	16.5
length of thread(L2)	5.5	5.5
Wrench Size(SW)	30	40

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Pressure tight hoods/housings

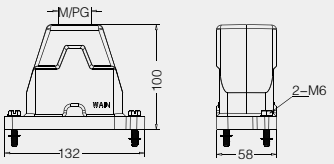
Degree of protection： IP68/IP69K

H version

Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
M25	HP6B/H–TEH–2S–M25	113 606 420 5003
M32	HP6B/H–TEH–2S–M32	113 606 420 5004
	Toggle locking	
M25	HP6B/H–TEH–2T–M25	113 606 440 5003
M32	HP6B/H–TEH–2T–M32	113 606 440 5004

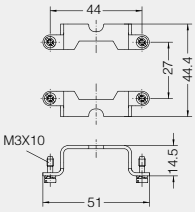


Frame, size 6B hoods/housings

for 1 pins



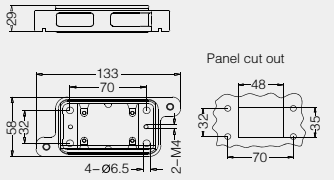
Thread	Designation	Order No.
---	HF6B–001C	131 006 000 1001



Bulkhead mounted housings



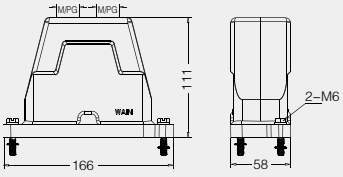
Thread	Designation	Order No.
	Screw locking	
---	HP6B/H–BK–2H	113 606 320 1001
	Toggle locking	
---	HP6B/H–BK–2T	113 606 340 1001



Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
2M25	HP16B/H–TEH–2S–2M25	113 616 420 5023
	Toggle locking	
2M25	HP16B/H–TEH–2T–2M25	113 616 440 5023

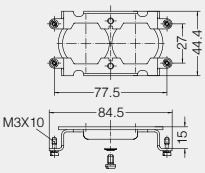


Frame, size 16B hoods/housings

for 2 pins



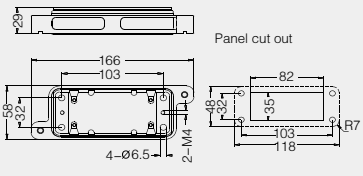
Thread	Designation	Order No.
---	HF16B–002C	131 016 000 1001



Bulkhead mounted housings



Thread	Designation	Order No.
	Screw locking	
---	HP16B/H–BK–2H	113 616 320 1001
	Toggle locking	
---	HP16B/H–BK–2T	113 616 340 1001



Pressure tight hoods/housings

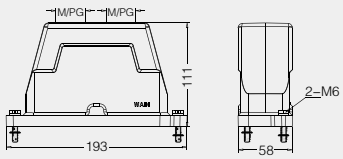
Degree of protection： IP68/IP69K

H version

Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
2M25	HP24B/H–TEH–2S–2M25	113 624 420 5023
2M32	HP24B/H–TEH–2S–2M32	113 624 420 5024
	Toggle locking	
2M25	HP24B/H–TEH–2T–2M25	113 624 440 5023
2M32	HP24B/H–TEH–2T–2M32	113 624 440 5024

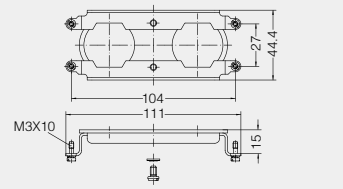


Frame, size 24B hoods/housings

for 2 pins



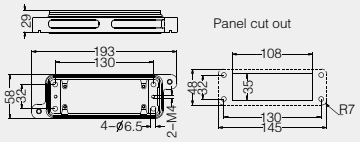
Thread	Designation	Order No.
---	HF24B–002C	131 024 000 1001



Bulkhead mounted housings



Thread	Designation	Order No.
	Screw locking	
---	HP24B/H–BK–2H	113 624 320 1001
	Toggle locking	
---	HP24B/H–BK–2T	113 624 340 1001



Pressure tight hoods/housings

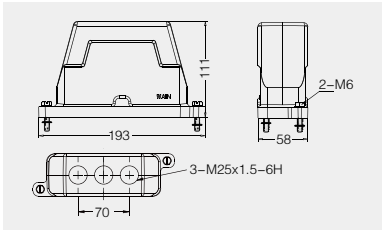
Degree of protection： IP68/IP69K

H version

Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
3M25	HP24B/H–TEH–2S–3M25	113 624 420 5036
	Toggle locking	
3M25	HP24B/H–TEH–2T–3M25	113 624 440 5036

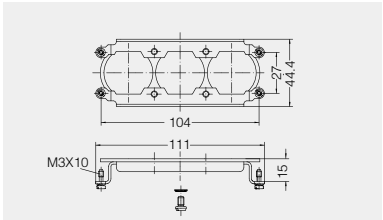


Frame, size 24B hoods/housings

for 3 pins



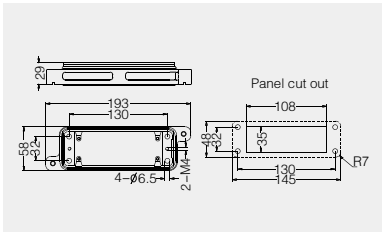
Thread	Designation	Order No.
---	HF24B–003C	131 024 000 1003



Bulkhead mounted housings



Thread	Designation	Order No.
	Screw locking	
---	HP24B/H–BK–2H	113 624 320 1001
	Toggle locking	
---	HP24B/H–BK–2T	113 624 340 1001

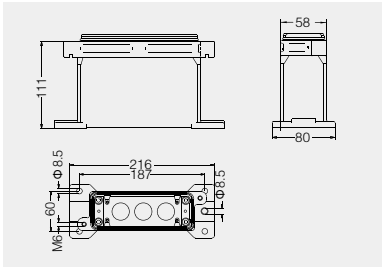


Surface mounted housings

high construction



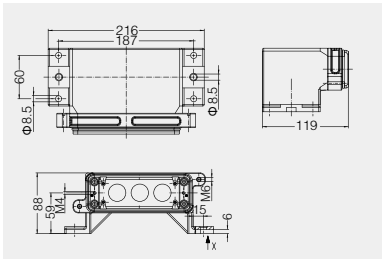
Thread	Designation	Order No.
	Screw locking	
3M25	HP24B/H–SFH–2H–3M25	113 624 220 5036
	Toggle locking	
3M25	HP24B/H–SFH–2T–3M25	113 624 240 5036



Surface mounted housings



Thread	Designation	Order No.
	Screw locking	
3M25	HP24B/H–BK–SE–2H–3M25	113 624 920 1036
	Toggle locking	
3M25	HP24B/H–BK–SE–2T–3M25	113 624 940 1036



Pressure tight hoods/housings

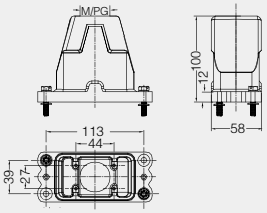
Degree of protection： IP68/IP69K

The following hoods/housings comply with the standards for rail transport industry in China. H version

Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
M25	HP6B/H–TEH–4S–M25	113 606 430 5003
M32	HP6B/H–TEH–4S–M32	113 606 430 5004

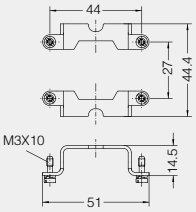


Frame, size 6B hoods/housings

for 1 pins



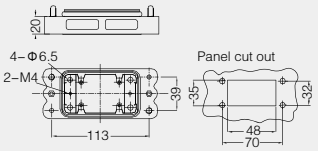
Thread	Designation	Order No.
---	HF6B–001C	131 006 000 1001



Bulkhead mounted housings



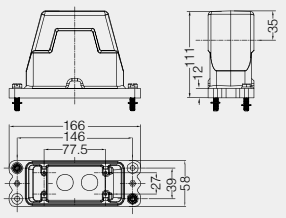
Thread	Designation	Order No.
	Screw locking	
---	HP6B/H–BK–4H	113 606 330 1001



Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
2M25	HP16B/H–TEH–4S–2M25	113 616 430 5023

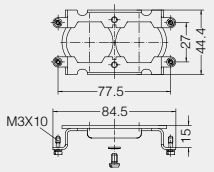


Frame, size 16B hoods/housings

for 2 pins



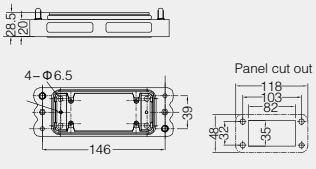
Thread	Designation	Order No.
---	HF16B–002C	131 016 000 1001



Bulkhead mounted housings



Thread	Designation	Order No.
	Screw locking	
---	HP16B/H–BK–4H	113 616 330 1001



Pressure tight hoods/housings

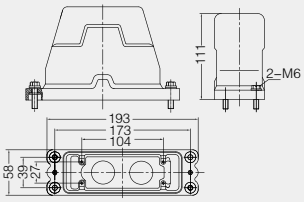
Degree of protection： IP68/IP69K

The following hoods/housings comply with the standards for rail transport industry in China. H version

Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
2M25	HP24B/H–TEH–4S–2M25	113 624 430 5023
2M32	HP24B/H–TEH–4S–2M32	113 624 430 5024

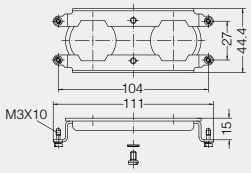


Frame, size 24B hoods/housings

for 2 pins



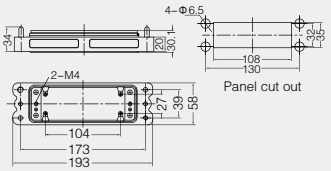
Thread	Designation	Order No.
---	HF24B–002C	131 024 000 1001



Bulkhead mounted housings



Thread	Designation	Order No.
	Screw locking	
---	HP24B/H–BK–4H	113 624 330 1001



Pressure tight hoods/housings

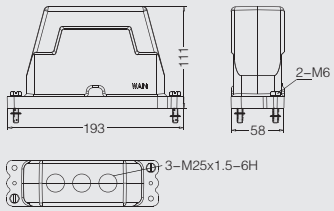
Degree of protection： IP68/IP69K

The following hoods/housings comply with the standards for rail transport industry in China. H version

Hoods, top entry, high construction



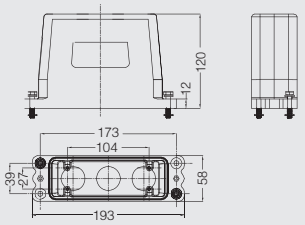
Thread	Designation	Order No.
	Screw locking	
3M25	HP24B/H–TEH–4S–3M25	113 624 430 5036



Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
3M32	HP24B/H–TEHH–4S–3M32	113 624 430 5037

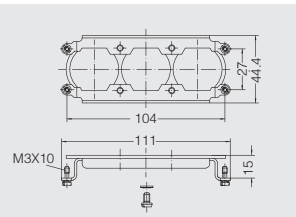


Frame, size 24B hoods/housings

for 3 pins



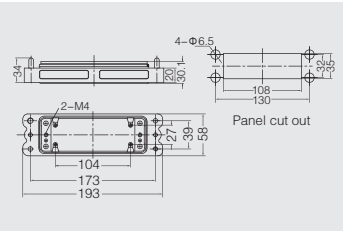
Thread	Designation	Order No.
---	HF24B–003C	131 024 000 1003



Bulkhead mounted housings



Thread	Designation	Order No.
	Screw locking	
---	HP24B/H–BK–4H	113 624 330 1001

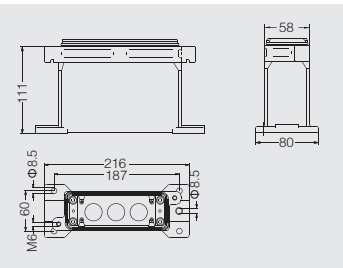


Surface mounted housings

high construction



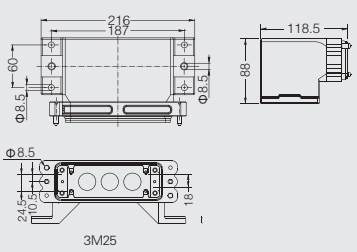
Thread	Designation	Order No.
	Screw locking	
3M25	HP24B/H–SFH/BK–4H–3M25	113 624 230 5036



Surface mounted housings



Thread	Designation	Order No.
	Screw locking	
3M25	HP24B/H–BK–SE–4H–3M25	113 624 930 1036



Pressure tight hoods/housings
- enlarged

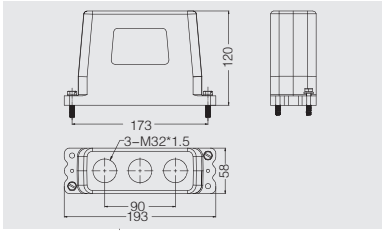
Degree of protection： IP68/IP69K
The following hoods/housings comply with the standards for rail transport industry in China.
Only suitable for cable with 18mm diameter

H version

Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
3M32	HP24B/HE–TEHH–4S–3M32	113 624 430 5137

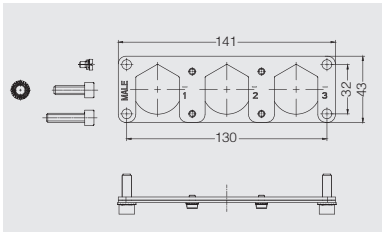


Male,Frame, size 24B hoods/housings

for 3 pins



Thread	Designation	Order No.
---	HF24B–003C/E–M	131 024 000 1005

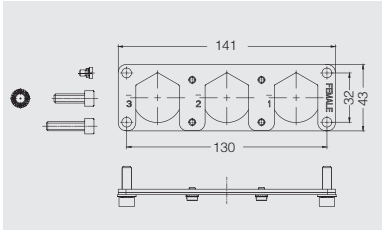


Female,Frame, size 24B hoods/housings

for 3 pins



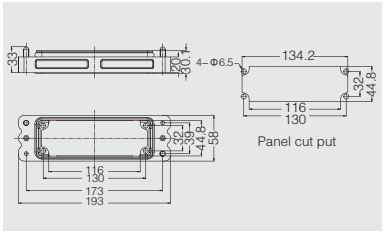
Thread	Designation	Order No.
---	HF24B–003C/E–F	131 024 000 1006



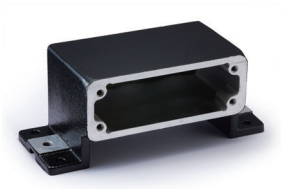
Bulkhead mounted housings



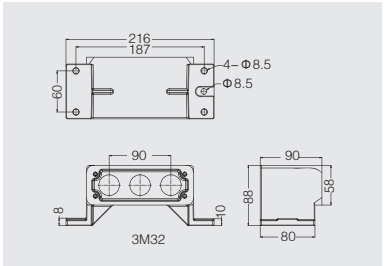
Thread	Designation	Order No.
	Screw locking	
---	HP24B/HE–BK–4H	113 624 330 1101



Surface mounted housings



Thread	Designation	Order No.
	Screw locking	
3M32	HP24B/HE–BK–SE–3M32	113 624 900 1137



Pressure tight hoods/housings
- enlarged

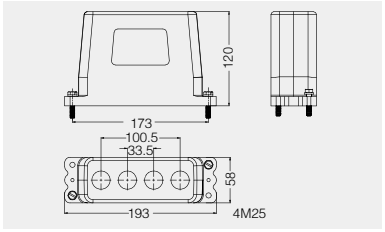
Degree of protection： IP68/IP69K
The following hoods/housings comply with the standards for rail transport industry in China.
Only suitable for cable with 18mm diameter

H version

Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
4M25	HP24B/HE–TEHH–4S–4M25	113 624 430 5139

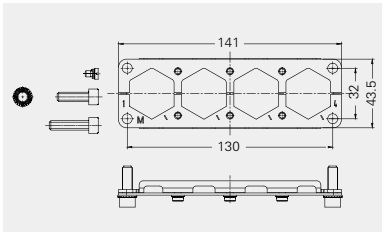


Male,Frame, size 24B hoods/housings

for 4 pins



Thread	Designation	Order No.
---	HF24B–004C/E–M	131 024 000 1009

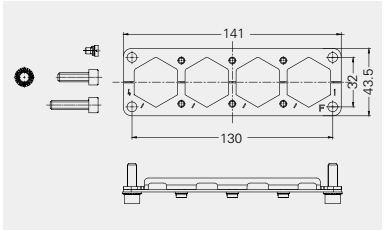


Female,Frame, size 24B hoods/housings

for 4 pins



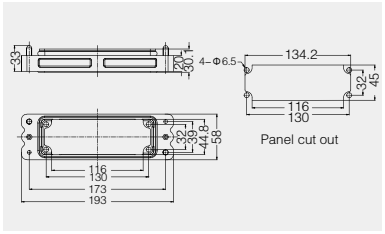
Thread	Designation	Order No.
---	HF24B–004C/E–F	131 024 000 1010



Bulkhead mounted housings



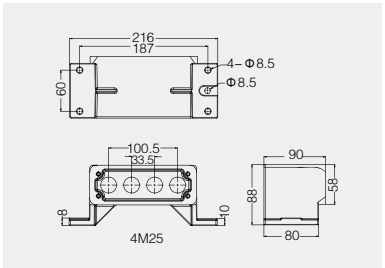
Thread	Designation	Order No.
	Screw locking	
---	HP24B/HE–BK–4H	113 624 330 1101



Surface mounted housings



Thread	Designation	Order No.
	Screw locking	
---	HP24B/HE–BK–SE–4M25	113 624 900 1139



HC-650 Heavy-current inserts

Axial screw terminal



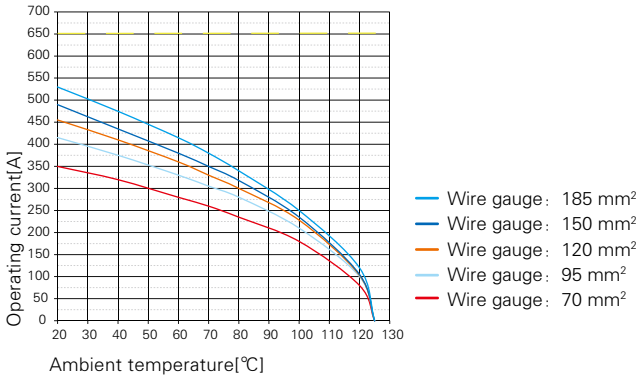
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Inserts	
Number of contacts	1,2,3
Electrical data acc. to EN 61 984	
without adapter	
–Rated current	650A
–Rated voltage	2000V
–Rated impulse voltage	12kV
–Pollution degree	3
with adapter	
–Rated voltage	4000V
–Rated impulse voltage	18kV
–Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Material	polyamide
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	silver
Contact resistance	⩽0.2mΩ
For stranded wire acc. to IEC 60 228 Class 5	
Axial screw termination	
– Wire gauge	35–70/70–120/150–185mm²
– MCM	138 – 236 / 300 – 350
– Stripping length	23–25
– Max. cable diameter	26.5mm
	mm² 35 50 70 95 120 150 185
– Tightening torque	Nm 8 10 12 14 16 17 18
Screw terminal	
– Thread	M12
– Tightening torque	8–18Nm
Frame	
Material	stainless steel
Tightening torque of the M3 fixing screws	0.5Nm

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



24B Pressure tight hoods/housings with 2 modules

HC-650 Heavy-current inserts

4000V 650A

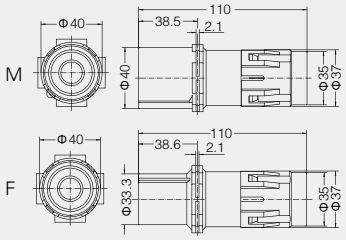
Inserts

Hoods/Housings: size Pressure tight hoods/housings, please find the details on page 12-24~12-26.

Axial screw terminal[1)]



Insert	Wire gauge	Designation	Order No.
Male	35–70mm²	HC650.70–M(35–70mm²)	131 001 011 0203
	70–120mm²	HC650.120–M (70–120mm²)	131 001 011 0201
	150–185mm²	HC650.185–M (150–185mm²)	131 001 011 0202
Female	35–70mm²	HC650.70–F(35–70mm²)	131 001 021 0203
	70–120mm²	HC650.120–F (70–120mm²)	131 001 021 0201
	150–185mm²	HC650.185–F (150–185mm²)	131 001 021 0202



Assembly details

Step 1： Strip cable to 23+2 mm

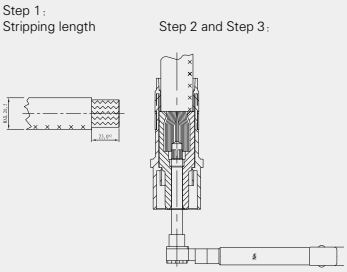
Step 2： Push conductor through the cable gland and the housing. Push the stripped end of the conductor into the termination entry of the module until the insulation touches the contact.

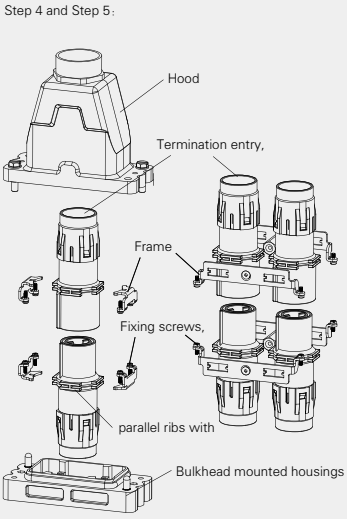
Step 3： To tighten the axial screw, a hexagonal wrench size 8 is needed.Insert the hexagonal wrench on the mating side of the cont–act. At the same time, push the conductor over the axial screw.The locking screw has to be tightened with the recommended tightening torque that is determined by the conductor’s cross section.

Step 4： Once the modules are terminated, they are mounted into the housing by using two metal frames (tightening torque of the fixi–ng screws = 0.5 Nm) . The modules have 4 pegs formed by 2 paral–lel ribs (each peg shapes like a “H ”).Each rib takes 1 pole frame, w–here the lateral link has to go into the relief of the frame. The 2 pole frames have 2 cutouts on the wall which get fitted to the “H” –shaped pegs (see figure).The heads of the screws have to face the mating direction of the module.Coding can be establishedby rotating the co–ntact by 90 degrees. Therefore it is important that the corresponding modules are assembled in the correct position otherwise mating is not possible

Step 5： After assembling the modules in the housing, the tighten–ing torque of the locking screw can be checked and corrected if nec–essary.

Step 6： After final assembly of the contacts,the user should ens–ure that the cable is adequately strain reliefed to protect the contact from radial stress.





1) See P00–30~00–31 for the structural characteristics and description of Axial screw terminal.

HC-650 Heavy-current inserts

Crimp terminal



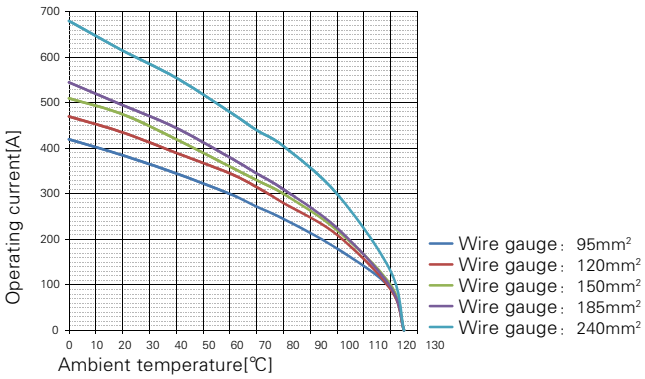
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Inserts	
Number of contacts	1,2,3
Electrical data acc. to EN 61 984	
without adapter	
–Rated current	650A
–Rated voltage	2000V
–Rated impulse voltage	12kV
–Pollution degree	3
with adapter	
–Rated voltage	4000V
–Rated impulse voltage	18kV
–Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Material	polyamide
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Material	copper alloy
Surface	hard–silver plated
Contact resistance	⩽0.3mΩ
Crimp terminal	
– mm^2	240mm^2
Max. insulation diameter	32mm
Pressing force requirement	130kN
Frame	
Material	stainless steel
Tightening torque of the M3 fixing screws	0.5 Nm
Tightening torque of the M4 fixing screws	1.5 Nm
Tightening torque of the M6 fixing screws	4 Nm

Current carrying capacity

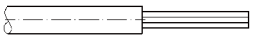
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5

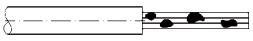


24B Pressure tight hoods/housings with 2 modules

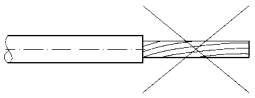
Assembly Details



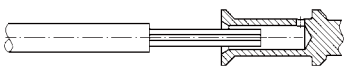
Cut the cable head square and strip the insulation



The copper strands must be cleaned from dirt and oxide film



Copper strands must not be twisted



Check if the cable strand is inserted completely into the crimp ferrule of the contact

HC-650 Heavy-current inserts

4000V 650A

Inserts

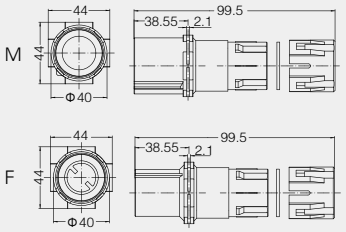
Hoods/Housings: size Pressure tight hoods/housings, please find the details on page 12-24~12-26.

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HC650–MC	131 001 010 0201
Female	HC650–FC	131 001 020 0201



Crimp contacts 650A (with crown spring), for HC650 inserts.

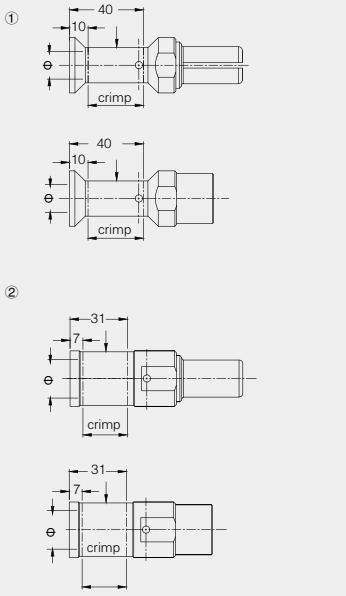
Contact resistance≤0.3mΩ

silver plated



NO.	Male	Order No.	Female	Order No.
①	CHSM650–95	101 030 110 2002	CHSF650–95G	101 030 120 2002
①	CHSM650–120	101 030 110 2101	CHSF650–120G	101 030 120 2101
①	CHSM650–150	101 030 110 2202	CHSF650–150G	101 030 120 2202
②	CHSM650–185	101 030 110 2301	CHSF650–185G	101 030 120 2303
②	CHSM650–240	101 030 110 2401	CHSF650–240G	101 030 120 2403

For stranded wire acc. to IEC 60 228–5
Crimp zone acc. to DIN 46 235



NO.	Wire gauge	Φ	Stripping length
①	95 mm²	13.5 mm	42 mm
	120 mm²	15.5 mm	42 mm
	150 mm²	17 mm	42 mm
②	185 mm²	19.4 mm	46 mm
	240 mm²	22.5 mm	46 mm

Tool

Manual hydraulic clamp



Wire gauge	Designation	Order No.
10–240mm²	TL05	198 001 001 0005

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Pressure tight hoods/housings

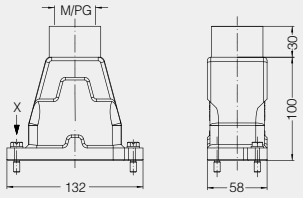
Degree of protection： IP68/IP69K

H version

Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
M40	HP6B/H–TEH–2S–M40B	113 606 420 5105
	Toggle locking	
M40	HP6B/H–TEH–2T–M40B	113 606 440 5105

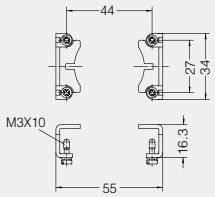


Frame, size 6B hoods/housings

for 1 pins



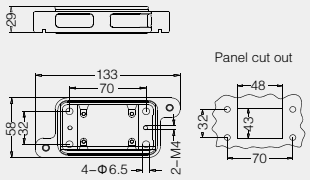
Thread	Designation	Order No.
---	HF6B–001R	131 006 000 1002



Bulkhead mounted housings



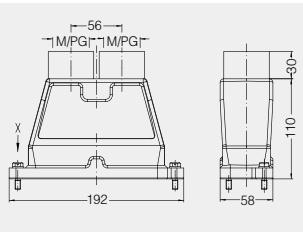
Thread	Designation	Order No.
	Screw locking	
---	HP6B/H–BKH–2H	113 606 320 1002
	Toggle locking	
---	HP6B/H–BKH–2T	113 606 340 1002



Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
2M40	HP24B/H–TEH–2S–2M40B	113 624 420 5125
	Toggle locking	
2M40	HP24B/H–TEH–2T–2M40B	113 624 440 5125

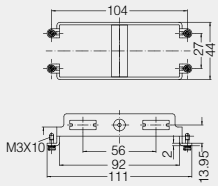


Frame, size 24B hoods/housings

for 2 pins



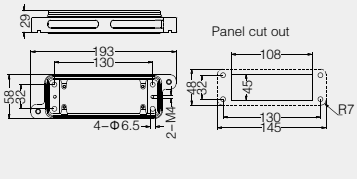
Thread	Designation	Order No.
---	HF24B–002R	131 024 000 1002



Bulkhead mounted housings



Thread	Designation	Order No.
	Screw locking	
---	HP24B/H–BK–2H	113 624 320 1001
	Toggle locking	
---	HP24B/H–BK–2T	113 624 340 1001



Pressure tight hoods/housings

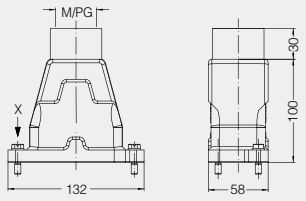
Degree of protection： IP68/IP69K

The following hoods/housings comply with the standards for rail transport industry in China. H version

Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
M40	HP6B/H–TEH–4S–M40B	113 606 430 5105

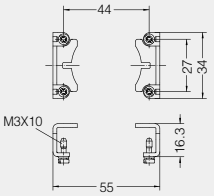


Frame, size 6B hoods/housings

for 1 pins



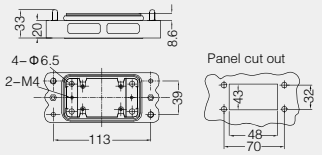
Thread	Designation	Order No.
---	HF6B–001R	131 006 000 1002



Bulkhead mounted housings



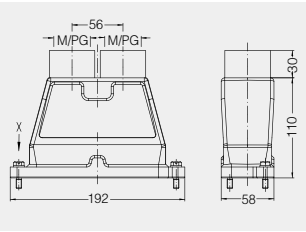
Thread	Designation	Order No.
	Screw locking	
---	HP6B/H–BK–4H	113 606 330 1001



Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
2M40	HP24B/H–TEH–4S–2M40B	113 624 430 5125

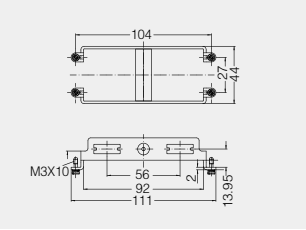


Frame, size 24B hoods/housings

for 2 pins



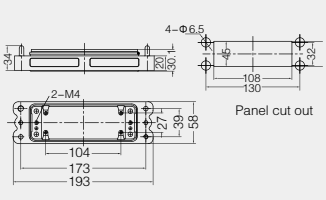
Thread	Designation	Order No.
---	HF24B–002R	131 024 000 1002



Bulkhead mounted housings



Thread	Designation	Order No.
	Screw locking	
---	HP24B/H–BK–4H	113 624 330 1001



Pressure tight hoods/housings
- enlarged

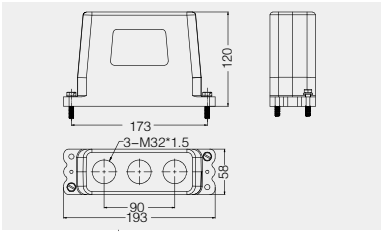
Degree of protection： IP68/IP69K
The following hoods/housings comply with the standards for rail transport industry in China.
Only suitable for cable with 25mm diameter

H version

Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
3M32	HP24B/HE–TEHH–4S–3M32	113 624 430 5137

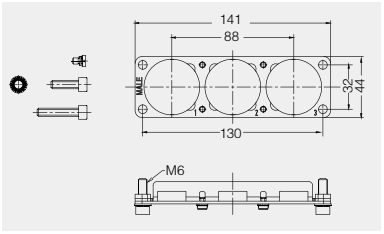


Male,Frame, size 24B hoods/housings

for 3 pins



Thread	Designation	Order No.
---	HF24B–003R/E–M	131 024 000 1007

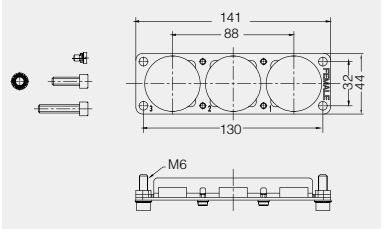


Female,Frame, size 24B hoods/housings

for 3 pins



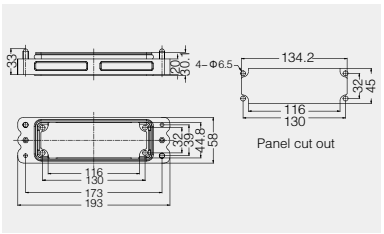
Thread	Designation	Order No.
---	HF24B–003R/E–F	131 024 000 1008



Bulkhead mounted housings



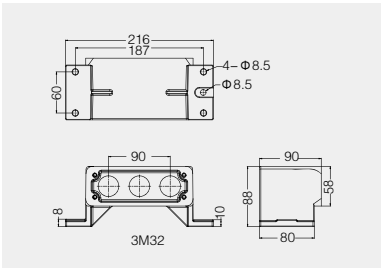
Thread	Designation	Order No.
	Screw locking	
---	HP24B/HE–BK–4H	113 624 330 1101



Surface mounted housings



Thread	Designation	Order No.
	Screw locking	
3M32	HP24B/HE–BK–SE–3M32	113 624 900 1137

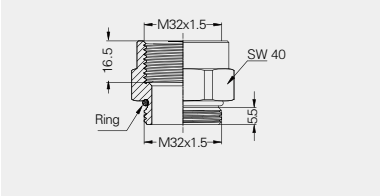


Hexagonal adapter[optional]

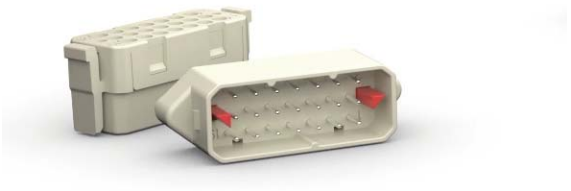
metal version
with O–Ring



Description	Designation	Order No.
for 650 Hoods/Housings: HP24B/HE–TEHH–4S–3M32, HP24B/HE–BK–SE–3M32	WNSC–M32M32/APT	102 103 019 1001



HCM small–sized solder insert



Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Electrical data acc. to EN 61 984	
Number of contacts	15、18、21
Rated current	5A
Rated voltage	50V
Rated impulse voltage	0.8KV
Pollution degree	3
Insulation resistance	≥$10^{10}\Omega$
Material	polycarbonate/thermoplastic resin
Limiting temperatures	–40℃ – +125℃
Mechanical working life(mating cycles)	≥50
Contacts	
Material	copper alloy
Contact resistance	≤3mΩ
Crimp terminal	
–mm^2	0.09–0.82mm^2
–AWG	28–18
Surface	hard–silver plated
	hard–gold plated
Solder terminal	Solder hole 0.8mm
Surface	hard–silver plated

HCM-015 small–sized solder insert

50V 5A

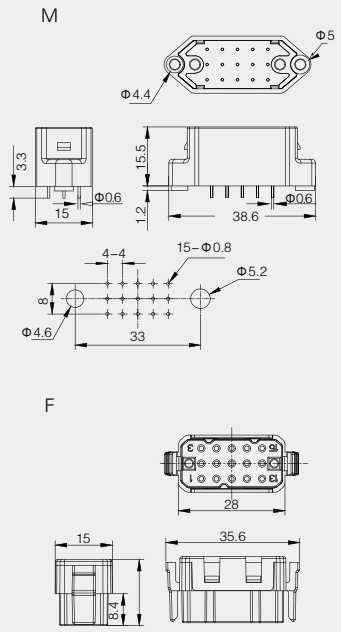
Inserts

Solder/Crimp terminal

Order crimp contacts separately



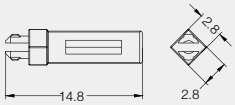
Insert	Color	Designation	Order No.
Male	Black	HCM–015–MT.BK	137 015 001 0002
	White	HCM–015–MT.WH	137 015 001 0003
	Grey	HCM–015–MT.GY	137 015 001 0004
	Blue	HCM–015–MT.BU	137 015 001 0005
Female	Black	HCM–015–FC.BK	137 015 020 0002
	White	HCM–015–FC.WH	137 015 020 0003
	Grey	HCM–015–FC.GY	137 015 020 0004
	Blue	HCM–015–FC.BU	137 015 020 0005



Coding element



Description	Designation	Order No.
coding、pokayoke	CODE–Q3	198 002 005 0034



Crimp contacts

Crimp contacts 5A

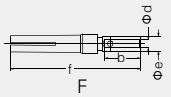
Contact resistance≤3mΩ
silver plated



gold plated



	Female	Order No.
	CSSF–0.25	101 014 120 0101
	CSSF–0.33	101 014 120 0201
	CSSF–0.52	101 014 120 0501
	CSSF–0.82	101 014 120 0701
	CSGF–0.25	101 014 220 0101
	CSGF–0.33	101 014 220 0201
	CSGF–0.52	101 014 220 0501
	CSGF–0.82	101 014 220 0701



b	d	e	f
4.0	0.64	1.66	14.4
4.0	0.90	1.66	14.4
4.0	1.12	1.66	14.4
4.2	1.35	1.75	13.6

Wire gauge		Stripping length
0.09–0.25 mm²	AWG 28–24	5 mm
0.13–0.33 mm²	AWG 26–22	5 mm
0.33–0.52 mm²	AWG 22–20	5 mm
0.52–0.82 mm²	AWG 22–18	5 mm

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.09–0.82mm²	TL03	198 001 001 0002

Application	Designation	Order No.
for 5A crimp contact	TL08	198 001 000 0006

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HCM-018 small–sized solder insert

50V 5A

Inserts

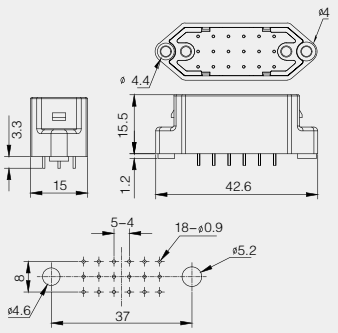
Solder/Crimp terminal

Order crimp contacts separately

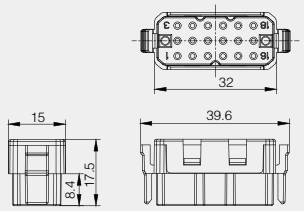


Insert	Color	Designation	Order No.
Male	Black	HCM–018–MT.BK	137 018 001 0002
	White	HCM–018–MT.WH	137 018 001 0003
	Grey	HCM–018–MT.GY	137 018 001 0004
	Blue	HCM–018–MT.BU	137 018 001 0005
Female	Black	HCM–018–FC.BK	137 018 020 0002
	White	HCM–018–FC.WH	137 018 020 0003
	Grey	HCM–018–FC.GY	137 018 020 0004
	Blue	HCM–018–FC.BU	137 018 020 0005

M



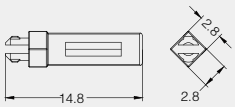
F



Coding element



Description	Designation	Order No.
coding、pokayoke	CODE–Q3	198 002 005 0034



Crimp contacts

Crimp contacts 5A

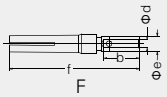
Contact resistance≤3mΩ
silver plated



gold plated



	Female	Order No.
	CSSF–0.25	101 014 120 0101
	CSSF–0.33	101 014 120 0201
	CSSF–0.52	101 014 120 0501
	CSSF–0.82	101 014 120 0701
	CSGF–0.25	101 014 220 0101
	CSGF–0.33	101 014 220 0201
	CSGF–0.52	101 014 220 0501
	CSGF–0.82	101 014 220 0701



b	d	e	f
4.0	0.64	1.66	14.4
4.0	0.90	1.66	14.4
4.0	1.12	1.66	14.4
4.2	1.35	1.75	13.6

Wire gauge		Stripping length
0.09–0.25 mm²	AWG 28–24	5 mm
0.13–0.33 mm²	AWG 26–22	5 mm
0.33–0.52 mm²	AWG 22–20	5 mm
0.52–0.82 mm²	AWG 22–18	5 mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.09–0.82mm²	TL03	198 001 001 0002

Contact removal tool



Application	Designation	Order No.
for 5A crimp contact	TL08	198 001 000 0006

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HCM-021 small–sized solder insert

50V 5A

Inserts

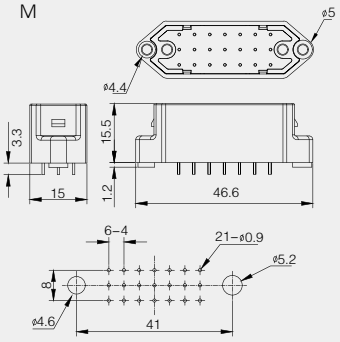
Solder/Crimp terminal

Order crimp contacts separately

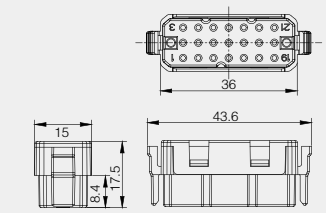


Insert	Color	Designation	Order No.
Male	Black	HCM–021–MT.BK	137 021 001 0002
	White	HCM–021–MT.WH	137 021 001 0003
	Grey	HCM–021–MT.GY	137 021 001 0004
	Blue	HCM–021–MT.BU	137 021 001 0005
	Red	HCM–021–MT.RD	137 021 001 0006
	Yellow	HCM–021–MT.YE	137 021 001 0007
	Green	HCM–021–MT.GN	137 021 001 0008
Female	Black	HCM–021–FC.BK	137 021 020 0002
	White	HCM–021–FC.WH	137 021 020 0003
	Grey	HCM–021–FC.GY	137 021 020 0004
	Blue	HCM–021–FC.BU	137 021 020 0005
	Red	HCM–021–FC.RD	137 021 020 0006
	Yellow	HCM–021–FC.YE	137 021 020 0007
	Green	HCM–021–FC.GN	137 021 020 0008

M



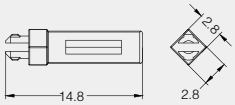
F



Coding element



Description	Designation	Order No.
coding、pokayoke	CODE–Q3	198 002 005 0034



Crimp contacts

Crimp contacts 5A

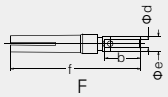
Contact resistance≤3mΩ
silver plated



gold plated



	Female	Order No.
	CSSF–0.25	101 014 120 0101
	CSSF–0.33	101 014 120 0201
	CSSF–0.52	101 014 120 0501
	CSSF–0.82	101 014 120 0701
	CSGF–0.25	101 014 220 0101
	CSGF–0.33	101 014 220 0201
	CSGF–0.52	101 014 220 0501
	CSGF–0.82	101 014 220 0701



b	d	e	f
4.0	0.64	1.66	14.4
4.0	0.90	1.66	14.4
4.0	1.12	1.66	14.4
4.2	1.35	1.75	13.6

Wire gauge		Stripping length
0.09–0.25 mm²	AWG 28–24	5 mm
0.13–0.33 mm²	AWG 26–22	5 mm
0.33–0.52 mm²	AWG 22–20	5 mm
0.52–0.82 mm²	AWG 22–18	5 mm

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.09–0.82mm²	TL03	198 001 001 0002

Application	Designation	Order No.
for 5A crimp contact	TL08	198 001 000 0006

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Crimp contacts



Crimp contacts

Crimp contacts 5A-Standard, for HM, EMC-008, D-SUB, HR23 inserts.

Contact resistance≤3mΩ

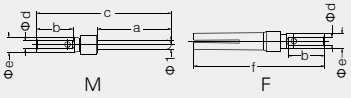
silver plated



gold plated



Male	Designation	Female	Designation
CSSM–0.25	101 014 110 0101	CSSF–0.25	101 014 120 0101
CSSM–0.33	101 014 110 0201	CSSF–0.33	101 014 120 0201
CSSM–0.52	101 014 110 0501	CSSF–0.52	101 014 120 0501
CSSM–0.82	101 014 110 0701	CSSF–0.82	101 014 120 0701
CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501
CSGM–0.82	101 014 210 0701	CSGF–0.82	101 014 220 0701



a	b	c	d	e	f
8.10	4.0	14.8	0.64	1.66	14.4
8.10	4.0	14.8	0.90	1.66	14.4
8.10	4.0	14.8	1.12	1.66	14.4
8.23	4.0	14.8	1.35	1.75	14.4

Wire gauge		Stripping length
0.09–0.25 mm²	AWG 28–24	5 mm
0.13–0.33 mm²	AWG 26–22	5 mm
0.33–0.52 mm²	AWG 22–20	5 mm
0.52–0.82 mm²	AWG 22–18	5 mm

Crimp contacts 10A-Standard, for HD, HDD, HM, HK, HQ inserts.

Contact resistance≤3mΩ

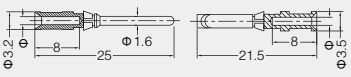
silver plated



gold plated



Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Crimp contacts 10A-Enhanced Ⅰ(prevent deflected insertion), HD, HDD, HM, HK, HQ inserts.

Contact resistance≤3mΩ

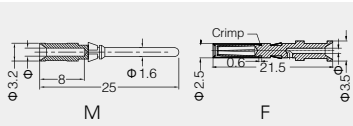
silver plated



gold plated



Male	Designation	Female	Designation
CDSM–0.37	101 017 110 0301	CDSF–0.37C	101 017 120 0306
CDSM–0.50	101 017 110 0401	CDSF–0.50C	101 017 120 0406
CDSM–0.75	101 017 110 0601	CDSF–0.75C	101 017 120 0606
CDSM–1.0	101 017 110 0801	CDSF–1.0C	101 017 120 0806
CDSM–1.5	101 017 110 0901	CDSF–1.5C	101 017 120 0906
CDSM–2.5	101 017 110 1001	CDSF–2.5C	101 017 120 1006
CDGM–0.37	101 017 210 0301	CDGF–0.37C	101 017 220 0306
CDGM–0.50	101 017 210 0401	CDGF–0.50C	101 017 220 0406
CDGM–0.75	101 017 210 0601	CDGF–0.75C	101 017 220 0606
CDGM–1.0	101 017 210 0801	CDGF–1.0C	101 017 220 0806
CDGM–1.5	101 017 210 0901	CDGF–1.5C	101 017 220 0906
CDGM–2.5	101 017 210 1001	CDGF–2.5C	101 017 220 1006



Wire gauge		Φ	Stripping length
0.14–0.37 mm²	AWG 26–22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Crimp contacts 10A-Enhanced Ⅱ(prevent deflected insertion,vibration resistance), for HD, HDD, HM, HK, HQ inserts.

Contact resistance≤3mΩ

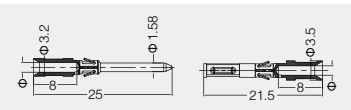
silver plated



gold plated



Male	Designation	Female	Designation
CDSM–0.37B	101 017 110 0303	CDSF–0.37B	101 017 120 0303
CDSM–0.50B	101 017 110 0403	CDSF–0.50B	101 017 120 0403
CDSM–0.75B	101 017 110 0603	CDSF–0.75B	101 017 120 0603
CDSM–1.0B	101 017 110 0803	CDSF–1.0B	101 017 120 0803
CDSM–1.5B	101 017 110 0903	CDSF–1.5B	101 017 120 0903
CDSM–2.5B	101 017 110 1003	CDSF–2.5B	101 017 120 1003
CDGM–0.37B	101 017 210 0303	CDGF–0.37B	101 017 220 0303
CDGM–0.50B	101 017 210 0403	CDGF–0.50B	101 017 220 0403
CDGM–0.75B	101 017 210 0603	CDGF–0.75B	101 017 220 0603
CDGM–1.0B	101 017 210 0803	CDGF–1.0B	101 017 220 0803
CDGM–1.5B	101 017 210 0903	CDGF–1.5B	101 017 220 0903
CDGM–2.5B	101 017 210 1003	CDGF–2.5B	101 017 220 1003



Wire gauge		Φ	Stripping length
0.14–0.37 mm²	AWG 26–22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Crimp contacts

Crimp contacts 10A-Enhanced Ⅲ (recommended use in rail transport industry), for HD, HDD, HM, HK, HQ inserts.

Contact resistance≤3mΩ

silver plated

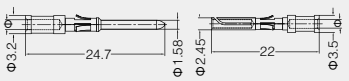


gold plated



Can not be compatible use with above three 10A Crimp contacts.

Male	Order No.	Female	Order No.
ZCDSM–0.37	101 017 110 0302	ZCDSF–0.37	101 017 120 0302
ZCDSM–0.50	101 017 110 0402	ZCDSF–0.50	101 017 120 0402
ZCDSM–0.75	101 017 110 0602	ZCDSF–0.75	101 017 120 0602
ZCDSM–1.0	101 017 110 0802	ZCDSF–1.0	101 017 120 0802
ZCDSM–1.5	101 017 110 0902	ZCDSF–1.5	101 017 120 0902
ZCDSM–2.5	101 017 110 1002	ZCDSF–2.5	101 017 120 1002
ZCDGM–0.37	101 017 210 0302	ZCDGF–0.37	101 017 220 0302
ZCDGM–0.50	101 017 210 0402	ZCDGF–0.50	101 017 220 0402
ZCDGM–0.75	101 017 210 0602	ZCDGF–0.75	101 017 220 0602
ZCDGM–1.0	101 017 210 0802	ZCDGF–1.0	101 017 220 0802
ZCDGM–1.5	101 017 210 0902	ZCDGF–1.5	101 017 220 0902
ZCDGM–2.5	101 017 210 1002	ZCDGF–2.5	101 017 220 1002



M F

Wire gauge		Φ	Stripping length
0.14–0.37 mm²	AWG 26–22	0.9	6 mm
0.5 mm²	AWG 20	1.1	6 mm
0.75 mm²	AWG 18	1.3	6 mm
1 mm²	AWG 18	1.45	6 mm
1.5 mm²	AWG 16	1.75	6 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Stamped contacts10A, for HD-040-MC/P, HD-040-FC/P, HD-064-MC/P, HD-064-FC/P inserts.

Contact resistance≤5mΩ

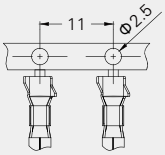
silver plated



coil stock



Wire gauge	Contacts	Designation	Order No.
0.5–1.5mm²	male	CDSM–1.5P	101 017 110 0905
	female	CDSF–1.5P	101 017 120 0905
1.5–2.5mm²	male	CDSM–2.5P	101 017 110 1005
	female	CDSF–2.5P	101 017 120 1005



Distance map

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Crimp contacts.

Crimp contacts 16A-Standard, for HAC, HEC, HEE, HM, HK inserts.

Contact resistance≤1mΩ

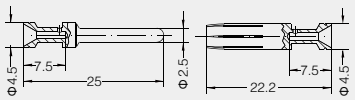
silver plated



gold plated



Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	CESF–0.37	101 019 120 0301
CESM–0.50	101 019 110 0401	CESF–0.50	101 019 120 0401
CESM–0.75	101 019 110 0601	CESF–0.75	101 019 120 0601
CESM–1.0	101 019 110 0801	CESF–1.0	101 019 120 0801
CESM–1.5	101 019 110 0901	CESF–1.5	101 019 120 0901
CESM–2.5	101 019 110 1001	CESF–2.5	101 019 120 1001
CESM–3.0	101 019 110 1101	CESF–3.0	101 019 120 1101
CESM–4.0	101 019 110 1201	CESF–4.0	101 019 120 1201
CEGM–0.37	101 019 210 0301	CEGF–0.37	101 019 220 0301
CEGM–0.50	101 019 210 0401	CEGF–0.50	101 019 220 0401
CEGM–0.75	101 019 210 0601	CEGF–0.75	101 019 220 0601
CEGM–1.0	101 019 210 0801	CEGF–1.0	101 019 220 0801
CEGM–1.5	101 019 210 0901	CEGF–1.5	101 019 220 0901
CEGM–2.5	101 019 210 1001	CEGF–2.5	101 019 220 1001
CEGM–3.0	101 019 210 1101	CEGF–3.0	101 019 220 1101
CEGM–4.0	101 019 210 1201	CEGF–4.0	101 019 220 1201



M F

Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 groove	1.5 mm²	AWG 16	7.5mm
3 groove	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Crimp contacts 16A-Enhanced (prevent deflected insertion , with crown spring), for HAC, HEC, HEE, HM, HK inserts.

Contact resistance≤1mΩ

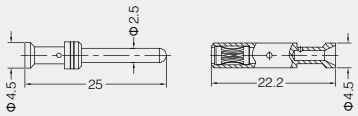
silver plated



gold plated



Male	Order No.	Female	Order No.
CESM–0.37	101 019 110 0301	ZCESF–0.37G	101 019 120 0311
CESM–0.50	101 019 110 0401	ZCESF–0.50G	101 019 120 0411
CESM–0.75	101 019 110 0601	ZCESF–0.75G	101 019 120 0611
CESM–1.0	101 019 110 0801	ZCESF–1.0G	101 019 120 0811
CESM–1.5	101 019 110 0901	ZCESF–1.5G	101 019 120 0911
CESM–2.5	101 019 110 1001	ZCESF–2.5G	101 019 120 1011
CESM–3.0	101 019 110 1101	ZCESF–3.0G	101 019 120 1111
CESM–4.0	101 019 110 1201	ZCESF–4.0G	101 019 120 1211
CEGM–0.37	101 019 210 0301	ZCEGF–0.37G	101 019 220 0311
CEGM–0.50	101 019 210 0401	ZCEGF–0.50G	101 019 220 0411
CEGM–0.75	101 019 210 0601	ZCEGF–0.75G	101 019 220 0611
CEGM–1.0	101 019 210 0801	ZCEGF–1.0G	101 019 220 0811
CEGM–1.5	101 019 210 0901	ZCEGF–1.5G	101 019 220 0911
CEGM–2.5	101 019 210 1001	ZCEGF–2.5G	101 019 220 1011
CEGM–3.0	101 019 210 1101	ZCEGF–3.0G	101 019 220 1111
CEGM–4.0	101 019 210 1201	ZCEGF–4.0G	101 019 220 1211



M F

Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 groove	1.5 mm²	AWG 16	7.5mm
3 groove	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Crimp contacts16A-Enhanced Ⅲ (prevent deflected insertion, with crown spring, recommended use in rail transport industry, vibration resistance), for HE-006-MC/N/FC/N, HEE-046-MC/N/FC/N inserts).

Contact resistance≤1mΩ

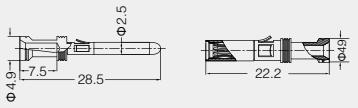
silver plated



gold plated



Male	Order No.	Female	Order No.
CESM–0.37/N	101 019 110 0302	CESF–0.37G/N	101 019 120 0302
CESM–0.50/N	101 019 110 0402	CESF–0.50G/N	101 019 120 0402
CESM–0.75/N	101 019 110 0602	CESF–0.75G/N	101 019 120 0602
CESM–1.0/N	101 019 110 0802	CESF–1.0G/N	101 019 120 0802
CESM–1.5/N	101 019 110 0902	CESF–1.5G/N	101 019 120 0902
CESM–2.5/N	101 019 110 1002	CESF–2.5G/N	101 019 120 1002
CESM–3.0/N	101 019 110 1102	CESF–3.0G/N	101 019 120 1102
CESM–4.0/N	101 019 110 1202	CESF–4.0G/N	101 019 120 1202
CEGM–0.37/N	101 019 210 0302	CEGF–0.37G/N	101 019 220 0302
CEGM–0.50/N	101 019 210 0402	CEGF–0.50G/N	101 019 220 0402
CEGM–0.75/N	101 019 210 0602	CEGF–0.75G/N	101 019 220 0602
CEGM–1.0/N	101 019 210 0802	CEGF–1.0G/N	101 019 220 0802
CEGM–1.5/N	101 019 210 0902	CEGF–1.5G/N	101 019 220 0902
CEGM–2.5/N	101 019 210 1002	CEGF–2.5G/N	101 019 220 1002
CEGM–3.0/N	101 019 210 1102	CEGF–3.0G/N	101 019 220 1102
CEGM–4.0/N	101 019 210 1202	CEGF–4.0G/N	101 019 220 1202



M F

Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 groove	1.5 mm²	AWG 16	7.5mm
3 groove	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Can not be compatible use with above two 10A Crimp contacts.

Male contact removal tool: TL00
Female contact removal tool: TL09

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Crimp contacts.

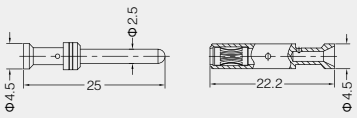
Crimp contacts 16A - high mating cycles(mating cycles≥5000)

Contact resistance≤1mΩ

gold plated



Male	Order No.	Female	Order No.
CEGMH–0.37	101 019 210 0309	CEGFH–0.37G	101 019 220 0309
CEGMH–0.50	101 019 210 0409	CEGFH–0.50G	101 019 220 0409
CEGMH–0.75	101 019 210 0609	CEGFH–0.75G	101 019 220 0609
CEGMH–1.0	101 019 210 0809	CEGFH–1.0G	101 019 220 0809
CEGMH–1.5	101 019 210 0909	CEGFH–1.5G	101 019 220 0909
CEGMH–2.5	101 019 210 1009	CEGFH–2.5G	101 019 220 1009
CEGMH–3.0	101 019 210 1109	CEGFH–3.0G	101 019 220 1109
CEGMH–4.0	101 019 210 1209	CEGFH–4.0G	101 019 220 1209



M F

Identification	Wire gauge		Stripping length
no groove	0.14–0.37 mm²	AWG 26–22	7.5mm
no groove	0.5 mm²	AWG 20	7.5mm
1 groove	0.75 mm²	AWG 18	7.5mm
1 groove	1 mm²	AWG 18	7.5mm
2 groove	1.5 mm²	AWG 16	7.5mm
3 groove	2.5 mm²	AWG 14	7.5mm
wide groove	3 mm²	AWG 12	7.5mm
no groove	4 mm²	AWG 12	7.5mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Crimp contacts.

Crimp contacts 40A-Standard, for HM, HK inserts.

Contact resistance≤1mΩ

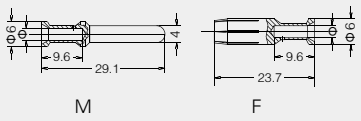
silver plated



gold plated



Male	Order No.	Female	Order No.
CCSM–1.5	101 023 110 0901	CCSF–1.5	101 023 120 0901
CCSM–2.5	101 023 110 1001	CCSF–2.5	101 023 120 1001
CCSM–4.0	101 023 110 1201	CCSF–4.0	101 023 120 1201
CCSM–6.0	101 023 110 1301	CCSF–6.0	101 023 120 1301
CCSM–10.0	101 023 110 1401	CCSF–10.0	101 023 120 1401
CCGM–1.5	101 023 210 0901	CCGF–1.5	101 023 220 0901
CCGM–2.5	101 023 210 1001	CCGF–2.5	101 023 220 1001
CCGM–4.0	101 023 210 1201	CCGF–4.0	101 023 220 1201
CCGM–6.0	101 023 210 1301	CCGF–6.0	101 023 220 1301
CCGM–10.0	101 023 210 1401	CCGF–10.0	101 023 220 1401



Wire gauge		Φ	Stripping length
1.5 mm²	AWG 16	1.75	9.6 mm
2.5mm²	AWG 14	2.25	9.6 mm
4 mm²	AWG 12	2.85	9.6 mm
6 mm²	AWG 10	3.5	9.6 mm
10 mm²	AWG 8	4.3	12 mm

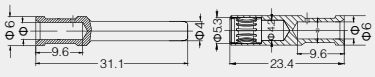
Crimp contacts 40A-Enhanced (prevent deflected insertion, high mating cycle, with crown spring), for HK inserts.

Contact resistance≤1mΩ

gold plated



Male	Designation	Female	Order No.
CCGMH–1.5	101 023 210 0909	CCGFH–1.5G	101 023 220 0909
CCGMH–2.5	101 023 210 1009	CCGFH–2.5G	101 023 220 1009
CCGMH–4.0	101 023 210 1209	CCGFH–4.0G	101 023 220 1209
CCGMH–6.0	101 023 210 1309	CCGFH–6.0G	101 023 220 1309
CCGMH–10.0	101 023 210 1409	CCGFH–10.0G	101 023 220 1409



Wire gauge		Φ	Stripping length
1.5 mm²	AWG 16	1.75	9.6 mm
2.5mm²	AWG 14	2.25	9.6 mm
4 mm²	AWG 12	2.85	9.6 mm
6 mm²	AWG 10	3.5	9.6 mm
10 mm²	AWG 8	4.3	12 mm

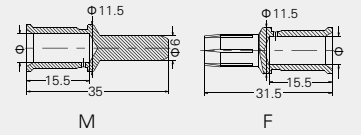
Crimp contacts 70A, for HM inserts.

Contact resistance≤0.5mΩ

silver plate



Male	Order No.	Female	Order No.
CKSM70–6	101 034 110 1301	CKSF70–6	101 034 120 1301
CKSM70–10	101 034 110 1401	CKSF70–10	101 034 120 1401
CKSM70–16	101 034 110 1501	CKSF70–16	101 034 120 1501
CKSM70–25	101 034 110 1601	CKSF70–25	101 034 120 1601



Wire gauge	Φ	Stripping length
6 mm²	3.5	15.5 mm
10 mm²	4.3	15.5 mm
16mm²	5.5	15.5 mm
25 mm²	7	15.5 mm

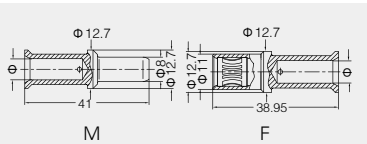
Crimp contacts 100A (with crown spring), for HM, HK inserts.

Contact resistance≤0.3mΩ

silver plate



Male	Order No.	Female	Order No.
CKSM–10	101 026 110 1401	CKSF–10G	101 026 120 1403
CKSM–16	101 026 110 1501	CKSF–16G	101 026 120 1503
CKSM–25	101 026 110 1601	CKSF–25G	101 026 120 1603
CKSM–35	101 026 110 1701	CKSF–35G	101 026 120 1703



Wire gauge	Φ	Stripping length
10 mm²	4.3	19 mm
16mm²	5.5	19 mm
25 mm²	7	19 mm
35 mm²	8.2	16 mm
for stranded wires acc. to IEC 60 228 class 5		

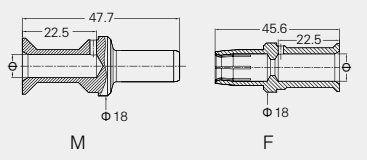
Crimp contacts 200A, for HM inserts.

Contact resistance≤0.3mΩ

silver plate



Male	Order No.	Female	Order No.
CHSM200–25	101 027 110 1601	CHSF200–25	101 027 120 1601
CHSM200–35	101 027 110 1701	CHSF200–35	101 027 120 1701
CHSM200–50	101 027 110 1801	CHSF200–50	101 027 120 1801
CHSM200–70	101 027 110 1901	CHSF200–70	101 027 120 1901



Wire gauge	Φ	Stripping length
25 mm²	7	22.5 mm
35 mm²	8.2	22.5 mm
50 mm²	10	22.5 mm
70 mm²	11.5	22.5 mm

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Crimp contacts.

Crimp contacts 250A (with crown spring), for HC250 inserts.

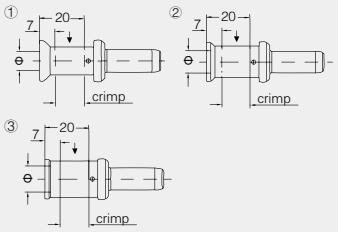
Contact resistance≤0.3mΩ

silver plated



No.	Male	Order No.	Female	Order No.
①	CHSM250–35	101 028 110 1701	CHSF250–35G	101 028 120 1703
②	CHSM250–50	101 028 110 1801	CHSF250–50G	101 028 120 1803
③	CHSM250–70	101 028 110 1901	CHSF250–70G	101 028 120 1903

For stranded wire acc. to IEC 60 228–5
Crimp zone acc. to DIN 46 235



NO.	Wire gauge	Φ	Stripping length
①	35 mm²	8.45 mm	22 mm
②	50 mm²	10.25mm	22 mm
③	70 mm²	11.75 mm	22 mm

Crimp contacts 350A (with crown spring), for HC350 inserts.

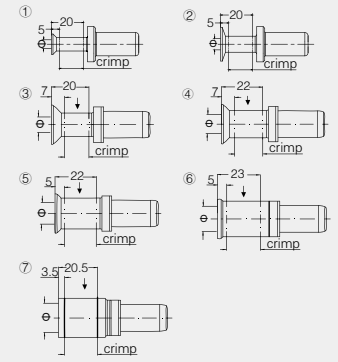
Contact resistance≤0.3mΩ

silver plated



No.	Male	Order No.	Female	Order No.
①	CHSM350–16	101 029 110 1501	CHSF350–16G	101 029 120 1501
②	CHSM350–25	101 029 110 1600	CHSF350–25G	101 029 120 1601
③	CHSM350–35	101 029 110 1701	CHSF350–35G	101 029 120 1703
④	CHSM350–50	101 029 110 1801	CHSF350–50G	101 029 120 1803
⑤	CHSM350–70	101 029 110 1901	CHSF350–70G	101 029 120 1903
⑥	CHSM350–95	101 029 110 2001	CHSF350–95G	101 029 120 2003
⑦	CHSM350–120	101 029 110 2101	CHSF350–120G	101 029 120 2103

For stranded wire acc. to IEC 60 228–5
Crimp zone acc. to DIN 46 235



NO.	Wire gauge	Φ	Stripping length
①	16 mm²	5.5 mm	26 mm
②	25 mm²	7 mm	26 mm
③	35 mm²	8.2 mm	26 mm
④	50 mm²	10.0mm	28 mm
⑤	70 mm²	11.5 mm	28 mm
⑥	95 mm²	13.5 mm	30 mm
⑦	120 mm²	15.5 mm	24 mm

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Crimp contacts.

Crimp contacts 650A (with crown spring), for HC650 inserts.

Contact resistance≤0.3mΩ

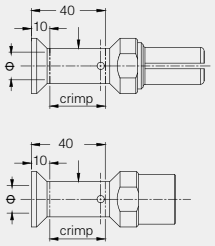
silver plated



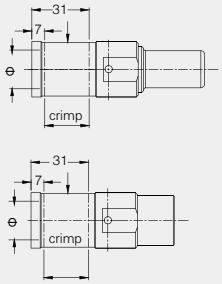
NO.	Male	Order No.	Female	Order No.
①	CHSM650–95	101 030 110 2002	CHSF650–95G	101 030 120 2002
①	CHSM650–120	101 030 110 2101	CHSF650–120G	101 030 120 2101
①	CHSM650–150	101 030 110 2202	CHSF650–150G	101 030 120 2202
②	CHSM650–185	101 030 110 2301	CHSF650–185G	101 030 120 2303
②	CHSM650–240	101 030 110 2401	CHSF650–240G	101 030 120 2403

For stranded wire acc. to IEC 60 228–5
Crimp zone acc. to DIN 46 235

①



②



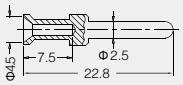
NO.	Wire gauge	Φ	Stripping length
①	95 mm²	13.5 mm	42 mm
	120 mm²	15.5 mm	42 mm
	150 mm²	17 mm	42 mm
②	185 mm²	19.4 mm	46 mm
	240 mm²	22.5 mm	46 mm

Relay contact

silver plate



Wire gauge(mm²)	Designation	Order No.
1	CESM–1.0R	101 019 110 0808
1.5	CESM–1.5R	101 019 110 0908
2.5	CESM–2.5R	101 019 110 1008



Identification	Wire gauge		Stripping length
1 groove	1 mm²	AWG 18	7.5mm
2 groove	1.5 mm²	AWG 16	7.5mm
3 groove	2.5 mm²	AWG 14	7.5mm

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

2) Delay pin is relatively short, delay contact, protect circuit to avoid electric arc. (General use: connect electrical signal with conventional pin, connect control signal with delay pin, contact of delay pin is later than that of conventional pin. After contacting delay pin in the insertion process, control signal of circuit is connected.)

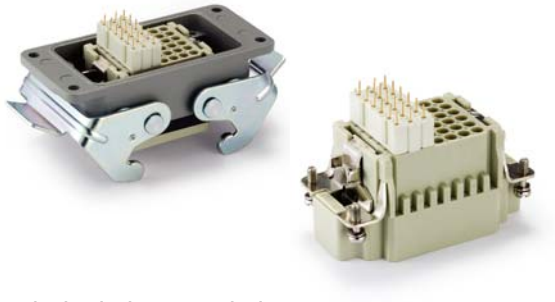
Crimp contacts.

Difference comparison of contact pins				
D contacts				
	Standard	Enhanced Ⅰ	Enhanced Ⅱ	Enhanced Ⅲ
Difference	Standard model, combined with standard D–type DD–type core body; the product adopts D–type metal dome positioning, leaf spring throat will provide positive pressure for retention of female contact pin.	Equipped with stainless steel bushing, and combined with standard D–type DD–type core body. 1. Product can avoid "tongue pressing" deformation and invalid contact of traditional open structure due to poor guiding or sudden situation. 2. Product adopts D–type metal dome positioning, leaf spring throat will provide positive pressure for retention of female contact pin. Tongue piece is always restricted within the elastic deformation scope of bushing.	1. Unique elastic structure of Φ1.6 jack socket uses beryllium copper as elastomer. In addition to the above advantages, it can avoid "tongue pressing" deformation and invalid contact of traditional open structure due to poor guiding or sudden situation. Contact pin adopts two–pad structure as the right figure shows to guarantee that supporting is more reliable and can completely be compatible with existing similar cold pressing pin. 2. Compared with split slot type jack socket , characteristics of crown spring type jack socket include: embedded with beryllium bronze multi–reed connection, it has excellent elastic performance after treatment, and fatigue life can reach 5,000 times. Beryllium bronze alloy is featured with high intensity, high elasticity and no magnetism through smelting, casting, hot rolling and special thermal treatment, which can be called as the king of elasticity of non –ferrous metals. Therefore, it is widely applied in spaceflight, aviation, rail transit, manufacturing electronic element, electric parts, and component of resistance welding equipment. In particular, it has larger advantages when it is used for elastic connectors.	Three–pad supporting, combined with standard D–type DD–type core body. The product uses three–pad metal dome positioning so that supporting and positioning are more uniform and stable. It is more suitable for vibration occasion . Leaf spring throat will provide positive pressure for retention of female contact pin.
E contacts				
	Standard	Enhanced	Enhanced Ⅲ	
Difference	Standard model, combined with standard E–type EE–type cold pressing core body; leaf spring throat will provide positive pressure for retention of female contact pin.	1. Product can avoid "tongue pressing" deformation and invalid contact of traditional open structure due to poor guiding or sudden situation. 2. Compared with split slot type jack socket, characteristics of crown spring type jack socket include: embedded with beryllium bronze multi–reed connection, it has excellent elastic performance after treatment, and fatigue life can reach 5,000 times. Beryllium bronze alloy is featured with high intensity, high elasticity and no magnetism through smelting, casting, hot rolling and special thermal treatment, which can be called as the king of elasticity of non–ferrous metals. Therefore, it is widely applied in spaceflight, aviation, rail transit, manufacturing electronic element, electric parts, and component of resistance welding equipment. In particular, it has larger advantages when it is used for elastic connectors.	The product adopts N plug (such as HE–006 –FC/N) and three–pad jack catch to position that will not be affected by conductor. So that supporting and positioning are more uniform and stable. It is more suitable for vibration occasion. Meanwhile, female contact pin is used together with standard E–type EE–type cold pressing core body. 1. Product can avoid "tongue pressing" deformation and invalid contact of traditional open structure due to poor guiding or sudden situation. 2. Compared with split slot type jack socket, characteristics of crown spring type jack socket include: embedded with beryllium bronze multi–reed connection, it has excellent elastic performance after treatment, and fatigue life can reach 5,000 times. Beryllium bronze alloy is featured with high intensity, high elasticity and no magnetism through smelting, casting, hot rolling and special thermal treatment, which can be called as the king of elasticity of non –ferrous metals. Therefore, it is widely applied in spaceflight, aviation, rail transit, manufacturing electronic element, electric parts, and component of resistance welding equipment. In particular, it has larger advantages when it is used for elastic connectors.Its main characteristics include: 1. Plug structure is simple; 2. As it uses beryllium copper three–pad clamp spring, it will not age or break like plastic jack catch of conventional product.。	

Rectangular connector–Accessories

	Page
PCB–adapter	P14–02~P14–11
Rail bracket	P14–12~P14–13
Ground terminal/Docking frame	P14–14~P14–16
Code pin	P14–17~P14–18
Cable clamp	P14–19

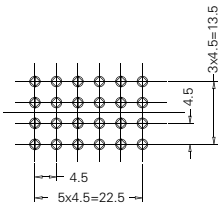
HDD inserts with PCB-adapter



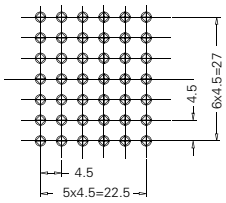
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
inserts	
Number of contacts	24,42,72,108
Electrical data acc. to EN 61 984	
–Rated current	7.5A
–Rated voltage	250V
–Rated impulse voltage	4kV
–Pollution degree	3
Rated voltage acc. to UL	250V
Testing voltage Ueff	2kV
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500

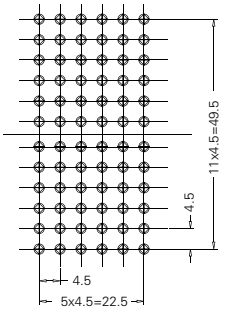
Layout of PCB



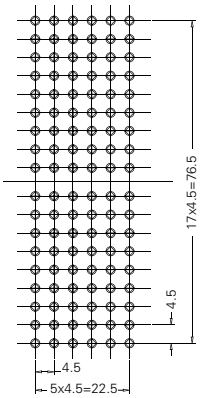
H24DD



H42DD



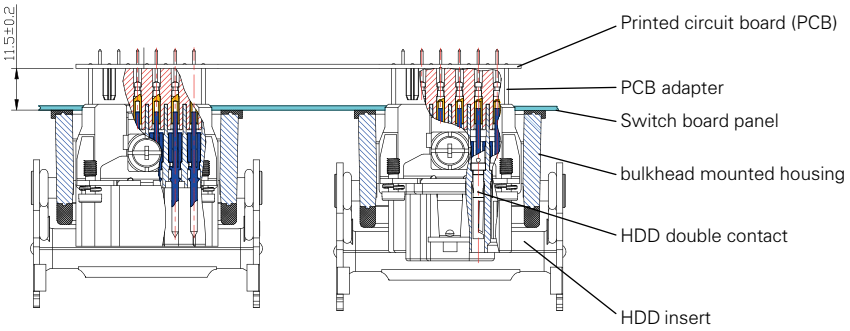
H72DD



H108DD

HDD inserts with PCB-adapter

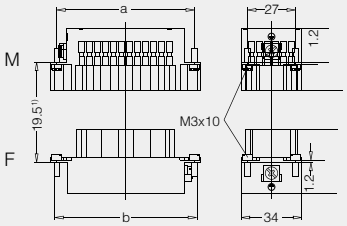
Assembly situation



HDD insert



Insert	Size	Designation	Order No.
Male	H6B	HDD–024–MC	126 024 010 0001
	H10B	HDD–042–MC	126 042 010 0001
	H16B	HDD–072–MC	126 072 010 0001
	H24B	HDD–108–MC	126 108 010 0001
Female	H6B	HDD–024–FC	126 024 020 0001
	H10B	HDD–042–FC	126 042 020 0001
	H16B	HDD–072–FC	126 072 020 0001
	H24B	HDD–108–FC	126 108 020 0001



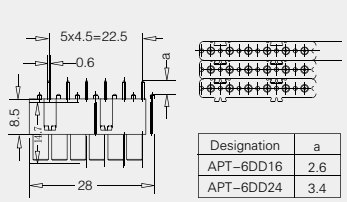
Distance for contact max. 21 mm.

Size	a	b
24DD	44	51
42DD	57	64
72DD	77.5	84.5
108DD	104	111

PCB adapter



Description	Designation	Order No.
for PCBs up to 1.6mm	APT–6DD16	198 002 007 0002
for PCBs up to 2.4mm	APT–6DD24	198 002 007 0004

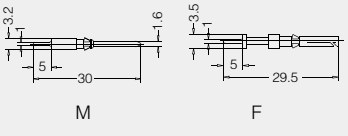


Designation	a
APT–6DD16	2.6
APT–6DD24	3.4

HDD double contact



Contact	Designation	Order No.
Male	CDSM–P1.0	101 017 114 0001
Female	CDSF–P1.0	101 017 124 0001



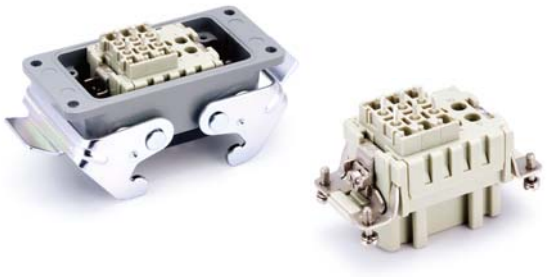
Hoods/Housings

Hoods: further information see chapter DD

Bulkhead mounted housings: further information see chapter DD

HEC inserts

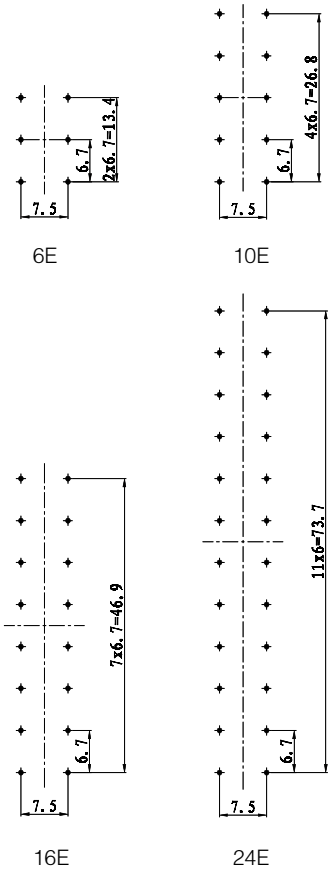
HEC inserts with PCB-adapter



Technical characteristics

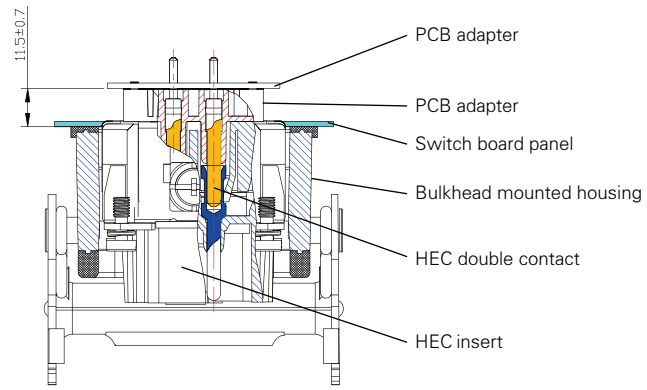
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
inserts	
Number of contacts	6,10,16,24
Electrical data acc. to EN 61 984	
–Rated current	16A
–Rated voltage	500V
–Rated impulse voltage	6kV
–Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500

Layout of PCB



HEC inserts with PCB-adapter

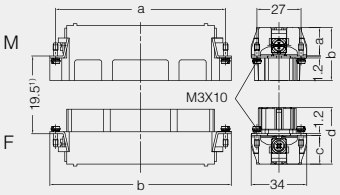
Assembly situation



HEC insert



Insert	Size	Designation	Order No.
Male	6B	HE–006–MC	122 006 010 0001
	10B	HE–010–MC	122 010 010 0001
	16B	HE–016–MC	122 016 010 0001
	24B	HE–024–MC	122 024 010 0001
Female	6B	HE–006–FC	122 006 020 0001
	10B	HE–010–FC	122 010 020 0001
	16B	HE–016–FC	122 016 020 0001
	24B	HE–024–FC	122 024 020 0001



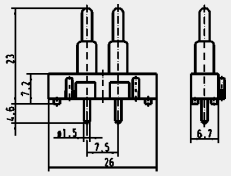
Distance for contact max. 21 mm.

Size	a	b
6E	44	51
10E	57	64
16E	77.5	84.5
24E	104	111

PCB adapter



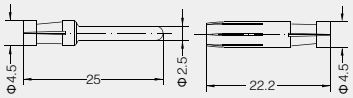
Description	Designation	Order No.
	APT–2E16	198 002 007 0001



HEC double contact



Contact	Designation	Order No.
Male	CESM–2.5P	101 019 114 0051
Female	CESF–2.5P	101 019 124 0051



Hoods/Housings

Hoods: further information see chapter HE

Bulkhead mounted housings: further information see chapter HE

HQ–004/2 inserts

HQ-004/2 inserts with PCB-adapter



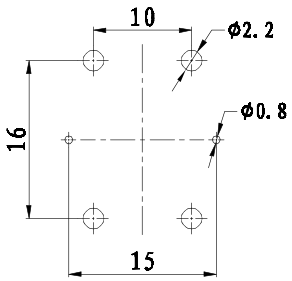


Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
inserts	
Number of contacts	4/2
Electrical data acc. to EN 61 984	
Power area	
–Rated current	30A
–Rated voltage conductor – ground	400V
–Rated voltage conductor – conductor	690V
–Rated impulse voltage	6kV
–Pollution degree	2
Signal area	
–Rated current	7.5A
–Rated voltage	250V
–Rated impulse voltage	4kV
–Pollution degree	2
Insulation resistance	$\geqslant 10^{10}\,\Omega$
Material	LCP
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0

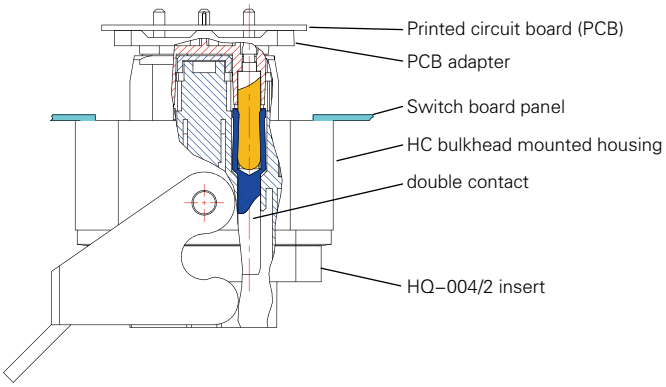
Layout of PCB

Dimensions in mm



HQC inserts with PCB-adapter

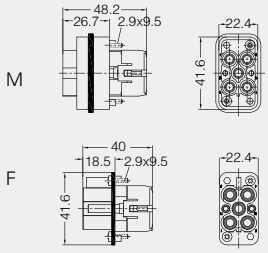
Assembly situation



HQ insert



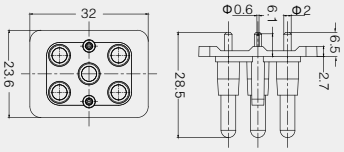
Insert	Designation	Order No.
Male	HQ–004/2–MC	130 006 010 0001
Female	HQ–004/2–FC	130 006 020 0001



PCB adapter



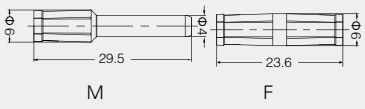
Description	Designation	Order No.
	APT–Q4/2	198 002 007 0009



C double contact, to connect the PCP-Adapter, Power contacts



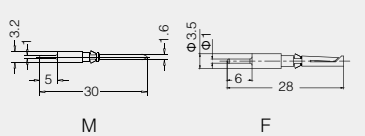
Contact	Designation	Order No.
Male	CCSM–4.0P	101 023 114 1251
Female	CCSF–4.0P	101 023 124 1251



D double contact, Signal contacts



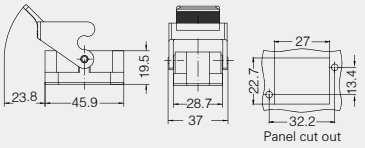
Contact	Designation	Order No.
Male	CDSM–P1.0	101 017 114 0001
Female	CDSF–P1.0Q	101 017 124 0052



HC bulkhead mounted housings



Thread	Designation	Order No.
---	HC.P–BK–1L	130 008 327 1001



HQ–007/0 inserts

HQ-007/0 inserts with PCB-adapter



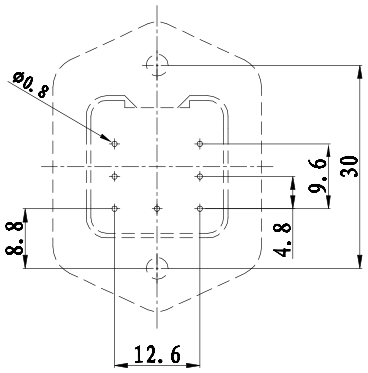


Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
inserts	
Number of contacts	7
Electrical data acc. to EN 61 984	
–Rated current	7.5A
–Rated voltage	250V
–Rated impulse voltage	4kV
–Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Material	polycarbonate
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500

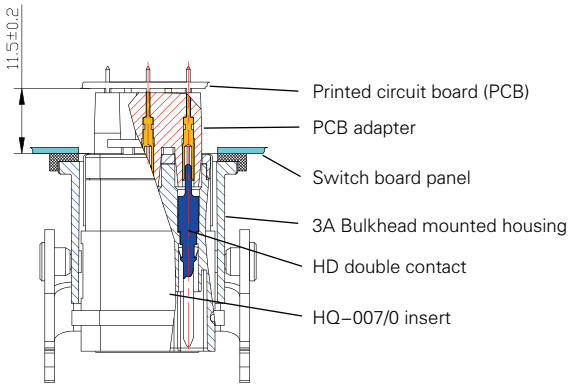
Layout of PCB

Recommended hole diameter：0.8 mm



HQ-007/0 inserts with PCB-adapter

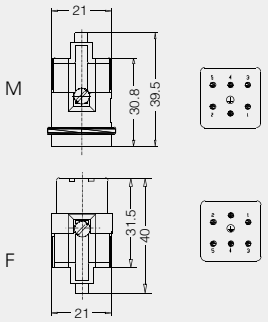
Assembly situation



HQ-007/0 insert



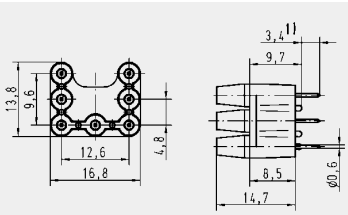
Insert	Designation	Order No.
Male	HQ–007/0–MC	130 007 010 0001
Female	HQ–007/0–FC	130 007 020 0001



PCB adapter



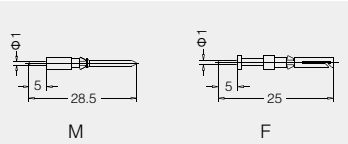
Description	Designation	Order No.
for PCBs up to 2.4mm	APT–Q7	198 002 007 0010



HD double contact



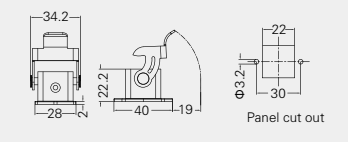
Contact	Designation	Order No.
Male	CDSM–P1.0S	101 017 114 0002
Female	CDSF–P1.0S	101 017 124 0002



3A Bulkhead mounted housings



Thread	Designation	Order No.
---	H3A–BK–1L/W	110 003 324 1001



HQ–008/0 inserts

HQ-004/2 inserts with PCB-adapter



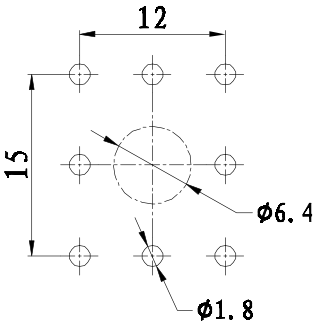


Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
inserts	
Number of contacts	8/0
Electrical data acc. to EN 61 984	
Rated current	16A
Rated voltage conductor – ground	230V
Rated voltage conductor – conductor	400V
Rated impulse voltage	4kV
Pollution degree	2
Insulation resistance	$\geqslant 10^{10}\,\Omega$
Material	LCP
Limiting temperatures	–40℃...+125℃
Flammability acc. to UL 94	V0

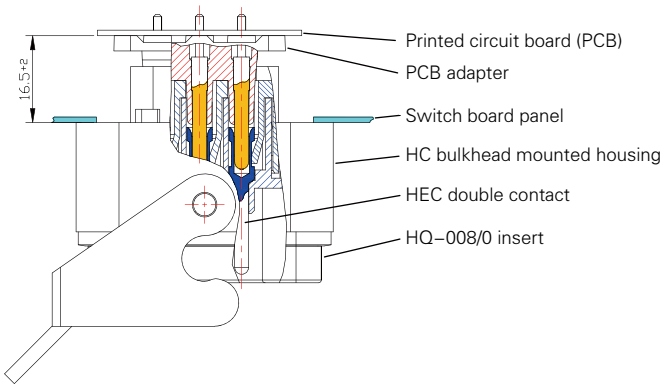
Layout of PCB

Dimensions in mm



HQC inserts with PCB-adapter

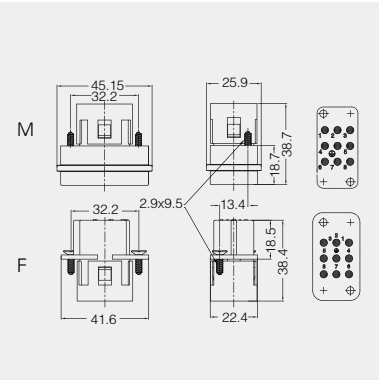
Assembly situation



HQ insert



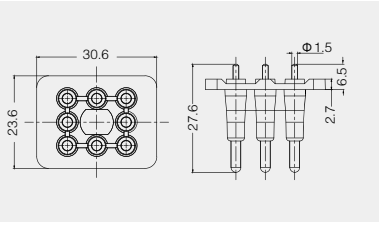
Insert	Designation	Order No.
Male	HQ–008/0–MC	130 008 010 0001
Female	HQ–008/0–FC	130 008 020 0001



PCB adapter



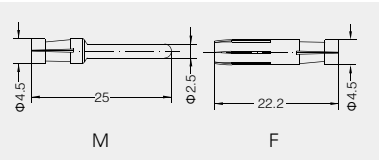
Description	Designation	Order No.
	APT–Q8	198 002 007 0011



HEC double contact, to connect the PCP-Adapter



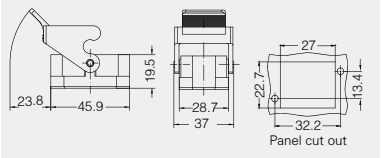
Contact	Designation	Order No.
Male	CESM–2.5P	101 019 114 0051
Female	CESF–2.5P	101 019 124 0051



HC Bulkhead mounted housings



Thread	Designation	Order No.
---	HC.P–BK–1L	130 008 327 1001



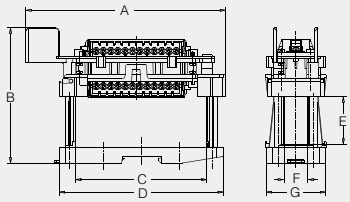
Rail bracket

Is used to connect inserts fixed to the commonly used standard lateral rail.

A version



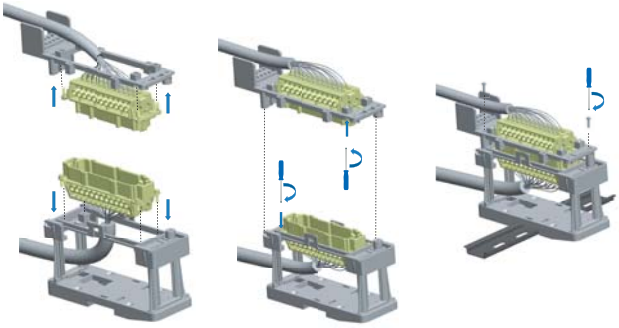
Size	Designation	Order No.
6B	CC6B	198 002 008 0009
10B	CC10B	198 002 008 0010
16B	CC16B	198 002 008 0011
24B	CC24B	198 002 008 0012



规格	A	B	C	D	E	F	G
6/10/16B	156	124	93	125	43	21	55
24B	180	123	119	150	43	21	55

Assembly instructions

A version



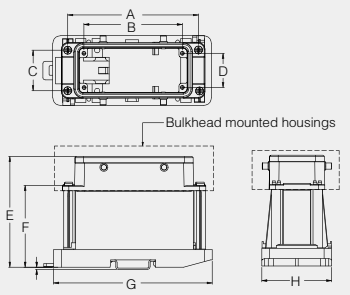
Is used to bulkhead mounted housings fixed to the commonly used standard lateral rail.



Assembly instructions



Size	Designation	Order No.
6B	CC6B–BK	198 002 008 0005
10B	CC10B–BK	198 002 008 0006
16B	CC16B–BK	198 002 008 0007
24B	CC24B–BK	198 002 008 0008



Size	A	B	C	D	E	F	G	H
6B	70	44	32	27	87.3	64.4	125	55
10B	83	57	32	27	87.3	64.4	125	55
16B	103	77.5	32	27	87.3	64.4	125	55
24B	130	104	32	27	87.8	64.4	150	54.5

Rail bracket

Is used to connect inserts fixed to the commonly used standard lateral rail.Adjustable rail bracket

B version Rail bracket

Latching parts with strain relief



Latching parts

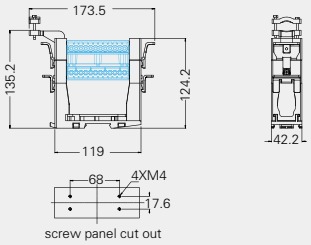


Adjustable movable base



Description	Designation	Order No.
Suitable for all the inserts & module framework which match type B hood & housing	CCAB[1)]	198 002 008 0013

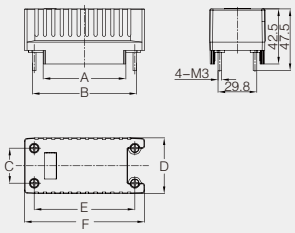
1) CCAB is a combined suite including: Latching parts with strain relief,Latching parts,Adjustable movable base



Protecting cover can match CCAB

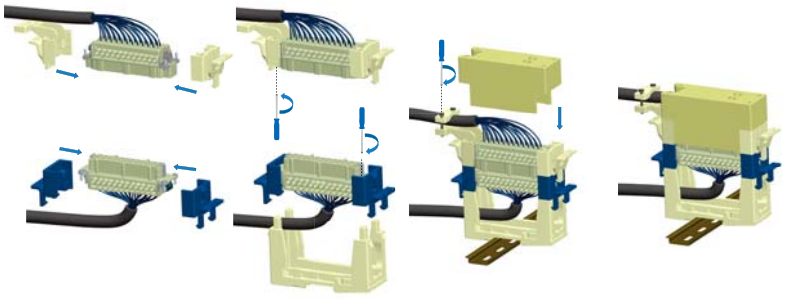


Description	Designation	Order No.
Play the protective role for insert.	CC6B–CV	198 002 008 0001
	CC10B–CV	198 002 008 0002
	CC16B–CV	198 002 008 0003
	CC24B–CV	198 002 008 0004



Size	A	B	C	D	E	F
6B	30.2	46.8	27	43	44	59
10B	43.2	59.8	27	43	57	72
16B	63.7	80.3	27	43	77.5	92.5
24B	90.2	106.8	27	43	104	119

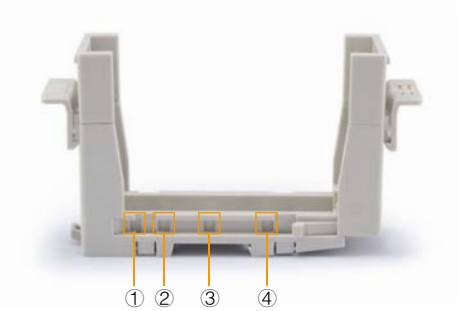
Assembly instructions



Picture of real products



Adjustable movable base



①: the insert and 6B version highed frame are matchable with 6B version shells

②: the insert and 10B version highed frame are matchable with 10B version shells

③: the insert and 16B version highed frame are matchable with 16B version shells

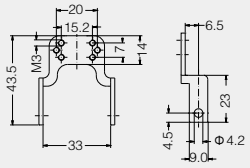
④: the insert and 24B version highed frame are matchable with 24B version shells

Ground terminal

Ground terminal–standard(for HE/HEE/HDD inserts in housings and hoods, high construction)

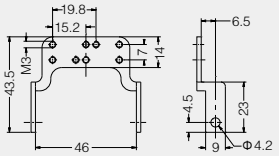


Size	Designation	Order No.
6B	B6B–PE	198 002 003 0001



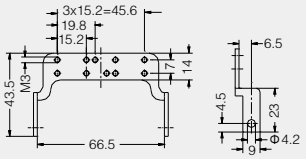


Size	Designation	Order No.
10B	B10B–PE	198 002 003 0002





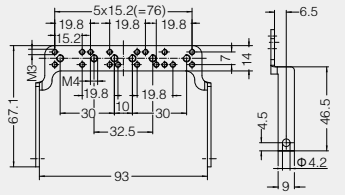
Size	Designation	Order No.
16B	B16B–PE	198 002 003 0003

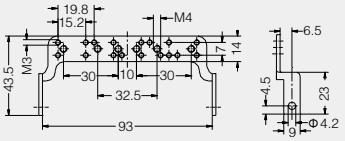






Size	Designation	Order No.
24B	B24B–PE	198 002 003 0004
24B	B24B–PES	198 002 003 0005

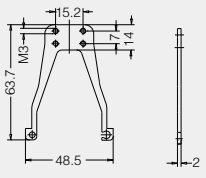




Ground terminal–for hinged frame(for HM frames in bulkhead mounted housings)

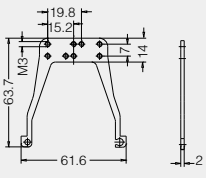


Size	Designation	Order No.
6B	M6B–PE	198 002 003 0008





Size	Designation	Order No.
10B	M10B–PE	198 002 003 0009

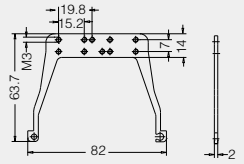


Ground terminal/Grip frame/Screw adaptor/Clamps

Ground terminal–for hinged(for HM frames in bulkhead mounted housings)

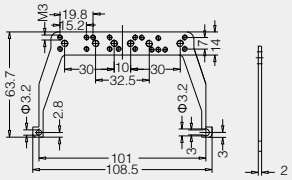


Size	Designation	Order NO.
16B	M16B–PE	198 002 003 0010





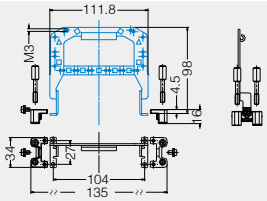
Size	Designation	Order NO.
24B	M24B–PE	198 002 003 0014



Grip frame-with screw adaptor and screw



Size	Designation	Description	Order NO.
24B	GB–24B	blue	198 002 003 0006
24B	GB–24B–APT	with screw adaptor	198 002 003 0007

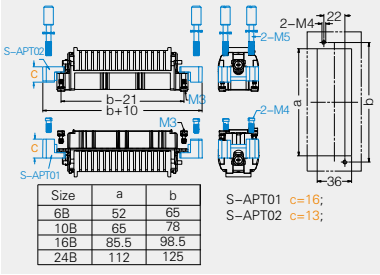


Screw adaptor



Size	Designation	Description	Order NO.
---	S–APT01	blue	198 002 007 0012
---	S–APT02	blue	198 002 007 0014

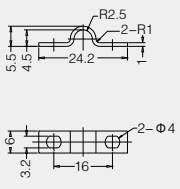
Note: A complete set of adapters requires an order of 2pcs per each



Clamps-for ground terminals

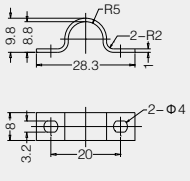


Size	Designation	Order NO.
---	CLP4.5–PE	198 002 003 0016



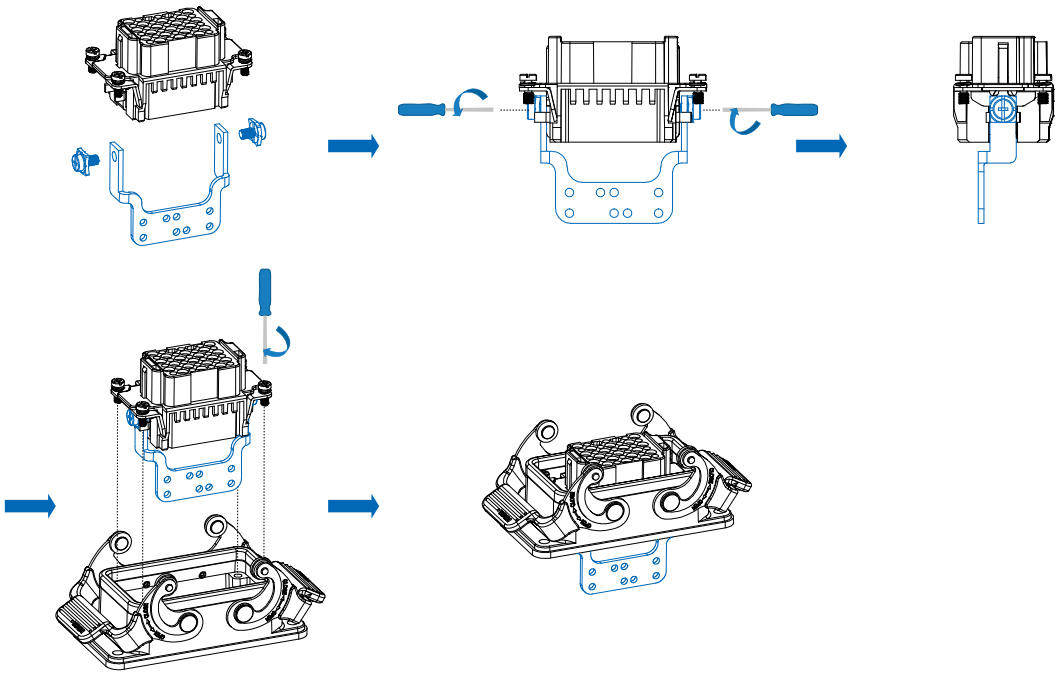


Size	Designation	Order NO.
---	CLP10–PE	198 002 003 0017

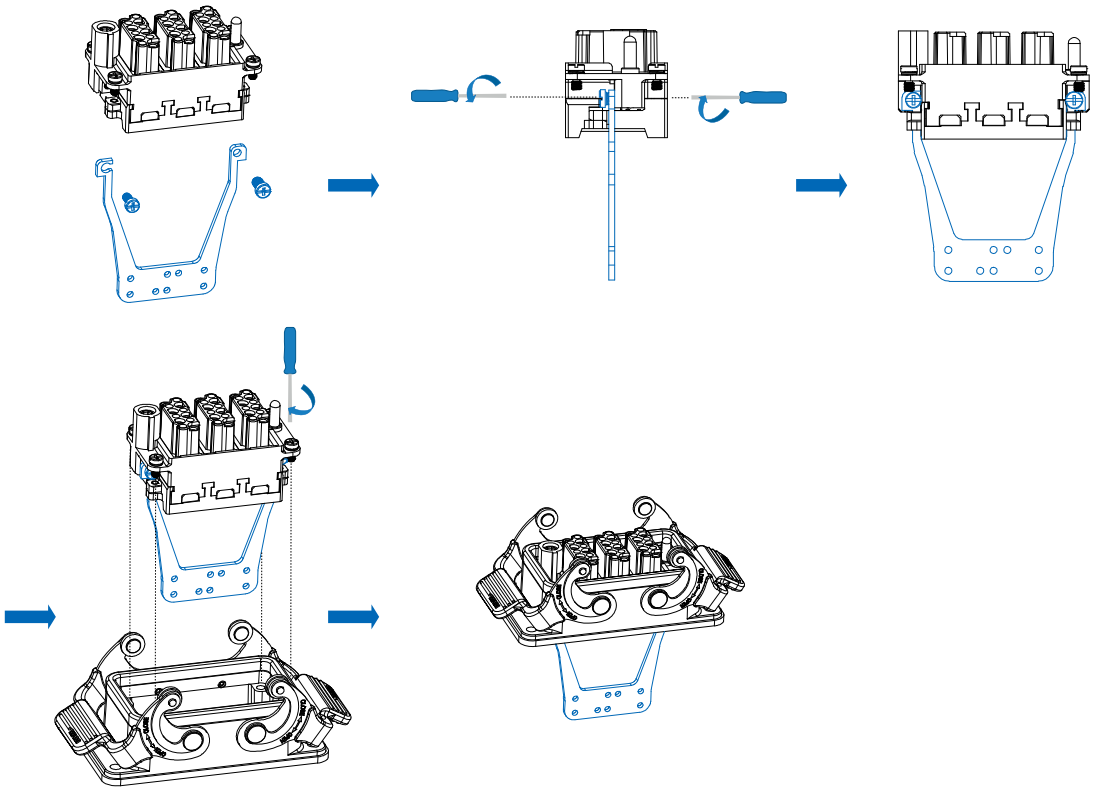


Ground terminal assembly

Ground terminal–standard(for HE/HEE/HDD inserts in housings and hoods, high construction)



Ground terminal–for hinged frame(for HM frames in bulkhead mounted housings)



Coding

Coding system with code pins

Code pin

Designation	Order NO.
CODE–M3/S	198 002 005 0006

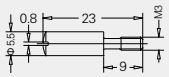


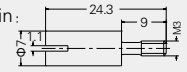
Modular code pin

Designation	Order NO.
MCODE–M3/S	198 002 005 0020

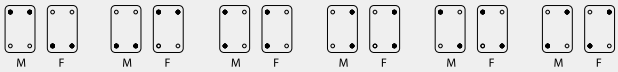


"/S" –stainless steel

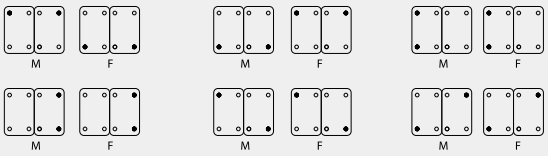
Code pin: 

Modular code pin: 

for hoods/housings with one insert/one frame



for hoods/housings with two inserts/two frames



● Code pin M–Male insert
○ Normal mounting screw F–Female insert

Coding system with guide pins/bushes

Guide bush

Designation	Order NO.
GBUSH–M3/S	198 002 005 0018



Guide pin

Designation	Order NO.
GPIN–M3/S	198 002 005 0017



Modular guide bush

Designation	Order NO.
MGBUSH–M3/S	198 002 005 0023

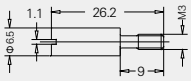


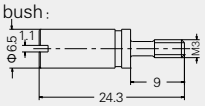
Modular guide pin

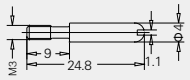
Designation	Order NO.
MGPIN–M3/S	198 002 005 0022

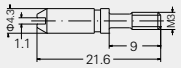


"/S" –stainless steel

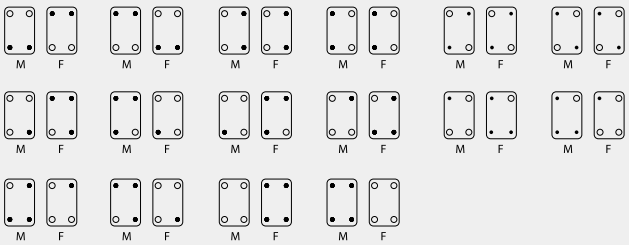
Guide bush: 

Modular guide bush: 

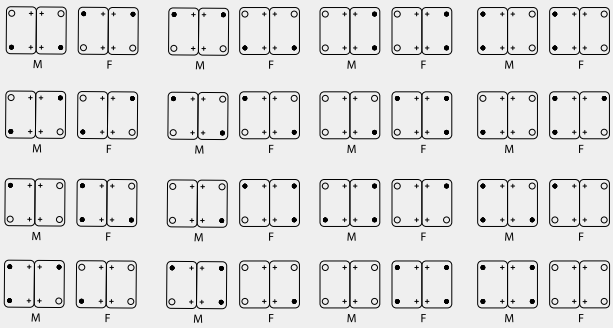
Guide pin: 

Modular guide pin: 

for hoods/housings with one insert/one frame



for hoods/housings with two inserts/two frames



● Guide pin M–Male insert
○ Bush F–Female insert
+ Normal mounting screw

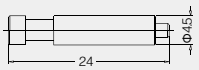
Accessories

Coding

Code pin



Designation	Order NO.
CODE–E	198 002 005 0002

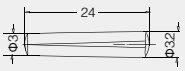


① Use of the coding pin prevents incorrect mating to other connectors of the same type.
② For HEC,HEE,HQ–005/0,HM–006,HM–008
③ The male pin should be omitted from the opposing cavity in the male insert.

Code pin



Designation	Order NO.
CODE–D	198 002 005 0001

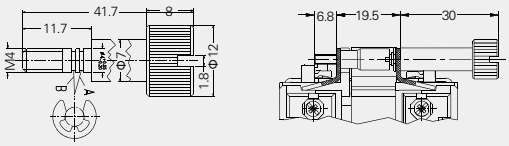


① Use of the coding pin prevents incorrect mating to other connectors of the same type.
② For HD, HDD, HMD–012, HMDD–017, HQ–7/0, HQ–012/0
③ The male pin should be omitted from the opposing cavity in the male insert.

Screw pin



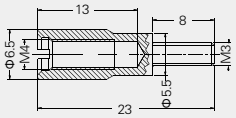
Designation	Order NO.
GH–M4	904 000 000 0077



Screw bash



Designation	Order NO.
GHT–M3	904 000 000 0079



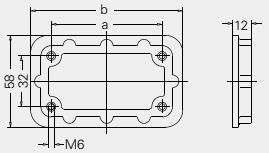
frame

Mounting

for H version housings



Size	Designation	Order NO.
6B	HP6B–MF	113 006 000 1091
10B	HP10B–MF	113 010 000 1091
16B	HP16B–MF	113 016 000 1091
24B	HP24B–MF	113 024 000 1091



Size	a	b
6B	70	96
10B	83	109
16B	103	129
24B	130	156

Docking frame



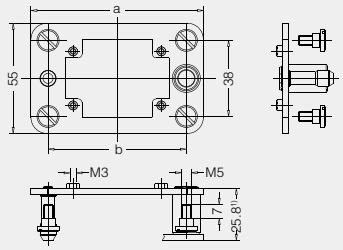
Size	Designation	Order NO.
6B	H6B–ADK	198 002 004 0001
10B	H10B–ADK	198 002 004 0002
16B	H16B–ADK	198 002 004 0003
24B	H24B–ADK	198 002 004 0005

Technical characteristics

Material
–Docking frame stainless steel
–Fixing screws steel, zinc–plated
Pull–in–range
x–axis ±1.5mm
y–axis ±1.5mm
Mechanical working life
– mating cycles ⩾500

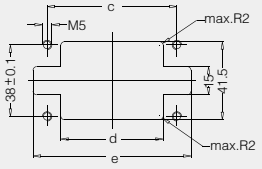
Range of delivery:
1 frame
4 cheese head shoulder screws to fix the docking frame

Assembly cut out



1) Distance for electrical and F.O. contacts max. 27 mm; for pneumatic contacts max. 26.5 mm

size	a	b	c	d	e
6B	86	69	69	54.5	84
10B	99	82	82	67.5	97
16B	119.5	102.5	102.5	88	117.5
24B	146	129	129	114.5	144



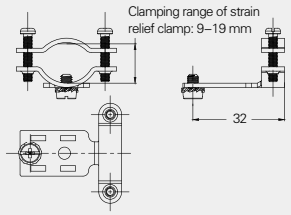
Accessories

Cable clamp fitting

Straight cable clamp fitting



Designation	Order NO.
CCF–T	198 002 003 0021

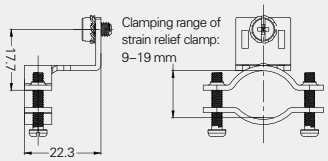


When using inserts without hoods or housings, a cable clamp is needed. The cable clamp is suitable for the following inserts: HDD, HE, HSB, HVE, HVES, HEE series, as well as HK–008/24, HD–040, HD–064 and the opposite end to the PE–termination.

Angled cable clamp fitting



Designation	Order NO.
CCF–S	198 002 003 0020

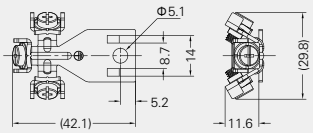


When using inserts without hoods or housings, a cable clamp is needed. The cable clamp is suitable for the following inserts: HDD, HE, HSB, HVE, HVES, HEE series, as well as HK–008/24, HD–040, HD–064 and the opposite end to the PE–termination.

Nickel plated multi-grounding number of grounding contacts 3



Designation	Order NO.
PE–MGC	198 002 006 0015



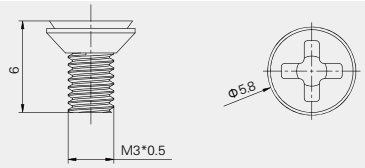
– Number of grounding contacts 3
– Material: copper alloy
– Surface: Nickel plating
Assembly requirements:
It is suitable for high structure shell, and if the structure is side entry, the fittings are assembled on the side of the non–outlet hole
Adaptable products: HD (type B), HDD, HE, HVE, HEE, HSB, HK (with grounding connecting block structure on both sides) insert series.

Screw

Grounding screw for 3A hoods/housings,With tapered seals



Designation	Order NO.
M3*6	904 000 000 0029



HE-024 Sealing pad(dust, water, smoke, anti-shock)

Protection covers

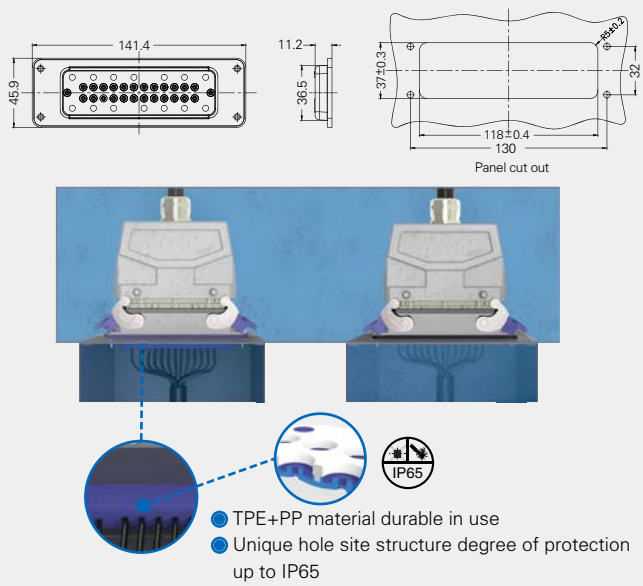
for 24B Housings，
bulkhead mounted
(HE–024 inserts)



Designation	Order NO.
24B–F/Pro–hum	903 000 000 0278

Technical characteristics

Material	PP+TPE
Limiting temperatures	–40℃...+90℃
Wrie gauge	0.14–2.5mm²
Wire diameter	1.3–3.6mm
Degree of protection	IP65



- TPE+PP material durable in use
- Unique hole site structure degree of protection up to IP65

Accessories

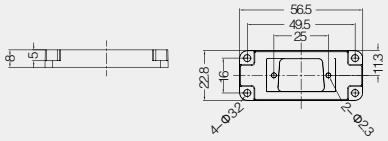
Adapter

Hoods/Housings: size 10A, please find the details on page 15-17~15-18.1

D-Sub adapter



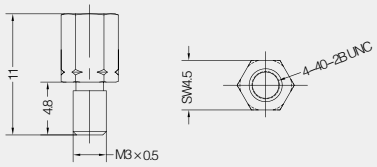
Designation	Order NO.
APT–10A/DB–d25	198 002 007 0030



Hexagon bolt



Designation	Order NO.
M3x6.2x11–#4–40	104 000 000 0001




A2
A2
A2
A1
A1
A1

Hood&Housing



Rectangular connector-Hoods/Housings Contents

Size	Type	Page
3A	Hoods/Housings(Plastic,Standard,EMC,Corrosion Resistance)	P15–06 ~ P15–16
10A	Metal Hoods/Housings	P15–17 ~ P15–18
16A	Metal Hoods/Housings	P15–19 ~ P15–20
32A	Metal Hoods/Housings	P15–21 ~ P15–24
6B	Hoods/Housings(Plastic,Metal,Corrosion Resistance)	P15–25 ~ P15–38
10B	Hoods/Housings(Plastic,Metal,suitable for harsh environement,Corrosion Resistance,Pressure Tight)	P15–39~ P15–69
16B	Hoods/Housings(Plastic,Metal,suitable for harsh environement,EMC,Corrosion Resistance,Pressure Tight)	P15–70 ~ P15–107
24B	Hoods/Housings(Plastic,Metal,suitable for harsh environement,Corrosion Resistance,Pressure Tight)	P15–108 ~ P15–150
32B	Hoods/Housings(Metal,Pressure Tight)	P15–151 ~ P15–159
48B	Hoods/Housings(Metal,Pressure Tight)	P15–160 ~ P15–162
HC	Metal Hoods/Housings	P15–163 ~ P15–168
Thickned seal part	(H series BK housing)	P15–169 ~ P15–170

Levers for option

	Identify	Main material	Description	Designation Example	Order NO. Example
	L/SC	Stainless steel+TPR	high–strength locking, device with rubber cover, Suitable for harsh environment (anti–corrosion)	H24B–SF–1L/SC–M25	111 024 221 1003
	L/PSE	PC+Stainless steel	removable locking device, suitable for general industrial environment	H24B–SF–1L/PSE–M25	111 024 228 1001

Rectangular connector-Hoods/Housings Contents

the examples of products

	identify	The definition of Corrosion Class, on the basis of ISO12944	The neutral salt spray test ISO7253 /h	The examples of typical environments in temperate climates (for reference only)	models examples
	/480	C3 High	480	The urban and industrial atmospheres, moderate sulfur dioxide pollution, and low salinity coastal areas	W10B–TEH–4B–M32/480
	/720	C4 High	720	The industrial and coastal areas with moderate salinity	W10B–TEH–4B–M32/720
	/1440	C5 high	1440	The industrial areas with high humidity and harsh atmosphere and coastal areas with high salinity	W10B–TEH–4B–M32/1440

*The metal casings such as the housing and the base of the connector can be corrosive to different degrees.
The models in the table are only for the purpose of making the product model naming rules clearer for customers.
More models are welcome to consult.

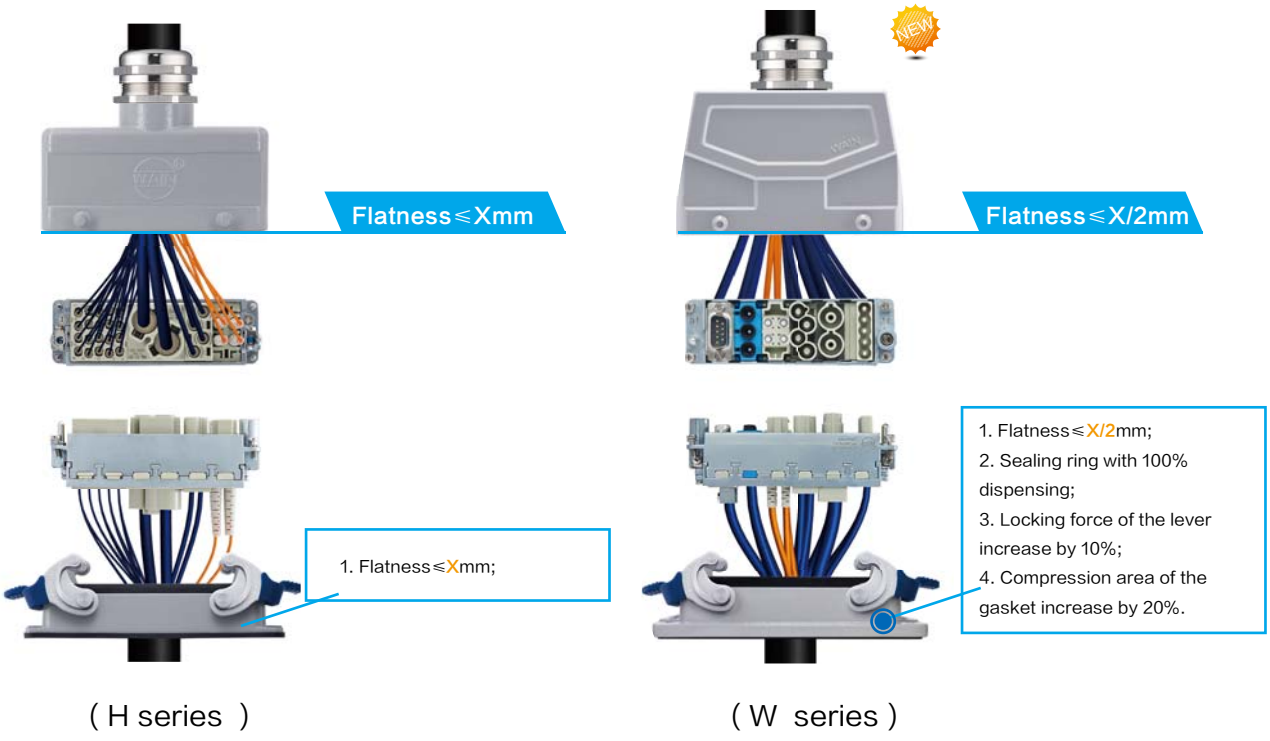
Dear customer:

Thank you very much for your continued trust in our products and your support for our company.

During the course of development, WAIN has always been trying to improve and enrich its products. To meet the customer’s need for connectors between IP65 and IP68, we develop brand-new IP67 metal shells. Affected models include 6B、10B、16B、24B、32B、32A（3A、10A、16A and 48B are not included at present）. These new shells can endure harsher environments especially outdoor operating environments, such as tower crane infrastructure、road construction、construction vehicles、outdoor cabinets、mining machinery and so on.

IP67 shells are named W series products, their designations begin with the letter ”W“, such as W6B、W10B、W16B、W24B、W32B、W32A. We redesign the appearance、seal flatness and manufacturing technique, while the size remains the same. W series products are compatible with H series products, as well as all standard inserts、modular frames、cable glands and so on.

The differences between W series products and H series products (take 24B for example):



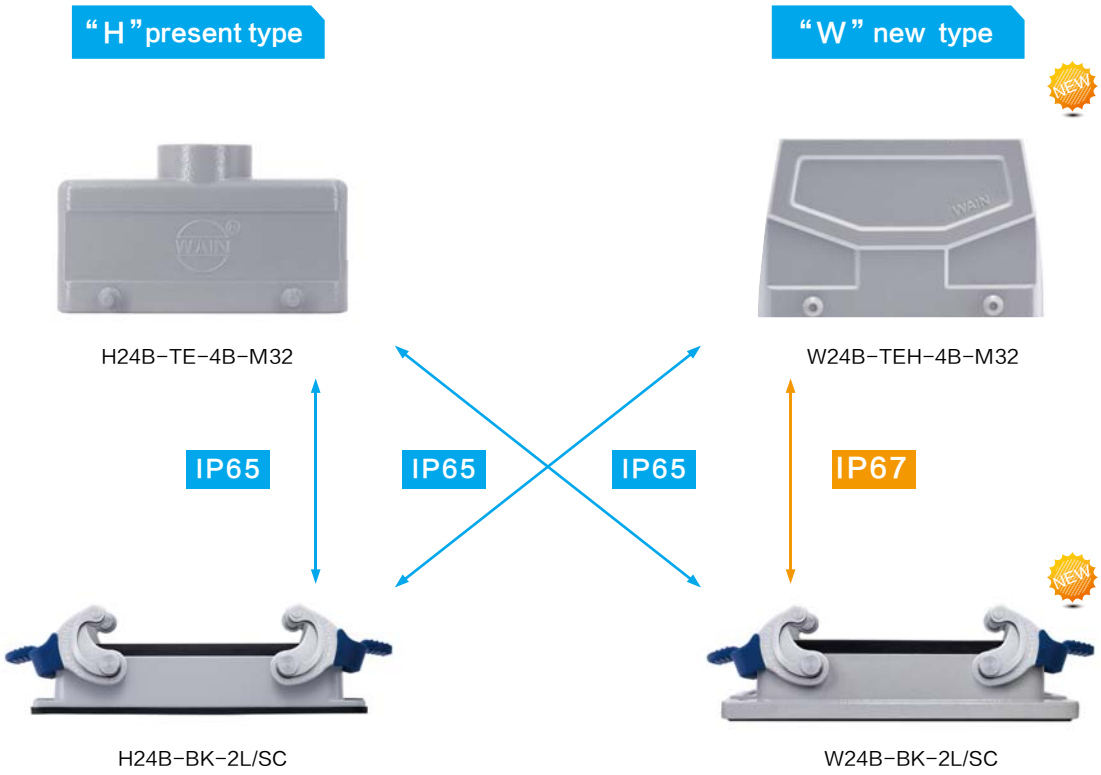
（H series ）　　（W series）

While promoting the W series products, the present H series products are also continued to be supplied, in other words we will supply IP65、IP67、IP68、IP69K products at the same time.（For specific technical parameters of W series products, please kindly refer to our catalogue). Through redesigning these shells, we wish to demonstrate WAIN’s innovative spirit and the ability of independent development. We appreciate your understanding and support in this matter, and we hope that you will like our redesigned shells. We will offer more products and innovations continuously.

Should you have any questions, please do not hesitate to contact us.

Illustration for IP65 or IP67 under different matches between W series shells and H series metal shells

(take high construction hood+ bulkhead mounted housing for example)



*For the definition and requirements of IP grade, please kindly refer to IEC 60529-2013

Technical characteristics

Size 3A Plastic Hoods & Housings IP65

Material	polycarbonate
Colour	light grey（RAL 7032）
	black（RAL 9005）
Locking element	
–Lever type	plastic elastic pressing
–Material	polyamide
Hoods/Housings seal	NBR
Limiting temperatures	–40...+125℃
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN	
60 529 for coupled connector	IP65

Size 3A Metal Hoods & Housings IP65

Material	zinc die–cast
Colour	grey
Locking element	
–Lever type	metal elastic pressing
–Material	metal galvanized/
	nickel plating
Hoods/Housings seal	NBR
Limiting temperatures	–40...+125℃
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN	
60 529 for coupled connector	IP65

3A Pressure tight Hoods & Housings IP68/IP69k

Surface	Epoxy powder coating
Material	zinc die–cast
Colour	black or grey
Locking element	
–Lever type	screw locking
–Material	stainless steel
Hoods/Housings seal	NBR
Limiting temperatures	–40...+125℃
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN	
60 529 for coupled connector	IP68/IP69K

EMC Electromagnetic Compatibility Hoods & Housings IP65

Material	zinc die–cast(3A)
	aluminium die–cast(Type B)
Surface	electrical conductive
Locking element	
–Lever type	metal elastic pressing/screw locking
–Material	see15–02
Hoods/Housings seal	NBR
Limiting temperatures	–40...+125℃
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN	
60 529 for coupled connector	H version IP65 / W version IP67

HC Metal Hoods & Housings IP65

Surface	Epoxy powder coating/nickeling
Material	zinc die–cast
Colour	black/brushed nickel
Locking element	
–Lever type	metal elastic pressing
–Material	stainless steel
Hoods/Housings seal	NBR
Limiting temperatures	–40...+125℃
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN	
60 529 for coupled connector	IP65

Plastic Hoods & Housings IP65

Material	polyamide
Colour	RAL 9005 (black)
Locking element	
–Lever type	plastic elastic pressing
–Material	polyamide
Hoods/Housings seal	NBR
Limiting temperatures	–40...+125℃
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN	
60 529 for coupled connector	IP65

Metal Hoods & Housings IP65

Material	aluminium die–cast
Colour	grey
Locking element	
–Lever type	metal elastic pressing
–Material	see P15–02
Hoods/Housings seal	NBR
Limiting temperatures	–40...+125℃
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN	
60 529 for coupled connector	H version IP65 / W version IP67

Hoods/Housings for higher environmental requirements IP65

Material	zinc die–cast(3A),
	aluminium die–cast,
Colour	RAL 9005 (black)
Surface– Top coat	epoxy powder paint
Locking element	
–Lever type	metal elastic pressing
–Material	stainless steel
Hoods/Housings seal	FPM
Limiting temperatures	–40...+125℃
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN	
60 529 for coupled connector	H version IP65 / W version IP67

Pressure tight Hoods & Housings IP68/IP69k

Material	aluminium die–cast,
	corrosion resistant
Colour	black or grey
Locking element	
–Lever type	screw locking
–Material	stainless steel
Hoods/Housings seal	NBR
Limiting temperatures	–40...+125℃
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN	
60 529 for coupled connector	IP68/IP69K

HC Plastic Hoods & Housings IP65

Material	polycarbonate
Colour	RAL 9005 (black)
Locking element	
–Lever type	plastic elastic pressing
–Material	polyamide
Hoods/Housings seal	NBR
Limiting temperatures	–40...+125℃
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN	
60 529 for coupled connector	IP65

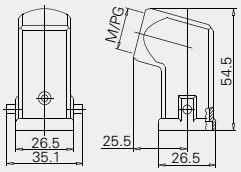
3A Plastic hoods/housings

Degree of protection： IP65

Hoods, side entry



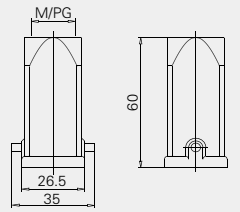
Thread	Designation	Order No.
M20	H3A.P–SE–2B–M20	118 003 510 1002
PG11	H3A.P–SE–2B–PG11	118 003 510 1008



Hoods, top entry



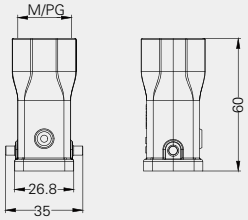
Thread	Designation	Order No.
M20	H3A.P–TE–2B–M20	118 003 410 1002
PG11	H3A.P–TE–2B–PG11	118 003 410 1008



Hoods, top entry



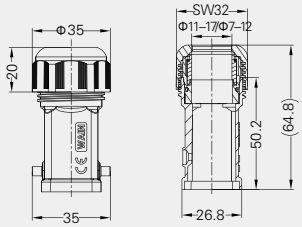
Thread	Designation	Order No.
M25	H3A.P–TE–2B–M25	118 003 410 1512
PG16	H3A.P–TE–2B–PG16	118 003 410 1513



Hoods, top entry



Thread	Designation	Order No.
OTr30	H3A.P–TE–2B–OTr30(D7–12)	118 003 410 1516
OTr30	H3A.P–TE–2B–OTr30(D11–17)	118 003 410 1517



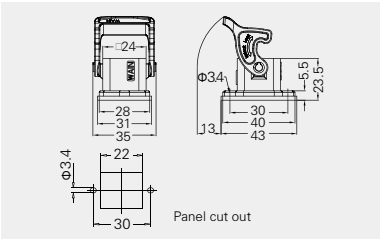
3A Plastic hoods/housings

Degree of protection： IP65

Bulkhead mounted housings



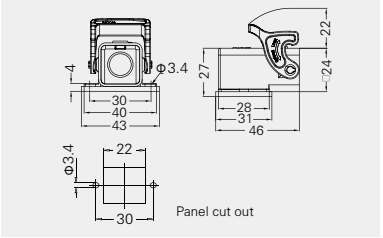
Thread	Designation	Order No.
---	H3A.P–BK–1L	118 003 327 1001



Bulkhead mounted housings



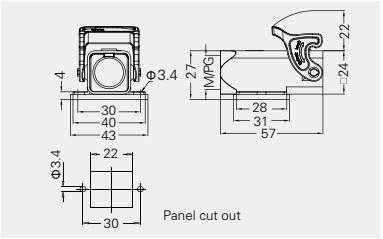
Thread	Designation	Order No.
---	H3A.P–BK–1L–SE	118 003 927 1001



Surface mounted housings



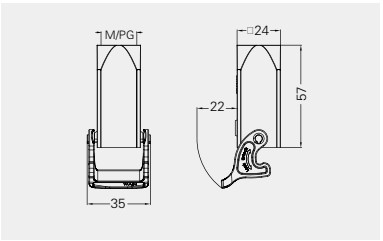
Thread	Designation	Order No.
M20	H3A.P–SF–1L–M20	118 003 227 1002
PG11	H3A.P–SF–1L–PG11	118 003 227 1008



Housings, cable to cable



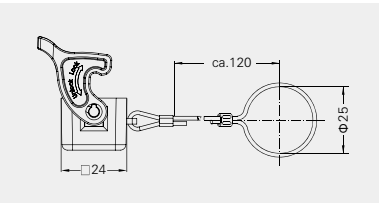
Thread	Designation	Order No.
M20	H3A.P–CCT–1L–M20	118 003 727 1002
PG11	H3A.P–CCT–1L–PG11	118 003 727 1008



Protection covers



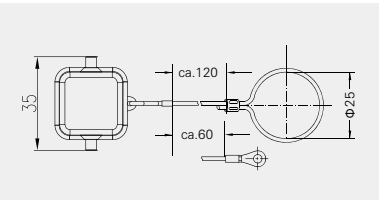
Connect way	Designation	Order No.
	H3A–CV–1L/1M (for male insert)	110 003 027 8001
	H3A–CV–1L/1F (for female insert)	110 003 027 8002



Protection covers，cable to cable



Connect way	Designation	Order No.
	H3A–CV–2B/1M (for male insert)	110 003 010 8001
	H3A–CV–2B/2M (for male insert)	110 003 010 8004
	H3A–CV–2B/1F (for female insert)	110 003 010 8002
	H3A–CV–2B/2F (for female insert)	110 003 010 8005



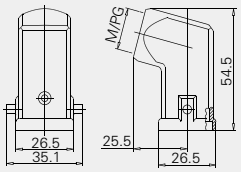
3A Plastic hoods/housings

Degree of protection： IP65

Hoods, side entry



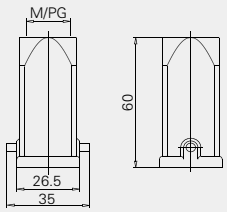
Thread	Designation	Order No.
M20	H3A.P–SE–2B–M20 2B	118 003 510 1506
PG11	H3A.P–SE–2B–PG11 2B	118 003 510 1507



Hoods, top entry



Thread	Designation	Order No.
M20	H3A.P–TE–2B–M20 2B	118 003 410 1511
PG11	H3A.P–TE–2B–PG11 2B	118 003 410 1514



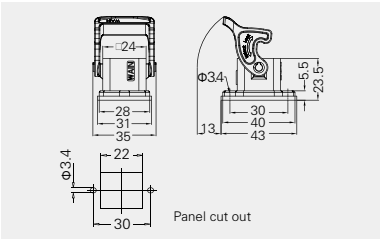
3A Plastic hoods/housings

Degree of protection： IP65

Bulkhead mounted housings



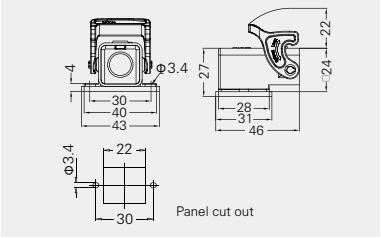
Thread	Designation	Order No.
---	H3A.P–BK–1L 2B	118 003 320 1002



Bulkhead mounted housings



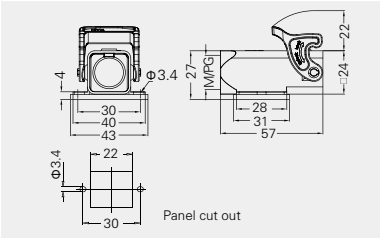
Thread	Designation	Order No.
---	H3A.P–BK–1L–SE 2B	118 003 320 1003



Surface mounted housings



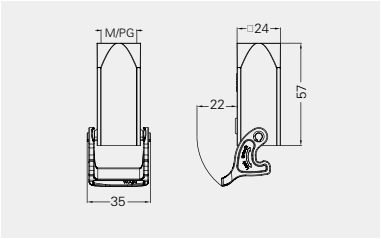
Thread	Designation	Order No.
M20	H3A.P–SF–1L–M20 2B	118 003 220 1002
PG11	H3A.P–SF–1L–PG11 2B	118 003 220 1003



Housings, cable to cable



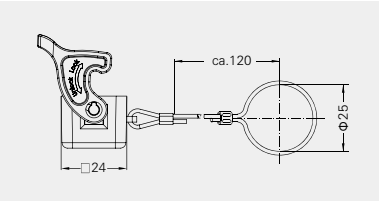
Thread	Designation	Order No.
M20	H3A.P–CCT–1L–M20 2B	118 003 720 1001
PG11	H3A.P–CCT–1L–PG11 2B	118 003 720 1003



Protection covers



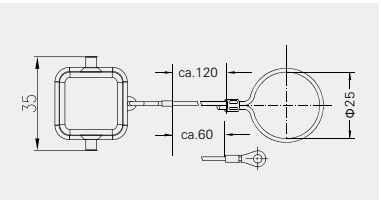
Connect way	Designation	Order No.
	H3A–CV–1L/1M 2B (for male insert)	110 003 020 8002
	H3A–CV–1L/1F 2B (for female insert)	110 003 020 8003



Protection covers，cable to cable



Connect way	Designation	Order No.
	H3A–CV–2B/1M 2B (for male insert)	110 003 010 8511
	H3A–CV–2B/2M 2B (for male insert)	110 003 010 8512
	H3A–CV–2B/1F 2B (for female insert)	110 003 010 8513
	H3A–CV–2B/2F 2B (for female insert)	110 003 010 8514



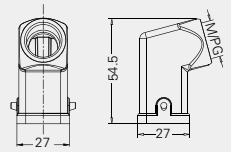
3A Metal hoods/housings

Degree of protection： IP65

Hoods, side entry



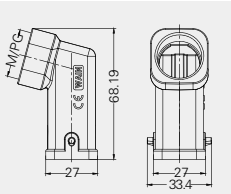
Thread	Designation	Order No.
M20	H3A–SE–2B–M20	110 003 510 1002
PG11	H3A–SE–2B–PG11	110 003 510 1008



Hoods, side entry



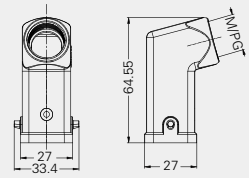
Thread	Designation	Order No.
M25	H3A–SEH–2B–M25	110 003 510 5001
PG16	H3A–SEH–2B–PG16	110 003 510 5002



Hoods, side entry, high construction



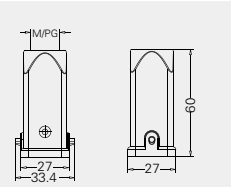
Thread	Designation	Order No.
M20	H3A–SEHC–2B–M20	112 003 510 1001
PG11	H3A–SEHC–2B–PG11	110 003 510 1519



Hoods, top entry



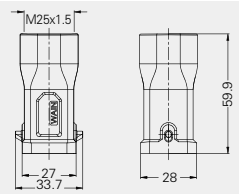
Thread	Designation	Order No.
M20	H3A–TE–2B–M20	110 003 410 1002
PG11	H3A–TE–2B–PG11	110 003 410 1008
PG13.5	H3A–TE–2B–PG13.5	110 003 410 1009



Hoods, top entry



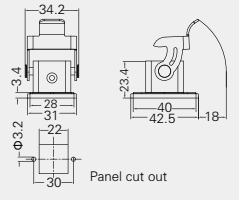
Thread	Designation	Order No.
M25	H3A–TE–2B–M25	110 003 410 1004



Bulkhead mounted housings



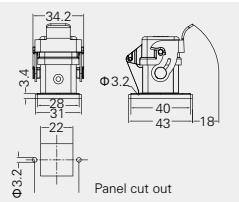
Thread	Designation	Order No.
---	H3A–BK–1L/W	110 003 324 1001



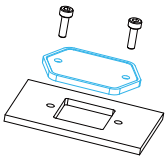
Bulkhead mounted housings

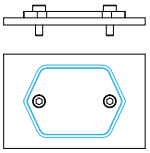


Thread	Designation	Order No.
---	H3A–BK–1L/W–MCV/M(for male insert)	110 003 364 1101
---	H3A–BK–1L/W–MCV/F(for female insert)	110 003 364 1102



3A Metal hoods/housings





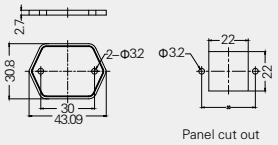
The mounting hole of the mounting cabinet can be temporarily sealed.
Applicable to the installation hole which has been opened,The case where the connector is not installed

Degree of protection： IP65

BK hole cover plate



Application	Designation	Order No.
	3A–BK/MCV	110 003 300 8001



Panel cut out

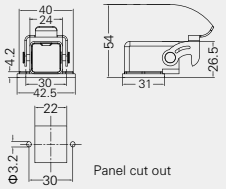
3A Metal hoods/housings

Degree of protection： IP65

Bulkhead mounted housings



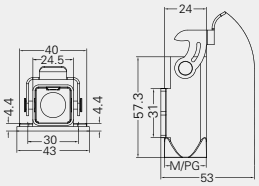
Thread	Designation	Order No.
---	H3A–BK–1L/W–SE	110 003 924 1001



Housings



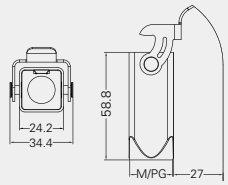
Thread	Designation	Order No.
	Bulkhead mounting	
PG11	H3A–SF/BK–1L/W–PG11	110 003 224 1108
	Surface mounting	
M20	H3A–SF–1L/W–M20	110 003 224 1002
PG11	H3A–SF–1L/W–PG11	110 003 224 1008
PG13.5	H3A–SF–1L/W–PG13.5	110 003 224 1009



Housings, cable to cable



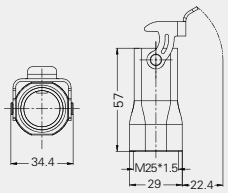
Thread	Designation	Order No.
M20	H3A–CCT–1L/W–M20	110 003 724 1002
PG11	H3A–CCT–1L/W–PG11	110 003 724 1008



Housings, cable to cable



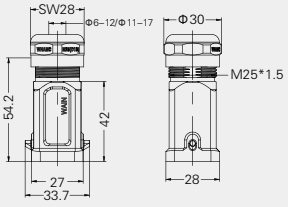
Thread	Designation	Order No.
M25	H3A–CCT–1L/W–M25	110 003 724 1003



Hoods, top entry,with cable gland



Thread	Designation	Order No.
M25	H3A–TE–2B–OM25(D6–12)	110 003 410 1003
M25	H3A–TE–2B–OM25(D11–17)	110 003 410 1103

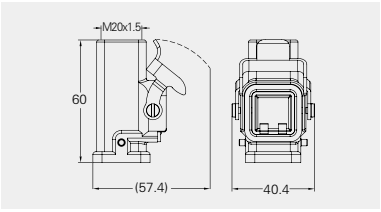


Degree of protection： IP65

Hoods, top entry



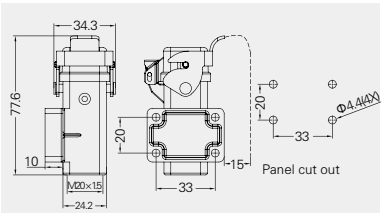
Thread	Designation	Order No.
M20	H3A–TE–2B–1L/S–M20	110 003 265 8002



Surface mounted housings



Thread	Designation	Order No.
M20	H3A–SF–1L/S–M20–MCV/F (for female insert)	110 003 265 1502

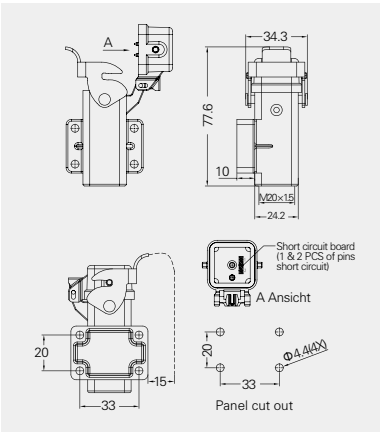


Surface mounted housings with PCB



Thread	Designation	Order No.
M20	H3A–SF–1L/S–M20–MCV/PC(1、2) (for female insert)[1)]	110 003 265 8001

1).Only suitable for HA–004 series.



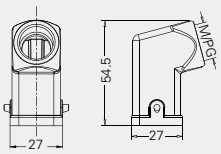
3A Metal hoods/housings(EMC)

Degree of protection： IP65

Hoods, side entry



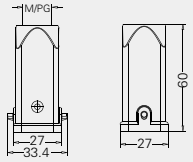
Thread	Designation	Order No.
M20	EMC.H3A–SE–2B–M20	110 603 510 1002
PG11	EMC.H3A–SE–2B–PG11	110 603 510 1008



Hoods, top entry



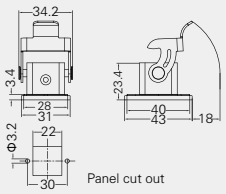
Thread	Designation	Order No.
M20	EMC.H3A–TE–2B–M20	110 603 410 1002
PG11	EMC.H3A–TE–2B–PG11	110 603 410 1008



Bulkhead mounted housings



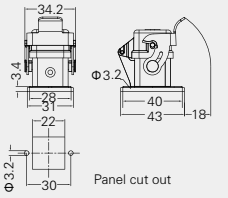
Thread	Designation	Order No.
---	EMCD.H3A–BK–1L/W	110 603 324 1101



Bulkhead mounted housings



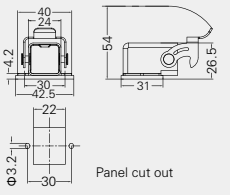
Thread	Designation	Order No.
---	EMCD.H3A–BK–1L/W–MCV/M(for male insert)	110 603 364 1101
---	EMCD.H3A–BK–1L/W–MCV/F(for female insert)	110 603 364 1102



Bulkhead mounted housings



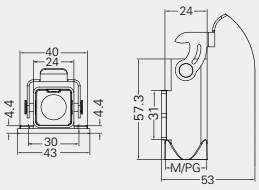
Thread	Designation	Order No.
---	EMCD.H3A–BK–1L/W–SE	110 603 924 1101



Surface mounted housings



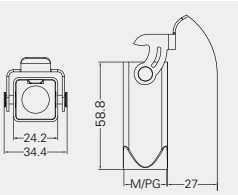
Thread	Designation	Order No.
M20	EMC.H3A–SF–1L/W–M20	110 603 224 1002
PG11	EMC.H3A–SF–1L/W–PG11	110 603 224 1008



Housings, cable to cable



Thread	Designation	Order No.
M20	EMC.H3A–CCT–1L/W–M20	110 603 724 1002
PG11	EMC.H3A–CCT–1L/W–PG11	110 603 724 1008

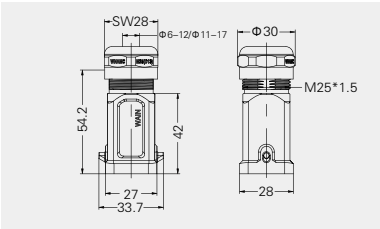


Degree of protection： IP65 EMC

Hoods, top entry,with cable gland



Thread	Designation	Order No.
M25	EMC.H3A–TE–2B–OM25(D6–12)	110 603 410 1003
M25	EMC.H3A–TE–2B–OM25(D11–17)	110 603 410 1203

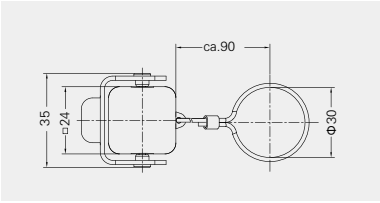


Degree of protection： IP65

Protection covers



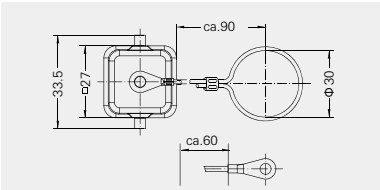
Connect way	Designation	Order No.
	H3A–MCV–1L/1M (for male insert)	110 003 024 8101
	H3A–MCV–1L/1F (for female insert)	110 003 024 8102



Protection covers



Connect way	Designation	Order No.
	H3A–MCV–2B/1M (for male insert)	110 003 010 8101
	H3A–MCV–2B/2M (for male insert)	110 003 010 8104
	H3A–MCV–2B/1F (or female insert)	110 003 010 8102
	H3A–MCV–2B/2F (or female insert)	110 003 010 8105



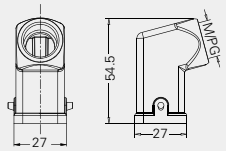
3A Metal hoods/housings
-Suitable for harsh environment(anti-corrosion)

Degree of protection： IP65

Hoods, side entry



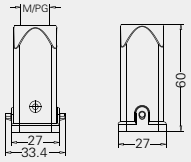
Thread	Designation	Order No.
M20	H3A–MSE–2B–M20	112 003 510 1002
PG11	H3A–MSE–2B–PG11	112 003 510 1008



Hoods, top entry



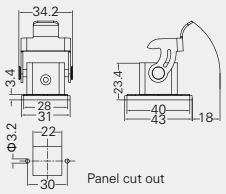
Thread	Designation	Order No.
M20	H3A–MTE–2B–M20	112 003 410 1002
PG11	H3A–MTE–2B–PG11	112 003 410 1008



Bulkhead mounted housings



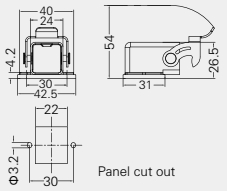
Thread	Designation	Order No.
---	H3A–MBK–1L/S	112 003 325 1001



Bulkhead mounted housings



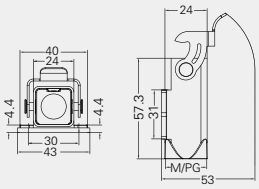
Thread	Designation	Order No.
---	H3A–MBK–1L/S–SE	112 003 925 1001



Surface mounted housings



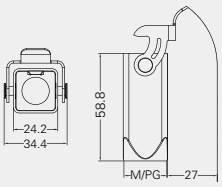
Thread	Designation	Order No.
M20	H3A–MSF–1L/S–M20	112 003 225 1002
PG11	H3A–MSF–1L/S–PG11	112 003 225 1008



Housings, cable to cable



Thread	Designation	Order No.
M20	H3A–MCCT–1L/S–M20	112 003 725 1002
PG11	H3A–MCCT–1L/S–PG11	112 003 725 1008



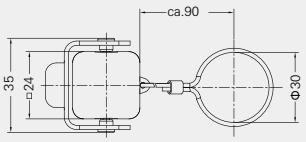
3A Metal hoods/housings
-Suitable for harsh environment(anti-corrosion)

Degree of protection： IP65

Protection covers



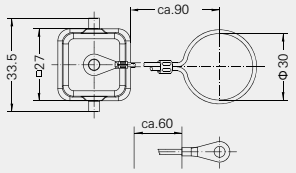
Connect way	Designation	Order No.
	H3A–MCV–1L/1M (for male insert)	112 003 025 8001
	H3A–MCV–1L/1F (for female insert)	112 003 025 8002



Protection covers



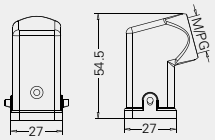
Connect way	Order No.
	112 003 010 8001
	112 003 010 8002



Hoods, side entry



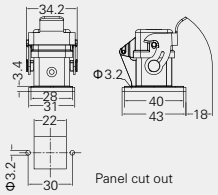
Thread	Designation	Order No.
M20	H3A–MSE2/S–2B/S–M20	112 003 515 1002



Bulkhead mounted housings



Thread	Designation	Order No.
–––	H3A–MBK–1L/S–MMCV/S/S	112 003 365 1103



3A Pressure tight hoods/housings

Epoxy powder coating

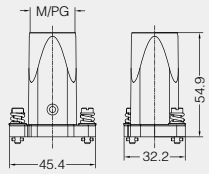
Degree of protection： IP68/IP69K

H version

Hoods, top entry



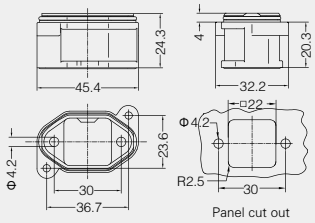
Thread	Designation	Order No.
	Epoxy powder coating・Screw locking	
M20	HP3A/H–TE–2S–M20	113 003 420 1002
PG13.5	HP3A/H–TE–2S–PG13.5	113 003 420 1009
	Epoxy powder coating・Toggle locking	
M20	HP3A/H–TE–2T–M20	113 003 440 1002
PG13.5	HP3A/H–TE–2T–PG13.5	113 003 440 1009



Bulkhead mounted housings



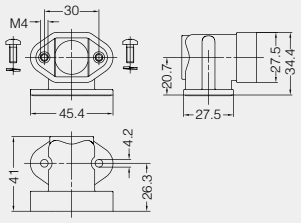
Thread	Designation	Order No.
	Epoxy powder coating・Screw locking	
---	HP3A/H–BK–2H	113 003 320 1001
	Epoxy powder coating・Toggle locking	
---	HP3A/H–BK–2T	113 003 340 1001



Adaptor for Housings



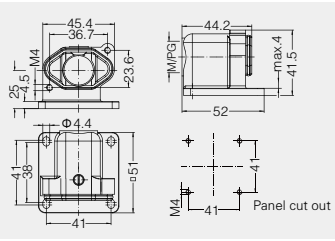
Thread	Designation	Order No.
	Epoxy powder coating	
---	HP3A/H–BK–SE	113 003 900 1001



Surface mounted housings



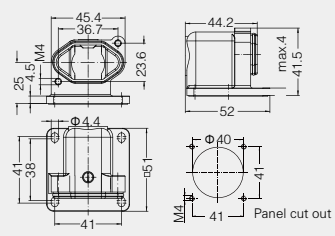
Thread	Designation	Order No.
	Epoxy powder coating・Screw locking	
M20	HP3A/H–SF–2H–M20	113 003 220 1002
PG13.5	HP3A/H–SF–2H–PG13.5	113 003 220 1009



Bulkhead mounted housings



Thread	Designation	Order No.
	Epoxy powder coating・Screw locking	
---	HP3A/H–SF–2H	113 003 220 1001



Epoxy powder coating

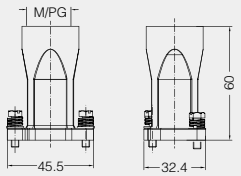
Degree of protection： IP68/IP69K

H version

Hoods, top entry, high construction



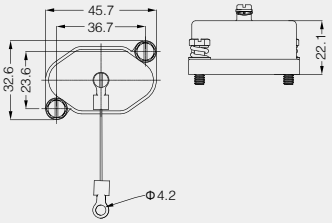
Thread	Designation	Order No.
	Epoxy powder coating・Screw locking	
M25	HP3A/H–TEH–2S–M25	113 003 420 5003
	Epoxy powder coating・Toggle locking	
M25	HP3A/H–TEH–2T–M25	113 003 440 5003



Protection covers, for housings

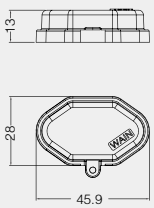


Thread	Designation	Order No.
	Epoxy powder coating・Screw locking	
---	HP3A/H–MCV–2S	113 003 020 8103
	HP3A/H–MCV–2S/2S	113 003 020 8102
	Epoxy powder coating・Toggle locking	
---	HP3A/H–MCV–2T	113 003 040 8103
	HP3A/H–MCV–2T/2S	113 003 040 8102



Protection covers, for housings(IP5X)

Thread	Designation	Order No.
---	HP3A/H–CV/C	113 003 900 8001



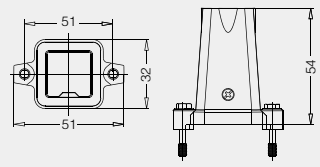
Degree of protection： IP68/IP69K

W version

Hoods, top entry



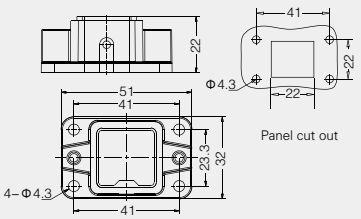
Thread	Designation	Order No.
M20	HP3A–TE–2S–M20	115 003 420 1002
PG11	HP3A–TE–2S–PG11	115 003 420 1008



Bulkhead mounted housings



Thread	Designation	Order No.
---	HP3A–BK–2H	115 003 320 1001



3A Pressure tight hoods/housings

Epoxy powder coating

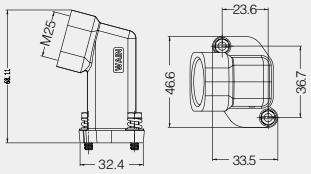
Degree of protection： IP68/IP69K

H version

Hoods, side entry, high construction



Thread	Designation	Order No.
	Epoxy powder coating・Screw locking	
M20	HP3A/H–SEH–2S–M20	113 003 520 5002
M25	HP3A/H–SEH–2S–M25	113 003 520 5001
	Epoxy powder coating・Toggle locking	
M20	HP3A/H–SEH–2T–M20	113 003 540 5002
M25	HP3A/H–SEH–2T–M25	113 003 540 5001

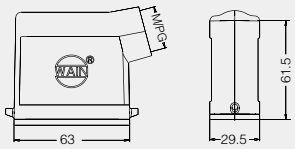


Degree of protection： IP65

Hoods, side entry



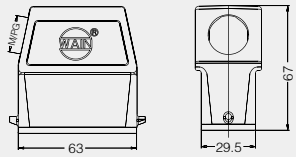
Thread	Designation	Order No.
M20	H10A–SE–2B–M20	110 010 510 1002
PG16	H10A–SE–2B–PG16	110 010 510 1010



Hoods, side entry, high construction



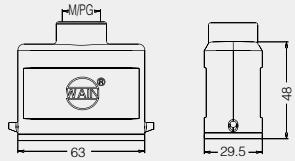
Thread	Designation	Order No.
M25	H10A–SEH–2B–M25	110 010 510 5003
PG16	H10A–SEH–2B–PG16	110 010 510 5010
PG21	H10A–SEH–2B–PG21	110 010 510 5011



Hoods, top entry



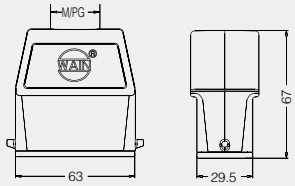
Thread	Designation	Order No.
M20	H10A–TE–2B–M20	110 010 410 1002
PG13.5	H10A–TE–2B–PG13.5	110 010 410 1009



Hoods, top entry, high construction



Thread	Designation	Order No.
M25	H10A–TEH–2B–M25	110 010 410 5003
PG16	H10A–TEH–2B–PG16	110 010 410 5010
PG21	H10A–TEH–2B–PG21	110 010 410 5011

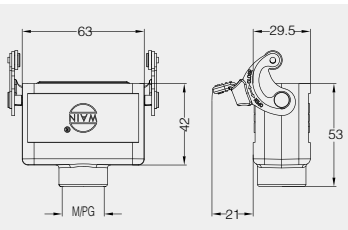


Housings, cable to cable



Thread	Designation	Order No.
M20	H10A–CCT–1L/SC–M20	110 010 721 1002
PG13.5	H10A–CCT–1L/SC–PG13.5	110 010 721 1009
PG16	H10A–CCT–1L/SC–PG16	110 010 721 1010

Please refer to page 15–02 for choosing proper model of lock.

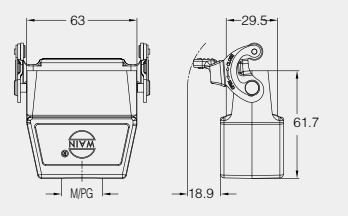


Housings, cable to cable high construction



Thread	Designation	Order No.
M25	H10A–CCTH–1L/SC–M25	110 010 721 5003
PG16	H10A–CCTH–1L/SC–PG16	110 010 721 5010
PG21	H10A–CCTH–1L/SC–PG21	110 010 721 5011

Please refer to page 15–02 for choosing proper model of lock.



10A Metal hoods/housings

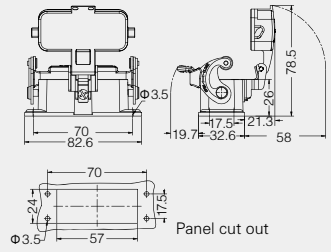
Degree of protection： IP65

Bulkhead mounted housings



Thread	Designation	Order No.
---	H10A–BK–1L/SC	110 010 321 1001
	with plastic cover	
---	H10A–BK–1L/SC–CV	110 010 361 1001
	with metal cover	
---	H10A–BK–1L/SC–MCV	110 010 361 1101

Please refer to page 15–02 for choosing proper model of lock.

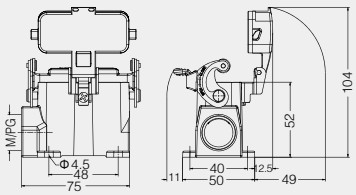


Surface mounted housings



Thread	Designation	Order No.
M20	H10A–SF–1L/SC–M20	110 010 221 1002
2M20	H10A–SF–1L/SC–2M20	110 010 221 1022
M25	H10A–SF–1L/SC–M25	110 010 221 1003
PG16	H10A–SF–1L/SC–PG16	110 010 221 1010
2PG16	H10A–SF–1L/SC–2PG16	110 010 221 1030
PG21	H10A–SF–1L/SC–PG21	110 010 221 1011
	with plastic cover	
M20	H10A–SF–1L/SC–CV–M20	110 010 261 1002
2M20	H10A–SF–1L/SC–CV–2M20	110 010 261 1022
M25	H10A–SF–1L/SC–CV–M25	110 010 261 1003
PG16	H10A–SF–1L/SC–CV–PG16	110 010 261 1010
2PG16	H10A–SF–1L/SC–CV–2PG16	110 010 261 1030
PG21	H10A–SF–1L/SC–CV–PG21	110 010 261 1011
	with metal cover	
M20	H10A–SF–1L/SC–MCV–M20	110 010 261 1102
2M20	H10A–SF–1L/SC–MCV–2M20	110 010 261 1122
M25	H10A–SF–1L/SC–MCV–M25	110 010 261 1103
PG16	H10A–SF–1L/SC–MCV–PG16	110 010 261 1110
2PG16	H10A–SF–1L/SC–MCV–2PG16	110 010 261 1130
PG21	H10A–SF–1L/SC–MCV–PG21	110 010 261 1111

Please refer to page 15–02 for choosing proper model of lock.

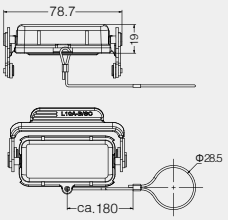


Protection covers, metal cover



Connect way	Applications	Designation	Order No.
~○	for hoods	H10A–MCV–1L/SC.1	110 010 021 8101

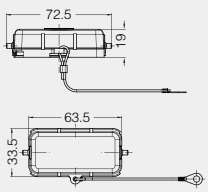
Please refer to page 15–02 for choosing proper model of lock.



Protection covers, metal cover



Connect way	Applications	Designation	Order No.
~○	for housings	H10A–MCV–2B/1S	110 010 010 8101
~◎	for housings	H10A–MCV–2B/2S	110 010 010 8102



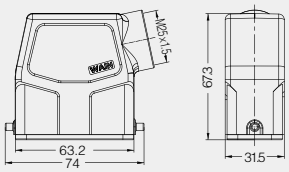
10A Plastic hoods/housings

Degree of protection： IP65

Hoods, side entry, high construction



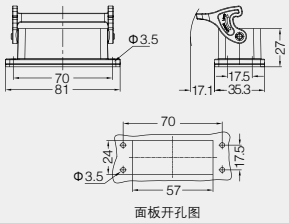
Thread	Designation	Order No.
M25	H10A.P–SEH–2B–M25	118 010 510 5001



Bulkhead mounted housings



Thread	Designation	Order No.
---	H10A.P–BK–1L	118 010 320 1001



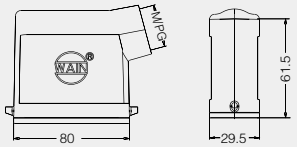
16A Metal hoods/housings

Degree of protection： IP65

Hoods, side entry



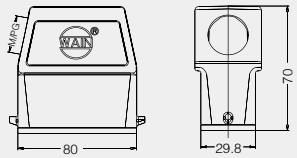
Thread	Designation	Order No.
M20	H16A–SE–2B–M20	110 016 510 1002
PG16	H16A–SE–2B–PG16	110 016 510 1010



Hoods, side entry, high construction



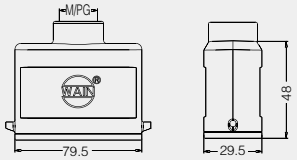
Thread	Designation	Order No.
M25	H16A–SEH–2B–M25	110 016 510 5003
PG16	H16A–SEH–2B–PG16	110 016 510 5010
PG21	H16A–SEH–2B–PG21	110 016 510 5011



Hoods, top entry



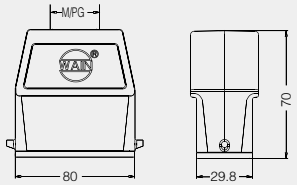
Thread	Designation	Order No.
M20	H16A–TE–2B–M20	110 016 410 1002
PG16	H16A–TE–2B–PG16	110 016 410 1010



Hoods, top entry, high construction



Thread	Designation	Order No.
M25	H16A–TEH–2B–M25	110 016 410 5003
PG16	H16A–TEH–2B–PG16	110 016 410 5010
PG21	H16A–TEH–2B–PG21	110 016 410 5011

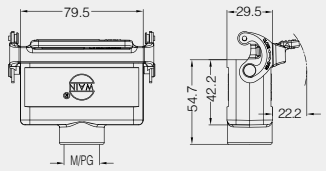


Housings, cable to cable



Thread	Designation	Order No.
M20	H16A–CCT–1L/SC–M20	110 016 721 1002
PG13.5	H16A–CCT–1L/SC–PG13.5	110 016 721 1009
PG16	H16A–CCT–1L/SC–PG16	110 016 721 1010

Please refer to page 15–02 for choosing proper model of lock.

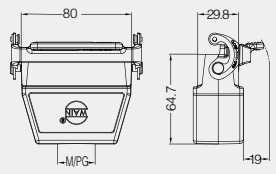


Housings, cable to cable high construction



Thread	Designation	Order No.
M25	H16A–CCTH–1L/SC–M25	110 016 721 5003
PG16	H16A–CCTH–1L/SC–PG16	110 016 721 5010
PG21	H16A–CCTH–1L/SC–PG21	110 016 721 5011

Please refer to page 15–02 for choosing proper model of lock.



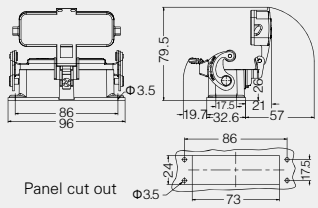
Degree of protection： IP65

Bulkhead mounted housings



Thread	Designation	Order No.
---	H16A–BK–1L/SC	110 016 321 1001
	with plastic cover	
---	H16A–BK–1L/SC–CV	110 016 361 1001
	with metal cover	
---	H16A–BK–1L/SC–MCV	110 016 361 1101

Please refer to page 15–02 for choosing proper model of lock.

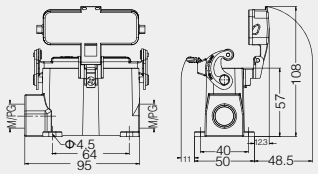


Surface mounted housings



Thread	Designation	Order No.
M20	H16A–SF–1L/SC–M20	110 016 221 1002
2M20	H16A–SF–1L/SC–2M20	110 016 221 1022
M25	H16A–SF–1L/SC–M25	110 016 221 1003
2M25	H16A–SF–1L/SC–2M25	110 016 221 1023
PG16	H16A–SF–1L/SC–PG16	110 016 221 1010
2PG16	H16A–SF–1L/SC–2PG16	110 016 221 1030
PG21	H16A–SF–1L/SC–PG21	110 016 221 1011
	with plastic cover	
M20	H16A–SF–1L/SC–CV–M20	110 016 261 1002
2M20	H16A–SF–1L/SC–CV–2M20	110 016 261 1022
M25	H16A–SF–1L/SC–CV–M25	110 016 261 1003
2M25	H16A–SF–1L/SC–CV–2M25	110 016 261 1023
PG16	H16A–SF–1L/SC–CV–PG16	110 016 261 1010
2PG16	H16A–SF–1L/SC–CV–2PG16	110 016 261 1030
PG21	H16A–SF–1L/SC–CV–PG21	110 016 261 1011
	with metal cover	
M20	H16A–SF–1L/SC–MCV–M20	110 016 261 1102
2M20	H16A–SF–1L/SC–MCV–2M20	110 016 261 1122
M25	H16A–SF–1L/SC–MCV–M25	110 016 261 1103
2M25	H16A–SF–1L/SC–MCV–2M25	110 016 261 1123
PG16	H16A–SF–1L/SC–MCV–PG16	110 016 261 1110
2PG16	H16A–SF–1L/SC–MCV–2PG16	110 016 261 1130
PG21	H16A–SF–1L/SC–MCV–PG21	110 016 261 1111

Please refer to page 15–02 for choosing proper model of lock.

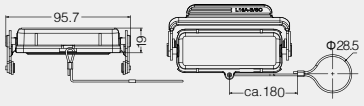


Protection covers, metal cover



Connect way	Applications	Designation	Order No.
	for hoods	H16A–MCV–1L/SC.1	110 016 021 8101

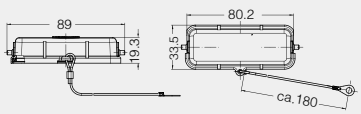
Please refer to page 15–02 for choosing proper model of lock.



Protection covers, metal cover



Connect way	Applications	Designation	Order No.
	for housings	H16A–MCV–2B/1S	110 016 010 8101
	for housings	H16A–MCV–2B/2S	110 016 010 8102



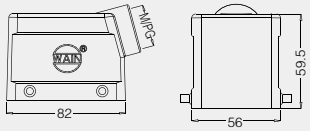
32A Metal hoods/housings

Degree of protection： IP65

Hoods, side entry



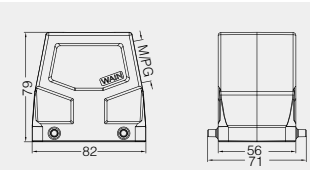
Thread	Designation	Order No.
M25	H32A–SE–4B–M25	110 032 530 1003
PG21	H32A–SE–4B–PG21	110 032 530 1011



Hoods, side entry, high construction



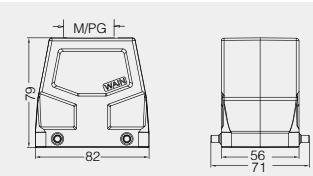
Thread	Designation	Order No.
M32	W32A–SEH–4B–M32	110 132 530 5001
PG21	W32A–SEH–4B–PG21	110 132 530 5002
PG29	W32A–SEH–4B–PG29	110 132 530 5003



Hoods, top entry, high construction



Thread	Designation	Order No.
M25	W32A–TEH–4B–M25	110 132 430 5001
M32	W32A–TEH–4B–M32	110 132 430 5002
PG21	W32A–TEH–4B–PG21	110 132 430 5003
PG29	W32A–TEH–4B–PG29	110 132 430 5004

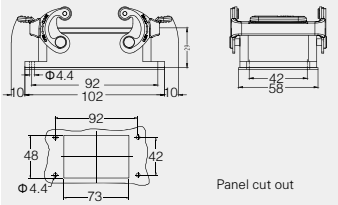


Housings, bulkhead mounting



Thread	Designation	Order No.
---	H32A–BK–2L/SC	110 032 341 1001

Please refer to page 15–02 for choosing proper model of lock.

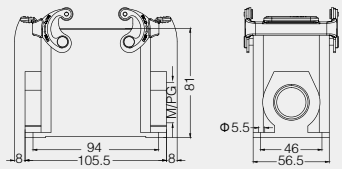


Housings,surface mounting



Thread	Designation	Order No.
M25	H32A–SF–2L/SC–M25	110 032 241 1003
M32	H32A–SF–2L/SC–M32	110 032 241 1004
2M32	H32A–SF–2L/SC–2M32	110 032 241 1024
PG21	H32A–SF–2L/SC–PG21	110 032 241 1011
2PG21	H32A–SF–2L/SC–2PG21	110 032 241 1031
PG29	H32A–SF–2L/SC–PG29	110 032 241 1012
2PG29	H32A–SF–2L/SC–2PG29	110 032 241 1032

Please refer to page 15–02 for choosing proper model of lock.

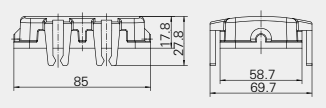


Protection covers, plastic cover

4 clamps



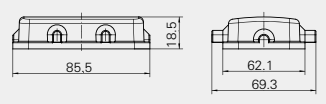
Connect way	Applications	Designation	Order No.
	for hoods	H32A–CV–4C	110 032 090 8009



Protection covers, plastic cover



Connect way	Applications	Designation	Order No.
	for cable to cable	H32A–CV–4B/1	110 032 030 8001
	for housings	H32A–CV–4B/2	110 032 030 8002



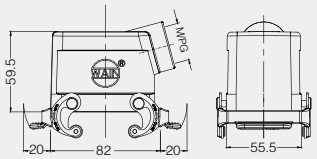
Degree of protection： IP65

Hoods, side entry



Thread	Designation	Order No.
M25	H32A–SE–2L/SC–M25	110 032 541 1003
PG21	H32A–SE–2L/SC–PG21	110 032 541 1011

Please refer to page 15–02 for choosing proper model of lock.

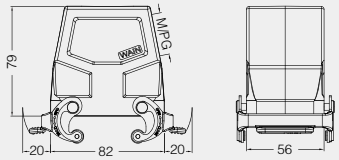


Hoods, side entry, high construction



Thread	Designation	Order No.
M32	W32A–SEH–2L/SC–M32	110 132 541 5001
PG21	W32A–SEH–2L/SC–PG21	110 132 541 5002
PG29	W32A–SEH–2L/SC–PG29	110 132 541 5003

Please refer to page 15–02 for choosing proper model of lock.

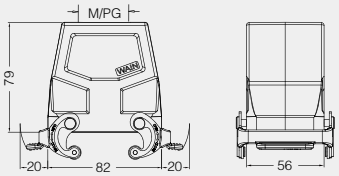


Hoods, top entry, high construction



Thread	Designation	Order No.
M25	W32A–TEH–2L/SC–M25	110 132 441 5001
M32	W32A–TEH–2L/SC–M32	110 132 441 5002
PG21	W32A–TEH–2L/SC–PG21	110 132 441 5003
PG29	W32A–TEH–2L/SC–PG29	110 132 441 5004

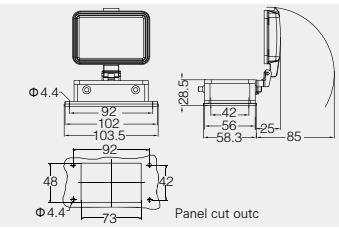
Please refer to page 15–02 for choosing proper model of lock.



Housings, bulkhead mounting



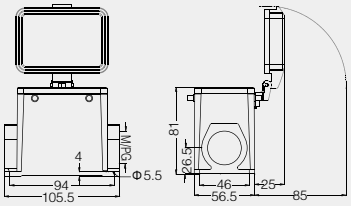
Thread	Designation	Order No.
---	H32A–BK–4B	110 032 330 1001
	with plastic cover	
---	H32A–BK–4B–CV	110 032 370 1001
	with metal cover	
---	H32A–BK–4B–MCV	110 032 370 1101



Housings, surface mounting



Thread	Designation	Order No.
M25	H32A–SF–4B–M25	110 032 230 1003
M32	H32A–SF–4B–M32	110 032 230 1004
2M32	H32A–SF–4B–2M32	110 032 230 1024
PG21	H32A–SF–4B–PG21	110 032 230 1011
2PG21	H32A–SF–4B–2PG21	110 032 230 1031
PG29	H32A–SF–4B–PG29	110 032 230 1012
2PG29	H32A–SF–4B–2PG29	110 032 230 1032
	with plastic cover	
M25	H32A–SF–4B–CV–M25	110 032 270 1003
M32	H32A–SF–4B–CV–M32	110 032 270 1004
2M32	H32A–SF–4B–CV–2M32	110 032 270 1024
PG21	H32A–SF–4B–CV–PG21	110 032 270 1011
2PG21	H32A–SF–4B–CV–2PG21	110 032 270 1031
PG29	H32A–SF–4B–CV–PG29	110 032 270 1012
2PG29	H32A–SF–4B–CV–2PG29	110 032 270 1032
	with metal cover	
M25	H32A–SF–4B–MCV–M25	110 032 270 1103
M32	H32A–SF–4B–MCV–M32	110 032 270 1104
2M32	H32A–SF–4B–MCV–2M32	110 032 270 1124
PG21	H32A–SF–4B–MCV–PG21	110 032 270 1111
2PG21	H32A–SF–4B–MCV–2PG21	110 032 270 1131
PG29	H32A–SF–4B–MCV–PG29	110 032 270 1112
2PG29	H32A–SF–4B–MCV–2PG29	110 032 270 1132



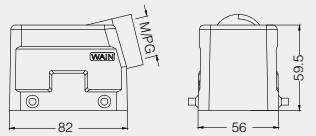
32A Metal hoods/housings

Degree of protection： IP67

Hoods, side entry



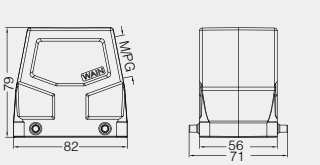
Thread	Designation	Order No.
M25	W32A–SE–4B–M25	110 132 530 1001
PG21	W32A–SE–4B–PG21	110 132 530 1003



Hoods, side entry, high construction



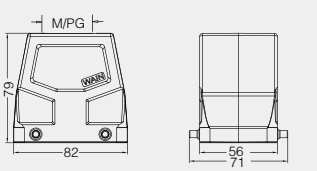
Thread	Designation	Order No.
M32	W32A–SEH–4B–M32	110 132 530 5001
PG21	W32A–SEH–4B–PG21	110 132 530 5002
PG29	W32A–SEH–4B–PG29	110 132 530 5003



Hoods, top entry, high construction



Thread	Designation	Order No.
M25	W32A–TEH–4B–M25	110 132 430 5001
M32	W32A–TEH–4B–M32	110 132 430 5002
PG21	W32A–TEH–4B–PG21	110 132 430 5003
PG29	W32A–TEH–4B–PG29	110 132 430 5004



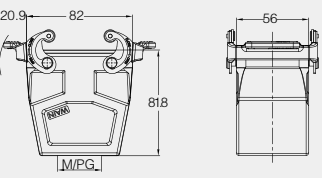
Housings, cable to cable

high construction



Thread	Designation	Order No.
M25	W32A–CCTH–2L/SC–M25	110 132 741 5002
M32	W32A–CCTH–2L/SC–M32	110 132 741 5003
PG21	W32A–CCTH–2L/SC–PG21	110 132 741 5001
PG29	W32A–CCTH–2L/SC–PG29	110 132 741 5004

Please refer to page 15–02 for choosing proper model of lock.

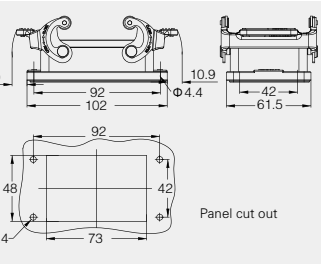


Bulkhead mounted housings



Thread	Designation	Order No.
---	W32A–BK–2L/SC	110 132 341 1001

Please refer to page 15–02 for choosing proper model of lock.



32A Metal hoods/housings

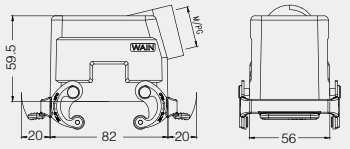
Degree of protection： IP67

Hoods, side entry



Thread	Designation	Order No.
M25	W32A–SE–2L/SC–M25	110 132 541 1001
PG21	W32A–SE–2L/SC–PG21	110 132 541 1002

Please refer to page 15–02 for choosing proper model of lock.

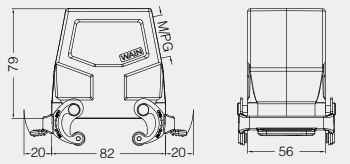


Hoods, side entry, high construction



Thread	Designation	Order No.
M32	W32A–SEH–2L/SC–M32	110 132 541 5001
PG21	W32A–SEH–2L/SC–PG21	110 132 541 5002
PG29	W32A–SEH–2L/SC–PG29	110 132 541 5003

Please refer to page 15–02 for choosing proper model of lock.

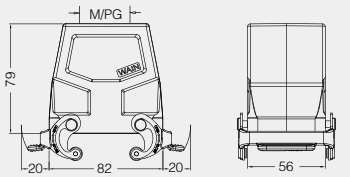


Hoods, top entry, high construction



Thread	Designation	Order No.
M25	W32A–TEH–2L/SC–M25	110 132 441 5001
M32	W32A–TEH–2L/SC–M32	110 132 441 5002
PG21	W32A–TEH–2L/SC–PG21	110 132 441 5003
PG29	W32A–TEH–2L/SC–PG29	110 132 441 5004

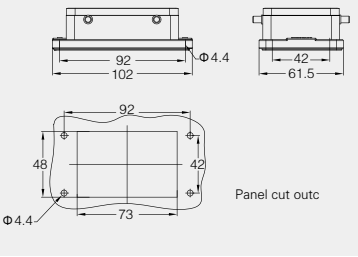
Please refer to page 15–02 for choosing proper model of lock.



Bulkhead mounted housings



Thread	Designation	Order No.
---	W32A–BK–4B	110 132 330 1001
	with plastic cover	
---	W32A–BK–4B–CV	110 132 330 8001
	with metal cover	
---	W32A–BK–4B–MCV	110 132 330 8002



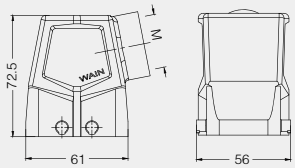
6B Plastic hoods/housings

Degree of protection： IP65

Hoods, side entry, high construction



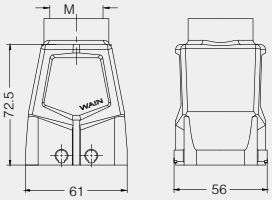
Thread	Designation	Order No.
M25	H6B.P–SEH–4B–M25	117 006 530 5003
M32	H6B.P–SEH–4B–M32	117 006 530 5004



Hoods, top entry, high construction



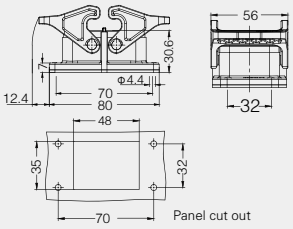
Thread	Designation	Order No.
M25	H6B.P–TEH–4B–M25	117 006 430 5003
M32	H6B.P–TEH–4B–M32	117 006 430 5004



Housings, bulkhead mounting



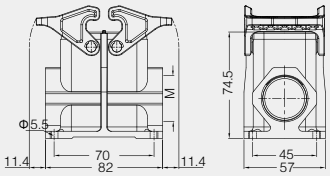
Thread	Designation	Order No.
---	H6B.P–BK–2L	117 006 347 1001



Housings, surface mounting



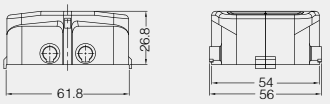
Thread	Designation	Order No.
M25	H6B.P–SFH–2L–M25	117 006 247 5003
2M25	H6B.P–SFH–2L–2M25	117 006 247 5023
M32	H6B.P–SFH–2L–M32	117 006 247 5004
2M32	H6B.P–SFH–2L–2M32	117 006 247 5024



Protection covers，for housings



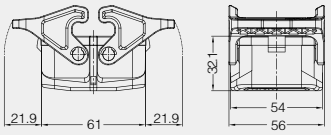
Connect way	Designation	Order No.
---	H6B.P–CV–4B/2	117 006 030 8002



Protection covers，for hoods



Connect way	Designation	Order No.
---	H6B.P–CV–2L/1	117 006 047 8001

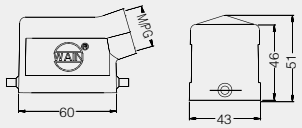


Degree of protection： IP65

Hoods, side entry



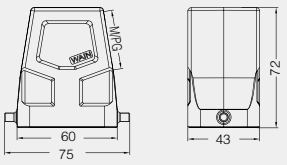
Thread	Designation	Order No.
M20	H6B–SE–2B–M20	111 006 510 1002
M25	H6B–SE–2B–M25	111 006 510 1003
PG13.5	H6B–SE–2B–PG13.5	111 006 510 1009
PG16	H6B–SE–2B–PG16	111 006 510 1010



Hoods, side entry, high construction



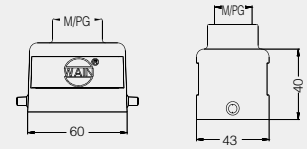
Thread	Designation	Order No.
– – –	W6B–BEH–2B	111 106 910 5001
M25	W6B–SEH–2B–M25	111 106 510 5001
M32	W6B–SEH–2B–M32	111 106 510 5002
PG21	W6B–SEH–2B–PG21	111 106 510 5003
PG29	W6B–SEH–2B–PG29	111 106 510 5004



Hoods, top entry



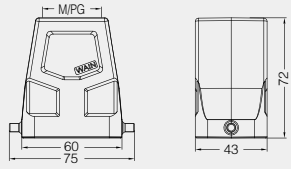
Thread	Designation	Order No.
M20	H6B–TE–2B–M20	111 006 410 1002
M25	H6B–TE–2B–M25	111 006 410 1003
PG13.5	H6B–TE–2B–PG13.5	111 006 410 1009
PG16	H6B–TE–2B–PG16	111 006 410 1010



Hoods, top entry, high construction



Thread	Designation	Order No.
– – –	W6B–BEH–2B	111 106 910 5001
M25	W6B–TEH–2B–M25	111 106 410 5001
M32	W6B–TEH–2B–M32	111 106 410 5002
PG21	W6B–TEH–2B–PG21	111 106 410 5003
PG29	W6B–TEH–2B–PG29	111 106 410 5004

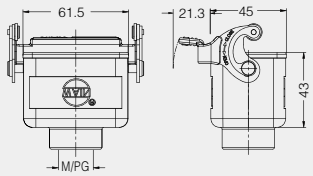


Housings, cable to cable



Thread	Designation	Order No.
M20	H6B–CCT–1L/SC–M20	111 006 721 1002
M25	H6B–CCT–1L/SC–M25	111 006 721 1001
PG13.5	H6B–CCT–1L/SC–PG13.5	111 006 721 1009
PG16	H6B–CCT–1L/SC–PG16	111 006 721 1010

Please refer to page 15–02 for choosing proper model of lock.

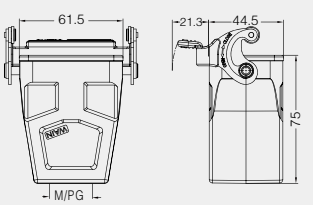


Housings, cable to cable high construction



Thread	Designation	Order No.
M25	W6B–CCTH–1L/SC–M25	111 106 721 5001
M32	W6B–CCTH–1L/SC–M32	111 106 721 5002
PG21	W6B–CCTH–1L/SC–PG21	111 106 721 5003
PG29	W6B–CCTH–1L/SC–PG29	111 106 721 5004

Please refer to page 15–02 for choosing proper model of lock.



6B Metal hoods/housings

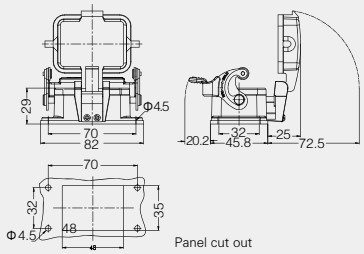
Degree of protection: IP65

Housings, bulkhead mounting



Thread	Designation	Order No.
---	H6B–BK–1L/SC	111 006 321 1001
	with plastic cover	
---	H6B–BK–1L/SC–CV	111 006 361 1001
	with metal cover	
---	H6B–BK–1L/SC–MCV	111 006 361 1101

Please refer to page 15–02 for choosing proper model of lock.

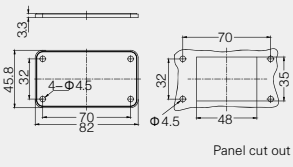


Panel cut out

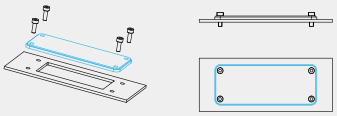
BK hole cover plate



Application	Designation	Order No.
	6B–BK/MCV	111 006 300 8001



Panel cut out



The mounting hole of the mounting cabinet can be temporarily sealed.
Applicable to the installation hole which has been opened,The case where the connector is not installed

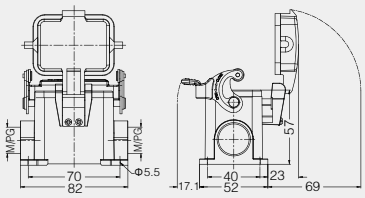
Degree of protection: IP65

Housings, surface mounting



Thread	Designation	Order No.
M20	H6B–SF–1L/SC–M20	111 006 221 1002
2M20	H6B–SF–1L/SC–2M20	111 006 221 1022
PG16	H6B–SF–1L/SC–PG16	111 006 221 1010
2PG16	H6B–SF–1L/SC–2PG16	111 006 221 1030
	with plastic cover	
M20	H6B–SF–1L/SC–CV–M20	111 006 261 1002
2M20	H6B–SF–1L/SC–CV–2M20	111 006 261 1022
PG16	H6B–SF–1L/SC–CV–PG16	111 006 261 1010
2PG16	H6B–SF–1L/SC–CV–2PG16	111 006 261 1030
	with metal cover	
M20	H6B–SF–1L/SC–MCV–M20	111 006 261 1102
2M20	H6B–SF–1L/SC–MCV–2M20	111 006 261 1122
PG16	H6B–SF–1L/SC–MCV–PG16	111 006 261 1110
2PG16	H6B–SF–1L/SC–MCV–2PG16	111 006 261 1130

lease refer to page 15–02 for choosing proper model of lock.



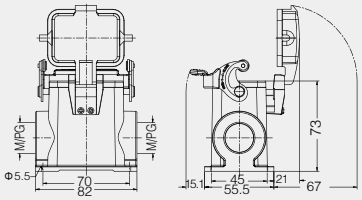
Housings, surface mounting

high construction



Thread	Designation	Order No.
M25	H6B–SFH–1L/SC–M25	111 006 221 5003
2M25	H6B–SFH–1L/SC–2M25	111 006 221 5023
M32	H6B–SFH–1L/SC–M32	111 006 221 5004
2M32	H6B–SFH–1L/SC–2M32	111 006 221 5024
PG21	H6B–SFH–1L/SC–PG21	111 006 221 5011
2PG21	H6B–SFH–1L/SC–2PG21	111 006 221 5031
PG29	H6B–SFH–1L/SC–PG29	111 006 221 5012
2PG29	H6B–SFH–1L/SC–2PG29	111 006 221 5032
	with plastic cover	
M25	H6B–SFH–1L/SC–CV–M25	111 006 261 5003
2M25	H6B–SFH–1L/SC–CV–2M25	111 006 261 5023
M32	H6B–SFH–1L/SC–CV–M32	111 006 261 5004
2M32	H6B–SFH–1L/SC–CV–2M32	111 006 261 5024
PG21	H6B–SFH–1L/SC–CV–PG21	111 006 261 5011
2PG21	H6B–SFH–1L/SC–CV–2PG21	111 006 261 5031
PG29	H6B–SFH–1L/SC–CV–PG29	111 006 261 5012
2PG29	H6B–SFH–1L/SC–CV–2PG29	111 006 261 5032
	with metal cover	
M25	H6B–SFH–1L/SC–MCV–M25	111 006 261 5103
2M25	H6B–SFH–1L/SC–MCV–2M25	111 006 261 5123
M32	H6B–SFH–1L/SC–MCV–M32	111 006 261 5104
2M32	H6B–SFH–1L/SC–MCV–2M32	111 006 261 5124
PG21	H6B–SFH–1L/SC–MCV–PG21	111 006 261 5111
2PG21	H6B–SFH–1L/SC–MCV–2PG21	111 006 261 5131
PG29	H6B–SFH–1L/SC–MCV–PG29	111 006 261 5112
2PG29	H6B–SFH–1L/SC–MCV–2PG29	111 006 261 5132

lease refer to page 15–02 for choosing proper model of lock.



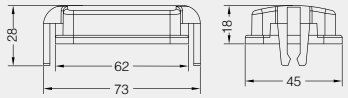
6B Metal hoods/housings

Degree of protection： IP65

Protection covers, plastic



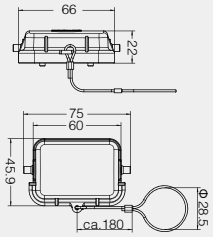
Connect way	Application	Designation	Order No.
---	for hoods	H6B–CV–2C	111 006 000 8009



Protection covers, metal

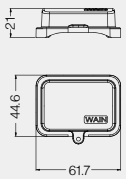


Connect way	Application	Designation	Order No.
	for hoods	H6B–MCV–2B/1	111 006 010 8101
	for housings	H6B–MCV–2B/2	111 006 010 8102



Protection covers, plastic(IP5X)

Connect way	Application	Designation	Order No.
	for housings	6B–CV/C	111 006 000 8002

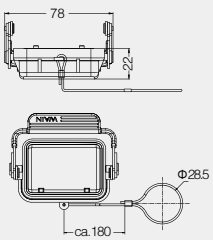


Protection covers, metal



Connect way	Application	Designation	Order No.
	for hoods	H6B–MCV–1L/SC.1S	111 006 021 8101

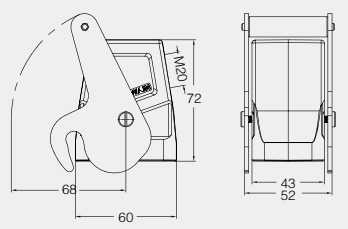
lease refer to page 15–02 for choosing proper model of lock.



Hoods, side entry, high construction



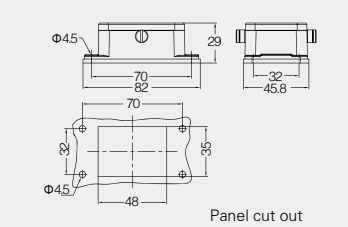
Thread	Designation	Order No.
M25	W6B–SEH–1L/C–M25	111 106 550 5001
M32	W6B–SEH–1L/C–M32	111 106 550 5003
PG21	W6B–SEH–1L/C–PG21	111 106 550 5004
PG29	W6B–SEH–1L/C–PG29	111 106 550 5005



Housings, bulkhead mounting



Thread	Designation	Order No.
---	H6B–BK–2B/C	111 006 350 1003



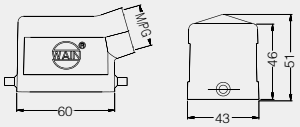
6B Metal hoods/housings
-Suitable for harsh environment(anti-corrosion)

Degree of protection: IP65

Hoods, side entry



Thread	Designation	Order No.
M20	H6B–MSE–2B–M20	112 006 510 1002
M25	H6B–MSE–2B–M25	112 006 510 1003
PG13.5	H6B–MSE–2B–PG13.5	112 006 510 1009
PG16	H6B–MSE–2B–PG16	112 006 510 1010

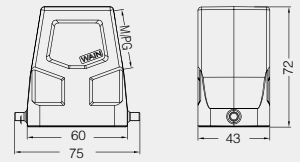


Hoods, side entry, high construction



Thread	Designation	Order No.
M25	W6B–MSEH–2B–M25	112 106 510 5006
M32	W6B–MSEH–2B–M32	112 106 510 5004
PG21	W6B–MSEH–2B–PG21	112 106 510 5007
PG29	W6B–MSEH–2B–PG29	112 106 510 5008

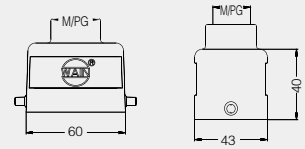
Panel cut out



Hoods, top entry



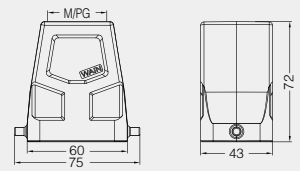
Thread	Designation	Order No.
M20	H6B–MTE–2B–M20	112 006 410 1002
M25	H6B–MTE–2B–M25	112 006 410 1504
PG13.5	H6B–MTE–2B–PG13.5	112 006 410 1009
PG16	H6B–MTE–2B–PG16	112 006 410 1010



Hoods, top entry, high construction



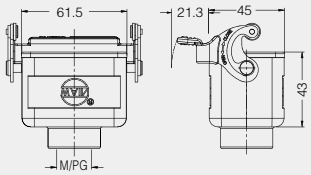
Thread	Designation	Order No.
M25	W6B–MTEH–2B–M25	112 106 410 5006
M32	W6B–MTEH–2B–M32	112 106 410 5008
PG21	W6B–MTEH–2B–PG21	112 106 410 5011
PG29	W6B–MTEH–2B–PG29	112 106 410 5005



Housings, cable to cable



Thread	Designation	Order No.
M20	H6B–MCCT–1L/SC–M20	112 006 721 1011
PG13.5	H6B–MCCT–1L/SC–PG13.5	112 006 721 1009
PG16	H6B–MCCT–1L/SC–PG16	112 006 721 1008



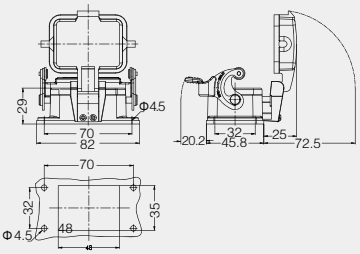
6B Metal hoods/housings

Degree of protection： IP65

Housings, bulkhead mounting



Thread	Designation	Order No.
---	H6B–MBK–1L/SC	112 006 321 1001
	with metal cover	
---	H6B–MBK–1L/SC–MMCV	112 006 361 1101

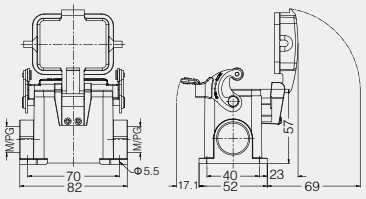


Housings, surface mounting



Thread	Designation	Order No.
M20	H6B–MSF–1L/SC–M20	112 006 221 1002
2M20	H6B–MSF–1L/SC–2M20	112 006 221 1022
PG16	H6B–MSF–1L/SC–PG16	112 006 221 1004
2PG16	H6B–MSF–1L/SC–2PG16	112 006 221 1005
	with metal cover	
M20	H6B–MSF–1L/SC–MMCV–M20	112 006 221 8001
2M20	H6B–MSF–1L/SC–MMCV–2M20	112 006 221 8002
PG16	H6B–MSF–1L/SC–MMCV–PG16	112 006 221 8009
2PG16	H6B–MSF–1L/SC–MMCV–2PG16	112 006 221 8010

lease refer to page 15–02 for choosing proper model of lock.



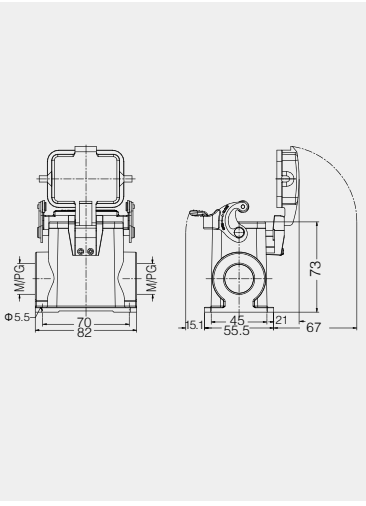
Housings, surface mounting

high construction



Thread	Designation	Order No.
M25	H6B–MSFH–1L/SC–M25	112 006 221 5001
2M25	H6B–MSFH–1L/SC–2M25	112 006 221 5002
M32	H6B–MSFH–1L/SC–M32	112 006 221 5003
2M32	H6B–MSFH–1L/SC–2M32	112 006 221 5004
PG21	H6B–MSFH–1L/SC–PG21	112 006 221 1006
2PG21	H6B–MSFH–1L/SC–2PG21	112 006 221 1007
PG29	H6B–MSFH–1L/SC–PG29	112 006 221 1008
2PG29	H6B–MSFH–1L/SC–2PG29	112 006 221 1009
	with metal cover	
M25	H6B–MSFH–1L/SC–MMCV–M25	112 006 221 8005
2M25	H6B–MSFH–1L/SC–MMCV–2M25	112 006 221 8006
M32	H6B–MSFH–1L/SC–MMCV–M32	112 006 221 8007
2M32	H6B–MSFH–1L/SC–MMCV–2M32	112 006 221 8008
PG21	H6B–MSFH–1L/SC–MMCV–PG21	112 006 221 8011
2PG21	H6B–MSFH–1L/SC–MMCV–2PG21	112 006 221 8012
PG29	H6B–MSFH–1L/SC–MMCV–PG29	112 006 221 8013
2PG29	H6B–MSFH–1L/SC–MMCV–2PG29	112 006 221 8014

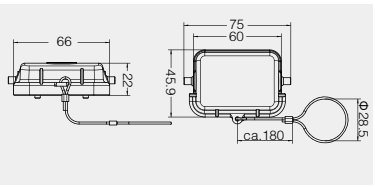
lease refer to page 15–02 for choosing proper model of lock.



Protection covers, metal



Thread	Designation	Order No.
	H6B–MMCV–2B/1	112 006 010 8001
	H6B–MMCV–2B/2	112 006 010 8002

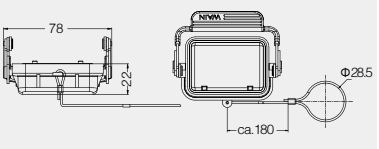


Protection covers, metal



Connect way	Application	Designation	Order No.
	for hoods	H6B–MMCV–1L/SC.1S	112 006 021 8001

lease refer to page 15–02 for choosing proper model of lock.

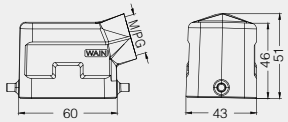


Degree of protection： IP67

Hoods, side entry



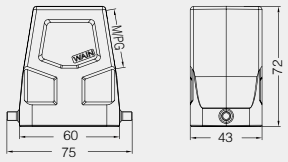
Thread	Designation	Order No.
M20	W6B–SE–2B–M20	111 106 510 1001
M25	W6B–SE–2B–M25	111 106 510 1002
PG13.5	W6B–SE–2B–PG13.5	111 106 510 1003
PG16	W6B–SE–2B–PG16	111 106 510 1004



Hoods, side entry, high construction



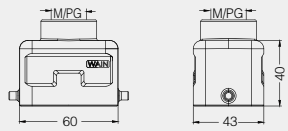
Thread	Designation	Order No.
– – –	W6B–BEH–2B	111 106 910 5001
M25	W6B–SEH–2B–M25	111 106 510 5001
M32	W6B–SEH–2B–M32	111 106 510 5002
PG21	W6B–SEH–2B–PG21	111 106 510 5003
PG29	W6B–SEH–2B–PG29	111 106 510 5004



Hoods, top entry



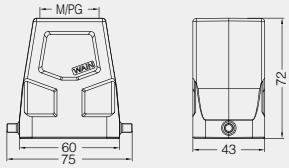
Thread	Designation	Order No.
M20	W6B–TE–2B–M20	111 106 410 1001
M25	W6B–TE–2B–M25	111 106 410 1002
PG13.5	W6B–TE–2B–PG13.5	111 106 410 1003
PG16	W6B–TE–2B–PG16	111 106 410 1004



Hoods, top entry, high construction



Thread	Designation	Order No.
– – –	W6B–BEH–2B	111 106 910 5001
M25	W6B–TEH–2B–M25	111 106 410 5001
M32	W6B–TEH–2B–M32	111 106 410 5002
PG21	W6B–TEH–2B–PG21	111 106 410 5003
PG29	W6B–TEH–2B–PG29	111 106 410 5004

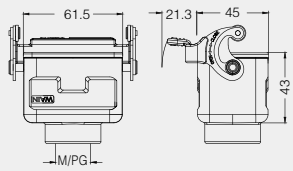


Housings, cable to cable



Thread	Designation	Order No.
M20	W6B–CCT–1L/SC–M20	111 106 721 1005
M25	W6B–CCT–1L/SC–M25	111 106 721 1008
PG13.5	W6B–CCT–1L/SC–PG13.5	111 106 721 1006
PG16	W6B–CCT–1L/SC–PG16	111 106 721 1007

Please refer to page 15–02 for choosing proper model of lock.

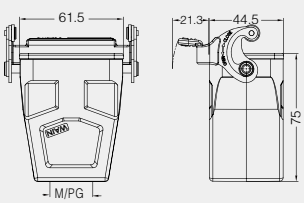


Housings, cable to cable high construction



Thread	Designation	Order No.
M25	W6B–CCTH–1L/SC–M25	111 106 721 5001
M32	W6B–CCTH–1L/SC–M32	111 106 721 5002
PG21	W6B–CCTH–1L/SC–PG21	111 106 721 5003
PG29	W6B–CCTH–1L/SC–PG29	111 106 721 5004

Please refer to page 15–02 for choosing proper model of lock.



6B Metal hoods/housings

Degree of protection： IP67

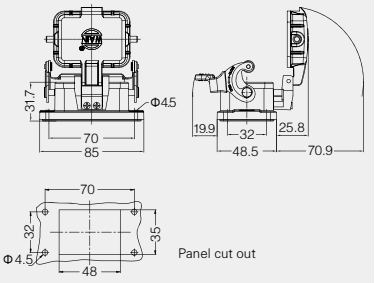
Bulkhead mounted housings

IP67



Thread	Designation	Order No.
---	W6B–BK–1L/SC	111 106 321 1002
	with plastic cover	
---	W6B–BK–1L/SC–CV	111 106 321 8001
	with metal cover	
---	W6B–BK–1L/SC–MCV	111 106 321 8002

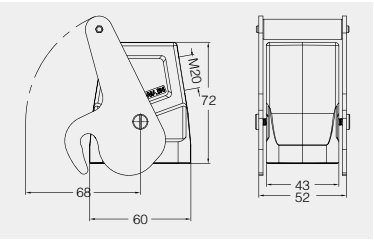
Please refer to page 15–02 for choosing proper model of lock.



Hoods, side entry, high construction



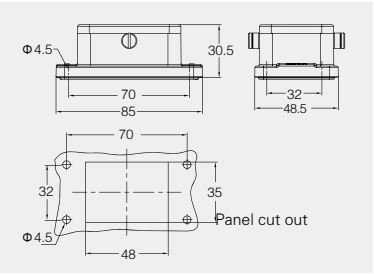
Thread	Designation	Order No.
M25	W6B–SEH–1L/C–M25	111 106 550 5001
M32	W6B–SEH–1L/C–M32	111 106 550 5003
PG21	W6B–SEH–1L/C–PG21	111 106 550 5004
PG29	W6B–SEH–1L/C–PG29	111 106 550 5005



Housings, bulkhead mounting



Thread	Designation	Order No.
---	W6B–BK–2B/C	111 106 350 1001



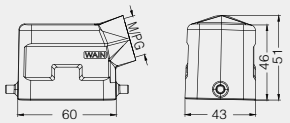
6B Metal hoods/housings
-Suitable for harsh environment(anti-corrosion)

Degree of protection: IP67

Hoods, side entry



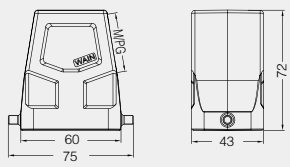
Thread	Designation	Order No.
M20	W6B–MSE–2B–M20	112 106 510 1001
M25	W6B–MSE–2B–M25	112 106 510 1004
PG13.5	W6B–MSE–2B–PG13.5	112 106 510 1002
PG16	W6B–MSE–2B–PG16	112 106 510 1003



Hoods, side entry, high construction



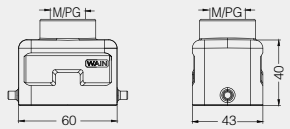
Thread	Designation	Order No.
M25	W6B–MSEH–2B–M25	112 106 510 5006
M32	W6B–MSEH–2B–M32	112 106 510 5004
PG21	W6B–MSEH–2B–PG21	112 106 510 5007
PG29	W6B–MSEH–2B–PG29	112 106 510 5008



Hoods, top entry



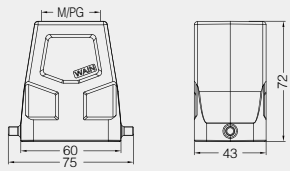
Thread	Designation	Order No.
M20	W6B–MTE–2B–M20	112 106 410 1001
M25	W6B–MTE–2B–M25	112 106 410 1004
PG13.5	W6B–MTE–2B–PG13.5	112 106 410 1002
PG16	W6B–MTE–2B–PG16	112 106 410 1003



Hoods, top entry, high construction



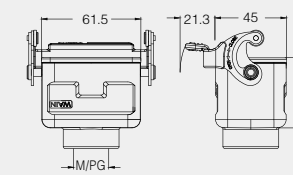
Thread	Designation	Order No.
M25	W6B–MTEH–2B–M25	112 106 410 5006
M32	W6B–MTEH–2B–M32	112 106 410 5008
PG21	W6B–MTEH–2B–PG21	112 106 410 5011
PG29	W6B–MTEH–2B–PG29	112 106 410 5005



Housings, cable to cable



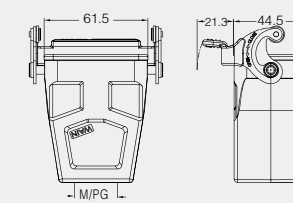
Thread	Designation	Order No.
M20	W6B–MCCT–1L/SC–M20	112 106 721 1001
M25	W6B–MCCT–1L/SC–M25	112 106 721 1004
PG13.5	W6B–MCCT–1L/SC–PG13.5	112 106 721 1002
PG16	W6B–MCCT–1L/SC–PG16	112 106 721 1003



Housings, cable to cable, high construction



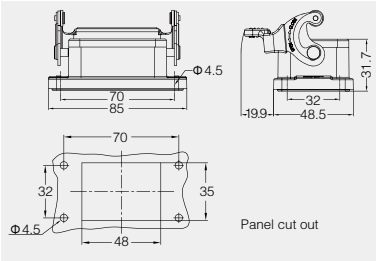
Thread	Designation	Order No.
M25	W6B–MCCTH–1L/SC–M25	112 106 721 5001
M32	W6B–MCCTH–1L/SC–M32	112 106 721 5002
PG21	W6B–MCCTH–1L/SC–PG21	112 106 721 5003
PG29	W6B–MCCTH–1L/SC–PG29	112 106 721 5004



Bulkhead mounted housings



Thread	Designation	Order No.
---	W6B–MBK–1L/SC	112 106 321 1001
---	W6B–MBK–1L/SC–MMCV	112 106 321 8001



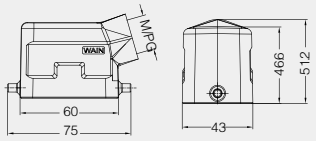
6B EMC Metal hoods/housings

Degree of protection： IP67

Hoods, side entry



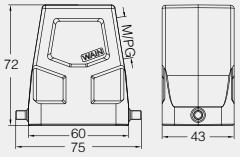
Thread	Designation	Order No.
M20	EMC.W6B–SE–2B–M20	111 206 510 1004
M25	EMC.W6B–SE–2B–M25	111 206 510 1001
PG13.5	EMC.W6B–SE–2B–PG13.5	111 206 510 1002
PG16	EMC.W6B–SE–2B–PG16	111 206 510 1003



Hoods, side entry, high construction



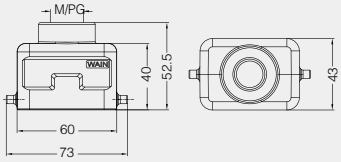
Thread	Designation	Order No.
M25	EMC.W6B–SEH–2B–M25	111 206 510 5001
M32	EMC.W6B–SEH–2B–M32	111 206 510 5002
PG21	EMC.W6B–SEH–2B–PG21	111 206 510 5003
PG29	EMC.W6B–SEH–2B–PG29	111 206 510 5004



Hoods, top entry



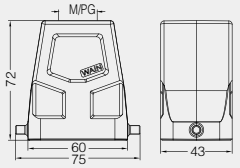
Thread	Designation	Order No.
M20	EMC.W6B–TE–2B–M20	111 206 410 1001
M25	EMC.W6B–TE–2B–M25	111 206 410 1002
PG13.5	EMC.W6B–TE–2B–PG13.5	111 206 410 1003
PG16	EMC.W6B–TE–2B–PG16	111 206 410 1004



Hoods, top entry, high construction



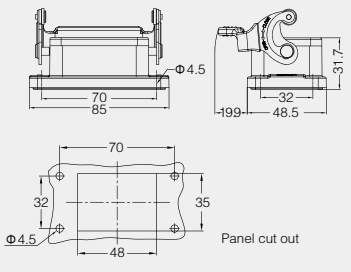
Thread	Designation	Order No.
M25	EMC.W6B–TEH–2B–M25	111 206 410 5001
M32	EMC.W6B–TEH–2B–M32	111 206 410 5002
PG21	EMC.W6B–TEH–2B–PG21	111 206 410 5003
PG29	EMC.W6B–TEH–2B–PG29	111 206 410 5004



Bulkhead mounted housings



Thread	Designation	Order No.
---	EMC1.W6B–BK–1L/SC	111 106 321 1001



6B Pressure tight hoods/housings

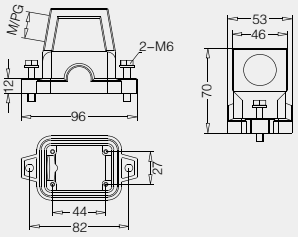
Degree of protection： IP68/IP69K

W version

Hoods, side entry, high construction



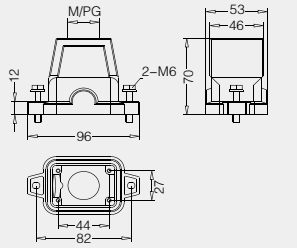
Thread	Designation	Order No.
M20	HP6B–SEH–2S–M20	115 006 520 5102
M25	HP6B–SEH–2S–M25	115 006 520 5103
M32	HP6B–SEH–2S–M32	115 006 520 5104
PG16	HP6B–SEH–2S–PG16	115 006 520 5110
PG21	HP6B–SEH–2S–PG21	115 006 520 5111



Hoods, top entry, high construction



Thread	Designation	Order No.
M20	HP6B–TEH–2S–M20	115 006 420 5102
M25	HP6B–TEH–2S–M25	115 006 420 5103
M32	HP6B–TEH–2S–M32	115 006 420 5104
PG16	HP6B–TEH–2S–PG16	115 006 420 5110
PG21	HP6B–TEH–2S–PG21	115 006 420 5111
PG29	HP6B–TEH–2S–PG29	115 006 420 5112

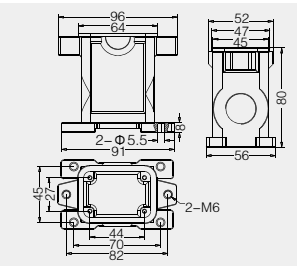


Housings, surface mounting

high construction



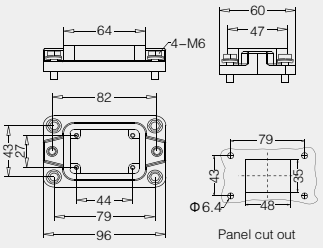
Thread	Designation	Order No.
M20	HP6B–SFH–2H–M20	115 006 220 5002
M25	HP6B–SFH–2H–M25	115 006 220 5003
M32	HP6B–SFH–2H–M32	115 006 220 5004
PG16	HP6B–SFH–2H–PG16	115 006 220 5010
PG21	HP6B–SFH–2H–PG21	115 006 220 5011



Bulkhead mounted housings



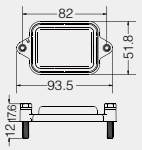
Thread	Designation	Order No.
---	HP6B–BK–2H	115 006 320 1001



Protection covers, plastic



Thread	Designation	Order No.
---	HP6B–CV–2S/2	115 006 020 8002



WP6B/R Pressure tight hoods/housings

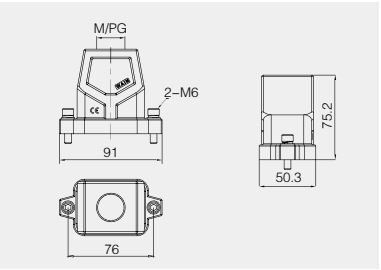
Degree of protection： IP68/IP69K

W version

Hoods, top entry, high construction



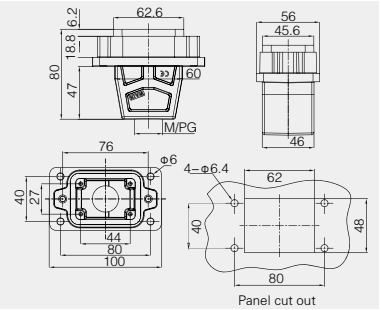
Thread	Designation	Order No.
M20	WP6B/R–TEH–2S–M20	111 106 420 1002
M25	WP6B/R–TEH–2S–M25	111 106 420 1001



Through-wall housing, high construction



Thread	Designation	Order No.
M20	WP6B/R–CCT/BK–2H–M20	111 106 720 1001
M25	WP6B/R–CCT/BK–2H–M25	111 106 720 1002



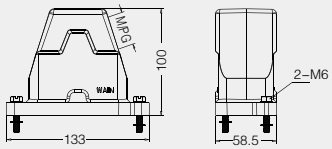
Degree of protection： IP68/IP69K

H version

Hoods, side entry, high construction



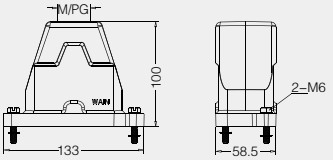
Thread	Designation	Order No.
	Screw locking	
M20	HP6B/H–SEH–2S–M20	113 606 520 5002
M25	HP6B/H–SEH–2S–M25	113 606 520 5003
M32	HP6B/H–SEH–2S–M32	113 606 520 5004
M40	HP6B/H–SEH–2S–M40	113 606 520 5005
PG16	HP6B/H–SEH–2S–PG16	113 606 520 5010
PG21	HP6B/H–SEH–2S–PG21	113 606 520 5011
PG29	HP6B/H–SEH–2S–PG29	113 606 520 5012
	Toggle locking	
M20	HP6B/H–SEH–2T–M20	113 606 540 5002
M25	HP6B/H–SEH–2T–M25	113 606 540 5003
M32	HP6B/H–SEH–2T–M32	113 606 540 5004
M40	HP6B/H–SEH–2T–M40	113 606 540 5005
PG16	HP6B/H–SEH–2T–PG16	113 606 540 5010
PG21	HP6B/H–SEH–2T–PG21	113 606 540 5011
PG29	HP6B/H–SEH–2T–PG29	113 606 540 5012



Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
M20	HP6B/H–TEH–2S–M20	113 606 420 5002
M25	HP6B/H–TEH–2S–M25	113 606 420 5003
M32	HP6B/H–TEH–2S–M32	113 606 420 5004
PG16	HP6B/H–TEH–2S–PG16	113 606 420 5010
PG21	HP6B/H–TEH–2S–PG21	113 606 420 5011
PG29	HP6B/H–TEH–2S–PG29	113 606 420 5012
	Toggle locking	
M20	HP6B/H–TEH–2T–M20	113 606 440 5002
M25	HP6B/H–TEH–2T–M25	113 606 440 5003
M32	HP6B/H–TEH–2T–M32	113 606 440 5004
PG16	HP6B/H–TEH–2T–PG16	113 606 440 5010
PG21	HP6B/H–TEH–2T–PG21	113 606 440 5011
PG29	HP6B/H–TEH–2T–PG29	113 606 440 5012

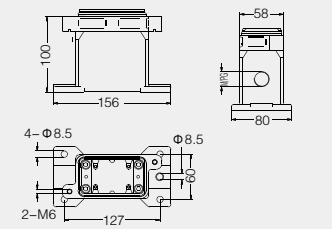


Surface mounted housings

high construction



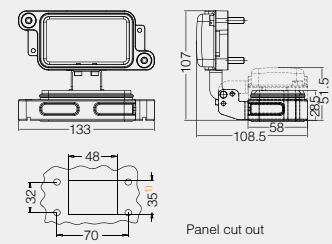
Thread	Designation	Order No.
	Screw locking	
M20	HP6B/H–SFH–2H–M20	113 606 220 5002
M25	HP6B/H–SFH–2H–M25	113 606 220 5003
M32	HP6B/H–SFH–2H–M32	113 606 220 5004
PG16	HP6B/H–SFH–2H–PG16	113 606 220 5010
PG21	HP6B/H–SFH–2H–PG21	113 606 220 5011
PG29	HP6B/H–SFH–2H–PG29	113 606 220 5012
	Toggle locking	
M20	HP6B/H–SFH–2T–M20	113 606 240 5002
M25	HP6B/H–SFH–2T–M25	113 606 240 5003
M32	HP6B/H–SFH–2T–M32	113 606 240 5004
PG16	HP6B/H–SFH–2T–PG16	113 606 240 5010
PG21	HP6B/H–SFH–2T–PG21	113 606 240 5011
PG29	HP6B/H–SFH–2T–PG29	113 606 240 5012



Bulkhead mounted housings



Thread	Designation	Order No.
	Screw locking	
---	HP6B/H–BK–2H	113 606 320 1001
	Toggle locking	
---	HP6B/H–BK–2T	113 606 340 1001
	with metal cover	
---	Screw locking	
	HP6B/H–BK–2H–MCV	113 606 360 1001
---	Toggle locking	
	HP6B/H–BK–2T–MCV	113 606 370 1001



Remark: 1).When mached the HC650 insert, the size is 43

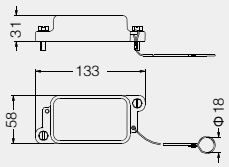
6B Pressure tight hoods/housings

Degree of protection： IP68/IP69K

Protection covers,for housings



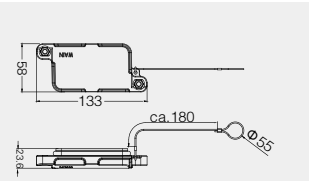
Connect way	Designation	Order No.
	Screw locking	
	HP6B/H–MCV–2S	113 606 020 8101
	Toggle locking	
	HP6B/H–MCV–2T	113 606 040 8103



Protection covers,for hoods



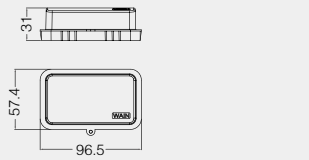
Connect way	Designation	Order No.
	Screw locking	
	HP6B/H–MCV–2H/1	113 606 020 8111
	Toggle locking	
	HP6B/H–MCV–2T/1	113 606 040 8101



Protection covers, for housings(IP5X)



Thread	Designation	Order No.
---	HP6B/H–CV/C	113 006 900 8002



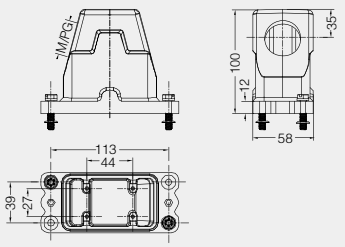
Degree of protection： IP68/IP69K

The following hoods/housings comply with the standards for rail transport industry in China. H version

Hoods, side entry, high construction



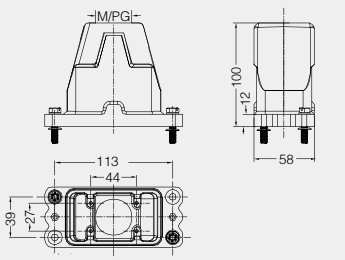
Thread	Designation	Order No.
M20	HP6B/H–SEH–4S–M20	113 606 530 5002
M25	HP6B/H–SEH–4S–M25	113 606 530 5003
M32	HP6B/H–SEH–4S–M32	113 606 530 5004
M40	HP6B/H–SEH–4S–M40	113 606 530 5005
PG16	HP6B/H–SEH–4S–PG16	113 606 530 5010
PG21	HP6B/H–SEH–4S–PG21	113 606 530 5011



Hoods, top entry, high construction



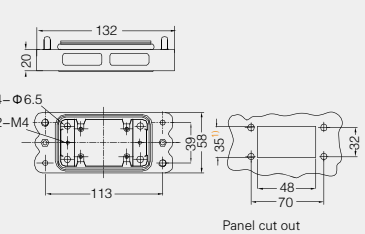
Thread	Designation	Order No.
M20	HP6B/H–TEH–4S–M20	113 606 430 5002
M25	HP6B/H–TEH–4S–M25	113 606 430 5003
M32	HP6B/H–TEH–4S–M32	113 606 430 5004
M40	HP6B/H–TEH–4S–M40	113 606 430 5005
PG16	HP6B/H–TEH–4S–PG16	113 606 430 5010
PG21	HP6B/H–TEH–4S–PG21	113 606 430 5011
PG29	HP6B/H–TEH–4S–PG29	113 606 430 5012



Bulkhead mounted housings



Thread	Designation	Order No.
---	HP6B/H–BK–4H	113 606 330 1001



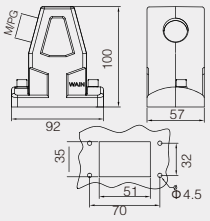
Remark: 1).When mached the HC650 insert, the size is 43

Degree of protection： IP68/IP69K

Hoods, side entry, high construction



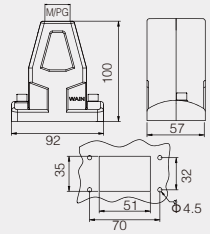
Thread	Designation	Order No.
M20	HC6B–SEH–2S–M20	114 006 520 5002
M25	HC6B–SEH–2S–M25	114 006 520 5003
PG16	HC6B–SEH–2S–PG16	114 006 520 5010
PG21	HC6B–SEH–2S–PG21	114 006 520 5011



Hoods, top entry, high construction



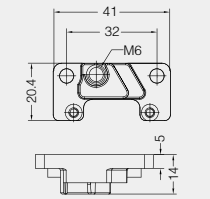
Thread	Designation	Order No.
M20	HC6B–TEH–2S–M20	114 006 420 5002
M25	HC6B–TEH–2S–M25	114 006 420 5003
PG16	HC6B–TEH–2S–PG16	114 006 420 5010
PG21	HC6B–TEH–2S–PG21	114 006 420 5011



Mounting flange



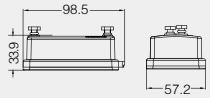
Application	Designation	Order No.
for integral type hoods	APT–C	114 000 000 1001



Protection covers,plastic



Thread	Designation	Order No.
–––	HC6B–CV–2S/2	111 006 020 8001



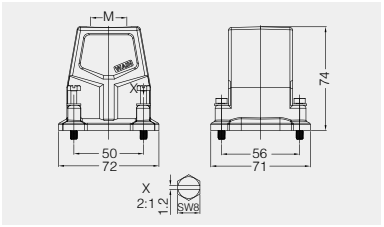
6B Pressure tight hoods/housings/EMC Pressure tight hoods/housings

Degree of protection： IP68/IP69K — EMC Pressure tight hoods/housings

Hoods, top entry, high construction



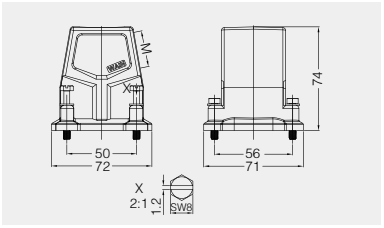
Thread	Designation	Order No.
M20	EMC.W6B–TEH–4S–M20	111 106 430 5003
M25	EMC.W6B–TEH–4S–M25	111 106 430 5001
M32	EMC.W6B–TEH–4S–M32	111 106 430 5002
PG21	EMC.W6B–TEH–4S–PG21	111 106 430 5004
PG29	EMC.W6B–TEH–4S–PG29	111 106 430 5005



Hoods, side entry, high construction



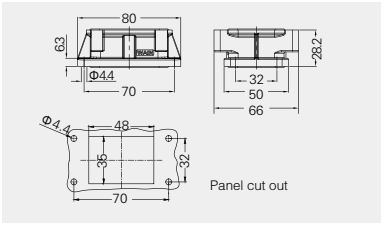
Thread	Designation	Order No.
M20	EMC.W6B–SEH–4S–M20	111 206 530 5001
M25	EMC.W6B–SEH–4S–M25	111 206 530 5002
M32	EMC.W6B–SEH–4S–M32	111 206 530 5003
PG21	EMC.W6B–SEH–4S–PG21	111 206 530 5004
PG29	EMC.W6B–SEH–4S–PG29	111 206 530 5005



Bulkhead mounted housings



Thread	Designation	Order No.
---	EMC.W6B–BK–4H	111 206 330 1001





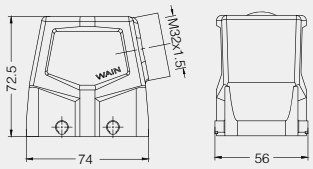
10B Plastic hoods/housings

Degree of protection： IP65

Hoods, side entry, high construction



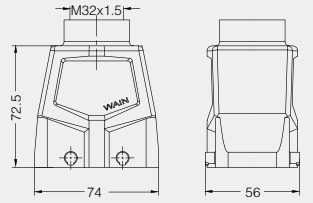
Thread	Designation	Order No.
M25	H10B.P–SEH–4B–M25	117 010 530 5003
M32	H10B.P–SEH–4B–M32	117 010 530 5004



Hoods, top entry, high construction



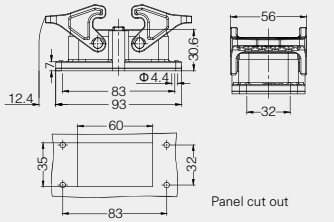
Thread	Designation	Order No.
M25	H10B.P–TEH–4B–M25	117 010 430 5003
M32	H10B.P–TEH–4B–M32	117 010 430 5004



Housings, bulkhead mounting



Thread	Designation	Order No.
---	H10B.P–BK–2L	117 010 340 1001

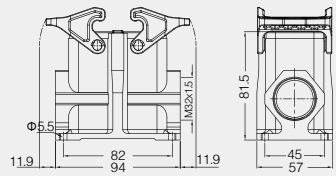


Housings, surface mounting

high construction



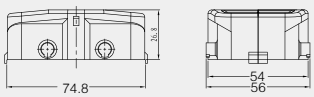
Thread	Designation	Order No.
M25	H10B.P–SFH–2L–M25	117 010 247 5003
2M25	H10B.P–SFH–2L–2M25	117 010 247 5023
M32	H10B.P–SFH–2L–M32	117 010 247 5004
2M32	H10B.P–SFH–2L–2M32	117 010 247 5024



Protection covers, for housings



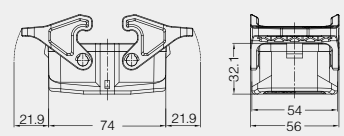
Connect way	Designation	Order No.
---	H10B.P–CV–4B/2	117 010 030 8002



Protection covers, for hoods



Connect way	Designation	Order No.
---	H10B.P–CV–2L/1	117 010 040 8001



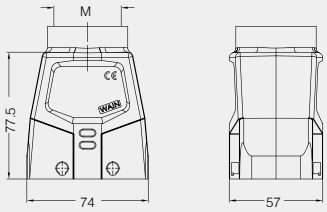
Degree of protection： IP65

Only suitable for HM series.

Hoods, top entry, high construction



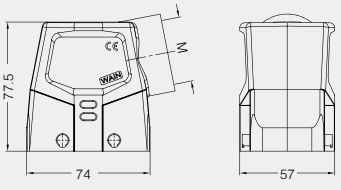
Thread	Designation	Order No.
M40	HM10B.P–TEH–4B–M40	129 010 430 5001



Hoods, side entry, high construction



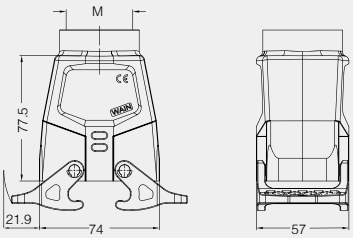
Thread	Designation	Order No.
M40	HM10B.P–SEH–4B–M40	129 010 530 5001



Hoods, top entry, high construction



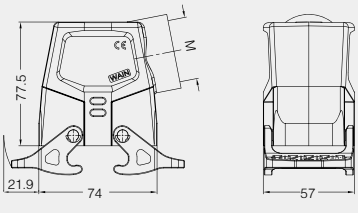
Thread	Designation	Order No.
M40	HM10B.P–TEH–2L–M40	129 010 440 5001



Hoods, side entry, high construction



Thread	Designation	Order No.
M40	HM10B.P–SEH–2L–M40	129 010 540 5001



10B Modular type plastic hoods/housings

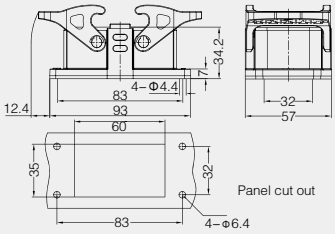
Degree of protection： IP65

Only suitable for HM series.

Bulkhead mounted housings



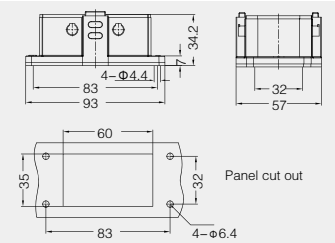
Thread	Designation	Order No.
---	HM10B.P-BK-2L	129 010 340 1001



Bulkhead mounted housings



Thread	Designation	Order No.
---	HM10B.P-BK-4B	129 010 330 1001

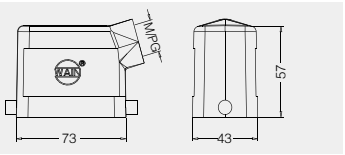


Degree of protection： IP65

Hoods, side entry



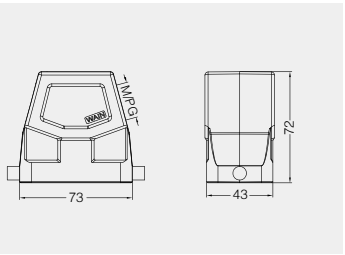
Thread	Designation	Order No.
M20	H10B–SE–2B–M20	111 010 515 1002
M25	H10B–SE–2B–M25	111 010 515 1003
PG16	H10B–SE–2B–PG16	111 010 515 1010



Hoods, side entry, high construction



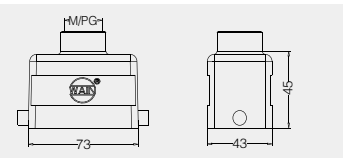
Thread	Designation	Order No.
–––	W10B–BEH–2B	111 110 910 5001
M25	W10B–SEH–2B–M25	111 110 510 5001
M32	W10B–SEH–2B–M32	111 110 510 5002
PG21	W10B–SEH–2B–PG21	111 110 510 5003
PG29	W10B–SEH–2B–PG29 with sleeve	111 110 510 5004
M25	W10B–SEH–2B–M25 WS	111 110 515 5103
M32	W10B–SEH–2B–M32 WS	111 110 515 5104
PG21	W10B–SEH–2B–PG21 WS	111 110 515 5111
PG29	W10B–SEH–2B–PG29 WS	111 110 515 5112



Hoods, top entry



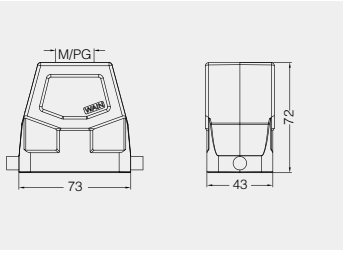
Thread	Designation	Order No.
M20	H10B–TE–2B–M20	111 010 415 1002
M25	H10B–TE–2B–M25	111 010 415 1003
PG16	H10B–TE–2B–PG16	111 010 415 1010



Hoods, top entry, high construction



Thread	Designation	Order No.
–––	W10B–BEH–2B	111 110 910 5001
M25	W10B–TEH–2B–M25	111 110 410 5001
M32	W10B–TEH–2B–M32	111 110 410 5002
PG21	W10B–TEH–2B–PG21	111 110 410 5003
PG29	W10B–TEH–2B–PG29 with sleeve	111 110 410 5004
M25	W10B–TEH–2B–M25 WS	111 110 415 5103
M32	W10B–TEH–2B–M32 WS	111 110 415 5104
PG21	W10B–TEH–2B–PG21 WS	111 110 415 5111
PG29	W10B–TEH–2B–PG29 WS	111 110 415 5112

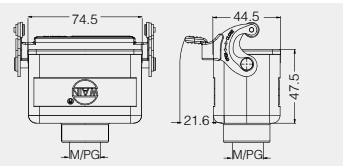


Housings, cable to cable



Thread	Designation	Order No.
M20	H10B–CCT–1L/SC–M20	111 010 721 1002
M25	H10B–CCT–1L/SC–M25	111 010 721 1003
PG16	H10B–CCT–1L/SC–PG16	111 010 721 1010

Please refer to page 15–02 for choosing proper model of lock.

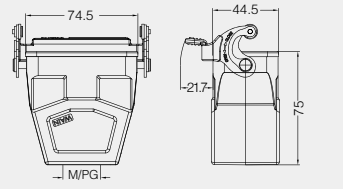


Housings, cable to cable high construction



Thread	Designation	Order No.
M25	W10B–CCTH–1L/SC–M25	111 110 721 5001
M32	W10B–CCTH–1L/SC–M32	111 110 721 5002
PG21	W10B–CCTH–1L/SC–PG21	111 110 721 5003
PG29	W10B–CCTH–1L/SC–PG29 with sleeve	111 110 721 5004
M25	W10B–CCTH–1L/SC–M25 WS	111 110 721 5103
M32	W10B–CCTH–1L/SC–M32 WS	111 110 721 5104
PG21	W10B–CCTH–1L/SC–PG21 WS	111 110 721 5111
PG29	W10B–CCTH–1L/SC–PG29 WS	111 110 721 5112

Please refer to page 15–02 for choosing proper model of lock.

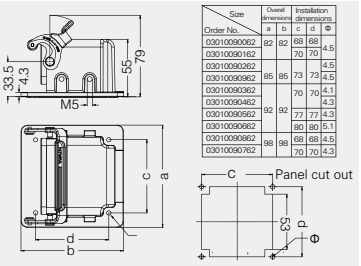


Housings, bulkhead mounting



Thread	Designation	Order No.
---	H10B–BK–SE–1L/SC(82–68–4.5)	111 010 921 1001
---	H10B–BK–SE–1L/SC(82–70–4.5)	111 010 921 1002
---	H10B–BK–SE–1L/SC(85–73–4.5)	111 010 921 1003
---	H10B–BK–SE–1L/SC(85–73–5.5)	111 010 921 1004
---	H10B–BK–SE–1L/SC(92–70–4.1)	111 010 921 1005
---	H10B–BK–SE–1L/SC(92–70–4.3)	111 010 921 1006
---	H10B–BK–SE–1L/SC(92–77–4.3)	111 010 921 1007
---	H10B–BK–SE–1L/SC(92–80–5.1)	111 010 921 1008
---	H10B–BK–SE–1L/SC(98–70–4.3)	111 010 921 1009
---	H10B–BK–SE–1L/SC(98–68–4.5)	111 010 921 1010

Please refer to page 15–02 for choosing proper model of lock.



Size / Order No.	Overall dimensions a	b	Installation dimensions c	d	Φ
03010090062	82	82	68	68	4.5
03010090162			70	70	
03010090262					4.5
03010090962	85	85	73	73	4.5
03010090362			70	70	4.1
03010090462	92	92			4.3
03010090562			77	77	4.3
03010090662			80	80	5.1
03010090862	98	98	68	68	4.5
03010090762			70	70	4.3

10B Metal hoods/housings

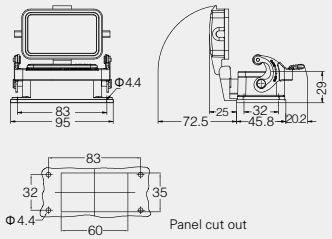
Degree of protection： IP65

Housings, bulkhead mounting



Thread	Designation	Order No.
---	H10B–BK–1L/SC	111 010 321 1001
	with plastic cover	
---	H10B–BK–1L/SC–CV	111 010 361 1001
	with metal cover	
---	H10B–BK–1L/SC–MCV	111 010 361 1101

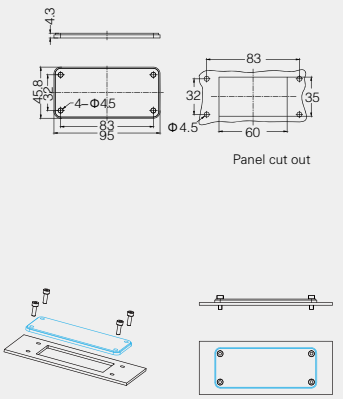
Please refer to page 15–02 for choosing proper model of lock.



BK hole cover plate



Application	Designation	Order No.
	10B–BK/MCV	111 010 390 8001



The mounting hole of the mounting cabinet can be temporarily sealed.
Applicable to the installation hole which has been opened,The case where the connector is not installed

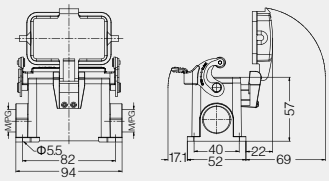
Degree of protection： IP65

Housings, surface mounting



Thread	Designation	Order No.
M20	H10B–SF–1L/SC–M20	111 010 221 1002
2M20	H10B–SF–1L/SC–2M20	111 010 221 1022
PG16	H10B–SF–1L/SC–PG16	111 010 221 1010
2PG16	H10B–SF–1L/SC–2PG16	111 010 221 1030
	with plastic cover	
M20	H10B–SF–1L/SC–CV–M20	111 010 261 1002
2M20	H10B–SF–1L/SC–CV–2M20	111 010 261 1022
PG16	H10B–SF–1L/SC–CV–PG16	111 010 261 1010
2PG16	H10B–SF–1L/SC–CV–2PG16	111 010 261 1030
	with metal cover	
M20	H10B–SF–1L/SC–MCV–M20	111 010 261 1102
2M20	H10B–SF–1L/SC–MCV–2M20	111 010 261 1122
PG16	H10B–SF–1L/SC–MCV–PG16	111 010 261 1110
2PG16	H10B–SF–1L/SC–MCV–2PG16	111 010 261 1130

Please refer to page 15–02 for choosing proper model of lock.



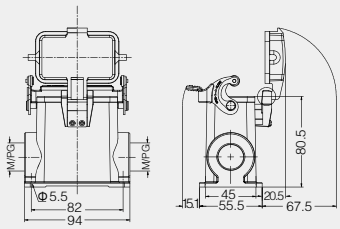
Housings, surface mounting

high construction



Thread	Designation	Order No.
M25	H10B–SFH–1L/SC–M25	111 010 221 5003
2M25	H10B–SFH–1L/SC–2M25	111 010 221 5023
M32	H10B–SFH–1L/SC–M32	111 010 221 5004
2M32	H10B–SFH–1L/SC–2M32	111 010 221 5024
PG21	H10B–SFH–1L/SC–PG21	111 010 221 5011
2PG21	H10B–SFH–1L/SC–2PG21	111 010 221 5031
PG29	H10B–SFH–1L/SC–PG29	111 010 221 5012
2PG29	H10B–SFH–1L/SC–2PG29	111 010 221 5032
	with plastic cover	
M25	H10B–SFH–1L/SC–CV–M25	111 010 261 5003
2M25	H10B–SFH–1L/SC–CV–2M25	111 010 261 5023
M32	H10B–SFH–1L/SC–CV–M32	111 010 261 5004
2M32	H10B–SFH–1L/SC–CV–2M32	111 010 261 5024
PG21	H10B–SFH–1L/SC–CV–PG21	111 010 261 5011
2PG21	H10B–SFH–1L/SC–CV–2PG21	111 010 261 5031
PG29	H10B–SFH–1L/SC–CV–PG29	111 010 261 5012
2PG29	H10B–SFH–1L/SC–CV–2PG29	111 010 261 5032
	with metal cover	
M25	H10B–SFH–1L/SC–MCV–M25	111 010 261 5103
2M25	H10B–SFH–1L/SC–MCV–2M25	111 010 261 5123
M32	H10B–SFH–1L/SC–MCV–M32	111 010 261 5104
2M32	H10B–SFH–1L/SC–MCV–2M32	111 010 261 5124
PG21	H10B–SFH–1L/SC–MCV–PG21	111 010 261 5111
2PG21	H10B–SFH–1L/SC–MCV–2PG21	111 010 261 5131
PG29	H10B–SFH–1L/SC–MCV–PG29	111 010 261 5112
2PG29	H10B–SFH–1L/SC–MCV–2PG29	111 010 261 5132

Please refer to page 15–02 for choosing proper model of lock.



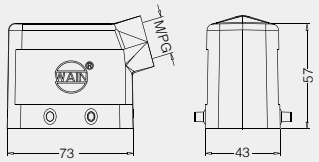
10B Metal hoods/housings

Degree of protection： IP65

Hoods, side entry



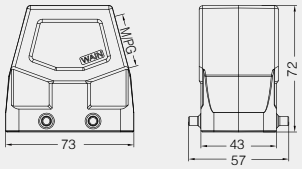
Thread	Designation	Order No.
M20	H10B–SE–4B–M20	111 010 530 1002
M25	H10B–SE–4B–M25	111 010 530 1003
PG16	H10B–SE–4B–PG16	111 010 530 1010



Hoods, side entry, high construction



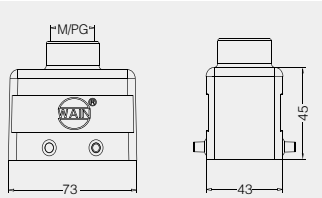
Thread	Designation	Order No.
–––	W10B–BEH–4B	111 110 930 5003
M25	W10B–SEH–4B–M25	111 110 530 5001
M32	W10B–SEH–4B–M32	111 110 530 5002
PG21	W10B–SEH–4B–PG21	111 110 530 5003
PG29	W10B–SEH–4B–PG29 with sleeve	111 110 530 5004
M25	W10B–SEH–4B–M25 WS	111 110 530 5103
M32	W10B–SEH–4B–M32 WS	111 110 530 5104
PG21	W10B–SEH–4B–PG21 WS	111 110 530 5111
PG29	W10B–SEH–4B–PG29 WS	111 110 530 5112



Hoods, top entry



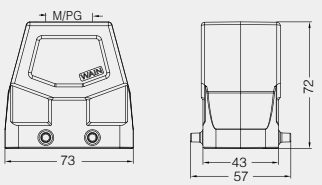
Thread	Designation	Order No.
M20	H10B–TE–4B–M20	111 010 430 1002
M25	H10B–TE–4B–M25	111 010 430 1003
PG16	H10B–TE–4B–PG16	111 010 430 1010



Hoods, top entry, high construction



Thread	Designation	Order No.
–––	W10B–BEH–4B	111 110 930 5003
M25	W10B–TEH–4B–M25	111 110 430 5001
M32	W10B–TEH–4B–M32	111 110 430 5004
PG21	W10B–TEH–4B–PG21	111 110 430 5005
PG29	W10B–TEH–4B–PG29 with sleeve	111 110 430 5006
M25	W10B–TEH–4B–M25 WS	111 110 430 5103
M32	W10B–TEH–4B–M32 WS	111 110 430 5104
PG21	W10B–TEH–4B–PG21 WS	111 110 430 5111
PG29	W10B–TEH–4B–PG29 WS	111 110 430 5112

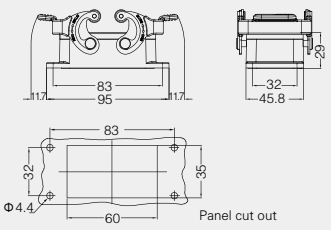


Housings, bulkhead mounting



Thread	Designation	Order No.
---	H10B–BK–2L/SC	111 010 341 1001

Please refer to page 15–02 for choosing proper model of lock.

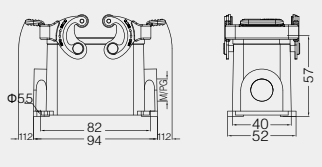


Housings, surface mounting



Thread	Designation	Order No.
M20	H10B–SF–2L/SC–M20	111 010 241 1002
2M20	H10B–SF–2L/SC–2M20	111 010 241 1022
M25	H10B–SF–2L/SC–M25	111 010 241 1003
2M25	H10B–SF–2L/SC–2M25	111 010 241 1023
PG16	H10B–SF–2L/SC–PG16	111 010 241 1010
2PG16	H10B–SF–2L/SC–2PG16	111 010 241 1030

Please refer to page 15–02 for choosing proper model of lock.



Degree of protection： IP65

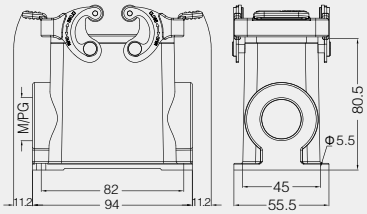
Housings, surface mounting

high construction



Thread	Designation	Order No.
M25	H10B–SFH–2L/SC–M25	111 010 241 5003
2M25	H10B–SFH–2L/SC–2M25	111 010 241 5023
M32	H10B–SFH–2L/SC–M32	111 010 241 5004
2M32	H10B–SFH–2L/SC–2M32	111 010 241 5024
PG21	H10B–SFH–2L/SC–PG21	111 010 241 5011
2PG21	H10B–SFH–2L/SC–2PG21	111 010 241 5031
PG29	H10B–SFH–2L/SC–PG29	111 010 241 5012
2PG29	H10B–SFH–2L/SC–2PG29	111 010 241 5032

Please refer to page 15–02 for choosing proper model of lock.

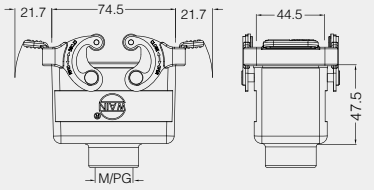


Housings, cable to cable



Thread	Designation	Order No.
M20	H10B–CCT–2L/SC–M20	111 010 741 1002
M25	H10B–CCT–2L/SC–M25	111 010 741 1003
PG16	H10B–CCT–2L/SC–PG16	111 010 741 1010

Please refer to page 15–02 for choosing proper model of lock.



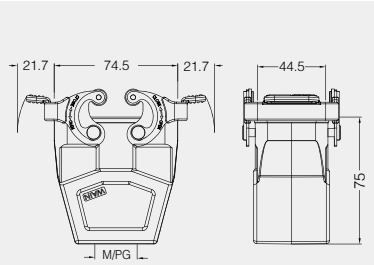
Housings, cable to cable

high construction



Thread	Designation	Order No.
M25	W10B–CCTH–2L/SC–M25	111 110 741 5001
M32	W10B–CCTH–2L/SC–M32	111 110 741 5002
PG21	W10B–CCTH–2L/SC–PG21	111 110 741 5003
PG29	W10B–CCTH–2L/SC–PG29 with sleeve	111 110 741 5004
M25	W10B–CCTH–2L/SC–M25 WS	111 110 741 5103
M32	W10B–CCTH–2L/SC–M32 WS	111 110 741 5104
PG21	W10B–CCTH–2L/SC–PG21 WS	111 110 741 5111
PG29	W10B–CCTH–2L/SC–PG29 WS	111 110 741 5112

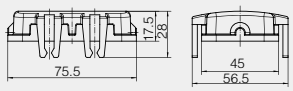
Please refer to page 15–02 for choosing proper model of lock.



Protection covers, plastic



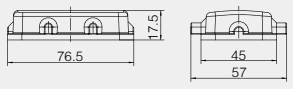
Connect way	Application	Designation	Order No.
---	for hoods	H10B–CV–4C	111 010 090 8009



Protection covers, plastic



Connect way	Application	Designation	Order No.
	for Housings, cable to cable	H10B–CV–4B/1	111 010 030 8001
	for Housings, bulkhead mounting /surface mounting	H10B–CV–4B/2	111 010 030 8002



10B Metal hoods/housings

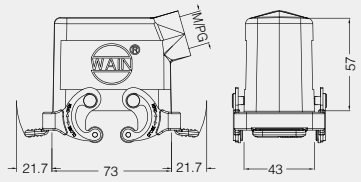
Degree of protection： IP65

Hoods, side entry



Thread	Designation	Order No.
M20	H10B–SE–2L/SC–M20	111 010 541 1002
M25	H10B–SE–2L/SC–M25	111 010 514 1003
PG16	H10B–SE–2L/SC–PG16	111 010 541 1010

Please refer to page 15–02 for choosing proper model of lock.

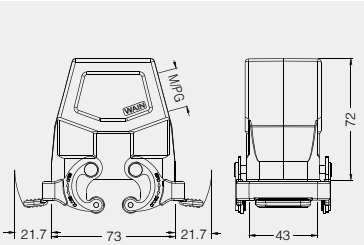


Hoods, side entry, high construction



Thread	Designation	Order No.
M25	W10B–SEH–2L/SC–M25	111 110 541 5001
M32	W10B–SEH–2L/SC–M32	111 110 541 5002
PG21	W10B–SEH–2L/SC–PG21	111 110 541 5003
PG29	W10B–SEH–2L/SC–PG29 with sleeve	111 110 541 5004
M25	W10B–SEH–2L/SC–M25 WS	111 110 541 5103
M32	W10B–SEH–2L/SC–M32 WS	111 110 541 5104
PG21	W10B–SEH–2L/SC–PG21 WS	111 110 541 5111
PG29	W10B–SEH–2L/SC–PG29 WS	111 110 541 5112

Please refer to page 15–02 for choosing proper model of lock.

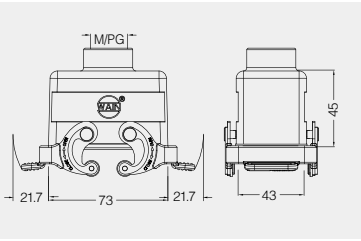


Hoods, top entry



Thread	Designation	Order No.
M20	H10B–TE–2L/SC–M20	111 010 441 1002
M25	H10B–TE–2L/SC–M25	111 010 414 1003
PG16	H10B–TE–2L/SC–PG16	111 010 441 1010

Please refer to page 15–02 for choosing proper model of lock.

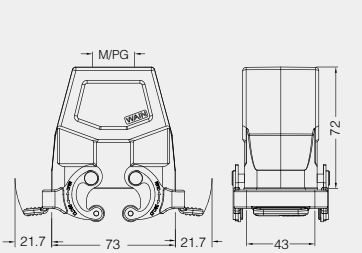


Hoods, top entry, high construction



Thread	Designation	Order No.
M25	W10B–TEH–2L/SC–M25	111 110 441 5001
M32	W10B–TEH–2L/SC–M32	111 110 441 5002
PG21	W10B–TEH–2L/SC–PG21	111 110 441 5003
PG29	W10B–TEH–2L/SC–PG29 with sleeve	111 110 441 5004
M25	W10B–TEH–2L/SC–M25 WS	111 110 441 5103
M32	W10B–TEH–2L/SC–M32 WS	111 110 441 5104
PG21	W10B–TEH–2L/SC–PG21 WS	111 110 441 5111
PG29	W10B–TEH–2L/SC–PG29 WS	111 110 441 5112

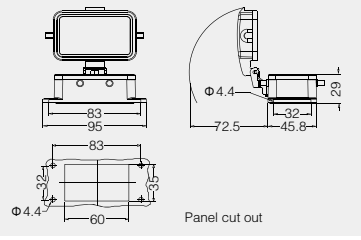
Please refer to page 15–02 for choosing proper model of lock.



Housings, bulkhead mounting



Thread	Designation	Order No.
---	H10B–BK–4B	111 010 330 1001
	with plastic cover	
---	H10B–BK–4B–CV	111 010 370 1001
	with metal cover	
---	H10B–BK–4B–MCV	111 010 370 1101



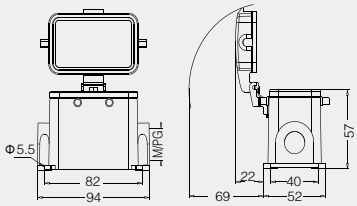
10B Metal hoods/housings

Degree of protection： IP65

Housings, surface mounting



Thread	Designation	Order No.
M20	H10B–SF–4B–M20	111 010 230 1002
2M20	H10B–SF–4B–2M20	111 010 230 1022
PG16	H10B–SF–4B–PG16	111 010 230 1010
2PG16	H10B–SF–4B–2PG16	111 010 230 1030
	with plastic cover	
M20	H10B–SF–4B–CV–M20	111 010 270 1002
2M20	H10B–SF–4B–CV–2M20	111 010 270 1022
PG16	H10B–SF–4B–CV–PG16	111 010 270 1010
2PG16	H10B–SF–4B–CV–2PG16	111 010 270 1030
	with metal cover	
M20	H10B–SF–4B–MCV–M20	111 010 270 1102
2M20	H10B–SF–4B–MCV–2M20	111 010 270 1122
PG16	H10B–SF–4B–MCV–PG16	111 010 270 1110
2PG16	H10B–SF–4B–MCV–2PG16	111 010 270 1130

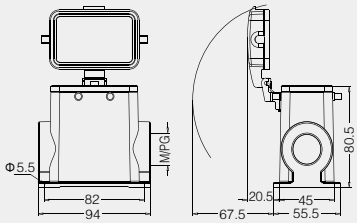


Housings, surface mounting

high construction



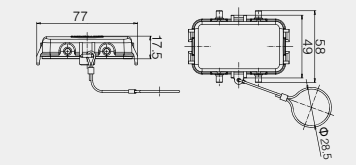
Thread	Designation	Order No.
M25	H10B–SFH–4B–M25	111 010 230 5003
2M25	H10B–SFH–4B–2M25	111 010 230 5023
M32	H10B–SFH–4B–M32	111 010 230 5004
2M32	H10B–SFH–4B–2M32	111 010 230 5024
PG21	H10B–SFH–4B–PG21	111 010 230 5011
2PG21	H10B–SFH–4B–2PG21	111 010 230 5031
PG29	H10B–SFH–4B–PG29	111 010 230 5012
2PG29	H10B–SFH–4B–2PG29	111 010 230 5032
	with plastic cover	
M25	H10B–SFH–4B–CV–M25	111 010 270 5003
2M25	H10B–SFH–4B–CV–2M25	111 010 270 5023
M32	H10B–SFH–4B–CV–M32	111 010 270 5004
2M32	H10B–SFH–4B–CV–2M32	111 010 270 5024
PG21	H10B–SFH–4B–CV–PG21	111 010 270 5011
2PG21	H10B–SFH–4B–CV–2PG21	111 010 270 5031
PG29	H10B–SFH–4B–CV–PG29	111 010 270 5012
2PG29	H10B–SFH–4B–CV–2PG29	111 010 270 5032
	with metal cover	
M25	H10B–SFH–4B–MCV–M25	111 010 270 5103
2M25	H10B–SFH–4B–MCV–2M25	111 010 270 5123
M32	H10B–SFH–4B–MCV–M32	111 010 270 5104
2M32	H10B–SFH–4B–MCV–2M32	111 010 270 5124
PG21	H10B–SFH–4B–MCV–PG21	111 010 270 5111
2PG21	H10B–SFH–4B–MCV–2PG21	111 010 270 5131
PG29	H10B–SFH–4B–MCV–PG29	111 010 270 5112
2PG29	H10B–SFH–4B–MCV–2PG29	111 010 270 5132



Protection covers, metal



Connect way	Application	Designation	Order No.
	for hoods	H10B–MCV–4B/1S	111 010 030 8103
	for housings, without sealing	H10B–MCV–4B/2	111 010 030 8102

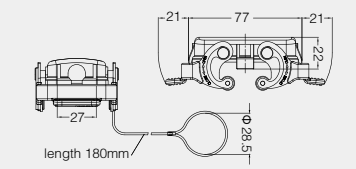


Protection covers, metal



Connect way	Application	Designation	Order No.
	for hoods	H10B–MCV–2L/SC.1S	111 010 041 8101
	for housings	H10B–MCV–2L/SC.2	111 010 041 8102

Please refer to page 15–02 for choosing proper model of lock.



10B Metal hoods/housings

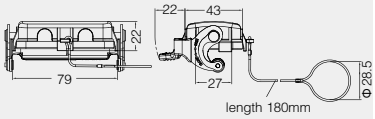
Degree of protection： IP65

Protection covers, metal



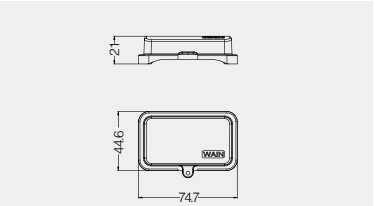
Connect way	Application	Designation	Order No.
⌐○	for hoods	H10B–MCV–1L/SC.1S	111 010 021 8001

Please refer to page 15–02 for choosing proper model of lock.



Protection covers, plastic(IP5X)

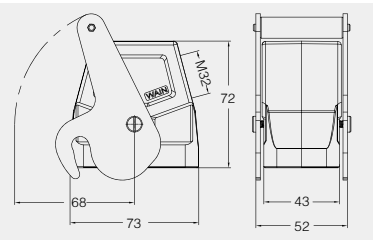
Connect way	Application	Designation	Order No.
	for housings	10B–CV/C	111 010 000 8002



Hoods, side entry, high construction



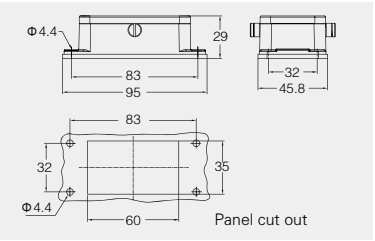
Thread	Designation	Order No.
M25	W10B–SEH–1L/C–M25	111 110 550 5002
M32	W10B–SEH–1L/C–M32	111 110 550 5001



Housings, bulkhead mounting



Thread	Designation	Order No.
---	H10B–BK–2B/C	111 010 350 1001



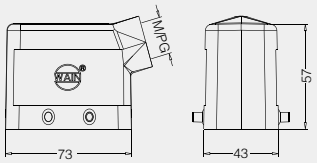
10B Metal hoods/housings
-Suitable for harsh environment(anti-corrosion)

Degree of protection： IP65

Hoods, side entry



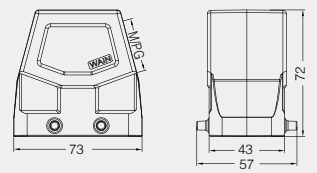
Thread	Designation	Order No.
M20	H10B–MSE–4B–M20	112 010 530 1002
M25	H10B–MSE–4B–M25	112 010 530 1003
PG16	H10B–MSE–4B–PG16	112 010 530 1010



Hoods, side entry, high construction



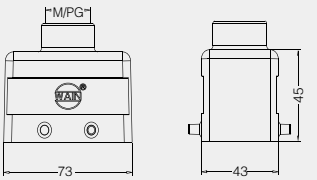
Thread	Designation	Order No.
M25	W10B–MSEH–4B–M25	112 110 530 5001
M32	W10B–MSEH–4B–M32	112 110 530 5007
PG21	W10B–MSEH–4B–PG21	112 110 530 5011
PG29	W10B–MSEH–4B–PG29	112 110 530 5012



Hoods, top entry



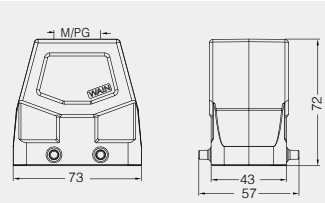
Thread	Designation	Order No.
M20	H10B–MTE–4B–M20	112 010 430 1002
M25	H10B–MTE–4B–M25	112 010 430 1003
PG16	H10B–MTE–4B–PG16	112 010 430 1010



Hoods, top entry, high construction



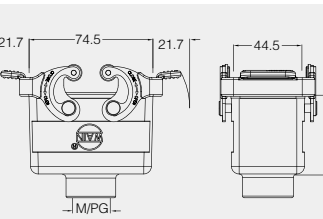
Thread	Designation	Order No.
M25	W10B–MTEH–4B–M25	112 110 430 5003
M32	W10B–MTEH–4B–M32	112 110 430 5001
PG21	W10B–MTEH–4B–PG21	112 110 430 5011
PG29	W10B–MTEH–4B–PG29	112 110 430 5012



Housings, cable to cable



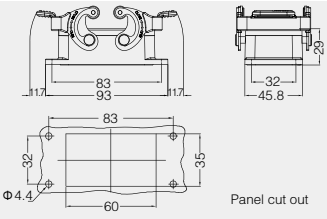
Thread	Designation	Order No.
M20	H10B–MCCT–2L/SC–M20	112 010 741 1002
M25	H10B–MCCT–2L/SC–M25	112 010 741 1003
PG16	H10B–MCCT–2L/SC–PG16	112 010 741 1010



Housings, bulkhead mounting



Thread	Designation	Order No.
–––	H10B–MBK–2L/SC	112 010 341 1001



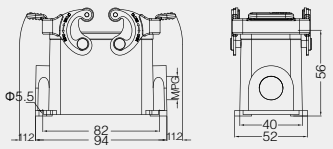
10B Metal hoods/housings
-Suitable for harsh environment(anti-corrosion)

Degree of protection： IP65

Housings, surface mounting



Thread	Designation	Order No.
M20	H10B–MSF–2L/SC–M20	112 010 241 1002
2M20	H10B–MSF–2L/SC–2M20	112 010 241 1022
M25	H10B–MSF–2L/SC–M25	112 010 241 1003
2M25	H10B–MSF–2L/SC–2M25	112 010 241 1023
PG16	H10B–MSF–2L/SC–PG16	112 010 241 1010
2PG16	H10B–MSF–2L/SC–2PG16	112 010 241 1030

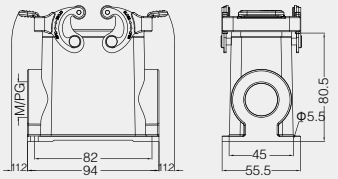


Housings, surface mounting

high construction



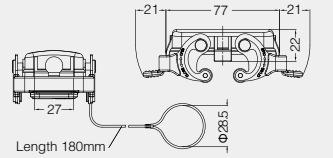
Thread	Designation	Order No.
M25	H10B–MSFH–2L/SC–M25	112 010 241 5003
2M25	H10B–MSFH–2L/SC–2M25	112 010 241 5023
M32	H10B–MSFH–2L/SC–M32	112 010 241 5004
2M32	H10B–MSFH–2L/SC–2M32	112 010 241 5024
PG21	H10B–MSFH–2L/SC–PG21	112 010 241 5011
2PG21	H10B–MSFH–2L/SC–2PG21	112 010 241 5031
PG29	H10B–MSFH–2L/SC–PG29	112 010 241 5012
2PG29	H10B–MSFH–2L/SC–2PG29	112 010 241 5032



Protection covers, metal



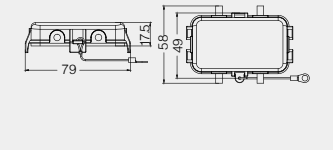
Connect way	Application	Order No.
	H10B–MMCV–2L/SC.1S	112 010 041 8001



Protection covers, metal



Connect way	Application	Order No.
	H10B–MMCV–4B/2	112 010 030 8002

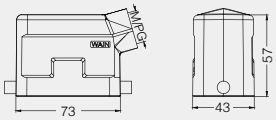


Degree of protection： IP67

Hoods, side entry



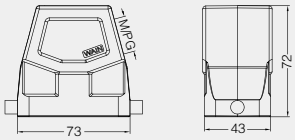
Thread	Designation	Order No.
M20	W10B–SE–2B–M20	111 110 510 1001
M25	W10B–SE–2B–M25	111 110 510 1002
PG16	W10B–SE–2B–PG16	111 110 510 1003



Hoods, side entry, high construction



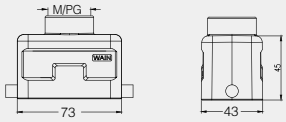
Thread	Designation	Order No.
–––	W10B–BEH–2B	111 110 910 5001
M25	W10B–SEH–2B–M25	111 110 510 5001
M32	W10B–SEH–2B–M32	111 110 510 5002
PG21	W10B–SEH–2B–PG21	111 110 510 5003
PG29	W10B–SEH–2B–PG29 with sleeve	111 110 510 5004
M25	W10B–SEH–2B–M25 WS	111 110 515 5103
M32	W10B–SEH–2B–M32 WS	111 110 515 5104
PG21	W10B–SEH–2B–PG21 WS	111 110 515 5111
PG29	W10B–SEH–2B–PG29 WS	111 110 515 5112



Hoods, top entry



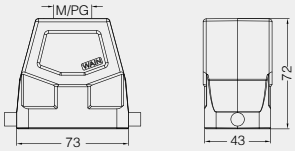
Thread	Designation	Order No.
M20	W10B–TE–2B–M20	111 110 410 1001
M25	W10B–TE–2B–M25	111 110 410 1002
PG16	W10B–TE–2B–PG16	111 110 410 1003



Hoods, top entry, high construction



Thread	Designation	Order No.
–––	W10B–BEH–2B	111 110 910 5001
M25	W10B–TEH–2B–M25	111 110 410 5001
M32	W10B–TEH–2B–M32	111 110 410 5002
PG21	W10B–TEH–2B–PG21	111 110 410 5003
PG29	W10B–TEH–2B–PG29 with sleeve	111 110 410 5004
M25	W10B–TEH–2B–M25 WS	111 110 415 5103
M32	W10B–TEH–2B–M32 WS	111 110 415 5104
PG21	W10B–TEH–2B–PG21 WS	111 110 415 5111
PG29	W10B–TEH–2B–PG29 WS	111 110 415 5112



10B Metal hoods/housings

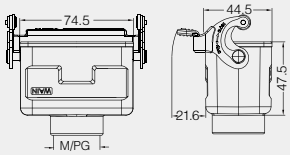
Degree of protection： IP67

Housings, cable to cable



Thread	Designation	Order No.
M20	W10B–CCT–1L/SC–M20	111 110 721 1002
M25	W10B–CCT–1L/SC–M25	111 110 721 1003
PG16	W10B–CCT–1L/SC–PG16	111 110 721 1004

Please refer to page 15–02 for choosing proper model of lock.

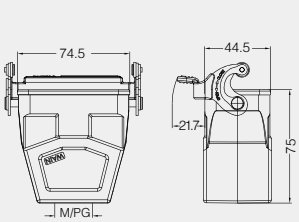


Housings, cable to cable high construction



Thread	Designation	Order No.
M25	W10B–CCTH–1L/SC–M25	111 110 721 5001
M32	W10B–CCTH–1L/SC–M32	111 110 721 5002
PG21	W10B–CCTH–1L/SC–PG21	111 110 721 5003
PG29	W10B–CCTH–1L/SC–PG29	111 110 721 5004
	with sleeve	
M25	W10B–CCTH–1L/SC–M25 WS	111 110 721 5103
M32	W10B–CCTH–1L/SC–M32 WS	111 110 721 5104
PG21	W10B–CCTH–1L/SC–PG21 WS	111 110 721 5111
PG29	W10B–CCTH–1L/SC–PG29 WS	111 110 721 5112

Please refer to page 15–02 for choosing proper model of lock.

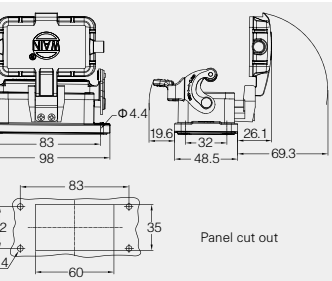


Housings, bulkhead mounting



Thread	Designation	Order No.
---	W10B–BK–1L/SC	111 110 321 1001
	with plastic cover	
---	W10B–BK–1L/SC–CV	111 110 321 8001
	with metal cover	
---	W10B–BK–1L/SC–MCV	111 110 321 8002

Please refer to page 15–02 for choosing proper model of lock.

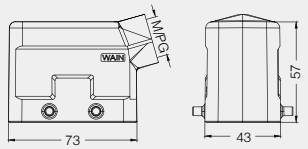


Degree of protection： IP67

Hoods, side entry



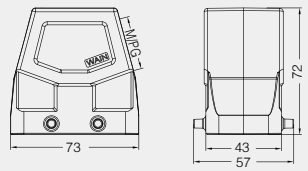
Thread	Designation	Order No.
M20	W10B–SE–4B–M20	111 110 530 1005
M25	W10B–SE–4B–M25	111 110 530 1006
PG16	W10B–SE–4B–PG16	111 110 530 1007



Hoods, side entry, high construction



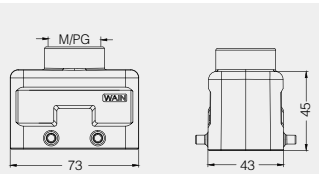
Thread	Designation	Order No.
–––	W10B–BEH–4B	111 110 930 5003
M25	W10B–SEH–4B–M25	111 110 530 5001
M32	W10B–SEH–4B–M32	111 110 530 5002
PG21	W10B–SEH–4B–PG21	111 110 530 5003
PG29	W10B–SEH–4B–PG29 with sleeve	111 110 530 5004
M25	W10B–SEH–4B–M25 WS	111 110 530 5103
M32	W10B–SEH–4B–M32 WS	111 110 530 5104
PG21	W10B–SEH–4B–PG21 WS	111 110 530 5111
PG29	W10B–SEH–4B–PG29 WS	111 110 530 5112



Hoods, top entry



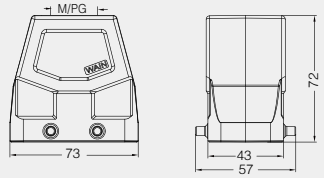
Thread	Designation	Order No.
M20	W10B–TE–4B–M20	111 110 430 1005
M25	W10B–TE–4B–M25	111 110 430 1006
PG16	W10B–TE–4B–PG16	111 110 430 1007



Hoods, top entry, high construction



Thread	Designation	Order No.
–––	W10B–BEH–4B	111 110 930 5003
M25	W10B–TEH–4B–M25	111 110 430 5001
M32	W10B–TEH–4B–M32	111 110 430 5004
PG21	W10B–TEH–4B–PG21	111 110 430 5005
PG29	W10B–TEH–4B–PG29 with sleeve	111 110 430 5006
M25	W10B–TEH–4B–M25 WS	111 110 430 5103
M32	W10B–TEH–4B–M32 WS	111 110 430 5104
PG21	W10B–TEH–4B–PG21 WS	111 110 430 5111
PG29	W10B–TEH–4B–PG29 WS	111 110 430 5112



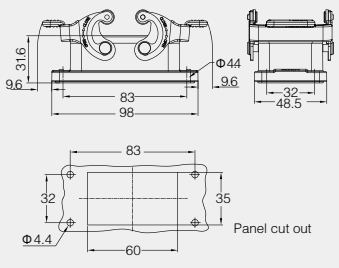
Bulkhead mounted housings

IP67



Thread	Designation	Order No.
---	W10B–BK–2L/SC	111 110 341 1002

Please refer to page 15–02 for choosing proper model of lock.



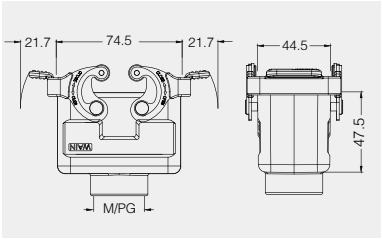
10B Metal hoods/housings

Degree of protection： IP67



Thread	Designation	Order No.
M20	W10B–CCT–2L/SC–M20	111 110 741 1002
M25	W10B–CCT–2L/SC–M25	111 110 741 1003
PG16	W10B–CCT–2L/SC–PG16	111 110 741 1004

Please refer to page 15–02 for choosing proper model of lock.



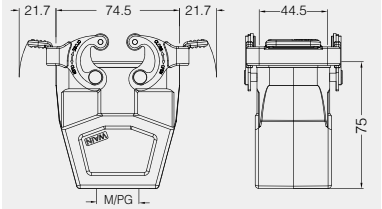
Housings, cable to cable

high construction



Thread	Designation	Order No.
M25	W10B–CCTH–2L/SC–M25	111 110 741 5001
M32	W10B–CCTH–2L/SC–M32	111 110 741 5002
PG21	W10B–CCTH–2L/SC–PG21	111 110 741 5003
PG29	W10B–CCTH–2L/SC–PG29 with sleeve	111 110 741 5004
M25	W10B–CCTH–2L/SC–M25 WS	111 110 741 5103
M32	W10B–CCTH–2L/SC–M32 WS	111 110 741 5104
PG21	W10B–CCTH–2L/SC–PG21 WS	111 110 741 5111
PG29	W10B–CCTH–2L/SC–PG29 WS	111 110 741 5112

Please refer to page 15–02 for choosing proper model of lock.



10B Metal hoods/housings

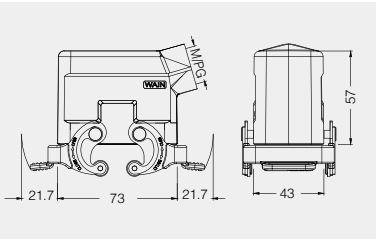
Degree of protection： IP67

Hoods, side entry



Thread	Designation	Order No.
M20	W10B–SE–2L/SC–M20	111 110 541 1001
M25	W10B–SE–2L/SC–M25	111 110 541 1003
PG16	W10B–SE–2L/SC–PG16	111 110 541 1002

Please refer to page 15–02 for choosing proper model of lock.

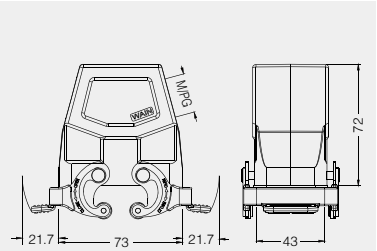


Hoods, side entry, high construction



Thread	Designation	Order No.
M25	W10B–SEH–2L/SC–M25	111 110 541 5001
M32	W10B–SEH–2L/SC–M32	111 110 541 5002
PG21	W10B–SEH–2L/SC–PG21	111 110 541 5003
PG29	W10B–SEH–2L/SC–PG29 with sleeve	111 110 541 5004
M25	W10B–SEH–2L/SC–M25 WS	111 110 541 5103
M32	W10B–SEH–2L/SC–M32 WS	111 110 541 5104
PG21	W10B–SEH–2L/SC–PG21 WS	111 110 541 5111
PG29	W10B–SEH–2L/SC–PG29 WS	111 110 541 5112

Please refer to page 15–02 for choosing proper model of lock.

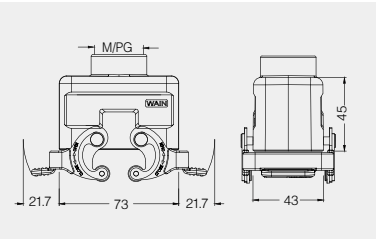


Hoods, top entry



Thread	Designation	Order No.
M20	W10B–TE–2L/SC–M20	111 110 441 1001
M25	W10B–TE–2L/SC–M25	111 110 441 1003
PG16	W10B–TE–2L/SC–PG16	111 110 441 1002

Please refer to page 15–02 for choosing proper model of lock.

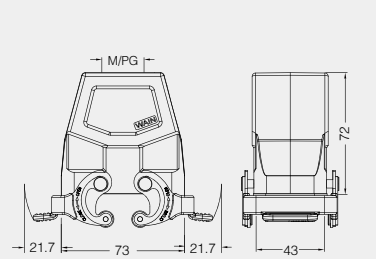


Hoods, top entry, high construction



Thread	Designation	Order No.
M25	W10B–TEH–2L/SC–M25	111 110 441 5001
M32	W10B–TEH–2L/SC–M32	111 110 441 5002
PG21	W10B–TEH–2L/SC–PG21	111 110 441 5003
PG29	W10B–TEH–2L/SC–PG29 with sleeve	111 110 441 5004
M25	W10B–TEH–2L/SC–M25 WS	111 110 441 5103
M32	W10B–TEH–2L/SC–M32 WS	111 110 441 5104
PG21	W10B–TEH–2L/SC–PG21 WS	111 110 441 5111
PG29	W10B–TEH–2L/SC–PG29 WS	111 110 441 5112

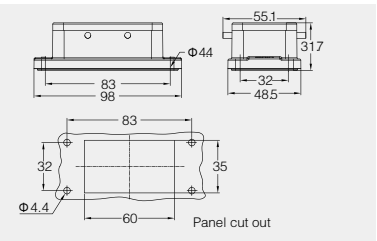
Please refer to page 15–02 for choosing proper model of lock.



Bulkhead mounted housings



Thread	Designation	Order No.
---	W10B–BK–4B	111 110 330 1001
---	W10B–BK–4B–CV	111 110 330 8001
---	W10B–BK–4B–MCV	111 110 330 8002



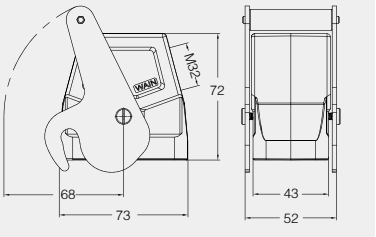
10B Metal hoods/housings

Degree of protection： IP67

Hoods, side entry, high construction



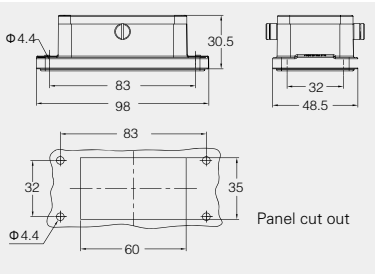
Thread	Designation	Order No.
M25	W10B–SEH–1L/C–M25	111 110 550 5002
M32	W10B–SEH–1L/C–M32	111 110 550 5001
PG21	W10B–SEH–1L/C–PG21	111 110 555 5001
PG29	W10B–SEH–1L/C–PG29	111 110 550 5003



Housings, bulkhead mounting



Thread	Designation	Order No.
---	W10B–BK–2B/C	111 110 350 1001



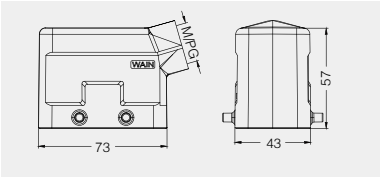
10B Metal hoods/housings
-Suitable for harsh environment(anti-corrosion)

Degree of protection： IP67

Hoods, side entry



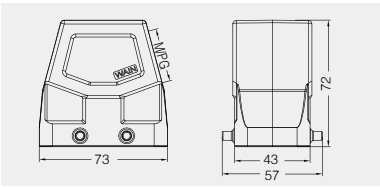
Thread	Designation	Order No.
M20	W10B–MSE–4B–M20	112 110 530 1001
M25	W10B–MSE–4B–M25	112 110 530 1003
PG16	W10B–MSE–4B–PG16	112 110 530 1002



Hoods, side entry, high construction



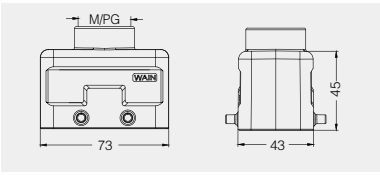
Thread	Designation	Order No.
M25	W10B–MSEH–4B–M25	112 110 530 5001
M32	W10B–MSEH–4B–M32	112 110 530 5007
PG21	W10B–MSEH–4B–PG21	112 110 530 5011
PG29	W10B–MSEH–4B–PG29	112 110 530 5012



Hoods, top entry



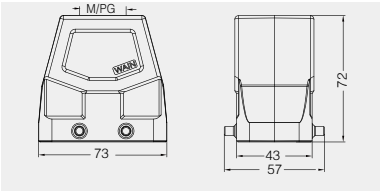
Thread	Designation	Order No.
M20	W10B–MTE–4B–M20	112 110 430 1001
M25	W10B–MTE–4B–M25	112 110 430 1003
PG16	W10B–MTE–4B–PG16	112 110 430 1002



Hoods, top entry, high construction



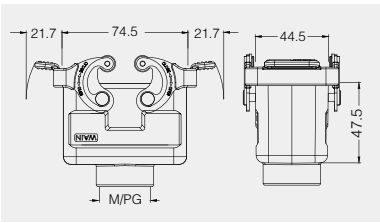
Thread	Designation	Order No.
M25	W10B–MTEH–4B–M25	112 110 430 5003
M32	W10B–MTEH–4B–M32	112 110 430 5001
PG21	W10B–MTEH–4B–PG21	112 110 430 5011
PG29	W10B–MTEH–4B–PG29	112 110 430 5012



Housings, cable to cable



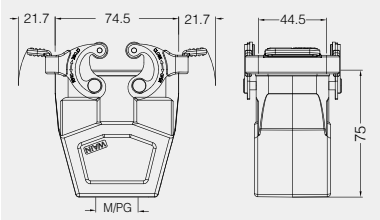
Thread	Designation	Order No.
M20	W10B–MCCT–2L/SC–M20	112 110 741 1002
M25	W10B–MCCT–2L/SC–M25	112 110 741 1003
PG16	W10B–MCCT–2L/SC–PG16	112 110 741 1001



Housings, cable to cable high construction



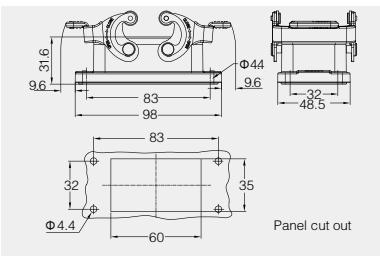
Thread	Designation	Order No.
M25	W10B–MCCTH–2L/SC–M25	112 110 741 5003
M32	W10B–MCCTH–2L/SC–M32	112 110 741 5004
PG21	W10B–MCCTH–2L/SC–PG21	112 110 741 5011
PG29	W10B–MCCTH–2L/SC–PG29	112 110 741 5012



Bulkhead mounted housings



Thread	Designation	Order No.
–––	W10B–MBK–2L/SC	112 010 341 1001



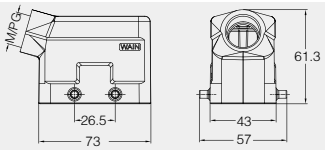
10B Metal hoods/housings
-Suitable for harsh environment(anti-corrosion)

10B EMC Metal hoods/housings　Degree of protection：IP67

Hoods, side entry



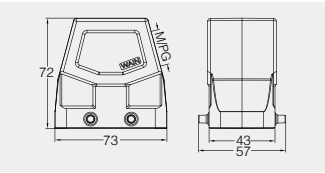
Thread	Designation	Order No.
M20	EMC.W10B–SE–4B–M20	111 210 530 1001
M25	EMC.W10B–SE–4B–M25	111 210 530 1002
PG16	EMC.W10B–SE–4B–PG16	111 210 530 1003



Hoods, side entry, high construction



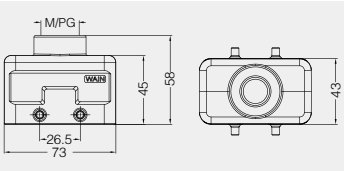
Thread	Designation	Order No.
M25	EMC.W10B–SEH–4B–M25	111 210 530 5001
M32	EMC.W10B–SEH–4B–M32	111 210 530 5002
PG21	EMC.W10B–SEH–4B–PG21	111 210 530 5003
PG29	EMC.W10B–SEH–4B–PG29	111 210 530 5004



Hoods, top entry



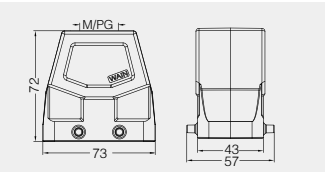
Thread	Designation	Order No.
M20	EMC.W10B–TE–4B–M20	111 210 430 1001
M25	EMC.W10B–TE–4B–M25	111 210 430 1002
PG16	EMC.W10B–TE–4B–PG16	111 210 430 1003



Hoods, top entry, high construction



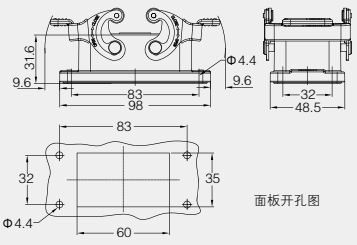
Thread	Designation	Order No.
M25	EMC.W10B–TEH–4B–M25	111 210 430 5001
M32	EMC.W10B–TEH–4B–M32	111 210 430 5002
PG21	EMC.W10B–TEH–4B–PG21	111 210 430 5003
PG29	EMC.W10B–TEH–4B–PG29	111 210 430 5004



Bulkhead mounted housings



Thread	Designation	Order No.
---	EMC1.W10B–BK–2L/SC	111 110 341 1001



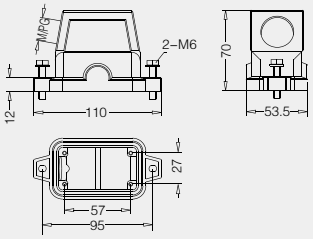
Degree of protection： IP68/IP69K

W version

Hoods, side entry, high construction



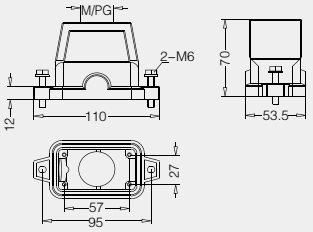
Thread	Designation	Order No.
M20	HP10B–SEH–2S–M20	115 010 520 5002
M25	HP10B–SEH–2S–M25	115 010 520 5103
M32	HP10B–SEH–2S–M32	115 010 520 5104
PG16	HP10B–SEH–2S–PG16	115 010 520 5110
PG21	HP10B–SEH–2S–PG21	115 010 520 5111



Hoods, top entry, high construction



Thread	Designation	Order No.
M20	HP10B–TEH–2S–M20	115 010 420 5002
M25	HP10B–TEH–2S–M25	115 010 420 5103
M32	HP10B–TEH–2S–M32	115 010 420 5104
PG16	HP10B–TEH–2S–PG16	115 010 420 5110
PG21	HP10B–TEH–2S–PG21	115 010 420 5111
PG29	HP10B–TEH–2S–PG29	115 010 420 5012

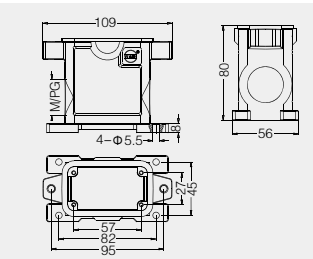


Surface mounted housings

high construction



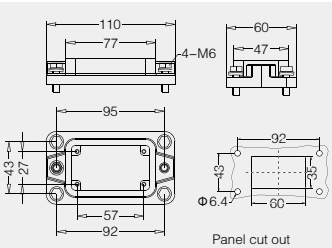
Thread	Designation	Order No.
M20	HP10B–SFH–2H–M20	115 010 220 5002
M25	HP10B–SFH–2H–M25	115 010 220 5003
M32	HP10B–SFH–2H–M32	115 010 220 5004
PG16	HP10B–SFH–2H–PG16	115 010 220 5010
PG21	HP10B–SFH–2H–PG21	115 010 220 5011



Bulkhead mounted housings



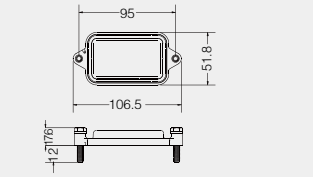
Thread	Designation	Order No.
---	HP10B–BK–2H	115 010 320 1001



Protection covers, plastic



Thread	Designation	Order No.
---	HP10B–CV–2S/2	115 010 020 8002



10B Pressure tight hoods/housings

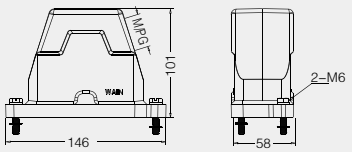
Degree of protection： IP68/IP69K

H version

Hoods, side entry, high construction



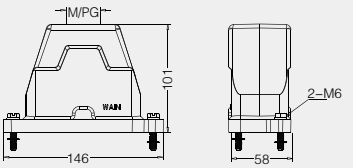
Thread	Designation	Order No.
	Screw locking	
M20	HP10B/H–SEH–2S–M20	113 610 520 5002
M25	HP10B/H–SEH–2S–M25	113 610 520 5003
M32	HP10B/H–SEH–2S–M32	113 610 520 5004
PG16	HP10B/H–SEH–2S–PG16	113 610 520 5010
PG21	HP10B/H–SEH–2S–PG21	113 610 520 5011
	Toggle locking	
M20	HP10B/H–SEH–2T–M20	113 610 540 5002
M25	HP10B/H–SEH–2T–M25	113 610 540 5003
M32	HP10B/H–SEH–2T–M32	113 610 540 5004
PG16	HP10B/H–SEH–2T–PG16	113 610 540 5010
PG21	HP10B/H–SEH–2T–PG21	113 610 540 5011



Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
M20	HP10B/H–TEH–2S–M20	113 610 420 5002
M25	HP10B/H–TEH–2S–M25	113 610 420 5003
M32	HP10B/H–TEH–2S–M32	113 610 420 5004
PG16	HP10B/H–TEH–2S–PG16	113 610 420 5010
PG21	HP10B/H–TEH–2S–PG21	113 610 420 5011
PG29	HP10B/H–TEH–2S–PG29	113 610 420 5012
	Toggle locking	
M20	HP10B/H–TEH–2T–M20	113 610 440 5002
M25	HP10B/H–TEH–2T–M25	113 610 440 5003
M32	HP10B/H–TEH–2T–M32	113 610 440 5004
PG16	HP10B/H–TEH–2T–PG16	113 610 440 5010
PG21	HP10B/H–TEH–2T–PG21	113 610 440 5011
PG29	HP10B/H–TEH–2T–PG29	113 610 440 5012

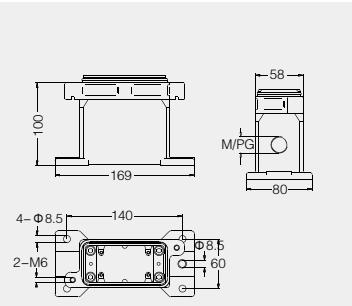


Surface mounted housings

high construction



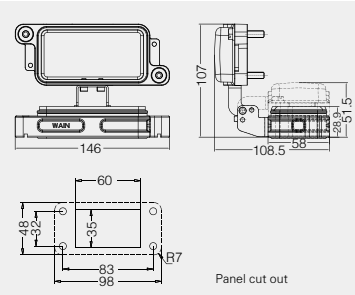
Thread	Designation	Order No.
	Screw locking	
M20	HP10B/H–SFH–2H–M20	113 610 220 5002
M25	HP10B/H–SFH–2H–M25	113 610 220 5003
M32	HP10B/H–SFH–2H–M32	113 610 220 5004
PG16	HP10B/H–SFH–2H–PG16	113 610 220 5010
PG21	HP10B/H–SFH–2H–PG21	113 610 220 5011
	Toggle locking	
M20	HP10B/H–SFH–2T–M20	113 610 240 5002
M25	HP10B/H–SFH–2T–M25	113 610 240 5003
M32	HP10B/H–SFH–2T–M32	113 610 240 5004
PG16	HP10B/H–SFH–2T–PG16	113 610 240 5010
PG21	HP10B/H–SFH–2T–PG21	113 610 240 5011



Bulkhead mounted housings



Thread	Designation	Order No.
	Screw locking	
---	HP10B/H–BK–2H	113 610 320 1001
	Toggle locking	
---	HP10B/H–BK–2T	113 610 340 1001
	with metal cover	
---	Screw locking	
	HP10B/H–BK–2H–MCV	113 610 360 1001
---	Toggle locking	
	HP10B/H–BK–2T–MCV	113 610 370 1001



10B Pressure tight hoods/housings

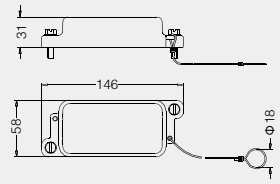
Degree of protection： IP68/IP69K

H version

Protection covers,for housings



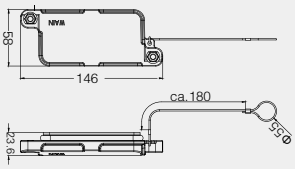
Connect way	Designation	Order No.
	Screw locking	
	HP10B/H–MCV–2S	113 610 020 8101
	Toggle locking	
	HP10B/H–MCV–2T	113 610 040 8103



Protection covers,for hoods

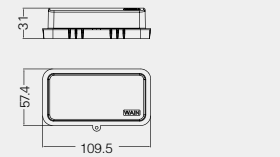


Connect way	Designation	Order No.
	Screw locking	
	HP10B/H–MCV–2H/1	113 610 020 8111
	Toggle locking	
	HP10B/H–MCV–2T/1	113 610 040 8101



Protection covers, for housings(IP5X)

Thread	Designation	Order No.
---	HP10B/H–CV/C	113 010 900 8001



Degree of protection： IP68/IP69K

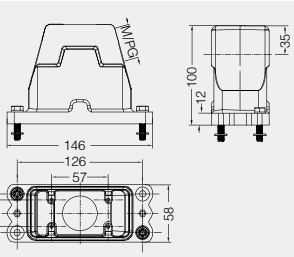
The following hoods/housings comply with the standards for rail transport industry in China.

H version

Hoods, side entry, high construction



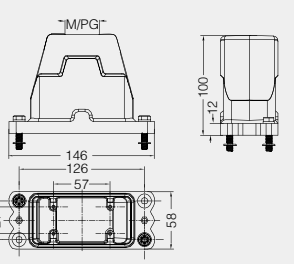
Thread	Designation	Order No.
M20	HP10B/H–SEH–4S–M20	113 610 530 5002
M25	HP10B/H–SEH–4S–M25	113 610 530 5003
M32	HP10B/H–SEH–4S–M32	113 610 530 5004
M40	HP10B/H–SEH–4S–M40	113 610 530 5005
PG16	HP10B/H–SEH–4S–PG16	113 610 530 5010
PG21	HP10B/H–SEH–4S–PG21	113 610 530 5011



Hoods, top entry, high construction



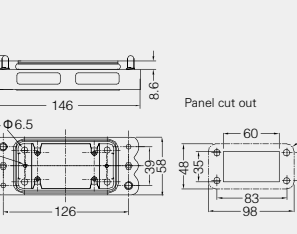
Thread	Designation	Order No.
M20	HP10B/H–TEH–4S–M20	113 610 430 5002
M25	HP10B/H–TEH–4S–M25	113 610 430 5003
M32	HP10B/H–TEH–4S–M32	113 610 430 5004
M40	HP10B/H–TEH–4S–M40	113 610 430 5005
PG16	HP10B/H–TEH–4S–PG16	113 610 430 5010
PG21	HP10B/H–TEH–4S–PG21	113 610 430 5011
PG29	HP10B/H–TEH–4S–PG29	113 610 430 5012



Bulkhead mounted housings



Thread	Designation	Order No.
---	HP10B/H–BK–4H	113 610 330 1001



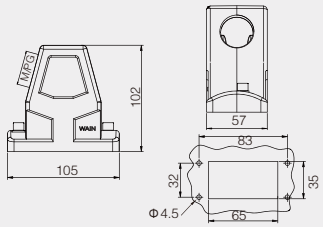
10B Pressure tight hoods/housings/EMC Pressure tight hoods/housings

Degree of protection： IP68/IP69K

Hoods, side entry, high construction



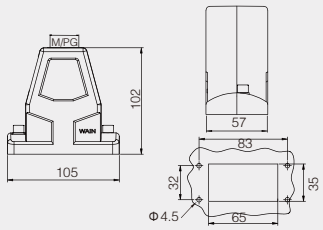
Thread	Designation	Order No.
M25	HC10B–SEH–2S–M25	114 010 520 5003
M32	HC10B–SEH–2S–M32	114 010 520 5004
PG16	HC10B–SEH–2S–PG16	114 010 520 5010
PG21	HC10B–SEH–2S–PG21	114 010 520 5011



Hoods, top entry, high construction



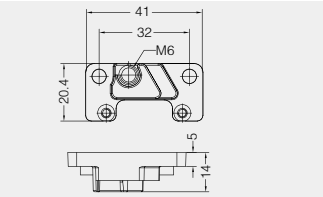
Thread	Designation	Order No.
M25	HC10B–TEH–2S–M25	114 010 420 5003
M32	HC10B–TEH–2S–M32	114 010 420 5004
PG16	HC10B–TEH–2S–PG16	114 010 420 5010
PG21	HC10B–TEH–2S–PG21	114 010 420 5011



Mounting flange



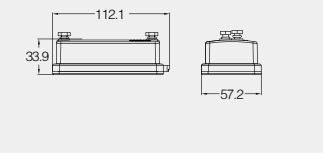
Application	Designation	Order No.
for integral type hoods	APT–C	114 000 000 1001



Protection covers,plastic



Thread	Designation	Order No.
–––	HC10B–CV–2S/2	111 010 020 8001



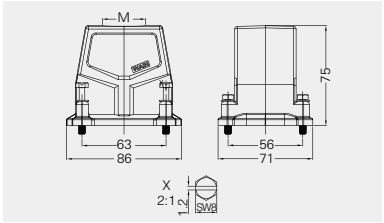
Degree of protection： IP68/IP69K

EMC Pressure tight hoods/housings

Hoods, top entry, high construction



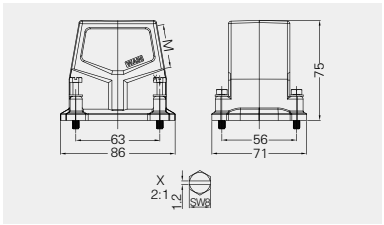
Thread	Designation	Order No.
M20	EMC.W10B–TEH–4S–M20	111 210 430 5005
M25	EMC.W10B–TEH–4S–M25	111 110 430 5002
M32	EMC.W10B–TEH–4S–M32	111 110 430 5003
PG21	EMC.W10B–TEH–4S–PG21	111 210 430 5006
PG29	EMC.W10B–TEH–4S–PG29	111 210 430 5007



Hoods, side entry, high construction



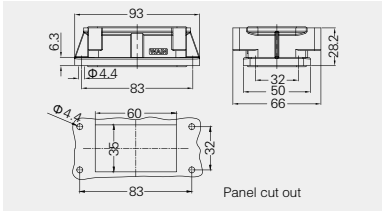
Thread	Designation	Order No.
M20	EMC.W10B–SEH–4S–M20	112 110 530 5003
M25	EMC.W10B–SEH–4S–M25	112 110 530 5004
M32	EMC.W10B–SEH–4S–M32	112 110 530 5002
PG21	EMC.W10B–SEH–4S–PG21	112 110 530 5005
PG29	EMC.W10B–SEH–4S–PG29	112 110 530 5006



Bulkhead mounted housings



Thread	Designation	Order No.
---	EMC.W10B–BK–4H	111 210 330 1001



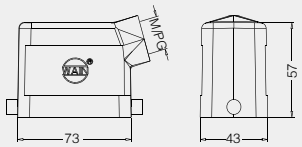
HV10B Metal hoods/housings
- for high voltage inserts(HVE Series)

Degree of protection： IP65

Hoods, side entry



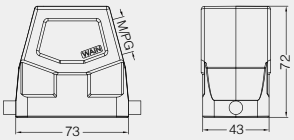
Thread	Designation	Order No.
M20	HV10B–SE–2B–M20	124 010 515 1002
PG16	HV10B–SE–2B–PG16	124 010 515 1010



Hoods, side entry, high construction



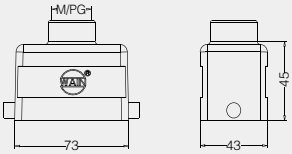
Thread	Designation	Order No.
M25	WV10B–SEH–2B–M25	124 110 510 5001
M32	WV10B–SEH–2B–M32	124 110 510 5002
PG21	WV10B–SEH–2B–PG21	124 110 510 5003
PG29	WV10B–SEH–2B–PG29 with sleeve	124 110 510 5004
M25	WV10B–SEH–2B–M25 WS	124 110 515 5103
M32	WV10B–SEH–2B–M32 WS	124 110 515 5104
PG21	WV10B–SEH–2B–PG21 WS	124 110 515 5111
PG29	WV10B–SEH–2B–PG29 WS	124 110 515 5112



Hoods, top entry



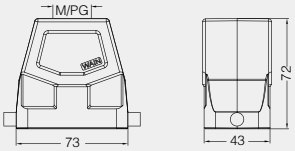
Thread	Designation	Order No.
M20	HV10B–TE–2B–M20	124 010 415 1002
PG16	HV10B–TE–2B–PG16	124 010 415 1010



Hoods, top entry, high construction



Thread	Designation	Order No.
M25	WV10B–TEH–2B–M25	124 110 410 5001
M32	WV10B–TEH–2B–M32	124 110 410 5002
PG21	WV10B–TEH–2B–PG21	124 110 410 5003
PG29	WV10B–TEH–2B–PG29 with sleeve	124 110 410 5004
M25	WV10B–TEH–2B–M25 WS	124 110 415 5103
M32	WV10B–TEH–2B–M32 WS	124 110 415 5104
PG21	WV10B–TEH–2B–PG21 WS	124 110 415 5111
PG29	WV10B–TEH–2B–PG29 WS	124 110 415 5112

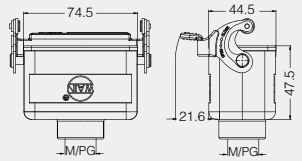


Housings, cable to cable



Thread	Designation	Order No.
M20	HV10B–CCT–1L/SC–M20	124 010 721 1002
PG16	HV10B–CCT–1L/SC–PG16	124 010 721 1010

Please refer to page 15–02 for choosing proper model of lock.

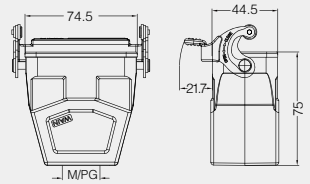


Housings, cable to cable
high construction



Thread	Designation	Order No.
M25	WV10B–CCTH–1L/SC–M25	124 110 721 5001
M32	WV10B–CCTH–1L/SC–M32	124 110 721 5002
PG21	WV10B–CCTH–1L/SC–PG21	124 110 721 5003
PG29	WV10B–CCTH–1L/SC–PG29 with sleeve	124 110 721 5004
M25	WV10B–CCTH–1L/SC–M25 WS	124 110 721 5103
M32	WV10B–CCTH–1L/SC–M32 WS	124 110 721 5104
PG21	WV10B–CCTH–1L/SC–PG21 WS	124 110 721 5111
PG29	WV10B–CCTH–1L/SC–PG29 WS	124 110 721 5112

Please refer to page 15–02 for choosing proper model of lock.



HV10B Metal hoods/housings

- for high voltage inserts(HVE Series)

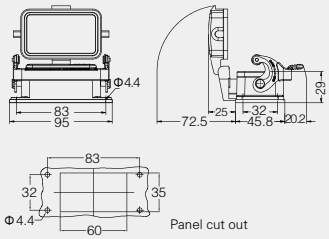
Degree of protection： IP65

Housings, bulkhead mounting



Thread	Designation	Order No.
---	HV10B–BK–1L/SC	124 010 321 1001
	with plastic cover	
---	HV10B–BK–1L/SC–CV	124 010 361 1001
	with metal cover	
---	HV10B–BK–1L/SC–MCV	124 010 361 1101

Please refer to page 15–02 for choosing proper model of lock.

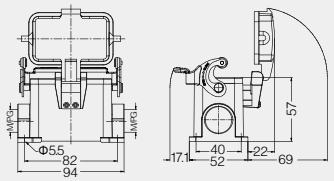


Housings, surface mounting



Thread	Designation	Order No.
M20	HV10B–SF–1L/SC–M20	124 010 221 1002
2M20	HV10B–SF–1L/SC–2M20	124 010 221 1022
PG16	HV10B–SF–1L/SC–PG16	124 010 221 1010
2PG16	HV10B–SF–1L/SC–2PG16	124 010 221 1030
	with plastic cover	
M20	HV10B–SF–1L/SC–CV–M20	124 010 261 1002
2M20	HV10B–SF–1L/SC–CV–2M20	124 010 261 1022
PG16	HV10B–SF–1L/SC–CV–PG16	124 010 261 1010
2PG16	HV10B–SF–1L/SC–CV–2PG16	124 010 261 1030
	with metal cover	
M20	HV10B–SF–1L/SC–MCV–M20	124 010 261 1102
2M20	HV10B–SF–1L/SC–MCV–2M20	124 010 261 1122
PG16	HV10B–SF–1L/SC–MCV–PG16	124 010 261 1110
2PG16	HV10B–SF–1L/SC–MCV–2PG16	124 010 261 1130

Please refer to page 15–02 for choosing proper model of lock.



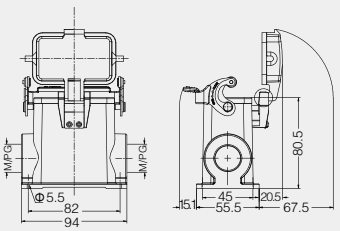
Housings, surface mounting

high construction



Thread	Designation	Order No.
M25	HV10B–SFH–1L/SC–M25	124 010 221 5003
2M25	HV10B–SFH–1L/SC–2M25	124 010 221 5023
M32	HV10B–SFH–1L/SC–M32	124 010 221 5004
2M32	HV10B–SFH–1L/SC–2M32	124 010 221 5024
PG21	HV10B–SFH–1L/SC–PG21	124 010 221 5011
2PG21	HV10B–SFH–1L/SC–2PG21	124 010 221 5031
PG29	HV10B–SFH–1L/SC–PG29	124 010 221 5012
2PG29	HV10B–SFH–1L/SC–2PG29	124 010 221 5032
	with plastic cover	
M25	HV10B–SFH–1L/SC–CV–M25	124 010 261 5003
2M25	HV10B–SFH–1L/SC–CV–2M25	124 010 261 5023
M32	HV10B–SFH–1L/SC–CV–M32	124 010 261 5004
2M32	HV10B–SFH–1L/SC–CV–2M32	124 010 261 5024
PG21	HV10B–SFH–1L/SC–CV–PG21	124 010 261 5011
2PG21	HV10B–SFH–1L/SC–CV–2PG21	124 010 261 5031
PG29	HV10B–SFH–1L/SC–CV–PG29	124 010 261 5012
2PG29	HV10B–SFH–1L/SC–CV–2PG29	124 010 261 5032
	with metal cover	
M25	HV10B–SFH–1L/SC–MCV–M25	124 010 261 5103
2M25	HV10B–SFH–1L/SC–MCV–2M25	124 010 261 5123
M32	HV10B–SFH–1L/SC–MCV–M32	124 010 261 5104
2M32	HV10B–SFH–1L/SC–MCV–2M32	124 010 261 5124
PG21	HV10B–SFH–1L/SC–MCV–PG21	124 010 261 5111
2PG21	HV10B–SFH–1L/SC–MCV–2PG21	124 010 261 5131
PG29	HV10B–SFH–1L/SC–MCV–PG29	124 010 261 5112
2PG29	HV10B–SFH–1L/SC–MCV–2PG29	124 010 261 5132

Please refer to page 15–02 for choosing proper model of lock.



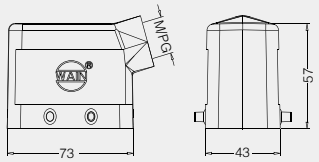
HV10B Metal hoods/housings
- for high voltage inserts(HVE Series)

Degree of protection： IP65

Hoods, side entry



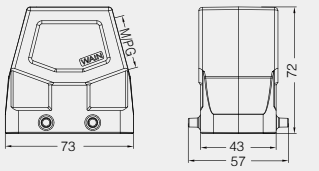
Thread	Designation	Order No.
M20	HV10B–SE–4B–M20	124 010 530 1002
PG16	HV10B–SE–4B–PG16	124 010 530 1010



Hoods, side entry, high construction



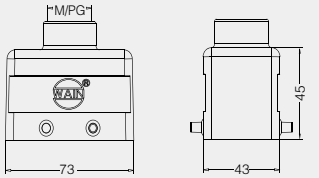
Thread	Designation	Order No.
M25	WV10B–SEH–4B–M25	124 110 530 5001
M32	WV10B–SEH–4B–M32	124 110 530 5002
PG21	WV10B–SEH–4B–PG21	124 110 530 5003
PG29	WV10B–SEH–4B–PG29 with sleeve	124 110 530 5004
M25	WV10B–SEH–4B–M25 WS	124 110 530 5103
M32	WV10B–SEH–4B–M32 WS	124 110 530 5104
PG21	WV10B–SEH–4B–PG21 WS	124 110 530 5111
PG29	WV10B–SEH–4B–PG29 WS	124 110 530 5112



Hoods, top entry



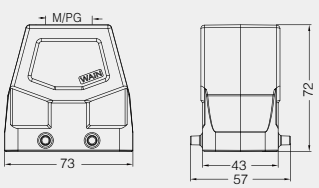
Thread	Designation	Order No.
M20	HV10B–TE–4B–M20	124 010 430 1002
PG16	HV10B–TE–4B–PG16	124 010 430 1010



Hoods, top entry, high construction



Thread	Designation	Order No.
M25	WV10B–TEH–4B–M25	124 110 430 5001
M32	WV10B–TEH–4B–M32	124 110 430 5002
PG21	WV10B–TEH–4B–PG21	124 110 430 5003
PG29	WV10B–TEH–4B–PG29 with sleeve	124 110 430 5004
M25	WV10B–TEH–4B–M25 WS	124 110 430 5103
M32	WV10B–TEH–4B–M32 WS	124 110 430 5104
PG21	WV10B–TEH–4B–PG21 WS	124 110 430 5111
PG29	WV10B–TEH–4B–PG29 WS	124 110 430 5112

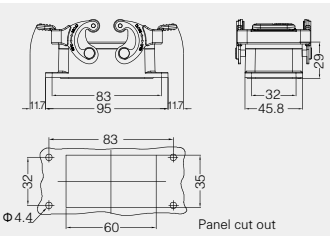


Housings, bulkhead mounting



Thread	Designation	Order No.
---	HV10B–BK–2L/SC	124 010 341 1001

Please refer to page 15–02 for choosing proper model of lock.

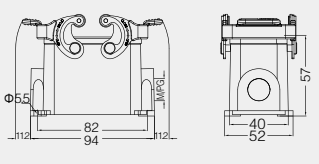


Housings, surface mounting



Thread	Designation	Order No.
M20	HV10B–SF–2L/SC–M20	124 010 241 1002
2M20	HV10B–SF–2L/SC–2M20	124 010 241 1022
M25	HV10B–SF–2L/SC–M25	124 010 241 1003
2M25	HV10B–SF–2L/SC–2M25	124 010 241 1023
PG16	HV10B–SF–2L/SC–PG16	124 010 241 1010
2PG16	HV10B–SF–2L/SC–2PG16	124 010 241 1030

Please refer to page 15–02 for choosing proper model of lock.



HV10B Metal hoods/housings
- for high voltage inserts(HVE Series)

Degree of protection： IP65

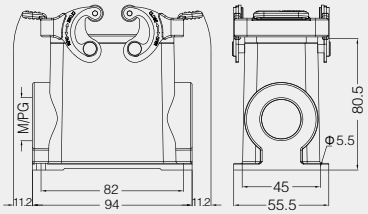
Housings, surface mounting

high construction



Thread	Designation	Order No.
M25	HV10B–SFH–2L/SC–M25	124 010 241 5003
2M25	HV10B–SFH–2L/SC–2M25	124 010 241 5023
M32	HV10B–SFH–2L/SC–M32	124 010 241 5004
2M32	HV10B–SFH–2L/SC–2M32	124 010 241 5024
PG21	HV10B–SFH–2L/SC–PG21	124 010 241 5011
2PG21	HV10B–SFH–2L/SC–2PG21	124 010 241 5031
PG29	HV10B–SFH–2L/SC–PG29	124 010 241 5012
2PG29	HV10B–SFH–2L/SC–2PG29	124 010 241 5032

Please refer to page 15–02 for choosing proper model of lock.

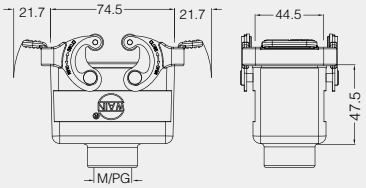


Housings, cable to cable



Thread	Designation	Order No.
M20	HV10B–CCT–2L/SC–M20	124 010 741 1002
PG16	HV10B–CCT–2L/SC–PG16	124 010 741 1010

Please refer to page 15–02 for choosing proper model of lock.



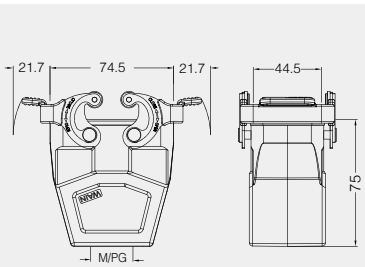
Housings, cable to cable

high construction



Thread	Designation	Order No.
M25	WV10B–CCTH–2L/SC–M25	124 110 741 5001
M32	WV10B–CCTH–2L/SC–M32	124 110 741 5002
PG21	WV10B–CCTH–2L/SC–PG21	124 110 741 5003
PG29	WV10B–CCTH–2L/SC–PG29 with sleeve	124 110 741 5004
M25	WV10B–CCTH–2L/SC–M25 WS	124 110 741 5103
M32	WV10B–CCTH–2L/SC–M32 WS	124 110 741 5104
PG21	WV10B–CCTH–2L/SC–PG21 WS	124 110 741 5111
PG29	WV10B–CCTH–2L/SC–PG29 WS	124 110 741 5112

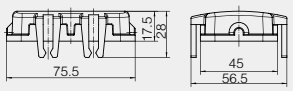
Please refer to page 15–02 for choosing proper model of lock.



Protection covers, plastic



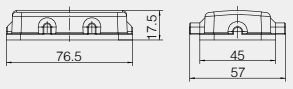
Connect way	Application	Designation	Order No.
---	for hoods	H10B–CV–4C	111 010 090 8009



Protection covers, plastic



Connect way	Application	Designation	Order No.
	for Housings, cable to cable	H10B–CV–4B/1	111 010 030 8001
	for Housings, bulkhead mounting /surface mounting	H10B–CV–4B/2	111 010 030 8002



HV10B Metal hoods/housings
- for high voltage inserts(HVE Series)

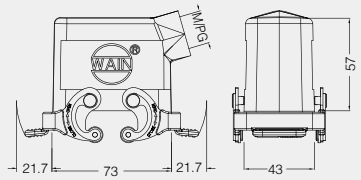
Degree of protection： IP65

Hoods, side entry



Thread	Designation	Order No.
M20	HV10B–SE–2L/SC–M20	124 010 541 1002
PG16	HV10B–SE–2L/SC–PG16	124 010 541 1010

Please refer to page 15–02 for choosing proper model of lock.

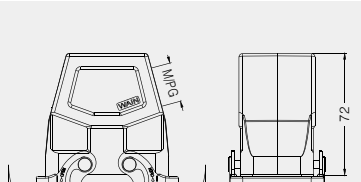


Hoods, side entry, high construction



Thread	Designation	Order No.
M25	WV10B–SEH–2L/SC–M25	124 110 541 5001
M32	WV10B–SEH–2L/SC–M32	124 110 541 5002
PG21	WV10B–SEH–2L/SC–PG21	124 110 541 5003
PG29	WV10B–SEH–2L/SC–PG29 with sleeve	124 110 541 5004
M25	WV10B–SEH–2L/SC–M25 WS	124 110 541 5103
M32	WV10B–SEH–2L/SC–M32 WS	124 110 541 5104
PG21	WV10B–SEH–2L/SC–PG21 WS	124 110 541 5111
PG29	WV10B–SEH–2L/SC–PG29 WS	124 110 541 5012

Please refer to page 15–02 for choosing proper model of lock.

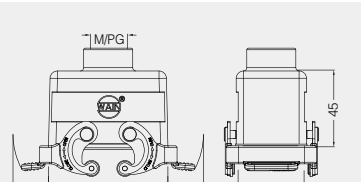


Hoods, top entry



Thread	Designation	Order No.
M20	HV10B–TE–2L/SC–M20	124 010 441 1002
PG16	HV10B–TE–2L/SC–PG16	124 010 441 1010

Please refer to page 15–02 for choosing proper model of lock.

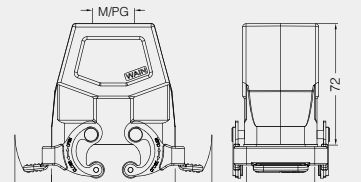


Hoods, top entry, high construction



Thread	Designation	Order No.
M25	WV10B–TEH–2L/SC–M25	124 110 441 5001
M32	WV10B–TEH–2L/SC–M32	124 110 441 5002
PG21	WV10B–TEH–2L/SC–PG21	124 110 441 5003
PG29	WV10B–TEH–2L/SC–PG29 with sleeve	124 110 441 5004
M25	WV10B–TEH–2L/SC–M25 WS	124 110 441 5103
M32	WV10B–TEH–2L/SC–M32 WS	124 110 441 5104
PG21	WV10B–TEH–2L/SC–PG21 WS	124 110 441 5111
PG29	WV10B–TEH–2L/SC–PG29 WS	124 110 441 5112

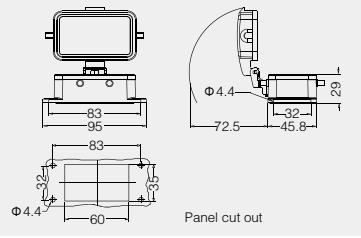
Please refer to page 15–02 for choosing proper model of lock.



Housings, bulkhead mounting



Thread	Designation	Order No.
---	HV10B–BK–4B	124 010 330 1001
	with plastic cover	
---	HV10B–BK–4B–CV	124 010 370 1001
	with metal cover	
---	HV10B–BK–4B–MCV	124 010 370 1101



HV10B Metal hoods/housings

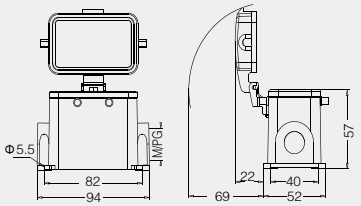
- for high voltage inserts(HVE Series)

Degree of protection： IP65

Housings, surface mounting



Thread	Designation	Order No.
M20	HV10B–SF–4B–M20	124 010 230 1002
2M20	HV10B–SF–4B–2M20	124 010 230 1022
PG16	HV10B–SF–4B–PG16	124 010 230 1010
2PG16	HV10B–SF–4B–2PG16	124 010 230 1030
	with plastic cover	
M20	HV10B–SF–4B–CV–M20	124 010 270 1002
2M20	HV10B–SF–4B–CV–2M20	124 010 270 1022
PG16	HV10B–SF–4B–CV–PG16	124 010 270 1010
2PG16	HV10B–SF–4B–CV–2PG16	124 010 270 1030
	with metal cover	
M20	HV10B–SF–4B–MCV–M20	124 010 270 1102
2M20	HV10B–SF–4B–MCV–2M20	124 010 270 1122
PG16	HV10B–SF–4B–MCV–PG16	124 010 270 1110
2PG16	HV10B–SF–4B–MCV–2PG16	124 010 270 1130

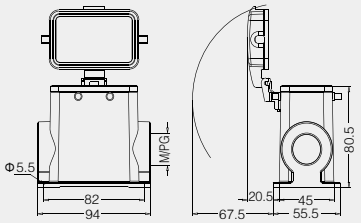


Housings, surface mounting

high construction



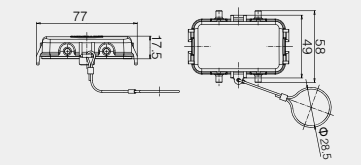
Thread	Designation	Order No.
M25	HV10B–SFH–4B–M25	124 010 230 5003
2M25	HV10B–SFH–4B–2M25	124 010 230 5023
M32	HV10B–SFH–4B–M32	124 010 230 5004
2M32	HV10B–SFH–4B–2M32	124 010 230 5024
PG21	HV10B–SFH–4B–PG21	124 010 230 5011
2PG21	HV10B–SFH–4B–2PG21	124 010 230 5031
PG29	HV10B–SFH–4B–PG29	124 010 230 5012
2PG29	HV10B–SFH–4B–2PG29	124 010 230 5032
	with plastic cover	
M25	HV10B–SFH–4B–CV–M25	124 010 270 5003
2M25	HV10B–SFH–4B–CV–2M25	124 010 270 5023
M32	HV10B–SFH–4B–CV–M32	124 010 270 5004
2M32	HV10B–SFH–4B–CV–2M32	124 010 270 5024
PG21	HV10B–SFH–4B–CV–PG21	124 010 270 5011
2PG21	HV10B–SFH–4B–CV–2PG21	124 010 270 5031
PG29	HV10B–SFH–4B–CV–PG29	124 010 270 5012
2PG29	HV10B–SFH–4B–CV–2PG29	124 010 270 5032
	with metal cover	
M25	HV10B–SFH–4B–MCV–M25	124 010 270 5103
2M25	HV10B–SFH–4B–MCV–2M25	124 010 270 5123
M32	HV10B–SFH–4B–MCV–M32	124 010 270 5104
2M32	HV10B–SFH–4B–MCV–2M32	124 010 270 5124
PG21	HV10B–SFH–4B–MCV–PG21	124 010 270 5111
2PG21	HV10B–SFH–4B–MCV–2PG21	124 010 270 5131
PG29	HV10B–SFH–4B–MCV–PG29	124 010 270 5112
2PG29	HV10B–SFH–4B–MCV–2PG29	124 010 270 5132



Protection covers, metal



Connect way	Application	Designation	Order No.
	for hoods	H10B–MCV–4B/1S	111 010 030 8103
	for housings, without sealing	H10B–MCV–4B/2	111 010 030 8102

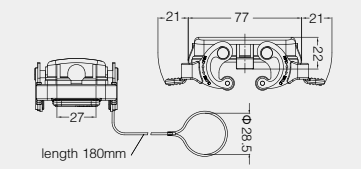


Protection covers, metal



Connect way	Application	Designation	Order No.
	for hoods	H10B–MCV–2L/SC.1S	111 010 041 8101
	for housings	H10B–MCV–2L/SC.2	111 010 041 8102

Please refer to page 15–02 for choosing proper model of lock.



10B Metal hoods/housings

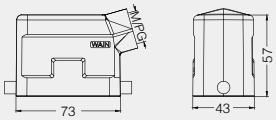
- for high voltage inserts(HVE Series)

Degree of protection： IP67

Hoods, side entry



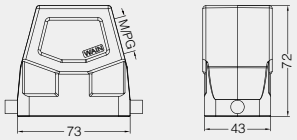
Thread	Designation	Order No.
M20	WV10B–SE–2B–M20	124 110 510 1001
PG16	WV10B–SE–2B–PG16	124 110 510 1002



Hoods, side entry, high construction



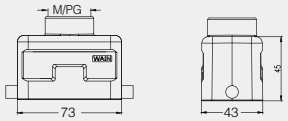
Thread	Designation	Order No.
M25	WV10B–SEH–2B–M25	124 110 510 5001
M32	WV10B–SEH–2B–M32	124 110 510 5002
PG21	WV10B–SEH–2B–PG21	124 110 510 5003
PG29	WV10B–SEH–2B–PG29 with sleeve	124 110 510 5004
M25	WV10B–SEH–2B–M25 WS	124 110 515 5103
M32	WV10B–SEH–2B–M32 WS	124 110 515 5104
PG21	WV10B–SEH–2B–PG21 WS	124 110 515 5111
PG29	WV10B–SEH–2B–PG29 WS	124 110 515 5112



Hoods, top entry



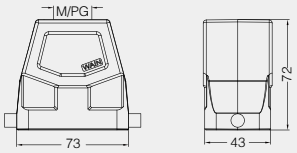
Thread	Designation	Order No.
M20	WV10B–TE–2B–M20	124 110 410 1001
PG16	WV10B–TE–2B–PG16	124 110 410 1002



Hoods, top entry, high construction



Thread	Designation	Order No.
M25	WV10B–TEH–2B–M25	124 110 410 5001
M32	WV10B–TEH–2B–M32	124 110 410 5002
PG21	WV10B–TEH–2B–PG21	124 110 410 5003
PG29	WV10B–TEH–2B–PG29 with sleeve	124 110 410 5004
M25	WV10B–TEH–2B–M25 WS	124 110 415 5103
M32	WV10B–TEH–2B–M32 WS	124 110 415 5104
PG21	WV10B–TEH–2B–PG21 WS	124 110 415 5111
PG29	WV10B–TEH–2B–PG29 WS	124 110 415 5112



10B Metal hoods/housings

- for high voltage inserts(HVE Series)

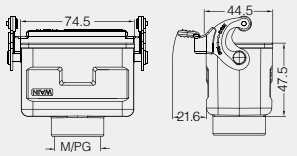
Degree of protection： IP67

Housings, cable to cable



Thread	Designation	Order No.
M20	WV10B–CCT–1L/SC–M20	124 110 721 1001
PG16	WV10B–CCT–1L/SC–PG16	124 110 721 1002

Please refer to page 15–02 for choosing proper model of lock.



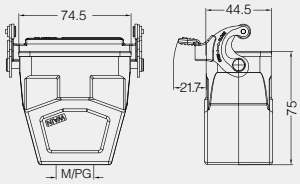
Housings, cable to cable

high construction



Thread	Designation	Order No.
M25	WV10B–CCTH–1L/SC–M25	124 110 721 5001
M32	WV10B–CCTH–1L/SC–M32	124 110 721 5002
PG21	WV10B–CCTH–1L/SC–PG21	124 110 721 5003
PG29	WV10B–CCTH–1L/SC–PG29 with sleeve	124 110 721 5004
M25	WV10B–CCTH–1L/SC–M25 WS	124 110 721 5103
M32	WV10B–CCTH–1L/SC–M32 WS	124 110 721 5104
PG21	WV10B–CCTH–1L/SC–PG21 WS	124 110 721 5111
PG29	WV10B–CCTH–1L/SC–PG29 WS	124 110 721 5112

Please refer to page 15–02 for choosing proper model of lock.

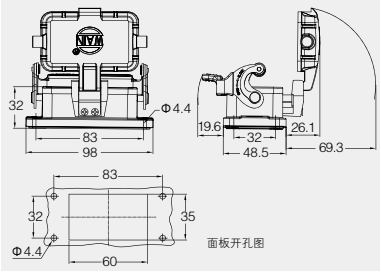


Bulkhead mounted housings



Thread	Designation	Order No.
---	WV10B–BK–1L/SC	124 110 361 1101
	with plastic cover	
---	WV10B–BK–1L/SC–CV	111 110 321 8003
	with metal cover	
---	WV10B–BK–1L/SC–MCV	111 110 321 8004

Please refer to page 15–02 for choosing proper model of lock.



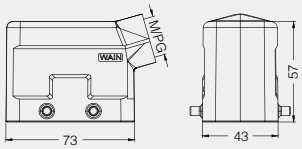
10B Metal hoods/housings
- for high voltage inserts(HVE Series)

Degree of protection： IP67

Hoods, side entry



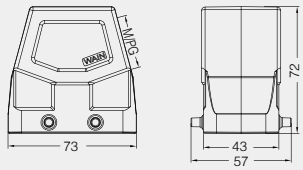
Thread	Designation	Order No.
M20	WV10B–SE–4B–M20	124 110 530 1001
PG16	WV10B–SE–4B–PG16	124 110 530 1002



Hoods, side entry, high construction



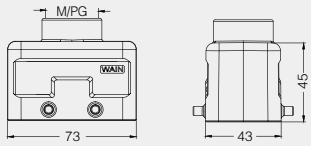
Thread	Designation	Order No.
M25	WV10B–SEH–4B–M25	124 110 530 5001
M32	WV10B–SEH–4B–M32	124 110 530 5002
PG21	WV10B–SEH–4B–PG21	124 110 530 5003
PG29	WV10B–SEH–4B–PG29 with sleeve	124 110 530 5004
M25	WV10B–SEH–4B–M25 WS	124 110 530 5103
M32	WV10B–SEH–4B–M32 WS	124 110 530 5104
PG21	WV10B–SEH–4B–PG21 WS	124 110 530 5111
PG29	WV10B–SEH–4B–PG29 WS	124 110 530 5112



Hoods, top entry



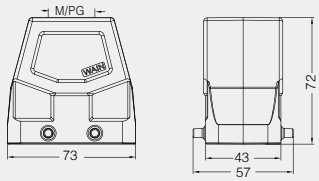
Thread	Designation	Order No.
M20	WV10B–TE–4B–M20	124 110 430 1001
PG16	WV10B–TE–4B–PG16	124 110 430 1002



Hoods, top entry, high construction



Thread	Designation	Order No.
M25	WV10B–TEH–4B–M25	124 110 430 5001
M32	WV10B–TEH–4B–M32	124 110 430 5002
PG21	WV10B–TEH–4B–PG21	124 110 430 5003
PG29	WV10B–TEH–4B–PG29 with sleeve	124 110 430 5004
M25	WV10B–TEH–4B–M25 WS	124 110 430 5103
M32	WV10B–TEH–4B–M32 WS	124 110 430 5104
PG21	WV10B–TEH–4B–PG21 WS	124 110 430 5111
PG29	WV10B–TEH–4B–PG29 WS	124 110 430 5112



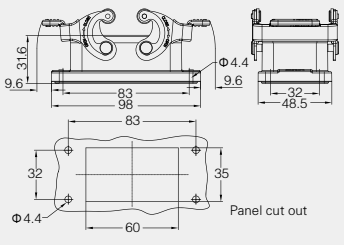
Bulkhead mounted housings

IP67



Thread	Designation	Order No.
---	WV10B–BK–2L/SC	124 110 341 1101

Please refer to page 15–02 for choosing proper model of lock.



10B Metal hoods/housings
- for high voltage inserts(HVE Series)

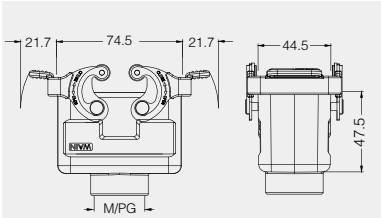
Degree of protection： IP67

Housings, cable to cable



Thread	Designation	Order No.
M20	WV10B–CCT–2L/SC–M20	124 110 741 1001
PG16	WV10B–CCT–2L/SC–PG16	124 110 741 1002

Please refer to page 15–02 for choosing proper model of lock.

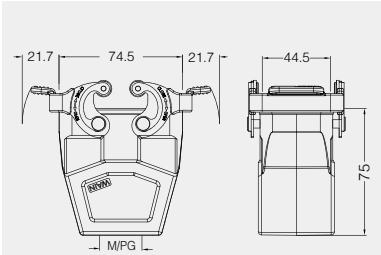


Housings, cable to cable
high construction



Thread	Designation	Order No.
M25	WV10B–CCTH–2L/SC–M25	124 110 741 5001
M32	WV10B–CCTH–2L/SC–M32	124 110 741 5002
PG21	WV10B–CCTH–2L/SC–PG21	124 110 741 5003
PG29	WV10B–CCTH–2L/SC–PG29 with sleeve	124 110 741 5004
M25	WV10B–CCTH–2L/SC–M25 WS	124 110 741 5103
M32	WV10B–CCTH–2L/SC–M32 WS	124 110 741 5104
PG21	WV10B–CCTH–2L/SC–PG21 WS	124 110 741 5111
PG29	WV10B–CCTH–2L/SC–PG29 WS	124 110 741 5112

Please refer to page 15–02 for choosing proper model of lock.



HV10B Metal hoods/housings
- for high voltage inserts(HVE Series)

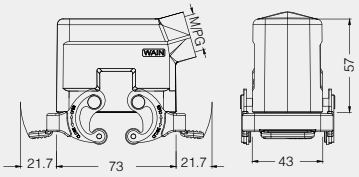
Degree of protection： IP67

Hoods, side entry



Thread	Designation	Order No.
M20	WV10B–SE–2L/SC–M20	124 110 541 1001
PG16	WV10B–SE–2L/SC–PG16	124 110 541 1002

Please refer to page 15–02 for choosing proper model of lock.

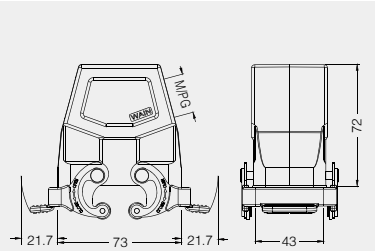


Hoods, side entry, high construction



Thread	Designation	Order No.
M25	WV10B–SEH–2L/SC–M25	124 110 541 5001
M32	WV10B–SEH–2L/SC–M32	124 110 541 5002
PG21	WV10B–SEH–2L/SC–PG21	124 110 541 5003
PG29	WV10B–SEH–2L/SC–PG29 with sleeve	124 110 541 5004
M25	WV10B–SEH–2L/SC–M25 WS	124 110 541 5103
M32	WV10B–SEH–2L/SC–M32 WS	124 110 541 5104
PG21	WV10B–SEH–2L/SC–PG21 WS	124 110 541 5111
PG29	WV10B–SEH–2L/SC–PG29 WS	124 110 541 5012

Please refer to page 15–02 for choosing proper model of lock.

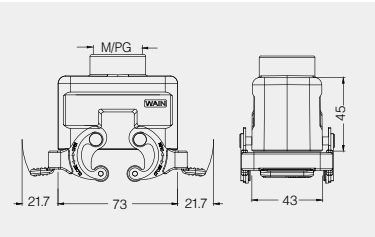


Hoods, top entry



Thread	Designation	Order No.
M20	WV10B–TE–2L/SC–M20	124 110 441 1001
PG16	WV10B–TE–2L/SC–PG16	124 110 441 1002

Please refer to page 15–02 for choosing proper model of lock.

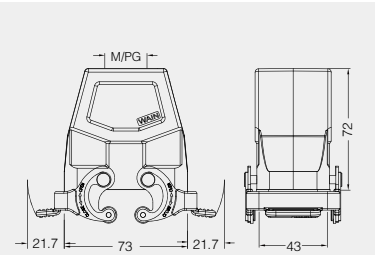


Hoods, top entry, high construction



Thread	Designation	Order No.
M25	WV10B–TEH–2L/SC–M25	124 110 441 5001
M32	WV10B–TEH–2L/SC–M32	124 110 441 5002
PG21	WV10B–TEH–2L/SC–PG21	124 110 441 5003
PG29	WV10B–TEH–2L/SC–PG29 with sleeve	124 110 441 5004
M25	WV10B–TEH–2L/SC–M25 WS	124 110 441 5103
M32	WV10B–TEH–2L/SC–M32 WS	124 110 441 5104
PG21	WV10B–TEH–2L/SC–PG21 WS	124 110 441 5111
PG29	WV10B–TEH–2L/SC–PG29 WS	124 110 441 5112

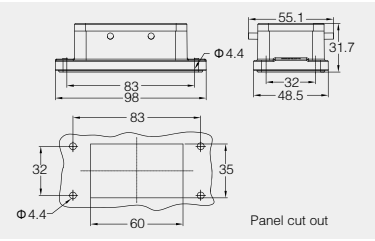
Please refer to page 15–02 for choosing proper model of lock.



Bulkhead mounted housings



Thread	Designation	Order No.
---	WV10B–BK–4B	124 110 330 1101

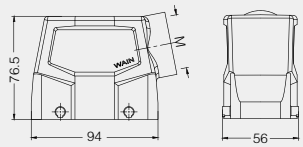


Degree of protection： IP65

Hoods, side entry, high construction



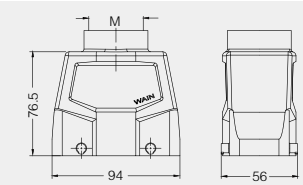
Thread	Designation	Order No.
M32	H16B.P–SEH–4B–M32	117 016 530 5004
M40	H16B.P–SEH–4B–M40	117 016 530 5005



Hoods, top entry, high construction



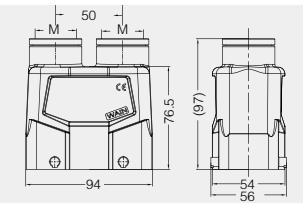
Thread	Designation	Order No.
M32	H16B.P–TEH–4B–M32	117 016 430 5004
M40	H16B.P–TEH–4B–M40	117 016 430 5005



Hoods, top entry, high construction



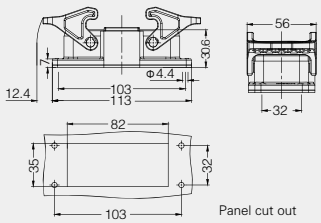
Thread	Designation	Order No.
2M25	H16B.P–TEH–4B–2M25	117 016 430 5002
2M32	H16B.P–TEH–4B–2M32	117 016 430 5001



Housings, bulkhead mounting



Thread	Designation	Order No.
---	H16B.P–BK–2L	117 016 347 1001

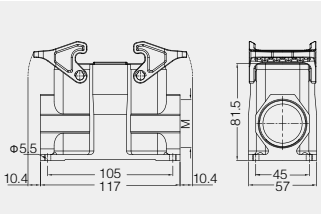


Housings, surface mounting

high construction



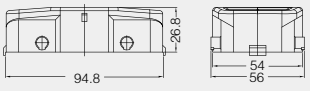
Thread	Designation	Order No.
M32	H16B.P–SFH–2L–M32	117 016 247 5004
2M32	H16B.P–SFH–2L–2M32	117 016 247 5024
M40	H16B.P–SFH–2L–M40	117 016 247 5005
2M40	H16B.P–SFH–2L–2M40	117 016 247 5025



Protection covers，for housings



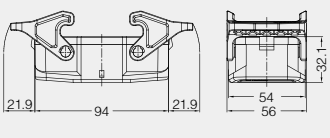
Connect way	Designation	Order No.
---	H16B.P–CV–4B/2	117 016 030 8002



Protection covers，for hoods



Connect way	Designation	Order No.
---	H16B.P–CV–2L/1	117 016 047 8001



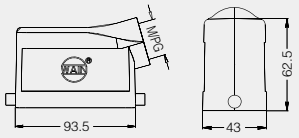
16B Metal hoods/housings

Degree of protection： IP65

Hoods, side entry



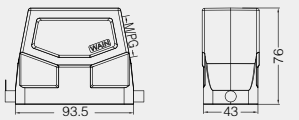
Thread	Designation	Order No.
M25	H16B–SE–2B–M25	111 016 515 1003
M32	H16B–SE–2B–M32	111 016 515 1004
PG21	H16B–SE–2B–PG21	111 016 515 1011



Hoods, side entry, high construction



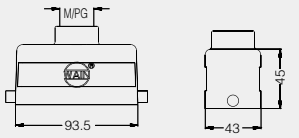
Thread	Designation	Order No.
– – –	W16B–BEH–2B	111 116 910 5002
M32	W16B–SEH–2B–M32	111 116 510 5001
M40	W16B–SEH–2B–M40	111 116 510 5002
PG21	W16B–SEH–2B–PG21	111 116 510 5003
PG29	W16B–SEH–2B–PG29	111 116 510 5004
	with sleeve	
M32	W16B–SEH–2B–M32 WS	111 116 515 5013
PG21	W16B–SEH–2B–PG21 WS	111 116 515 5011
PG29	W16B–SEH–2B–PG29 WS	111 116 515 5012



Hoods, top entry



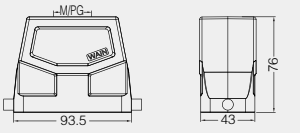
Thread	Designation	Order No.
M25	H16B–TE–2B–M25	111 016 415 1003
M32	H16B–TE–2B–M32	111 016 415 1004
PG21	H16B–TE–2B–PG21	111 016 415 1011



Hoods, top entry, high construction



Thread	Designation	Order No.
– – –	W16B–BEH–2B	111 116 910 5002
M32	W16B–TEH–2B–M32	111 116 410 5001
M40	W16B–TEH–2B–M40	111 116 410 5002
PG21	W16B–TEH–2B–PG21	111 116 410 5003
PG29	W16B–TEH–2B–PG29	111 116 410 5004
	with sleeve	
M32	W16B–TEH–2B–M32 WS	111 116 415 5004
PG21	W16B–TEH–2B–PG21 WS	111 116 415 5011
PG29	W16B–TEH–2B–PG29 WS	111 116 415 5012



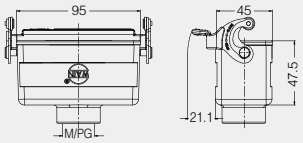
Degree of protection： IP65

Housings, cable to cable



Thread	Designation	Order No.
M25	H16B–CCT–1L/SC–M25	111 016 721 1003
M32	H16B–CCT–1L/SC–M32	111 016 721 1004
PG21	H16B–CCT–1L/SC–PG21	111 016 721 1011

Please refer to page 15–02 for choosing proper model of lock.



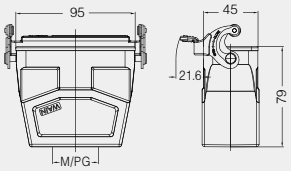
Housings, cable to cable

high construction



Thread	Designation	Order No.
M32	W16B–CCTH–1L/SC–M32	111 116 721 5001
M40	W16B–CCTH–1L/SC–M40	111 116 721 5002
PG21	W16B–CCTH–1L/SC–PG21	111 116 721 5003
PG29	W16B–CCTH–1L/SC–PG29 with sleeve	111 116 721 5004
M32	W16B–CCTH–1L/SC–M32 WS	111 116 721 5008
PG21	W16B–CCTH–1L/SC–PG21 WS	111 116 721 5011
PG29	W16B–CCTH–1L/SC–PG29 WS	111 116 721 5012

Please refer to page 15–02 for choosing proper model of lock.



16B Metal hoods/housings

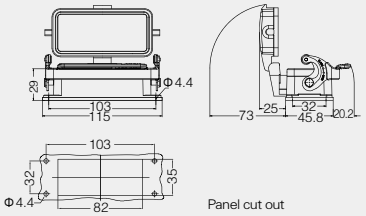
Degree of protection： IP65

Housings, bulkhead mounting



Thread	Designation	Order No.
---	H16B–BK–1L/SC	111 016 321 1001
	with plastic cover	
---	H16B–BK–1L/SC–CV	111 016 361 1001
	with metal cover	
---	H16B–BK–1L/SC–MCV	111 016 361 1101

Please refer to page 15–02 for choosing proper model of lock.

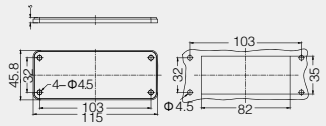


Panel cut out

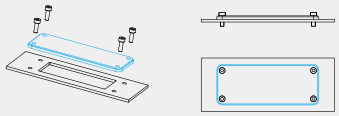
BK hole cover plate

Application	Designation	Order No.
	16B–BK/MCV	111 016 300 1506





Panel cut out



The mounting hole of the mounting cabinet can be temporarily sealed.
Applicable to the installation hole which has been opened,The case where the connector is not installed

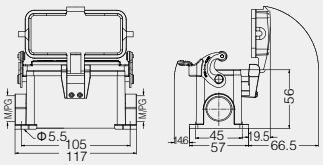
Degree of protection： IP65

Housings, surface mounting



Thread	Designation	Order No.
M25	H16B–SF–1L/SC–M25	111 016 221 1003
2M25	H16B–SF–1L/SC–2M25	111 016 221 1023
PG21	H16B–SF–1L/SC–PG21	111 016 221 1011
2PG21	H16B–SF–1L/SC–2PG21	111 016 221 1031
	with plastic cover	
M25	H16B–SF–1L/SC–CV–M25	111 016 261 1003
2M25	H16B–SF–1L/SC–CV–2M25	111 016 261 1023
PG21	H16B–SF–1L/SC–CV–PG21	111 016 261 1011
2PG21	H16B–SF–1L/SC–CV–2PG21	111 016 261 1031
	with metal cover	
M25	H16B–SF–1L/SC–MCV–M25	111 016 261 1103
2M25	H16B–SF–1L/SC–MCV–2M25	111 016 261 1123
PG21	H16B–SF–1L/SC–MCV–PG21	111 016 261 1111
2PG21	H16B–SF–1L/SC–MCV–2PG21	111 016 261 1131

Please refer to page 15–02 for choosing proper model of lock.



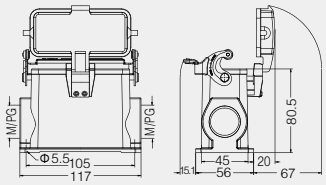
Housings, surface mounting

high construction



Thread	Designation	Order No.
M32	H16B–SFH–1L/SC–M32	111 016 221 5004
2M32	H16B–SFH–1L/SC–2M32	111 016 221 5024
PG21	H16B–SFH–1L/SC–PG21	111 016 221 5011
2PG21	H16B–SFH–1L/SC–2PG21	111 016 221 5031
PG29	H16B–SFH–1L/SC–PG29	111 016 221 5012
2PG29	H16B–SFH–1L/SC–2PG29	111 016 221 5032
	with plastic cover	
M32	H16B–SFH–1L/SC–CV–M32	111 016 261 5004
2M32	H16B–SFH–1L/SC–CV–2M32	111 016 261 5024
PG21	H16B–SFH–1L/SC–CV–PG21	111 016 261 5011
2PG21	H16B–SFH–1L/SC–CV–2PG21	111 016 261 5031
PG29	H16B–SFH–1L/SC–CV–PG29	111 016 261 5012
2PG29	H16B–SFH–1L/SC–CV–2PG29	111 016 261 5032
	with metal cover	
M32	H16B–SFH–1L/SC–MCV–M32	111 016 261 5104
2M32	H16B–SFH–1L/SC–MCV–2M32	111 016 261 5124
PG21	H16B–SFH–1L/SC–MCV–PG21	111 016 261 5111
2PG21	H16B–SFH–1L/SC–MCV–2PG21	111 016 261 5131
PG29	H16B–SFH–1L/SC–MCV–PG29	111 016 261 5112
2PG29	H16B–SFH–1L/SC–MCV–2PG29	111 016 261 5132

Please refer to page 15–02 for choosing proper model of lock.



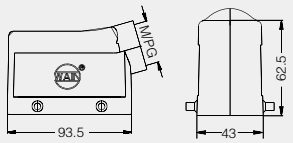
16B Metal hoods/housings

Degree of protection： IP65

Hoods, side entry



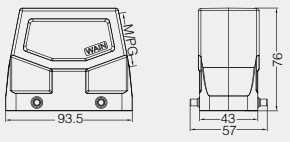
Thread	Designation	Order No.
M25	H16B–SE–4B–M25	111 016 530 1003
M32	H16B–SE–4B–M32	111 016 530 1004
PG21	H16B–SE–4B–PG21	111 016 530 1011



Hoods, side entry, high construction



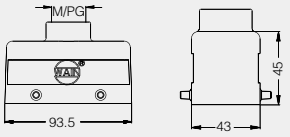
Thread	Designation	Order No.
– – –	W16B–BEH–4B	111 116 930 5003
M32	W16B–SEH–4B–M32	111 116 530 5001
M40	W16B–SEH–4B–M40	111 116 530 5002
PG21	W16B–SEH–4B–PG21	111 116 530 5003
PG29	W16B–SEH–4B–PG29 with sleeve	111 116 530 5004
M32	W16B–SEH–4B–M32 WS	111 116 530 5014
PG21	W16B–SEH–4B–PG21 WS	111 116 530 5011
PG29	W16B–SEH–4B–PG29 WS	111 116 530 5012



Hoods, top entry



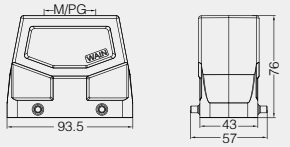
Thread	Designation	Order No.
M25	H16B–TE–4B–M25	111 016 430 1003
M32	H16B–TE–4B–M32	111 016 430 1004
PG21	H16B–TE–4B–PG21	111 016 430 1011



Hoods, top entry, high construction



Thread	Designation	Order No.
– – –	W16B–BEH–4B	111 116 930 5003
M32	W16B–TEH–4B–M32	111 116 430 5001
M40	W16B–TEH–4B–M40	111 116 430 5002
PG21	W16B–TEH–4B–PG21	111 116 430 5003
PG29	W16B–TEH–4B–PG29 with sleeve	111 116 430 5004
M32	W16B–TEH–4B–M32 WS	111 116 430 5022
PG21	W16B–TEH–4B–PG21 WS	111 116 430 5020
PG29	W16B–TEH–4B–PG29 WS	111 116 430 5021



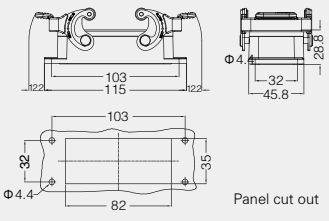
Degree of protection： IP65

Housings, bulkhead mounting



Thread	Designation	Order No.
---	H16B–BK–2L/SC	111 016 341 1001

Please refer to page 15–02 for choosing proper model of lock.

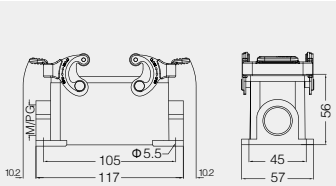


Housings, surface mounting



Thread	Designation	Order No.
M25	H16B–SF–2L/SC–M25	111 016 241 1003
2M25	H16B–SF–2L/SC–2M25	111 016 241 1023
PG21	H16B–SF–2L/SC–PG21	111 016 241 1011
2PG21	H16B–SF–2L/SC–2PG21	111 016 241 1031

Please refer to page 15–02 for choosing proper model of lock.



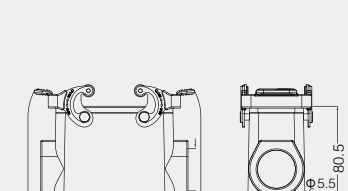
Housings, surface mounting

high construction



Thread	Designation	Order No.
M25	H16B–SFH–2L/SC–M25	111 016 241 5003
M32	H16B–SFH–2L/SC–M32	111 016 241 5004
2M32	H16B–SFH–2L/SC–2M32	111 016 241 5024
M40	H16B–SFH–2L/SC–M40	111 016 241 5005
2M40	H16B–SFH–2L/SC–2M40	111 016 241 5025
PG21	H16B–SFH–2L/SC–PG21	111 016 241 5011
2PG21	H16B–SFH–2L/SC–2PG21	111 016 241 5031
PG29	H16B–SFH–2L/SC–PG29	111 016 241 5012
2PG29	H16B–SFH–2L/SC–2PG29	111 016 241 5032

Please refer to page 15–02 for choosing proper model of lock.

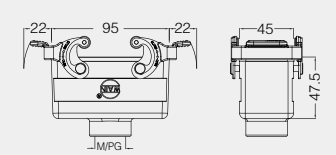


Housings, cable to cable



Thread	Designation	Order No.
M25	H16B–CCT–2L/SC–M25	111 016 741 1003
M32	H16B–CCT–2L/SC–M32	111 016 741 1004
PG21	H16B–CCT–2L/SC–PG21	111 016 741 1011

Please refer to page 15–02 for choosing proper model of lock.



16B Metal hoods/housings

Degree of protection： IP65

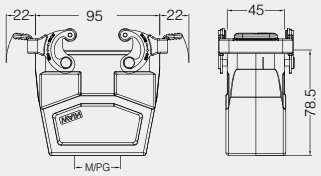
Housings, cable to cable

high construction



Thread	Designation	Order No.
M25	W16B–CCTH–2L/SC–M25	111 116 741 5002
M32	W16B–CCTH–2L/SC–M32	111 116 741 5003
M40	W16B–CCTH–2L/SC–M40	111 116 741 5004
PG21	W16B–CCTH–2L/SC–PG21	111 116 741 5005
PG29	W16B–CCTH–2L/SC–PG29	111 116 741 5006
	with sleeve	
M32	W16B–CCTH–2L/SC–M32 WS	111 116 741 5013
PG21	W16B–CCTH–2L/SC–PG21 WS	111 116 741 5011
PG29	W16B–CCTH–2L/SC–PG29 WS	111 116 741 5012

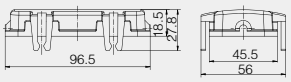
Please refer to page 15–02 for choosing proper model of lock.



Protection covers, plastic



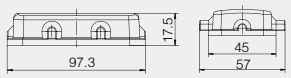
Connect way	Application	Designation	Order No.
---	for hoods	H16B–CV–4C	111 016 090 8009



Protection covers, plastic



Connect way	Application	Designation	Order No.
	for Housings, cable to cable	H16B–CV–4B/1	111 016 030 8001
	for Housings, bulkhead mounting /surface mounting	H16B–CV–4B/2	111 016 030 8002



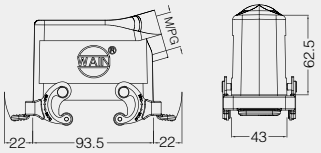
Degree of protection： IP65

Hoods, side entry



Thread	Designation	Order No.
M25	H16B–SE–2L/SC–M25	111 016 541 1003
M32	H16B–SE–2L/SC–M32	111 016 541 1004
PG21	H16B–SE–2L/SC–PG21	111 016 541 1011

Please refer to page 15–02 for choosing proper model of lock.

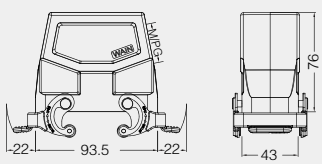


Hoods, side entry, high construction



Thread	Designation	Order No.
M32	W16B–SEH–2L/SC–M32	111 116 541 5001
M40	W16B–SEH–2L/SC–M40	111 116 541 5002
PG21	W16B–SEH–2L/SC–PG21	111 116 541 5003
PG29	W16B–SEH–2L/SC–PG29 with sleeve	111 116 541 5004
M32	W16B–SEH–2L/SC–M32 WS	111 116 541 5005
PG21	W16B–SEH–2L/SC–PG21 WS	111 116 541 5011
PG29	W16B–SEH–2L/SC–PG29 WS	111 116 541 5006

Please refer to page 15–02 for choosing proper model of lock.

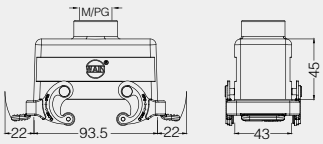


Hoods, top entry



Thread	Designation	Order No.
M25	H16B–TE–2L/SC–M25	111 016 441 1003
M32	H16B–TE–2L/SC–M32	111 016 441 1004
PG21	H16B–TE–2L/SC–PG21	111 016 441 1011

Please refer to page 15–02 for choosing proper model of lock.

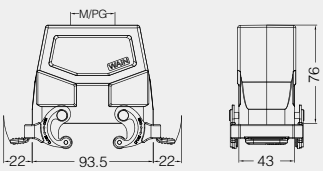


Hoods, top entry, high construction



Thread	Designation	Order No.
M32	W16B–TEH–2L/SC–M32	111 116 441 5001
M40	W16B–TEH–2L/SC–M40	111 116 441 5002
PG21	W16B–TEH–2L/SC–PG21	111 116 441 5003
PG29	W16B–TEH–2L/SC–PG29 with sleeve	111 116 441 5004
M32	W16B–TEH–2L/SC–M32 WS	111 116 441 5009
PG21	W16B–TEH–2L/SC–PG21 WS	111 116 441 5011
PG29	W16B–TEH–2L/SC–PG29 WS	111 116 441 5012

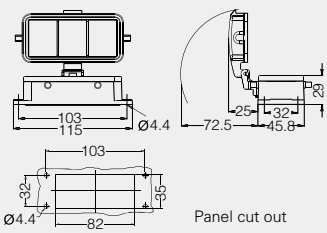
Please refer to page 15–02 for choosing proper model of lock.



Housings, bulkhead mounting



Thread	Designation	Order No.
---	H16B–BK–4B	111 016 330 1001
	with plastic cover	
---	H16B–BK–4B–CV	111 016 370 1001
	with metal cover	
---	H16B–BK–4B–MCV	111 016 370 1101



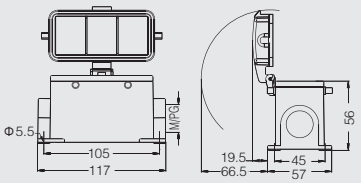
16B Metal hoods/housings

Degree of protection： IP65

Surface mounted housings

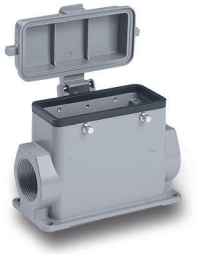


Thread	Designation	Order No.
M25	H16B–SF–4B–M25	111 016 230 1003
2M25	H16B–SF–4B–2M25	111 016 230 1023
PG21	H16B–SF–4B–PG21	111 016 230 1011
2PG21	H16B–SF–4B–2PG21	111 016 230 1031
	with plastic cover	
M25	H16B–SF–4B–CV–M25	111 016 270 1003
2M25	H16B–SF–4B–CV–2M25	111 016 270 1023
PG21	H16B–SF–4B–CV–PG21	111 016 270 1011
2PG21	H16B–SF–4B–CV–2PG21	111 016 270 1031
	with metal cover	
M25	H16B–SF–4B–MCV–M25	111 016 270 1103
2M25	H16B–SF–4B–MCV–2M25	111 016 270 1123
PG21	H16B–SF–4B–MCV–PG21	111 016 270 1111
2PG21	H16B–SF–4B–MCV–2PG21	111 016 270 1131

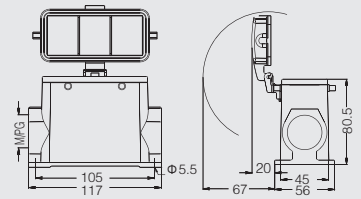


Surface mounted housings

high construction



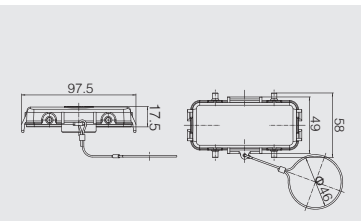
Thread	Designation	Order No.
M32	H16B–SFH–4B–M32	111 016 230 5004
2M32	H16B–SFH–4B–2M32	111 016 230 5024
PG21	H16B–SFH–4B–PG21	111 016 230 5011
2PG21	H16B–SFH–4B–2PG21	111 016 230 5031
PG21	H16B–SFH–4B–PG29	111 016 230 5012
2PG21	H16B–SFH–4B–2PG29	111 016 230 5032
	with plastic cover	
M32	H16B–SFH–4B–CV–M32	111 016 270 5004
2M32	H16B–SFH–4B–CV–2M32	111 016 270 5024
PG21	H16B–SFH–4B–CV–PG21	111 016 270 5011
2PG21	H16B–SFH–4B–CV–2PG21	111 016 270 5031
PG29	H16B–SFH–4B–CV–PG29	111 016 270 5012
2PG29	H16B–SFH–4B–CV–2PG29	111 016 270 5032
	with metal cover	
M32	H16B–SFH–4B–MCV–M32	111 016 270 5104
2M32	H16B–SFH–4B–MCV–2M32	111 016 270 5124
PG21	H16B–SFH–4B–MCV–PG21	111 016 270 5111
2PG21	H16B–SFH–4B–MCV–2PG21	111 016 270 5131
PG29	H16B–SFH–4B–MCV–PG29	111 016 270 5112
2PG29	H16B–SFH–4B–MCV–2PG29	111 016 270 5132



Protection covers, metal



Connect way	Application	Designation	Order No.
	for hoods	H16B–MCV–4B/1S	111 016 030 8103
	for housings, without sealing	H16B–MCV–4B/2	111 016 030 8102

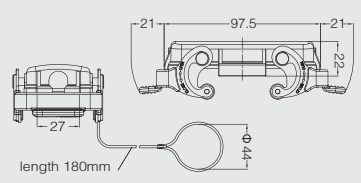


Protection covers, metal



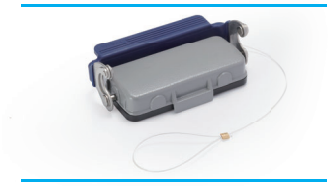
Connect way	Application	Designation	Order No.
	for hoods	H16B–MCV–2L/SC.1S	111 016 041 8101
	for housings	H16B–MCV–2L/SC.2	111 016 041 8102

Please refer to page 15–02 for choosing proper model of lock.



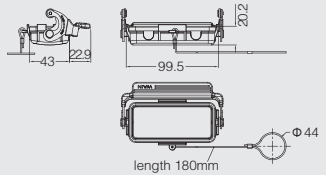
Degree of protection： IP65

Protection covers, metal



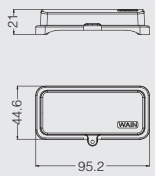
Connect way	Application	Designation	Order No.
⌐○	for hoods	H16B–MCV–1L/SC.1S	111 016 021 8001

Please refer to page 15–02 for choosing proper model of lock.



Protection covers, plastic(IP5X)

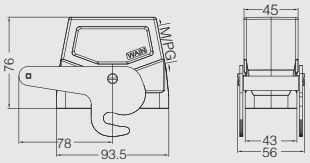
Connect way	Application	Designation	Order No.
	for housings	16B–CV/C	111 016 000 8002



Hoods, side entry, high construction



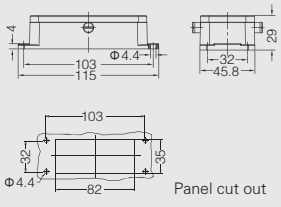
Thread	Designation	Order No.
M25	W16B–SEH–1L/C–M25	111 116 550 5001
M32	W16B–SEH–1L/C–M32	111 116 550 5002
PG21	W16B–SEH–1L/C–PG21	111 116 550 5003
PG29	W16B–SEH–1L/C–PG29 with sleeve	111 116 550 5004
M32	W16B–SEH–1L/C–M32 WS	111 116 555 5004
PG21	W16B–SEH–1L/C–PG21 WS	111 116 555 5001
PG29	W16B–SEH–1L/C–PG29 WS	111 116 555 5002



Housings, bulkhead mounting



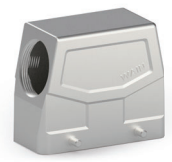
Thread	Designation	Order No.
---	H16B–BK–2B/C	111 016 355 1001



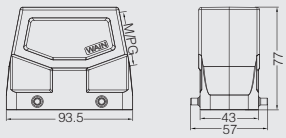
stainless steel hoods/housings

Degree of protection： IP67

Hoods, side entry, high construction



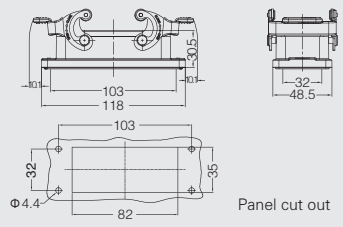
Thread	Designation	Order No.
PG29	W16B.S-SEH-4B-PG29	111 116 530 5528



Bulkhead mounted housings



Thread	Designation	Order No.
---	W16B.S-BK-2L/SCN	111 116 341 1006



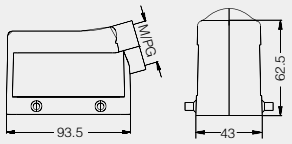
16B Metal hoods/housings
Suitable for harsh environment(anti-corrosion)

Degree of protection： IP65

Hoods, side entry



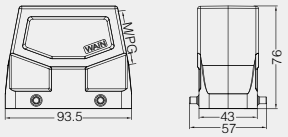
Thread	Designation	Order No.
M25	H16B–MSE–4B–M25	112 016 530 1003
M32	H16B–MSE–4B–M32	112 016 530 1004
PG21	H16B–MSE–4B–PG21	112 016 530 1011



Hoods, side entry, high construction



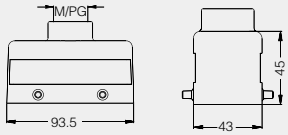
Thread	Designation	Order No.
M32	W16B–MSEH–4B–M32	112 116 530 5005
M40	W16B–MSEH–4B–M40	112 116 530 5006
PG21	W16B–MSEH–4B–PG21	112 116 530 5011
PG29	W16B–MSEH–4B–PG29 with sleeve	112 116 530 5007
M32	W16B–MSEH–4B–M32 WS	112 116 530 5004
PG21	W16B–MSEH–4B–PG21 WS	112 116 530 5001
PG29	W16B–MSEH–4B–PG29 WS	112 116 530 5012



Hoods, top entry



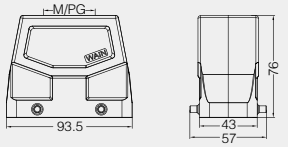
Thread	Designation	Order No.
M25	H16B–MTE–4B–M25	112 016 430 1003
M32	H16B–MTE–4B–M32	112 016 430 1004
PG21	H16B–MTE–4B–PG21	112 016 430 1011



Hoods, top entry, high construction



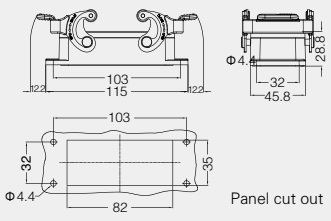
Thread	Designation	Order No.
M32	W16B–MTEH–4B–M32	112 116 430 5005
M40	W16B–MTEH–4B–M40	112 116 530 5006
PG21	W16B–MTEH–4B–PG21	112 116 530 5011
PG29	W16B–MTEH–4B–PG29 with sleeve	112 116 430 5006
M32	W16B–MTEH–4B–M32 WS	112 116 430 5007
PG21	W16B–MTEH–4B–PG21 WS	112 116 430 5008
PG29	W16B–MTEH–4B–PG29 WS	112 116 430 5012



Housings, bulkhead mounting



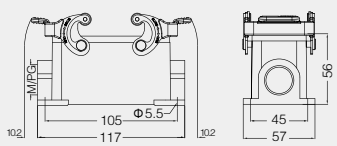
Thread	Designation	Order No.
---	H16B–MBK–2L/SC	112 016 341 1001



Housings, surface mounting



Thread	Designation	Order No.
M25	H16B–MSF–2L/SC–M25	112 016 241 1003
2M25	H16B–MSF–2L/SC–2M25	112 016 241 1023
PG21	H16B–MSF–2L/SC–PG21	112 016 241 1011



16B Metal hoods/housings
Suitable for harsh environment(anti-corrosion)

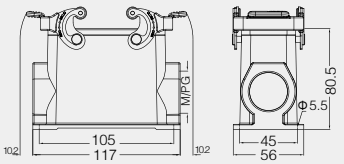
Degree of protection： IP65

Housings, surface mounting

high construction



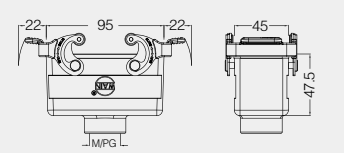
Thread	Designation	Order No.
M32	H16B–MSFH–2L/SC–M32	112 016 241 5004
2M32	H16B–MSFH–2L/SC–2M32	112 016 241 5024
M40	H16B–MSFH–2L/SC–M40	112 016 241 5005
2M40	H16B–MSFH–2L/SC–2M40	112 016 241 5025
PG21	H16B–MSFH–2L/SC–PG21	112 016 241 5011
2PG21	H16B–MSFH–2L/SC–2PG21	112 016 241 5031
PG29	H16B–MSFH–2L/SC–PG29	112 016 241 5012
2PG29	H16B–MSFH–2L/SC–2PG29	112 016 241 5032



Housings, cable to cable



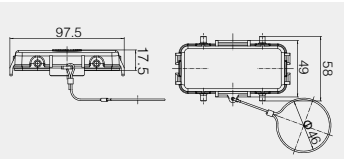
Thread	Designation	Order No.
M25	H16B–MCCT–2L/SC–M25	112 016 741 1003
M32	H16B–MCCT–2L/SC–M32	112 010 741 1004
PG21	H16B–MCCT–2L/SC–PG21	112 016 741 1011



Protection covers, metal



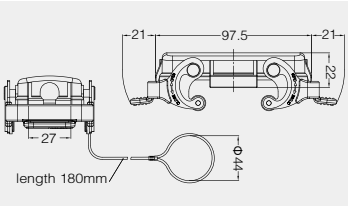
Connect way	Application	Designation	Order No.
	for hoods	H16B–MMCV–4B/1	112 016 030 8001
	for housings	H16B–MMCV–4B/2	112 016 030 8002



Protection covers, metal



Connect way	Application	Designation	Order No.
	for hoods	H16B–MMCV–2L/SC.1S	112 016 041 8001
	for housings	H16B–MMCV–2L/SC.2	112 016 041 8002

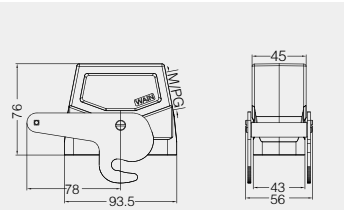


Degree of protection： IP65 1lever locking system

Hoods, side entry, high construction



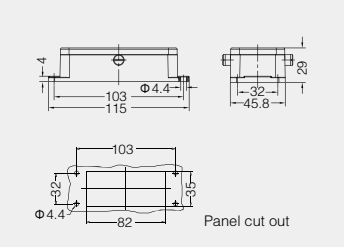
Thread	Designation	Order No.
M32	W16B–MSEH–1L/C–M32	112 116 550 5005
PG21	W16B–MSEH–1L/C–PG21	112 116 550 5006
PG29	W16B–MSEH–1L/C–PG29	112 116 550 5007
	with sleeve	
M32	W16B–MSEH–1L/C–M32 WS	112 116 555 5004
PG21	W16B–MSEH–1L/C–PG21 WS	112 116 555 5011
PG29	W16B–MSEH–1L/C–PG29 WS	112 116 555 5012



Housings, bulkhead mounting



Thread	Designation	Order No.
---	H16B–MBK–2B/C	112 016 350 1001



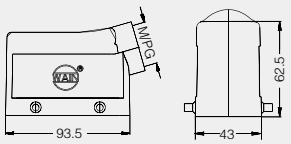
16B EMC Metal hoods/housings

Degree of protection： IP65

Hoods, side entry



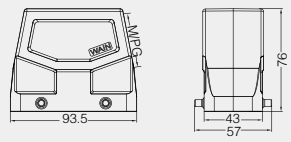
Thread	Designation	Order No.
M25	EMC.H16B–SE–4B–M25	111 616 535 1501
M32	EMC.H16B–SE–4B–M32	111 616 530 1001
PG21	EMC.H16B–SE–4B–PG21	111 616 535 1011



Hoods, side entry, high construction



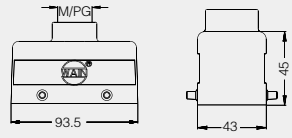
Thread	Designation	Order No.
–––	EMC.W16B–BEH–4B	111 216 930 5004
M32	EMC.W16B–SEH–4B–M32	111 216 530 5008
M40	EMC.W16B–SEH–4B–M40	111 216 530 5009
PG21	EMC.W16B–SEH–4B–PG21	111 116 535 5014
PG29	EMC.W16B–SEH–4B–PG29	111 216 530 5010
	with sleeve	
M32	EMC.W16B–SEH–4B–M32 WS	111 116 535 5002
PG21	EMC.W16B–SEH–4B–PG21 WS	111 216 535 5506
PG29	EMC.W16B–SEH–4B–PG29 WS	111 116 535 5003



Hoods, top entry



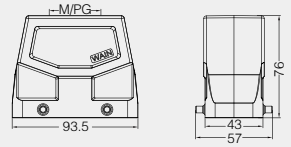
Thread	Designation	Order No.
M25	EMC.H16B–TE–4B–M25	111 616 435 1003
M32	EMC.H16B–TE–4B–M32	111 616 435 1004
PG21	EMC.H16B–TE–4B–PG21	111 616 435 1011



Hoods, top entry, high construction



Thread	Designation	Order No.
–––	EMC.W16B–BEH–4B	111 216 930 5004
M32	EMC.W16B–TEH–4B–M32	111 216 430 5007
M40	EMC.W16B–TEH–4B–M40	111 216 430 5008
PG21	EMC.W16B–TEH–4B–PG21	111 216 430 5012
PG29	EMC.W16B–TEH–4B–PG29	111 216 430 5009
	with sleeve	
M32	EMC.W16B–TEH–4B–M32 WS	111 116 435 5004
PG21	EMC.W16B–TEH–4B–PG21 WS	111 216 430 5010
PG29	EMC.W16B–TEH–4B–PG29 WS	111 116 435 5002

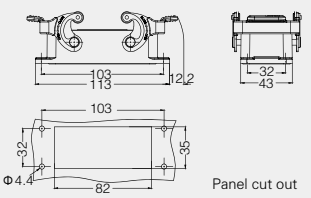


Housings, bulkhead mounting



Thread	Designation	Order No.
---	EMC1.H16B–BK–2L/SC	111 616 341 1201

Please refer to page 15–02 for choosing proper model of lock.

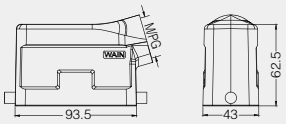


Degree of protection： IP67

Hoods, side entry



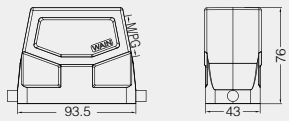
Thread	Designation	Order No.
M25	W16B–SE–2B–M25	111 116 510 1001
M32	W16B–SE–2B–M32	111 116 510 1002
PG21	W16B–SE–2B–PG21	111 116 510 1003



Hoods, side entry, high construction



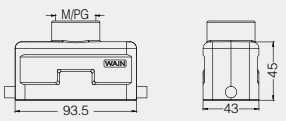
Thread	Designation	Order No.
– – –	W16B–BEH–2B	111 116 910 5002
M32	W16B–SEH–2B–M32	111 116 510 5001
M40	W16B–SEH–2B–M40	111 116 510 5002
PG21	W16B–SEH–2B–PG21	111 116 510 5003
PG29	W16B–SEH–2B–PG29	111 116 510 5004
	with sleeve	
M32	W16B–SEH–2B–M32 WS	111 116 515 5013
PG21	W16B–SEH–2B–PG21 WS	111 116 515 5011
PG29	W16B–SEH–2B–PG29 WS	111 116 515 5012



Hoods, top entry



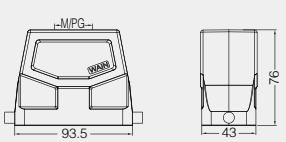
Thread	Designation	Order No.
M25	W16B–TE–2B–M25	111 116 410 1001
M32	W16B–TE–2B–M32	111 116 410 1002
PG21	W16B–TE–2B–PG21	111 116 410 1003



Hoods, top entry, high construction



Thread	Designation	Order No.
– – –	W16B–BEH–2B	111 116 910 5002
M32	W16B–TEH–2B–M32	111 116 410 5001
M40	W16B–TEH–2B–M40	111 116 410 5002
PG21	W16B–TEH–2B–PG21	111 116 410 5003
PG29	W16B–TEH–2B–PG29	111 116 410 5004
	with sleeve	
M32	W16B–TEH–2B–M32 WS	111 116 415 5004
PG21	W16B–TEH–2B–PG21 WS	111 116 415 5011
PG29	W16B–TEH–2B–PG29 WS	111 116 415 5012



16B Metal hoods/housings

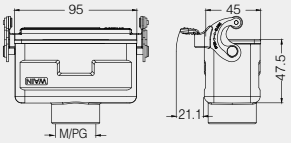
Degree of protection： IP67

Housings, cable to cable



Thread	Designation	Order No.
M25	W16B–CCT–1L/SC–M25	111 116 721 1002
M32	W16B–CCT–1L/SC–M32	111 116 721 1003
PG21	W16B–CCT–1L/SC–PG21	111 116 721 1004

Please refer to page 15–02 for choosing proper model of lock.



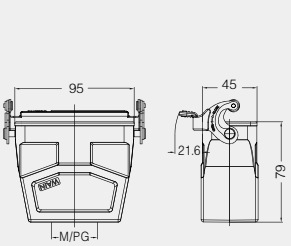
Housings, cable to cable

high construction



Thread	Designation	Order No.
M32	W16B–CCTH–1L/SC–M32	111 116 721 5001
M40	W16B–CCTH–1L/SC–M40	111 116 721 5002
PG21	W16B–CCTH–1L/SC–PG21	111 116 721 5003
PG29	W16B–CCTH–1L/SC–PG29	111 116 721 5004
	with sleeve	
M32	W16B–CCTH–1L/SC–M32 WS	111 116 721 5008
PG21	W16B–CCTH–1L/SC–PG21 WS	111 116 721 5011
PG29	W16B–CCTH–1L/SC–PG29 WS	111 116 721 5012

Please refer to page 15–02 for choosing proper model of lock.

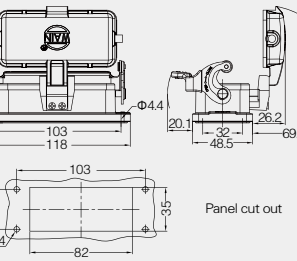


Bulkhead mounted housings



Thread	Designation	Order No.
---	W16B–BK–1L/SC	111 116 321 1001
	with plastic cover	
---	W16B–BK–1L/SC–CV	111 116 321 8001
	with metal cover	
---	W16B–BK–1L/SC–MCV	111 116 321 8002

Please refer to page 15–02 for choosing proper model of lock.

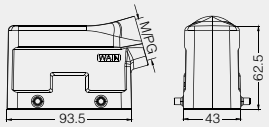


Degree of protection： IP67

Hoods, side entry



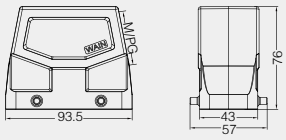
Thread	Designation	Order No.
M25	W16B–SE–4B–M25	111 116 530 1001
M32	W16B–SE–4B–M32	111 116 530 1002
PG21	W16B–SE–4B–PG21	111 116 530 1003



Hoods, side entry, high construction



Thread	Designation	Order No.
–––	W16B–BEH–4B	111 116 930 5003
M32	W16B–SEH–4B–M32	111 116 530 5001
M40	W16B–SEH–4B–M40	111 116 530 5002
PG21	W16B–SEH–4B–PG21	111 116 530 5003
PG29	W16B–SEH–4B–PG29 with sleeve	111 116 530 5004
M32	W16B–SEH–4B–M32 WS	111 116 530 5014
PG21	W16B–SEH–4B–PG21 WS	111 116 530 5011
PG29	W16B–SEH–4B–PG29 WS	111 116 530 5012

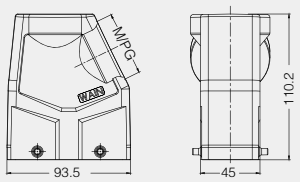


Hoods, side entry, high construction



Thread	Designation	Order No.
M50	W16B–SEH–4B–M50	111 116 530 5006
PG36	W16B–SEH–4B–PG36	111 116 530 5013

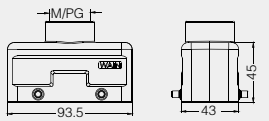
Suitable for cable with maximum OD Φ32mm



Hoods, top entry



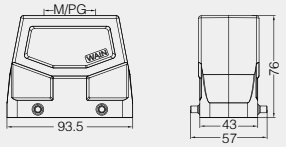
Thread	Designation	Order No.
M25	W16B–TE–4B–M25	111 116 430 1001
M32	W16B–TE–4B–M32	111 116 430 1002
PG21	W16B–TE–4B–PG21	111 116 430 1003



Hoods, top entry, high construction



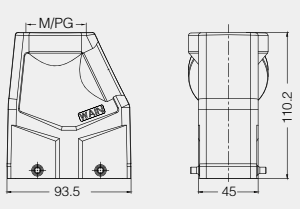
Thread	Designation	Order No.
–––	W16B–BEH–4B	111 116 930 5003
M32	W16B–TEH–4B–M32	111 116 430 5001
M40	W16B–TEH–4B–M40	111 116 430 5002
PG21	W16B–TEH–4B–PG21	111 116 430 5003
PG29	W16B–TEH–4B–PG29 with sleeve	111 116 430 5004
M32	W16B–TEH–4B–M32 WS	111 116 430 5022
PG21	W16B–TEH–4B–PG21 WS	111 116 430 5020
PG29	W16B–TEH–4B–PG29 WS	111 116 430 5021



Hoods, top entry, high construction



Thread	Designation	Order No.
M50	W16B–TEH–4B–M50	111 116 430 5006
PG36	W16B–TEH–4B–PG36	111 116 430 5013



16B Metal hoods/housings

Degree of protection： IP67

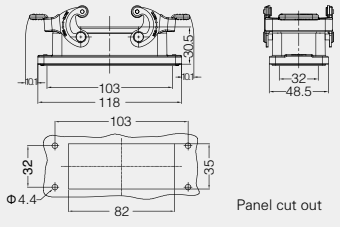
Bulkhead mounted housings

IP67



Thread	Designation	Order No.
---	W16B–BK–2L/SC	111 116 341 1002

Please refer to page 15–02 for choosing proper model of lock.

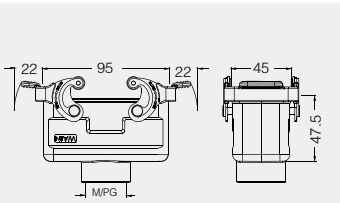


Housings, cable to cable



Thread	Designation	Order No.
M25	W16B–CCT–2L/SC–M25	111 116 741 1001
M32	W16B–CCT–2L/SC–M32	111 116 741 1002
PG21	W16B–CCT–2L/SC–PG21	111 116 741 1003

Please refer to page 15–02 for choosing proper model of lock.



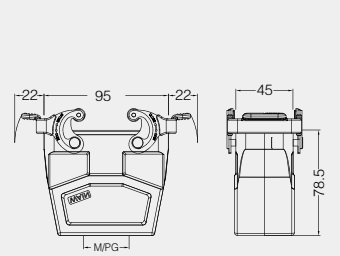
Housings, cable to cable

high construction



Thread	Designation	Order No.
M25	W16B–CCTH–2L/SC–M25	111 116 741 5002
M32	W16B–CCTH–2L/SC–M32	111 116 741 5003
M40	W16B–CCTH–2L/SC–M40	111 116 741 5004
PG21	W16B–CCTH–2L/SC–PG21	111 116 741 5005
PG29	W16B–CCTH–2L/SC–PG29 with sleeve	111 116 741 5006
M32	W16B–CCTH–2L/SC–M32 WS	111 116 741 5013
PG21	W16B–CCTH–2L/SC–PG21 WS	111 116 741 5011
PG29	W16B–CCTH–2L/SC–PG29 WS	111 116 741 5012

Please refer to page 15–02 for choosing proper model of lock.



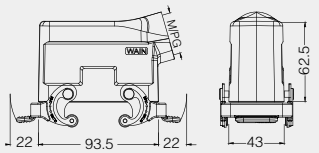
Degree of protection： IP67

Hoods, side entry



Thread	Designation	Order No.
M25	W16B–SE–2L/SC–M25	111 116 541 1001
M32	W16B–SE–2L/SC–M32	111 116 541 1002
PG21	W16B–SE–2L/SC–PG21	111 116 541 1003

Please refer to page 15–02 for choosing proper model of lock.

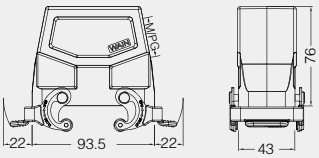


Hoods, side entry, high construction



Thread	Designation	Order No.
M32	W16B–SEH–2L/SC–M32	111 116 541 5001
M40	W16B–SEH–2L/SC–M40	111 116 541 5002
PG21	W16B–SEH–2L/SC–PG21	111 116 541 5003
PG29	W16B–SEH–2L/SC–PG29 with sleeve	111 116 541 5004
M32	W16B–SEH–2L/SC–M32 WS	111 116 541 5005
PG21	W16B–SEH–2L/SC–PG21 WS	111 116 541 5011
PG29	W16B–SEH–2L/SC–PG29 WS	111 116 541 5006

Please refer to page 15–02 for choosing proper model of lock.

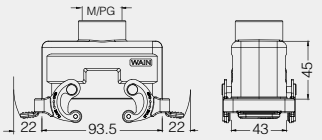


Hoods, top entry



Thread	Designation	Order No.
M25	W16B–TE–2L/SC–M25	111 116 441 1001
M32	W16B–TE–2L/SC–M32	111 116 441 1002
PG21	W16B–TE–2L/SC–PG21	111 116 441 1003

Please refer to page 15–02 for choosing proper model of lock.

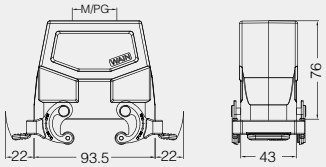


Hoods, top entry, high construction



Thread	Designation	Order No.
M32	W16B–TEH–2L/SC–M32	111 116 441 5001
M40	W16B–TEH–2L/SC–M40	111 116 441 5002
PG21	W16B–TEH–2L/SC–PG21	111 116 441 5003
PG29	W16B–TEH–2L/SC–PG29 with sleeve	111 116 441 5004
M32	W16B–TEH–2L/SC–M32 WS	111 116 441 5009
PG21	W16B–TEH–2L/SC–PG21 WS	111 116 441 5011
PG29	W16B–TEH–2L/SC–PG29 WS	111 116 441 5012

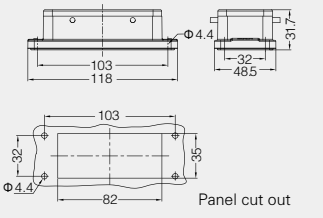
Please refer to page 15–02 for choosing proper model of lock.



Bulkhead mounted housings



Thread	Designation	Order No.
---	W16B–BK–4B	111 116 330 1001



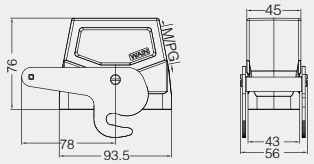
16B Metal hoods/housings

Degree of protection： IP67

Hoods, side entry, high construction



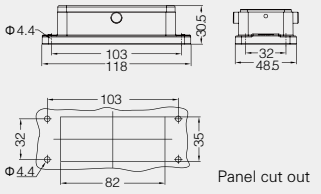
Thread	Designation	Order No.
M25	W16B–SEH–1L/C–M25	111 116 550 5001
M32	W16B–SEH–1L/C–M32	111 116 550 5002
PG21	W16B–SEH–1L/C–PG21	111 116 550 5003
PG29	W16B–SEH–1L/C–PG29 with sleeve	111 116 550 5004
M32	W16B–SEH–1L/C–M32 WS	111 116 555 5004
PG21	W16B–SEH–1L/C–PG21 WS	111 116 555 5001
PG29	W16B–SEH–1L/C–PG29 WS	111 116 555 5002



Bulkhead mounted housings



Thread	Designation	Order No.
---	W16B–BK–2B/C	111 116 350 1001



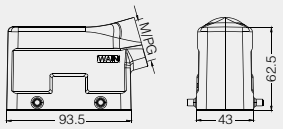
16B Metal hoods/housings
Suitable for harsh environment(anti-corrosion)

Degree of protection： IP67

Hoods, side entry



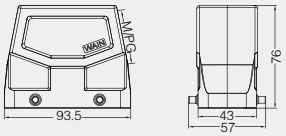
Thread	Designation	Order No.
M25	W16B–MSE–4B–M25	112 116 530 1001
M32	W16B–MSE–4B–M32	112 116 530 1003
PG21	W16B–MSE–4B–PG21	112 116 530 1002



Hoods, side entry, high construction



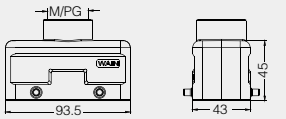
Thread	Designation	Order No.
M32	W16B–MSEH–4B–M32	112 116 530 5005
M40	W16B–MSEH–4B–M40	112 116 530 5006
PG21	W16B–MSEH–4B–PG21	112 116 530 5011
PG29	W16B–MSEH–4B–PG29	112 116 530 5007
	with sleeve	
M32	W16B–MSEH–4B–M32 WS	112 116 530 5004
PG21	W16B–MSEH–4B–PG21 WS	112 116 530 5001
PG29	W16B–MSEH–4B–PG29 WS	112 116 530 5012



Hoods, top entry



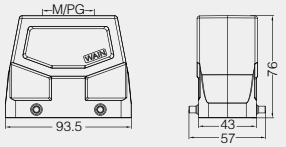
Thread	Designation	Order No.
M25	W16B–MTE–4B–M25	112 116 430 1001
M32	W16B–MTE–4B–M32	112 116 430 1003
PG21	W16B–MTE–4B–PG21	112 116 430 1002



Hoods, top entry, high construction



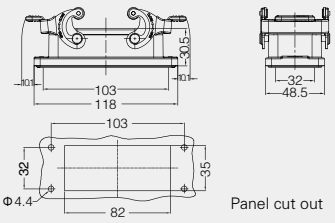
Thread	Designation	Order No.
M32	W16B–MTEH–4B–M32	112 116 430 5005
M40	W16B–MTEH–4B–M40	112 116 430 5001
PG21	W16B–MTEH–4B–PG21	112 116 430 5011
PG29	W16B–MTEH–4B–PG29	112 116 430 5006
	with sleeve	
M32	W16B–MTEH–4B–M32 WS	112 116 430 5007
PG21	W16B–MTEH–4B–PG21 WS	112 116 430 5008
PG29	W16B–MTEH–4B–PG29 WS	112 116 430 5012



Bulkhead mounted housings



Thread	Designation	Order No.
---	W16B–MBK–2L/SC	112 116 341 1001



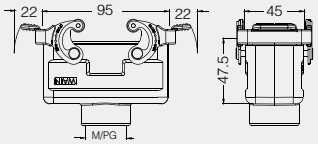
16B Metal hoods/housings
Suitable for harsh environment(anti-corrosion)

Degree of protection： IP67

Housings, cable to cable



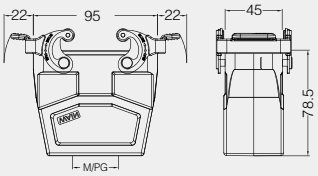
Thread	Designation	Order No.
M25	W16B–MCCT–2L/SC–M25	112 116 741 1002
M32	W16B–MCCT–2L/SC–M32	112 116 741 1003
PG21	W16B–MCCT–2L/SC–PG21	112 116 741 1001



Housings, cable to cable high construction



Thread	Designation	Order No.
M32	W16B–MCCTH–2L/SC–M32	112 116 741 5004
M40	W16B–MCCTH–2L/SC–M40	112 116 741 5005
PG21	W16B–MCCTH–2L/SC–PG21	112 116 741 5011
PG29	W16B–MCCTH–2L/SC–PG29 with sleeve	112 116 741 5012
M32	W16B–MCCTH–2L/SC–M32 WS	112 116 741 5001
PG21	W16B–MCCTH–2L/SC–PG21 WS	112 116 741 5002
PG29	W16B–MCCTH–2L/SC–PG29 WS	112 116 741 5003

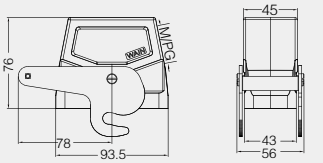


Degree of protection： IP67 1lever locking system

Hoods, side entry, high construction



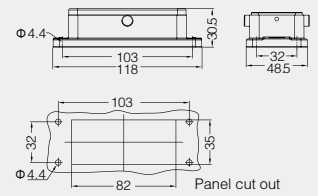
Thread	Designation	Order No.
M32	W16B–MSEH–1L/C–M32	112 116 550 5005
PG21	W16B–MSEH–1L/C–PG21	112 116 550 5006
PG29	W16B–MSEH–1L/C–PG29 with sleeve	112 116 550 5007
M32	W16B–MSEH–1L/C–M32 WS	112 116 555 5004
PG21	W16B–MSEH–1L/C–PG21 WS	112 116 555 5011
PG29	W16B–MSEH–1L/C–PG29 WS	112 116 555 5012



Bulkhead mounted housings



Thread	Designation	Order No.
---	W16B–MBK–2B/C	112 116 350 1001

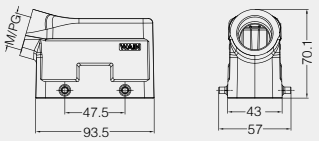


Degree of protection： IP67

Hoods, side entry



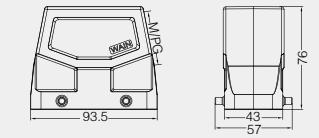
Thread	Designation	Order No.
M25	EMC.W16B–SE–4B–M25	111 216 530 1001
M32	EMC.W16B–SE–4B–M32	111 216 530 1002
PG21	EMC.W16B–SE–4B–PG21	111 216 530 1003



Hoods, side entry, high construction



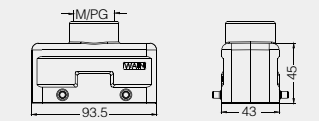
Thread	Designation	Order No.
–––	EMC.W16B–BEH–4B	111 216 930 5004
M32	EMC.W16B–SEH–4B–M32	111 216 530 5008
M40	EMC.W16B–SEH–4B–M40	111 216 530 5009
PG21	EMC.W16B–SEH–4B–PG21	111 116 535 5014
PG29	EMC.W16B–SEH–4B–PG29	111 216 530 5010
	with sleeve	
M32	EMC.W16B–SEH–4B–M32 WS	111 116 535 5002
PG21	EMC.W16B–SEH–4B–PG21 WS	111 216 535 5506
PG29	EMC.W16B–SEH–4B–PG29 WS	111 116 535 5003



Hoods, top entry



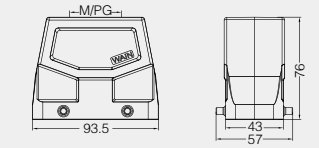
Thread	Designation	Order No.
M25	EMC.W16B–TE–4B–M25	111 216 430 1001
M32	EMC.W16B–TE–4B–M32	111 216 430 1002
PG21	EMC.W16B–TE–4B–PG21	111 216 430 1003



Hoods, top entry, high construction



Thread	Designation	Order No.
–––	EMC.W16B–BEH–4B	111 216 930 5004
M32	EMC.W16B–TEH–4B–M32	111 216 430 5007
M40	EMC.W16B–TEH–4B–M40	111 216 430 5008
PG21	EMC.W16B–TEH–4B–PG21	111 216 430 5012
PG29	EMC.W16B–TEH–4B–PG29	111 216 430 5009
	with sleeve	
M32	EMC.W16B–TEH–4B–M32 WS	111 116 435 5004
PG21	EMC.W16B–TEH–4B–PG21 WS	111 216 430 5010
PG29	EMC.W16B–TEH–4B–PG29 WS	111 116 435 5002

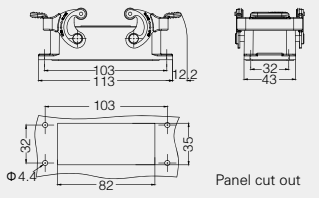


Bulkhead mounted housings



Thread	Designation	Order No.
---	EMC1.W16B–BK–2L/SC	111 116 341 1001

Please refer to page 15–02 for choosing proper model of lock.



16B Pressure tight hoods/housings

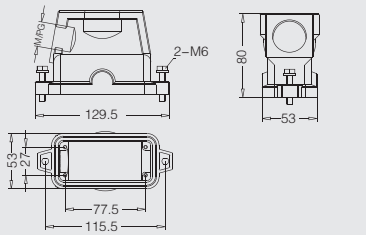
Degree of protection： IP68/IP69K

W version

Hoods, side entry, high construction



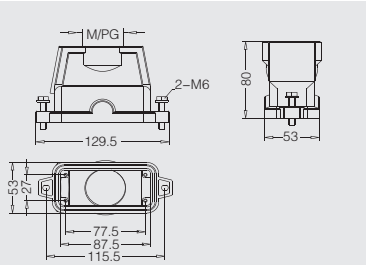
Thread	Designation	Order No.
M25	HP16B–SEH–2S–M25	115 016 520 5003
M32	HP16B–SEH–2S–M32	115 016 520 5104
M40	HP16B–SEH–2S–M40	115 016 520 5105
PG21	HP16B–SEH–2S–PG21	115 016 520 5111
PG29	HP16B–SEH–2S–PG29	115 016 520 5112



Hoods, top entry, high construction



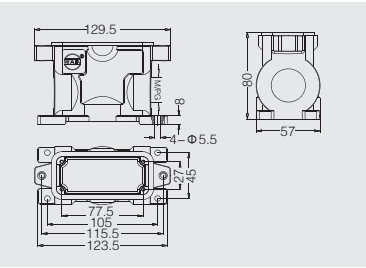
Thread	Designation	Order No.
M25	HP16B–TEH–2S–M25	115 016 420 5103
M32	HP16B–TEH–2S–M32	115 016 420 5104
M40	HP16B–TEH–2S–M40	115 016 420 5105
M50	HP16B–TEH–2S–M50	115 016 420 5106
PG21	HP16B–TEH–2S–PG21	115 016 420 5111
PG29	HP16B–TEH–2S–PG29	115 016 420 5112



Housings, surface mounting



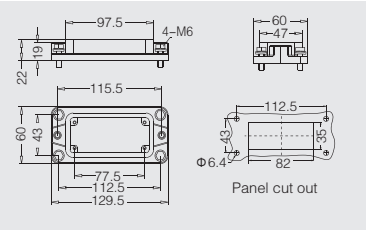
Thread	Designation	Order No.
M25	HP16B–SFH–2H–M25	115 016 220 5003
M32	HP16B–SFH–2H–M32	115 016 220 5004
M40	HP16B–SFH–2H–M40	115 016 220 5005
PG21	HP16B–SFH–2H–PG21	115 016 220 5011
PG29	HP16B–SFH–2H–PG29	115 016 220 5012



Bulkhead mounted housings



Thread	Designation	Order No.
---	HP16B–BK–2H	115 016 320 1001

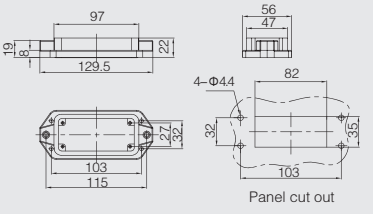


Bulkhead mounted housings

NEW



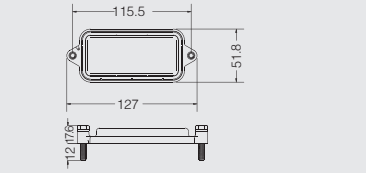
Thread	Designation	Order No.
---	HP16B–BK/S–2H	115 016 320 1004



Protection covers, plastic



Thread	Designation	Order No.
---	HP16B–CV–2S/2	115 016 020 8002



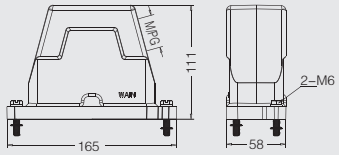
Degree of protection： IP68/IP69K

H version

Hoods, side entry, high construction



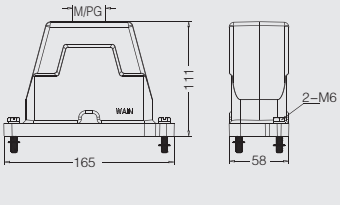
Thread	Designation	Order No.
	Screw locking	
M25	HP16B/H–SEH–2S–M25	113 616 520 5003
M32	HP16B/H–SEH–2S–M32	113 616 520 5004
M40	HP16B/H–SEH–2S–M40	113 616 520 5005
M50	HP16B/H–SEH–2S–M50	113 616 520 5006
PG21	HP16B/H–SEH–2S–PG21	113 616 520 5011
PG29	HP16B/H–SEH–2S–PG29	113 616 520 5012
PG36	HP16B/H–SEH–2S–PG36	113 616 520 5013
	Toggle locking	
M25	HP16B/H–SEH–2T–M25	113 616 540 5003
M32	HP16B/H–SEH–2T–M32	113 616 540 5004
M40	HP16B/H–SEH–2T–M40	113 616 540 5005
M50	HP16B/H–SEH–2T–M50	113 616 540 5006
PG21	HP16B/H–SEH–2T–PG21	113 616 540 5011
PG29	HP16B/H–SEH–2T–PG29	113 616 540 5012
PG36	HP16B/H–SEH–2T–PG36	113 616 540 5013



Hoods, top entry, high construction



Thread	Designation	Order No.
	Screw locking	
M25	HP16B/H–TEH–2S–M25	113 616 420 5003
2M25	HP16B/H–TEH–2S–2M25	113 616 420 5023
M32	HP16B/H–TEH–2S–M32	113 616 420 5004
M40	HP16B/H–TEH–2S–M40	113 616 420 5005
M50	HP16B/H–TEH–2S–M50	113 616 420 5006
PG21	HP16B/H–TEH–2S–PG21	113 616 420 5011
2PG21	HP16B/H–TEH–2S–2PG21	113 616 420 5031
PG29	HP16B/H–TEH–2S–PG29	113 616 420 5012
PG36	HP16B/H–TEH–2S–PG36	113 616 420 5013
	Toggle locking	
M25	HP16B/H–TEH–2T–M25	113 616 440 5003
2M25	HP16B/H–TEH–2T–2M25	113 616 440 5023
M32	HP16B/H–TEH–2T–M32	113 616 440 5004
M40	HP16B/H–TEH–2T–M40	113 616 440 5005
M50	HP16B/H–TEH–2T–M50	113 616 440 5006
PG21	HP16B/H–TEH–2T–PG21	113 616 440 5011
2PG21	HP16B/H–TEH–2T–2PG21	113 616 440 5031
PG29	HP16B/H–TEH–2T–PG29	113 616 440 5012
PG36	HP16B/H–TEH–2T–PG36	113 616 440 5013

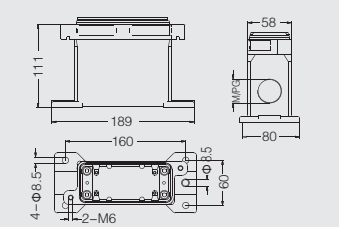


Surface mounted housings

high construction



Thread	Designation	Order No.
	Screw locking	
M25	HP16B/H–SFH–2H–M25	113 616 220 5003
M32	HP16B/H–SFH–2H–M32	113 616 220 5004
M40	HP16B/H–SFH–2H–M40	113 016 220 5002
M40	HP16B/H–SFH–2H–2M40	113 616 220 5025
PG21	HP16B/H–SFH–2H–PG21	113 616 220 5011
PG29	HP16B/H–SFH–2H–PG29	113 616 220 5012
PG36	HP16B/H–SFH–2H–PG36	113 616 220 5013
	Toggle locking	
M25	HP16B/H–SFH–2T–M25	113 616 240 5003
M32	HP16B/H–SFH–2T–M32	113 616 240 5004
M40	HP16B/H–SFH–2T–M40	113 616 240 5005
2M40	HP16B/H–SFH–2T–2M40	113 616 240 5025
PG21	HP16B/H–SFH–2T–PG21	113 616 240 5011
PG29	HP16B/H–SFH–2T–PG29	113 616 240 5012
PG36	HP16B/H–SFH–2T–PG36	113 616 240 5013



16B Pressure tight hoods/housings

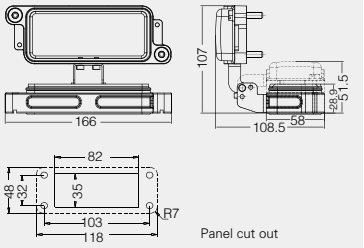
Degree of protection： IP68/IP69K

H version

Bulkhead mounted housings



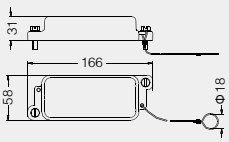
Thread	Designation	Order No.
	Screw locking	
---	HP16B/H–BK–2H	113 616 320 1001
	Toggle locking	
---	HP16B/H–BK–2T	113 616 340 1001
	with metal cover	
---	Screw locking	
	HP16B/H–BK–2H–MCV	113 616 360 1001
---	Toggle locking	
	HP16B/H–BK–2T–MCV	113 616 370 1001



Protection covers



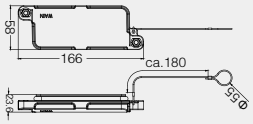
Connect way	Designation	Order No.
	Screw locking	
	HP16B/H–MCV–2S	113 616 020 8101
	Toggle locking	
	HP16B/H–MCV–2T	113 616 040 8103



Protection covers

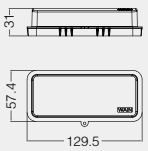


Connect way	Designation	Order No.
	Screw locking	
	HP16B/H–MCV–2H/1	113 616 020 8111
	Toggle locking	
	HP16B/H–MCV–2T/1	113 616 040 8101



Protection covers, for housings(IP5X)

Thread	Designation	Order No.
---	HP16B/H–CV/C	113 016 900 8001



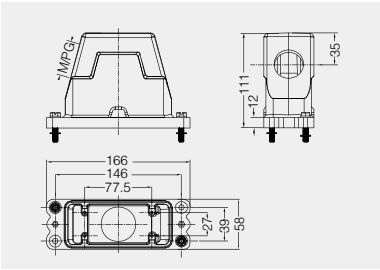
Degree of protection： IP68/IP69K

The following hoods/housings comply with the standards for rail transport industry in China. H version

Hoods, side entry, high construction



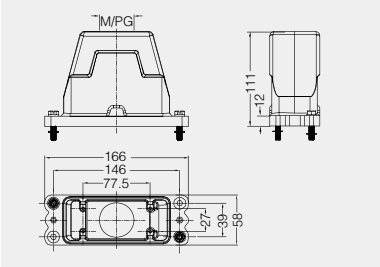
Thread	Designation	Order No.
M25	HP16B/H–SEH–4S–M25	113 616 530 5003
M32	HP16B/H–SEH–4S–M32	113 616 530 5004
M40	HP16B/H–SEH–4S–M40	113 616 530 5005
PG21	HP16B/H–SEH–4S–PG21	113 616 530 5011
PG29	HP16B/H–SEH–4S–PG29	113 616 530 5012



Hoods, top entry, high construction



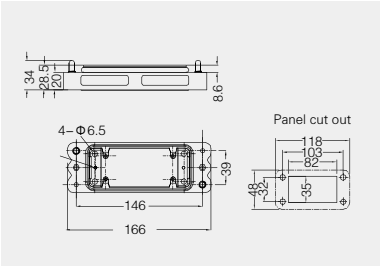
Thread	Designation	Order No.
M25	HP16B/H–TEH–4S–M25	113 616 430 5003
M32	HP16B/H–TEH–4S–M32	113 616 430 5004
M40	HP16B/H–TEH–4S–M40	113 616 430 5005
M50	HP16B/H–TEH–4S–M50	113 616 430 5006
PG21	HP16B/H–TEH–4S–PG21	113 616 430 5011
PG29	HP16B/H–TEH–4S–PG29	113 616 430 5012
PG36	HP16B/H–TEH–4S–PG36	113 616 430 5013



Bulkhead mounted housings



Thread	Designation	Order No.
---	HP16B/H–BK–4H	113 616 330 1001



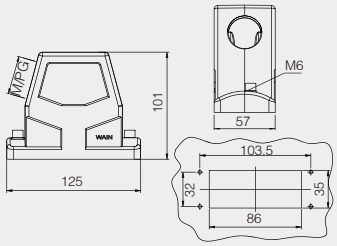
16B Pressure tight hoods/housings

Degree of protection： IP68/IP69K

Hoods, side entry, high construction



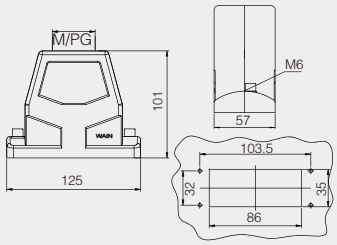
Thread	Designation	Order No.
M32	HC16B–SEH–2S–M32	114 016 520 5004
M40	HC16B–SEH–2S–M40	114 016 520 5005
PG21	HC16B–SEH–2S–PG21	114 016 520 5011
PG29	HC16B–SEH–2S–PG29	114 016 520 5012



Hoods, top entry, high construction



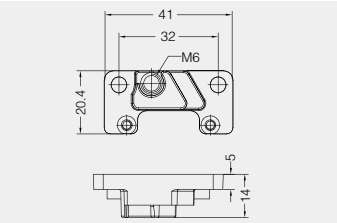
Thread	Designation	Order No.
M32	HC16B–TEH–2S–M32	114 016 420 5004
M40	HC16B–TEH–2S–M40	114 016 420 5005
PG21	HC16B–TEH–2S–PG21	114 016 420 5011
PG29	HC16B–TEH–2S–PG29	114 016 420 5012



Mounting flange



Application	Designation	Order No.
for integral type hoods	APT–C	114 000 000 1001

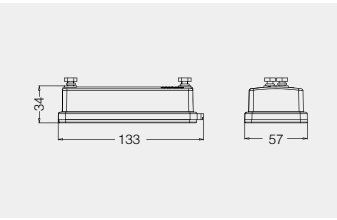


Protection covers,plastic

Degree of protection： IP65



Thread	Designation	Order No.
–––	HC16B–CV–2S/2	130 016 020 8001



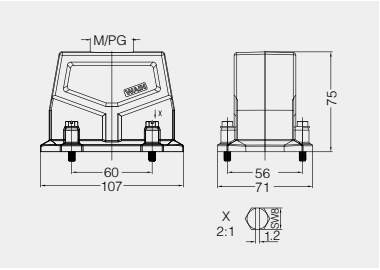
Degree of protection： IP68/IP69K — EMC Pressure tight hoods/housings

Hoods, top entry, high construction

EMC version



Thread	Designation	Order No.
M32	EMC.W16B–TEH–4S–M32	111 116 430 5010
M40	EMC.W16B–TEH–4S–M40	111 116 430 5011
PG21	EMC.W16B–TEH–4S–PG21	111 116 430 5012
PG29	EMC.W16B–TEH–4S–PG29	111 216 430 5002

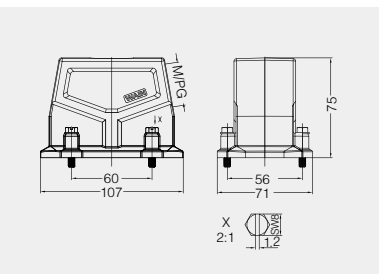


Hoods, side entry, high construction

EMC version



Thread	Designation	Order No.
M32	EMC.W16B–SEH–4S–M32	111 216 530 5002
M40	EMC.W16B–SEH–4S–M40	111 216 530 5003
PG21	EMC.W16B–SEH–4S–PG21	111 216 530 5004
PG29	EMC.W16B–SEH–4S–PG29	111 216 530 5005

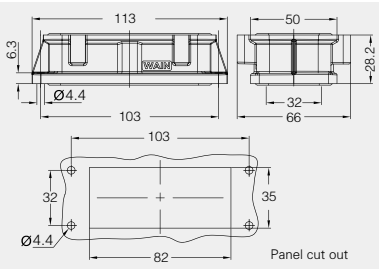


Bulkhead mounted housings

EMC version



Thread	Designation	Order No.
---	EMC.W16B–BK–4H	111 216 330 1001



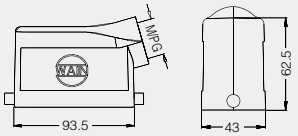
HV16B Metal hoods/housings
- for high voltage inserts(HVE Series)

Degree of protection： IP65

Hoods, side entry



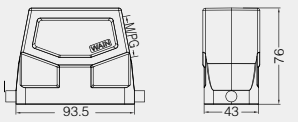
Thread	Designation	Order No.
M25	HV16B–SE–2B–M25	124 016 515 1003
PG21	HV16B–SE–2B–PG21	124 016 515 1011



Hoods, side entry, high construction



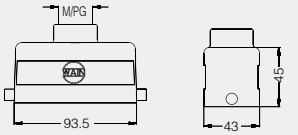
Thread	Designation	Order No.
M32	WV16B–SEH–2B–M32	124 116 510 5001
M40	WV16B–SEH–2B–M40	124 116 510 5002
PG21	WV16B–SEH–2B–PG21	124 116 510 5003
PG29	WV16B–SEH–2B–PG29 with sleeve	124 116 510 5004
M32	WV16B–SEH–2B–M32 WS	124 116 515 5004
PG21	WV16B–SEH–2B–PG21 WS	124 116 515 5011
PG29	WV16B–SEH–2B–PG29 WS	124 116 515 5012



Hoods, top entry



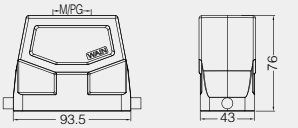
Thread	Designation	Order No.
M25	HV16B–TE–2B–M25	124 016 415 1003
M32	HV16B–TE–2B–M32	124 016 415 1004
PG21	HV16B–TE–2B–PG21	124 016 415 1011



Hoods, top entry, high construction



Thread	Designation	Order No.
M32	WV16B–TEH–2B–M32	124 116 410 5001
M40	WV16B–TEH–2B–M40	124 116 410 5002
PG21	WV16B–TEH–2B–PG21	124 116 410 5003
PG29	WV16B–TEH–2B–PG29 with sleeve	124 116 410 5004
M32	WV16B–TEH–2B–M32 WS	124 116 415 5004
PG21	WV16B–TEH–2B–PG21 WS	124 116 415 5011
PG29	WV16B–TEH–2B–PG29 WS	124 116 415 5012

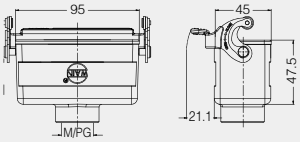


Housings, cable to cable



Thread	Designation	Order No.
M25	HV16B–CCT–1L/SC–M25	124 016 721 1003
PG21	HV16B–CCT–1L/SC–PG21	124 016 721 1011

Please refer to page 15–02 for choosing proper model of lock.

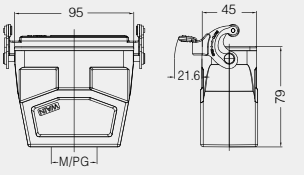


Housings, cable to cable
high construction



Thread	Designation	Order No.
M32	WV16B–CCTH–1L/SC–M32	124 116 721 5001
M40	WV16B–CCTH–1L/SC–M40	124 116 721 5002
PG21	WV16B–CCTH–1L/SC–PG21	124 116 721 5003
PG29	WV16B–CCTH–1L/SC–PG29 with sleeve	124 116 721 5004
M32	WV16B–CCTH–1L/SC–M32 WS	124 116 721 5005
PG21	WV16B–CCTH–1L/SC–PG21 WS	124 116 721 5011
PG29	WV16B–CCTH–1L/SC–PG29 WS	124 116 721 5012

Please refer to page 15–02 for choosing proper model of lock.



HV16B Metal hoods/housings

- for high voltage inserts(HVE Series)

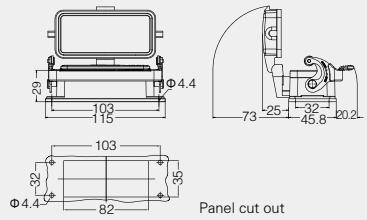
Degree of protection： IP65

Housings, bulkhead mounting



Thread	Designation	Order No.
---	HV16B–BK–1L/SC	124 016 321 1001
	with plastic cover	
---	HV16B–BK–1L/SC–CV	124 016 361 1001
	with metal cover	
---	HV16B–BK–1L/SC–MCV	124 016 361 1101

Please refer to page 15–02 for choosing proper model of lock.



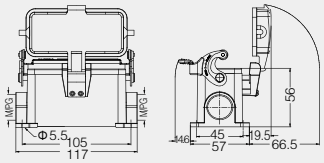
Panel cut out

Housings, surface mounting



Thread	Designation	Order No.
M25	HV16B–SF–1L/SC–M25	124 016 221 1003
2M25	HV16B–SF–1L/SC–2M25	124 016 221 1023
PG21	HV16B–SF–1L/SC–PG21	124 016 221 1011
2PG21	HV16B–SF–1L/SC–2PG21	124 016 221 1031
	with plastic cover	
M25	HV16B–SF–1L/SC–CV–M25	124 016 261 1003
2M25	HV16B–SF–1L/SC–CV–2M25	124 016 261 1023
PG21	HV16B–SF–1L/SC–CV–PG21	124 016 261 1011
2PG21	HV16B–SF–1L/SC–CV–2PG21	124 016 261 1031
	with metal cover	
M25	HV16B–SF–1L/SC–MCV–M25	124 016 261 1103
2M25	HV16B–SF–1L/SC–MCV–2M25	124 016 261 1123
PG21	HV16B–SF–1L/SC–MCV–PG21	124 016 261 1111
2PG21	HV16B–SF–1L/SC–MCV–2PG21	124 016 261 1131

Please refer to page 15–02 for choosing proper model of lock.



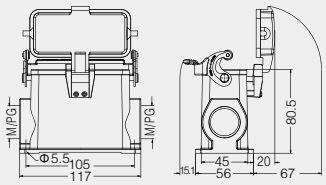
Housings, surface mounting

high construction



Thread	Designation	Order No.
M32	HV16B–SFH–1L/SC–M32	124 016 221 5004
2M32	HV16B–SFH–1L/SC–2M32	124 016 221 5024
PG21	HV16B–SFH–1L/SC–PG21	124 016 221 5011
2PG21	HV16B–SFH–1L/SC–2PG21	124 016 221 5031
PG29	HV16B–SFH–1L/SC–PG29	124 016 221 5012
2PG29	HV16B–SFH–1L/SC–2PG29	124 016 221 5032
	with plastic cover	
M32	HV16B–SFH–1L/SC–CV–M32	124 016 261 5004
2M32	HV16B–SFH–1L/SC–CV–2M32	124 016 261 5024
PG21	HV16B–SFH–1L/SC–CV–PG21	124 016 261 5011
2PG21	HV16B–SFH–1L/SC–CV–2PG21	124 016 261 5031
PG29	HV16B–SFH–1L/SC–CV–PG29	124 016 261 5012
2PG29	HV16B–SFH–1L/SC–CV–2PG29	124 016 261 5032
	with metal cover	
M32	HV16B–SFH–1L/SC–MCV–M32	124 016 261 5104
2M32	HV16B–SFH–1L/SC–MCV–2M32	124 016 261 5124
PG21	HV16B–SFH–1L/SC–MCV–PG21	124 016 261 5111
2PG21	HV16B–SFH–1L/SC–MCV–2PG21	124 016 261 5131
PG29	HV16B–SFH–1L/SC–MCV–PG29	124 016 261 5112
2PG29	HV16B–SFH–1L/SC–MCV–2PG29	124 016 261 5132

Please refer to page 15–02 for choosing proper model of lock.



HV16B Metal hoods/housings

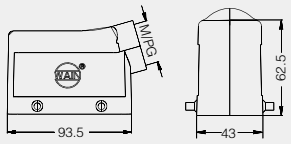
- for high voltage inserts(HVE Series)

Degree of protection： IP65

Hoods, side entry



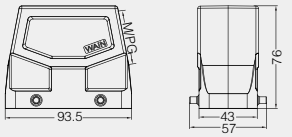
Thread	Designation	Order No.
M25	HV16B–SE–4B–M25	124 016 530 1003
M32	HV16B–SE–4B–M32	124 016 530 1004
PG21	HV16B–SE–4B–PG21	124 016 530 1011



Hoods, side entry, high construction



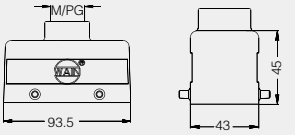
Thread	Designation	Order No.
M32	WV16B–SEH–4B–M32	124 116 530 5001
M40	WV16B–SEH–4B–M40	124 116 530 5002
PG21	WV16B–SEH–4B–PG21	124 116 530 5003
PG29	WV16B–SEH–4B–PG29 with sleeve	124 116 530 5004
M32	WV16B–SEH–4B–M32 WS	124 116 530 5007
PG21	WV16B–SEH–4B–PG21 WS	124 116 530 5011
PG29	WV16B–SEH–4B–PG29 WS	124 116 530 5012



Hoods, top entry



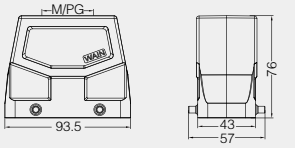
Thread	Designation	Order No.
M25	HV16B–TE–4B–M25	124 016 430 1003
PG21	HV16B–TE–4B–PG21	124 016 430 1011



Hoods, top entry, high construction



Thread	Designation	Order No.
M32	WV16B–TEH–4B–M32	124 116 430 5001
M40	WV16B–TEH–4B–M40	124 116 430 5002
PG21	WV16B–TEH–4B–PG21	124 116 430 5003
PG29	WV16B–TEH–4B–PG29 with sleeve	124 116 430 5004
M32	WV16B–TEH–4B–M32 WS	124 116 430 5007
PG21	WV16B–TEH–4B–PG21 WS	124 116 430 5011
PG29	WV16B–TEH–4B–PG29 WS	124 116 430 5012



HV16B Metal hoods/housings
- for high voltage inserts(HVE Series)

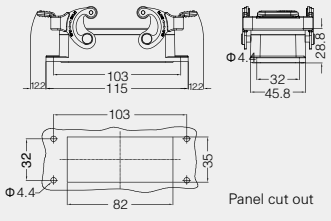
Degree of protection： IP65

Housings, bulkhead mounting



Thread	Designation	Order No.
---	HV16B–BK–2L/SC	124 016 341 1001

Please refer to page 15–02 for choosing proper model of lock.

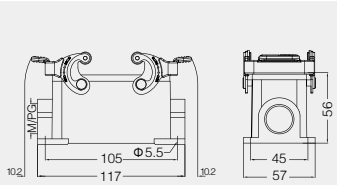


Housings, surface mounting



Thread	Designation	Order No.
M25	HV16B–SF–2L/SC–M25	124 016 241 1003
2M25	HV16B–SF–2L/SC–2M25	124 016 241 1023
PG21	HV16B–SF–2L/SC–PG21	124 016 241 1011
2PG21	HV16B–SF–2L/SC–2PG21	124 016 241 1031

Please refer to page 15–02 for choosing proper model of lock.

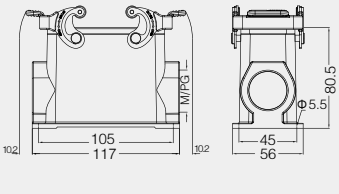


Housings, surface mounting
high construction



Thread	Designation	Order No.
M32	HV16B–SFH–2L/SC–M32	124 016 241 5004
2M32	HV16B–SFH–2L/SC–2M32	124 016 241 5024
PG21	HV16B–SFH–2L/SC–PG21	124 016 241 5011
2PG21	HV16B–SFH–2L/SC–2PG21	124 016 241 5031
PG29	HV16B–SFH–2L/SC–PG29	124 016 241 5012
2PG29	HV16B–SFH–2L/SC–2PG29	124 016 241 5032

Please refer to page 15–02 for choosing proper model of lock.

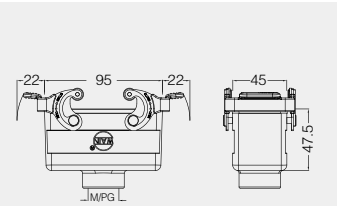


Housings, cable to cable



Thread	Designation	Order No.
M25	HV16B–CCT–2L/SC–M25	124 016 741 1003
PG21	HV16B–CCT–2L/SC–PG21	124 016 741 1011

Please refer to page 15–02 for choosing proper model of lock.



HV16B Metal hoods/housings
- for high voltage inserts(HVE Series)

Degree of protection： IP65

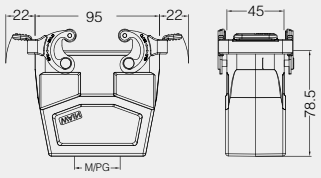
Housings, cable to cable

high construction



Thread	Designation	Order No.
M32	WV16B–CCTH–2L/SC–M32	124 116 741 5001
M40	WV16B–CCTH–2L/SC–M40	124 116 741 5002
PG21	WV16B–CCTH–2L/SC–PG21	124 116 741 5003
PG29	WV16B–CCTH–2L/SC–PG29 with sleeve	124 116 741 5004
M32	WV16B–CCTH–2L/SC–M32 WS	124 116 741 5005
PG21	WV16B–CCTH–2L/SC–PG21 WS	124 116 741 5011
PG29	WV16B–CCTH–2L/SC–PG29 WS	124 116 741 5012

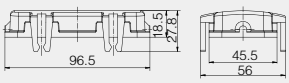
Please refer to page 15–02 for choosing proper model of lock.



Protection covers, plastic



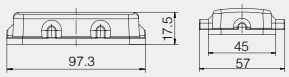
Connect way	Application	Designation	Order No.
---	for hoods	H16B–CV–4C	111 016 090 8009



Protection covers, plastic



Connect way	Application	Designation	Order No.
	for Housings, cable to cable	H16B–CV–4B/1	111 016 030 8001
	for Housings, bulkhead mounting /surface mounting	H16B–CV–4B/2	111 016 030 8002



HV16B Metal hoods/housings

- for high voltage inserts(HVE Series)

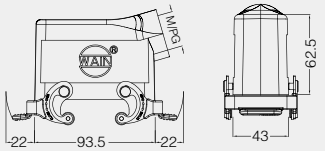
Degree of protection： IP65

Hoods, side entry



Thread	Designation	Order No.
M25	HV16B–SE–2L/SC–M25	124 016 541 1003
M32	HV16B–SE–2L/SC–M32	124 016 541 1004
PG21	HV16B–SE–2L/SC–PG21	124 016 541 1011

Please refer to page 15–02 for choosing proper model of lock.

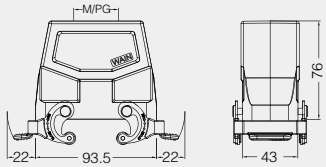


Hoods, side entry, high construction



Thread	Designation	Order No.
M32	WV16B–SEH–2L/SC–M32	124 116 541 5001
M40	WV16B–SEH–2L/SC–M40	124 116 541 5002
PG21	WV16B–SEH–2L/SC–PG21	124 116 541 5003
PG29	WV16B–SEH–2L/SC–PG29 有台	124 116 541 5004
M32	WV16B–SEH–2L/SC–M32 WS	124 116 541 5006
PG21	WV16B–SEH–2L/SC–PG21 WS	124 116 541 5011
PG29	WV16B–SEH–2L/SC–PG29 WS	124 116 541 5012

Please refer to page 15–02 for choosing proper model of lock.

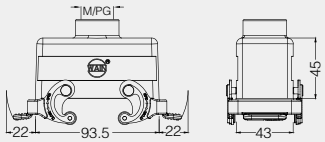


Hoods, top entry



Thread	Designation	Order No.
M25	HV16B–TE–2L/SC–M25	124 016 441 1003
PG21	HV16B–TE–2L/SC–PG21	124 016 441 1011

Please refer to page 15–02 for choosing proper model of lock.

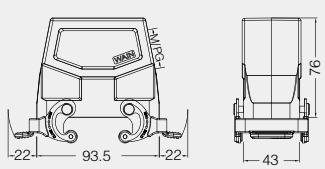


Hoods, top entry, high construction



Thread	Designation	Order No.
M32	WV16B–TEH–2L/SC–M32	124 116 441 5001
M40	WV16B–TEH–2L/SC–M40	124 116 441 5002
PG21	WV16B–TEH–2L/SC–PG21	124 116 441 5003
PG29	WV16B–TEH–2L/SC–PG29 有台	124 116 441 5004
M32	WV16B–TEH–2L/SC–M32 WS	124 116 441 5005
PG21	WV16B–TEH–2L/SC–PG21 WS	124 116 441 5011
PG29	WV16B–TEH–2L/SC–PG29 WS	124 116 441 5012

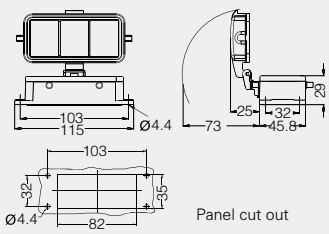
Please refer to page 15–02 for choosing proper model of lock.



Housings, bulkhead mounting



Thread	Designation	Order No.
---	HV16B–BK–4B	124 016 330 1001
	with plastic cover	
	HV16B–BK–4B–CV	124 016 370 1001
	with metal cover	
	HV16B–BK–4B–MCV	124 016 370 1101



HV16B Metal hoods/housings

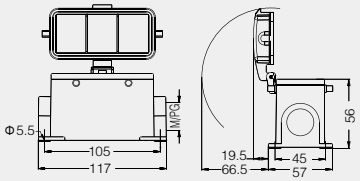
- for high voltage inserts(HVE Series)

Degree of protection： IP65

Housings, surface mounting



Thread	Designation	Order No.
M25	HV16B–SF–4B–M25	124 016 230 1003
2M25	HV16B–SF–4B–2M25	124 016 230 1023
PG21	HV16B–SF–4B–PG21	124 016 230 1011
2PG21	HV16B–SF–4B–2PG21	124 016 230 1031
	with plastic cover	
M25	HV16B–SF–4B–CV–M25	124 016 270 1003
2M25	HV16B–SF–4B–CV–2M25	124 016 270 1023
PG21	HV16B–SF–4B–CV–PG21	124 016 270 1011
2PG21	HV16B–SF–4B–CV–2PG21	124 016 270 1031
	with metal cover	
M25	HV16B–SF–4B–MCV–M25	124 016 270 1103
2M25	HV16B–SF–4B–MCV–2M25	124 016 270 1123
PG21	HV16B–SF–4B–MCV–PG21	124 016 270 1111
2PG21	HV16B–SF–4B–MCV–2PG21	124 016 270 1131

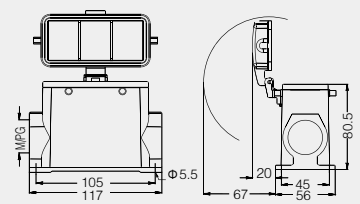


Housings, surface mounting

high construction



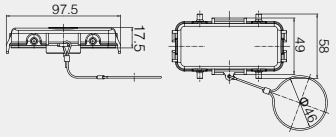
Thread	Designation	Order No.
M32	HV16B–SFH–4B–M32	124 016 230 5004
2M32	HV16B–SFH–4B–2M32	124 016 230 5024
PG21	HV16B–SFH–4B–PG21	124 016 230 5011
2PG21	HV16B–SFH–4B–2PG21	124 016 230 5031
PG29	HV16B–SFH–4B–PG29	124 016 230 5012
2PG29	HV16B–SFH–4B–2PG29	124 016 230 5032
	with plastic cover	
M32	HV16B–SFH–4B–CV–M32	124 016 270 5004
2M32	HV16B–SFH–4B–CV–2M32	124 016 270 5024
PG21	HV16B–SFH–4B–CV–PG21	124 016 270 5011
2PG21	HV16B–SFH–4B–CV–2PG21	124 016 270 5031
PG29	HV16B–SFH–4B–CV–PG29	124 016 270 5012
2PG29	HV16B–SFH–4B–CV–2PG29	124 016 270 5032
	with metal cover	
M32	HV16B–SFH–4B–MCV–M32	124 016 270 5104
2M32	HV16B–SFH–4B–MCV–2M32	124 016 270 5124
PG21	HV16B–SFH–4B–MCV–PG21	124 016 270 5111
2PG21	HV16B–SFH–4B–MCV–2PG21	124 016 270 5131
PG29	HV16B–SFH–4B–MCV–PG29	124 016 270 5112
2PG29	HV16B–SFH–4B–MCV–2PG29	124 016 270 5132



Protection covers, metal



Connect way	Application	Designation	Order No.
	for hoods	H16B–MCV–4B/1S	111 016 030 8103
	for housings, without sealing	H16B–MCV–4B/2	111 016 030 8102

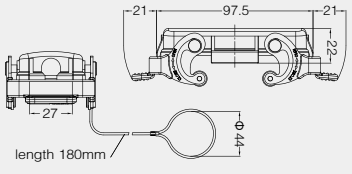


Protection covers, metal



Connect way	Application	Designation	Order No.
	for hoods	H16B–MCV–2L/SC.1S	111 016 041 8101
	for housings	H16B–MCV–2L/SC.2	111 016 041 8102

Please refer to page 15–02 for choosing proper model of lock.



HV16B Metal hoods/housings

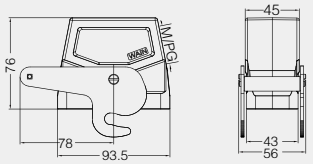
- for high voltage inserts(HVE Series)

Degree of protection： IP65

Hoods, side entry, high construction



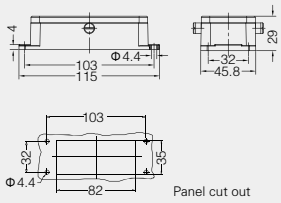
Thread	Designation	Order No.
M32	WV16B–SEH–1L/C–M32	124 116 550 5001
PG21	WV16B–SEH–1L/C–PG21	124 116 550 5002
PG29	WV16B–SEH–1L/C–PG29	124 116 550 5003
	with sleeve	
M32	WV16B–SEH–1L/C–M32 WS	124 116 555 5004
PG21	WV16B–SEH–1L/C–PG21 WS	124 116 555 5011
PG29	WV16B–SEH–1L/C–PG29 WS	124 116 555 5012



Housings, bulkhead mounting



Thread	Designation	Order No.
---	HV16B–BK–2B/C	124 016 355 1001



16B Metal hoods/housings

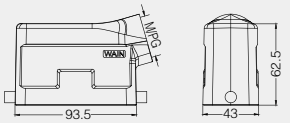
- for high voltage inserts(HVE Series)

Degree of protection： IP67

Hoods, side entry



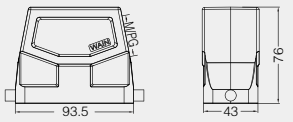
Thread	Designation	Order No.
M25	WV16B–SE–2B–M25	124 116 510 1001
PG21	WV16B–SE–2B–PG21	124 116 510 1002



Hoods, side entry, high construction



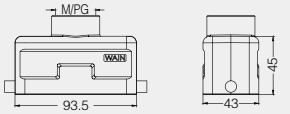
Thread	Designation	Order No.
M32	WV16B–SEH–2B–M32	124 116 510 5001
M40	WV16B–SEH–2B–M40	124 116 510 5002
PG21	WV16B–SEH–2B–PG21	124 116 510 5003
PG29	WV16B–SEH–2B–PG29 with sleeve	124 116 510 5004
M32	WV16B–SEH–2B–M32 WS	124 116 515 5004
PG21	WV16B–SEH–2B–PG21 WS	124 116 515 5011
PG29	WV16B–SEH–2B–PG29 WS	124 116 515 5012



Hoods, top entry



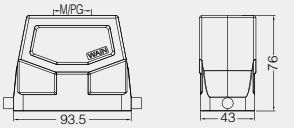
Thread	Designation	Order No.
M25	WV16B–TE–2B–M25	124 116 410 1001
M32	WV16B–TE–2B–M32	124 116 410 1002
PG21	WV16B–TE–2B–PG21	124 116 410 1003



Hoods, top entry, high construction



Thread	Designation	Order No.
M32	WV16B–TEH–2B–M32	124 116 410 5001
M40	WV16B–TEH–2B–M40	124 116 410 5002
PG21	WV16B–TEH–2B–PG21	124 116 410 5003
PG29	WV16B–TEH–2B–PG29 with sleeve	124 116 410 5004
M32	WV16B–TEH–2B–M32 WS	124 116 415 5004
PG21	WV16B–TEH–2B–PG21 WS	124 116 415 5011
PG29	WV16B–TEH–2B–PG29 WS	124 116 415 5012



16B Metal hoods/housings

- for high voltage inserts(HVE Series)

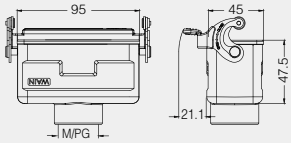
Degree of protection： IP67

Housings, cable to cable



Thread	Designation	Order No.
M25	WV16B–CCT–1L/SC–M25	124 116 721 1001
PG21	WV16B–CCT–1L/SC–PG21	124 116 721 1002

Please refer to page 15–02 for choosing proper model of lock.



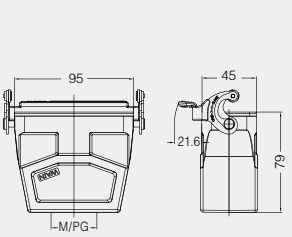
Housings, cable to cable

high construction



Thread	Designation	Order No.
M32	WV16B–CCTH–1L/SC–M32	124 116 721 5001
M40	WV16B–CCTH–1L/SC–M40	124 116 721 5002
PG21	WV16B–CCTH–1L/SC–PG21	124 116 721 5003
PG29	WV16B–CCTH–1L/SC–PG29	124 116 721 5004
	with sleeve	
M32	WV16B–CCTH–1L/SC–M32 WS	124 116 721 5005
PG21	WV16B–CCTH–1L/SC–PG21 WS	124 116 721 5011
PG29	WV16B–CCTH–1L/SC–PG29 WS	124 116 721 5012

Please refer to page 15–02 for choosing proper model of lock.

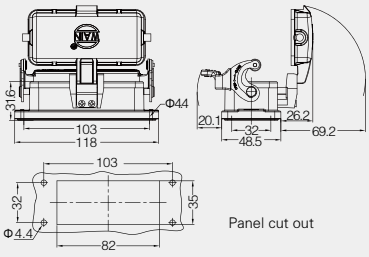


Bulkhead mounted housings



Thread	Designation	Order No.
---	WV16B–BK–1L/SC	124 116 321 1101
	with plastic cover	
---	WV16B–BK–1L/SC–CV	111 116 321 8003
	with metal cover	
---	WV16B–BK–1L/SC–MCV	111 116 321 8004

Please refer to page 15–02 for choosing proper model of lock.



16B Metal hoods/housings

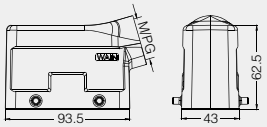
- for high voltage inserts(HVE Series)

Degree of protection： IP67

Hoods, side entry



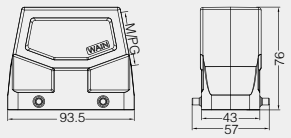
Thread	Designation	Order No.
M25	WV16B–SE–4B–M25	124 116 530 1001
M32	WV16B–SE–4B–M32	124 116 530 1002
PG21	WV16B–SE–4B–PG21	124 116 530 1003



Hoods, side entry, high construction



Thread	Designation	Order No.
M32	WV16B–SEH–4B–M32	124 116 530 5001
M40	WV16B–SEH–4B–M40	124 116 530 5002
PG21	WV16B–SEH–4B–PG21	124 116 530 5003
PG29	WV16B–SEH–4B–PG29 with sleeve	124 116 530 5004
M32	WV16B–SEH–4B–M32 WS	124 116 530 5007
PG21	WV16B–SEH–4B–PG21 WS	124 116 530 5011
PG29	WV16B–SEH–4B–PG29 WS	124 116 530 5012

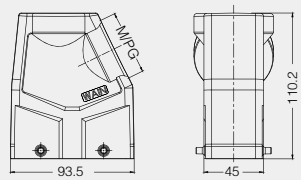


Hoods, side entry, high construction



Thread	Designation	Order No.
M50	WV16B–SEH–4B–M50	124 116 530 5005
PG36	WV16B–SEH–4B–PG36	124 116 530 5006

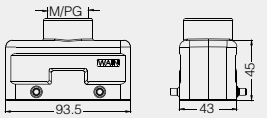
Suitable for cable with maximum OD Φ32mm



Hoods, top entry



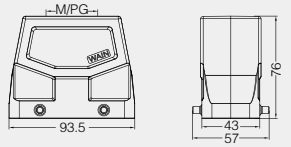
Thread	Designation	Order No.
M25	WV16B–TE–4B–M25	124 116 430 1001
PG21	WV16B–TE–4B–PG21	124 116 430 1002



Hoods, top entry, high construction



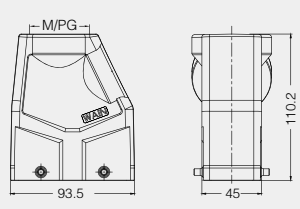
Thread	Designation	Order No.
M32	WV16B–TEH–4B–M32	124 116 430 5001
M40	WV16B–TEH–4B–M40	124 116 430 5002
PG21	WV16B–TEH–4B–PG21	124 116 430 5003
PG29	WV16B–TEH–4B–PG29 with sleeve	124 116 430 5004
M32	WV16B–TEH–4B–M32 WS	124 116 430 5007
PG21	WV16B–TEH–4B–PG21 WS	124 116 430 5011
PG29	WV16B–TEH–4B–PG29 WS	124 116 430 5012



Hoods, top entry, high construction



Thread	Designation	Order No.
M50	WV16B–TEH–4B–M50	124 116 430 5005
PG36	WV16B–TEH–4B–PG36	124 116 430 5006



16B Metal hoods/housings
- for high voltage inserts(HVE Series)

Degree of protection： IP67

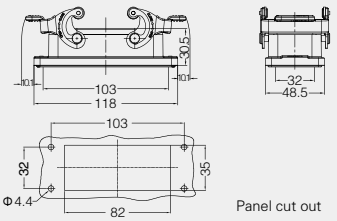
Bulkhead mounted housings

IP67



Thread	Designation	Order No.
–––	WV16B–BK–2L/SC	124 116 341 1101

Please refer to page 15–02 for choosing proper model of lock.

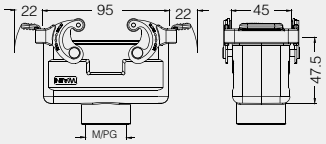


Housings, cable to cable



Thread	Designation	Order No.
M25	WV16B–CCT–2L/SC–M25	124 116 741 1001
PG21	WV16B–CCT–2L/SC–PG21	124 116 741 1002

Please refer to page 15–02 for choosing proper model of lock.



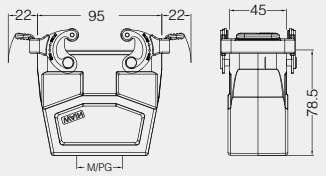
Housings, cable to cable

high construction



Thread	Designation	Order No.
M32	WV16B–CCTH–2L/SC–M32	124 116 741 5001
M40	WV16B–CCTH–2L/SC–M40	124 116 741 5002
PG21	WV16B–CCTH–2L/SC–PG21	124 116 741 5003
PG29	WV16B–CCTH–2L/SC–PG29 with sleeve	124 116 741 5004
M32	WV16B–CCTH–2L/SC–M32 WS	124 116 741 5005
PG21	WV16B–CCTH–2L/SC–PG21 WS	124 116 741 5011
PG29	WV16B–CCTH–2L/SC–PG29 WS	124 116 741 5012

Please refer to page 15–02 for choosing proper model of lock.



16B Metal hoods/housings

- for high voltage inserts(HVE Series)

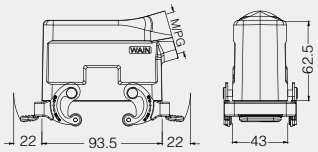
Degree of protection： IP67

Hoods, side entry



Thread	Designation	Order No.
M25	WV16B–SE–2L/SC–M25	124 116 541 1001
M32	WV16B–SE–2L/SC–M32	124 116 541 1002
PG21	WV16B–SE–2L/SC–PG21	124 116 541 1003

Please refer to page 15–02 for choosing proper model of lock.

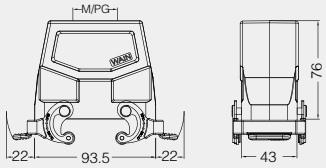


Hoods, side entry, high construction



Thread	Designation	Order No.
M32	WV16B–SEH–2L/SC–M32	124 116 541 5001
M40	WV16B–SEH–2L/SC–M40	124 116 541 5002
PG21	WV16B–SEH–2L/SC–PG21	124 116 541 5003
PG29	WV16B–SEH–2L/SC–PG29 with sleeve	124 116 541 5004
M32	WV16B–SEH–2L/SC–M32 WS	124 116 541 5006
PG21	WV16B–SEH–2L/SC–PG21 WS	124 116 541 5011
PG29	WV16B–SEH–2L/SC–PG29 WS	124 116 541 5012

Please refer to page 15–02 for choosing proper model of lock.

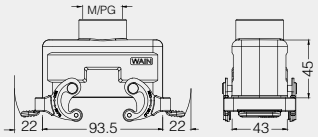


Hoods, top entry



Thread	Designation	Order No.
M25	WV16B–TE–2L/SC–M25	124 116 441 1001
PG21	WV16B–TE–2L/SC–PG21	124 116 441 1002

Please refer to page 15–02 for choosing proper model of lock.

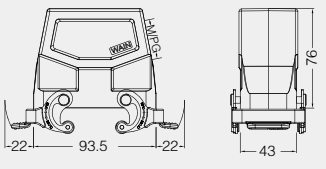


Hoods, top entry, high construction



Thread	Designation	Order No.
M32	WV16B–TEH–2L/SC–M32	124 116 441 5001
M40	WV16B–TEH–2L/SC–M40	124 116 441 5002
PG21	WV16B–TEH–2L/SC–PG21	124 116 441 5003
PG29	WV16B–TEH–2L/SC–PG29 with sleeve	124 116 441 5004
M32	WV16B–TEH–2L/SC–M32 WS	124 116 441 5005
PG21	WV16B–TEH–2L/SC–PG21 WS	124 116 441 5011
PG29	WV16B–TEH–2L/SC–PG29 WS	124 116 441 5012

Please refer to page 15–02 for choosing proper model of lock.



16B Metal hoods/housings

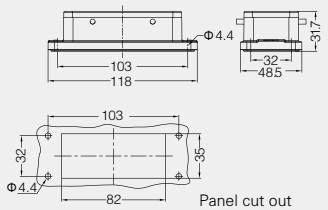
- for high voltage inserts(HVE Series)

Degree of protection： IP67

Bulkhead mounted housings



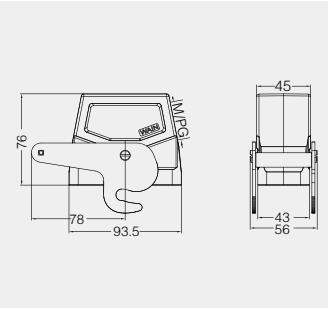
Thread	Designation	Order No.
---	WV16B–BK–4B	124 116 330 1101



Hoods, side entry, high construction



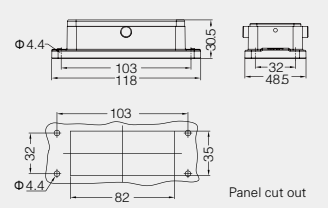
Thread	Designation	Order No.
M32	WV16B–SEH–1L/C–M32	124 116 550 5001
PG21	WV16B–SEH–1L/C–PG21	124 116 550 5002
PG29	WV16B–SEH–1L/C–PG29 with sleeve	124 116 550 5003
M32	WV16B–SEH–1L/C–M32 WS	124 116 555 5004
PG21	WV16B–SEH–1L/C–PG21 WS	124 116 555 5011
PG29	WV16B–SEH–1L/C–PG29 WS	124 116 555 5012



Bulkhead mounted housings



Thread	Designation	Order No.
---	WV16B–BK–2B/C	124 116 350 1101



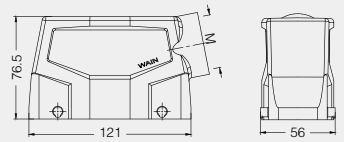
24B Plastic hoods/housings

Degree of protection： IP65

Hoods, side entry, high construction



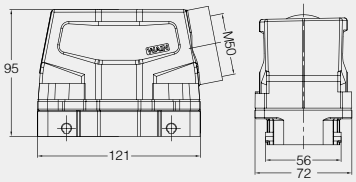
Thread	Designation	Order No.
M32	H24B.P–SEH–4B–M32	117 024 530 5004
M40	H24B.P–SEH–4B–M40	117 024 530 5005



Hoods, side entry, high construction



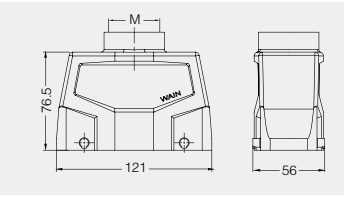
Thread	Designation	Order No.
M50	H24B.P–SEH–4B–M50	117 024 530 5502



Hoods, top entry, high construction



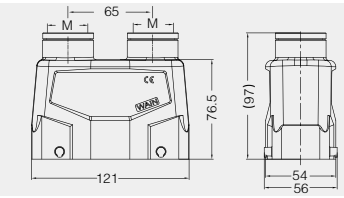
Thread	Designation	Order No.
M32	H24B.P–TEH–4B–M32	117 024 430 5004
M40	H24B.P–TEH–4B–M40	117 024 430 5005



Hoods, top entry, high construction



Thread	Designation	Order No.
2M25	H24B.P–TEH–4B–2M25	117 024 430 5002
2M32	H24B.P–TEH–4B–2M32	117 024 430 5001

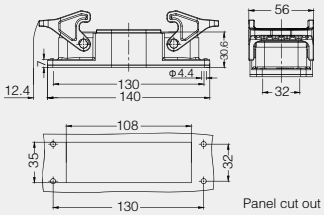


Degree of protection： IP65

Bulkhead mounted housings



Thread	Designation	Order No.
---	H24B.P–BK–2L	117 024 347 1001

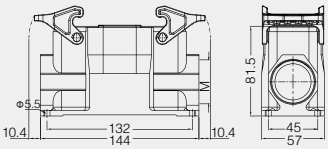


Surface mounted housings

high construction



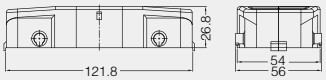
Thread	Designation	Order No.
M32	H24B.P–SFH–2L–M32	117 024 247 5004
2M32	H24B.P–SFH–2L–2M32	117 024 247 5024
M40	H24B.P–SFH–2L–M40	117 024 247 5005
2M40	H24B.P–SFH–2L–2M40	117 024 247 5025



Protection covers, for housings



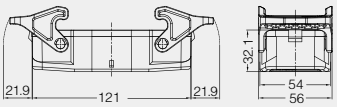
Connect way	Designation	Order No.
---	H24B.P–CV–4B/2	117 024 030 8002



Protection covers, for hoods



Connect way	Designation	Order No.
---	H24B.P–CV–2L/1	117 024 047 8001



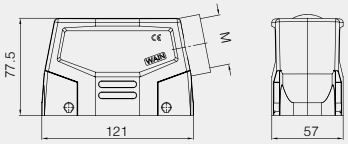
24B Modular type plastic hoods/housings

Degree of protection： IP65

Hoods, side entry, high construction



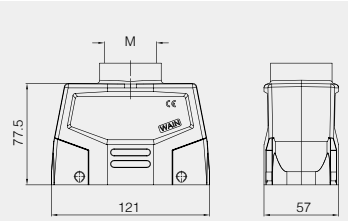
Thread	Designation	Order No.
M40	HM24B.P–SEH–4B–M40	129 024 530 5001



Hoods, top entry, high construction



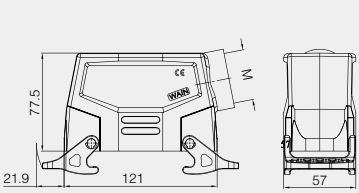
Thread	Designation	Order No.
M40	HM24B.P–TEH–4B–M40	129 024 430 5001



Hoods, side entry, high construction



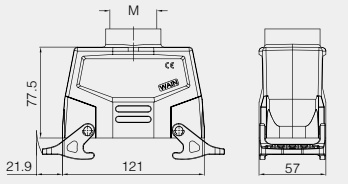
Thread	Designation	Order No.
M40	HM24B.P–SEH–2L–M40	129 024 540 1001



Hoods, top entry, high construction



Thread	Designation	Order No.
M40	HM24B.P–TEH–2L–M40	129 024 440 1001

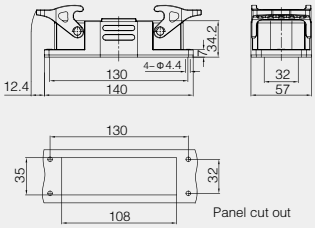


Degree of protection： IP65

Bulkhead mounted housings



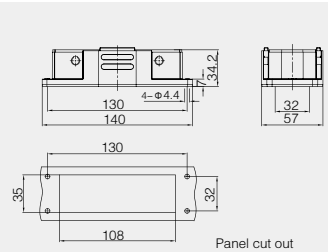
Thread	Designation	Order No.
---	HM24B.P–BK–2L	129 024 340 1001



Bulkhead mounted housings



Thread	Designation	Order No.
---	HM24B.P–BK–4B	129 024 330 1001



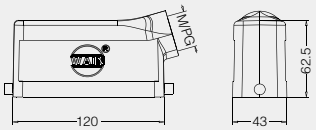
24B Metal hoods/housings

Degree of protection： IP65

Hoods, side entry



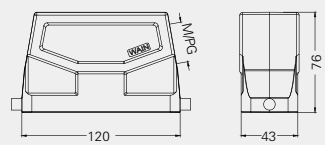
Thread	Designation	Order No.
M25	H24B–SE–2B–M25	111 024 515 1003
M32	H24B–SE–2B–M32	111 024 515 1004
PG21	H24B–SE–2B–PG21	111 024 515 1011



Hoods, side entry, high construction



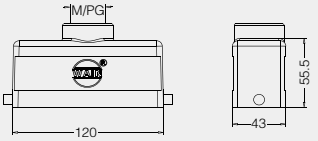
Thread	Designation	Order No.
–––	W24B–BEH–2B	111 124 910 5002
M32	W24B–SEH–2B–M32	111 124 510 5001
M40	W24B–SEH–2B–M40	111 124 510 5002
PG21	W24B–SEH–2B–PG21	111 124 510 5003
PG29	W24B–SEH–2B–PG29	111 124 510 5004
	with sleeve	
M32	W24B–SEH–2B–M32 WS	111 124 515 5004
PG21	W24B–SEH–2B–PG21 WS	111 124 515 5011
PG29	W24B–SEH–2B–PG29 WS	111 124 515 5012



Hoods, top entry



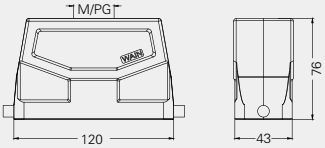
Thread	Designation	Order No.
M25	H24B–TE–2B–M25	111 024 415 1003
M32	H24B–TE–2B–M32	111 024 415 1004
PG21	H24B–TE–2B–PG21	111 024 415 1011
PG29	H24B–TE–2B–PG29	111 024 415 1012



Hoods, top entry, high construction



Thread	Designation	Order No.
–––	W24B–BEH–2B	111 124 910 5002
M32	W24B–TEH–2B–M32	111 124 410 5001
M40	W24B–TEH–2B–M40	111 124 410 5002
PG21	W24B–TEH–2B–PG21	111 124 410 5003
PG29	W24B–TEH–2B–PG29	111 124 410 5004
	with sleeve	
M32	W24B–TEH–2B–M32 WS	111 124 415 5004
PG21	W24B–TEH–2B–PG21 WS	111 124 415 5011
PG29	W24B–TEH–2B–PG29 WS	111 124 415 5012

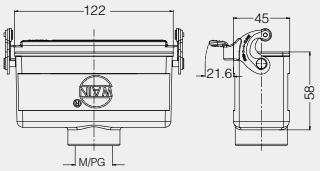


Housings, cable to cable



Thread	Designation	Order No.
M25	H24B–CCT–1L/SC–M25	111 024 721 1003
M32	H24B–CCT–1L/SC–M32	111 024 721 1004
PG21	H24B–CCT–1L/SC–PG21	111 024 721 1011
PG29	H24B–CCT–1L/SC–PG29	111 024 721 1012

Please refer to page 15–02 for choosing proper model of lock.

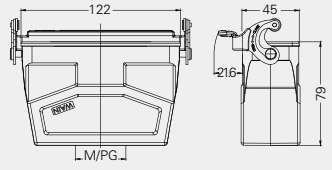


Housings, cable to cable high construction



Thread	Designation	Order No.
M32	W24B–CCTH–1L/SC–M32	111 124 721 5002
M40	W24B–CCTH–1L/SC–M40	111 124 721 5003
PG21	W24B–CCTH–1L/SC–PG21	111 124 721 5004
PG29	W24B–CCTH–1L/SC–PG29	111 124 721 5005
	with sleeve	
M32	W24B–CCTH–1L/SC–M32 WS	111 124 721 5006
PG21	W24B–CCTH–1L/SC–PG21 WS	111 124 721 5011
PG29	W24B–CCTH–1L/SC–PG29 WS	111 124 721 5012

Please refer to page 15–02 for choosing proper model of lock.



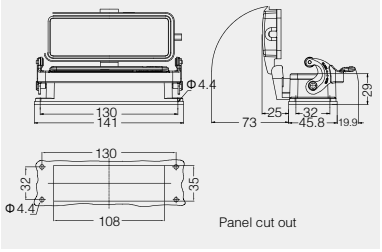
Degree of protection： IP65

Housings, bulkhead mounting



Thread	Designation	Order No.
---	H24B–BK–1L/SC	111 024 321 1001
	with plastic cover	
---	H24B–BK–1L/SC–CV	111 024 361 1001
	with metal cover	
---	H24B–BK–1L/SC–MCV	111 024 361 1101

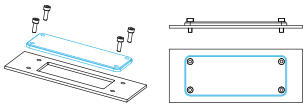
Please refer to page 15–02 for choosing proper model of lock.



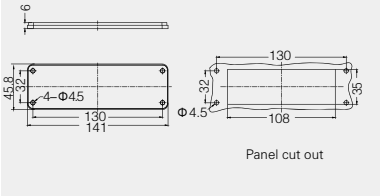
BK hole cover plate



Application	Designation	Order No.
	24B–BK/MCV	111 024 390 8001



The mounting hole of the mounting cabinet can be temporarily sealed.
Applicable to the installation hole which has been opened,
The case where the connector is not installed

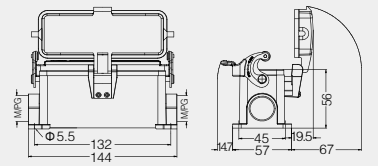


Housings, surface mounting



Thread	Designation	Order No.
M25	H24B–SF–1L/SC–M25	111 024 221 1003
2M25	H24B–SF–1L/SC–2M25	111 024 221 1023
PG21	H24B–SF–1L/SC–PG21	111 024 221 1011
2PG21	H24B–SF–1L/SC–2PG21	111 024 221 1031
	with plastic cover	
M25	H24B–SF–1L/SC–CV–M25	111 024 261 1003
2M25	H24B–SF–1L/SC–CV–2M25	111 024 261 1023
PG21	H24B–SF–1L/SC–CV–PG21	111 024 261 1011
2PG21	H24B–SF–1L/SC–CV–2PG21	111 024 261 1031
	with metal cover	
M25	H24B–SF–1L/SC–MCV–M25	111 024 261 1103
2M25	H24B–SF–1L/SC–MCV–2M25	111 024 261 1123
PG21	H24B–SF–1L/SC–MCV–PG21	111 024 261 1111
2PG21	H24B–SF–1L/SC–MCV–2PG21	111 024 261 1131

Please refer to page 15–02 for choosing proper model of lock.



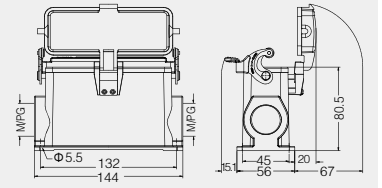
Housings, surface mounting

high construction



Thread	Designation	Order No.
M32	H24B–SFH–1L/SC–M32	111 024 221 5004
2M32	H24B–SFH–1L/SC–2M32	111 024 221 5024
PG21	H24B–SFH–1L/SC–PG21	111 024 221 5011
2PG21	H24B–SFH–1L/SC–2PG21	111 024 221 5031
PG29	H24B–SFH–1L/SC–PG29	111 024 221 5012
2PG29	H24B–SFH–1L/SC–2PG29	111 024 221 5032
	with plastic cover	
M32	H24B–SFH–1L/SC–CV–M32	111 024 261 5004
2M32	H24B–SFH–1L/SC–CV–2M32	111 024 261 5024
PG21	H24B–SFH–1L/SC–CV–PG21	111 024 261 5011
2PG21	H24B–SFH–1L/SC–CV–2PG21	111 024 261 5031
PG29	H24B–SFH–1L/SC–CV–PG29	111 024 261 5012
2PG29	H24B–SFH–1L/SC–CV–2PG29	111 024 261 5032
	with metal cover	
M32	H24B–SFH–1L/SC–MCV–M32	111 024 261 5104
2M32	H24B–SFH–1L/SC–MCV–2M32	111 024 261 5124
PG21	H24B–SFH–1L/SC–MCV–PG21	111 024 261 5111
2PG21	H24B–SFH–1L/SC–MCV–2PG21	111 024 261 5131
PG29	H24B–SFH–1L/SC–MCV–PG29	111 024 261 5112
2PG29	H24B–SFH–1L/SC–MCV–2PG29	111 024 261 5132

Please refer to page 15–02 for choosing proper model of lock.



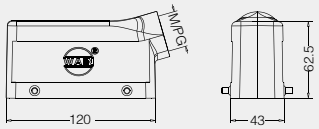
24B Metal hoods/housings

Degree of protection： IP65

Hoods, side entry



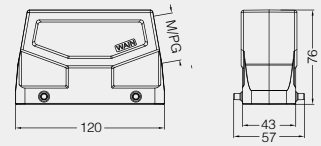
Thread	Designation	Order No.
M25	H24B–SE–4B–M25	111 024 530 1003
M32	H24B–SE–4B–M32	111 024 530 1004
PG21	H24B–SE–4B–PG21	111 024 530 1011



Hoods, side entry, high construction



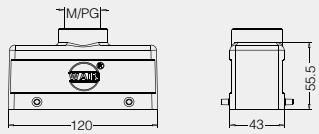
Thread	Designation	Order No.
– – –	W24B–BEH–4B	111 124 930 5003
M32	W24B–SEH–4B–M32	111 124 530 5001
M40	W24B–SEH–4B–M40	111 124 530 5002
PG21	W24B–SEH–4B–PG21	111 124 530 5003
PG29	W24B–SEH–4B–PG29	111 124 530 5004
	with sleeve	
M32	W24B–SEH–4B–M32 WS	111 124 530 5008
PG21	W24B–SEH–4B–PG21 WS	111 124 530 5011
PG29	W24B–SEH–4B–PG29 WS	111 124 530 5012



Hoods, top entry



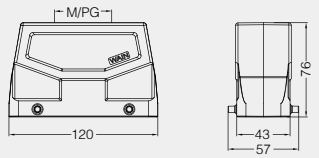
Thread	Designation	Order No.
M25	H24B–TE–4B–M25	111 024 430 1003
M32	H24B–TE–4B–M32	111 024 430 1004
PG21	H24B–TE–4B–PG21	111 024 430 1011
PG29	H24B–TE–4B–PG29	111 024 430 1012



Hoods, top entry, high construction



Thread	Designation	Order No.
– – –	W24B–BEH–4B	111 124 930 5003
M32	W24B–TEH–4B–M32	111 124 430 5001
M40	W24B–TEH–4B–M40	111 124 430 5002
PG21	W24B–TEH–4B–PG21	111 124 430 5003
PG29	W24B–TEH–4B–PG29	111 124 430 5004
2M32	W24B–TEH–4B–2M32	111 124 430 5005
	with sleeve	
M32	W24B–TEH–4B–M32 WS	111 124 430 5014
PG21	W24B–TEH–4B–PG21 WS	111 124 430 5011
PG29	W24B–TEH–4B–PG29 WS	111 124 430 5010



24B Metal hoods/housings

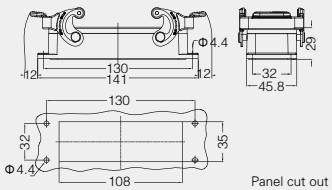
Degree of protection： IP65

Housings, bulkhead mounting



Thread	Designation	Order No.
---	H24B–BK–2L/SC	111 024 341 1001

Please refer to page 15–02 for choosing proper model of lock.

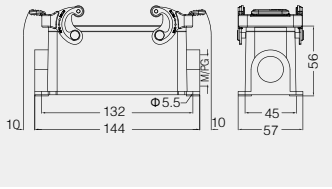


Housings, surface mounting



Thread	Designation	Order No.
M25	H24B–SF–2L/SC–M25	111 024 241 1003
2M25	H24B–SF–2L/SC–2M25	111 024 241 1023
PG21	H24B–SF–2L/SC–PG21	111 024 241 1011
2PG21	H24B–SF–2L/SC–2PG21	111 024 241 1031

Please refer to page 15–02 for choosing proper model of lock.



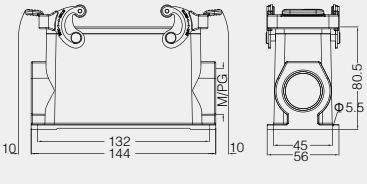
Housings, surface mounting

high construction



Thread	Designation	Order No.
M32	H24B–SFH–2L/SC–M32	111 024 241 5004
2M32	H24B–SFH–2L/SC–2M32	111 024 241 5024
2M40	H24B–SFH–2L/SC–2M40	111 024 241 5025
PG21	H24B–SFH–2L/SC–PG21	111 024 241 5011
2PG21	H24B–SFH–2L/SC–2PG21	111 024 241 5031
PG29	H24B–SFH–2L/SC–PG29	111 024 241 5012
2PG29	H24B–SFH–2L/SC–2PG29	111 024 241 5032

Please refer to page 15–02 for choosing proper model of lock.

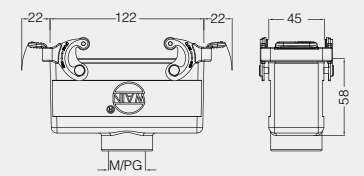


Housings, cable to cable



Thread	Designation	Order No.
M25	H24B–CCT–2L/SC–M25	111 024 741 1003
M32	H24B–CCT–2L/SC–M32	111 024 741 1004
PG21	H24B–CCT–2L/SC–PG21	111 024 741 1011
PG29	H24B–CCT–2L/SC–PG29	111 024 741 1012

Please refer to page 15–02 for choosing proper model of lock.



24B Metal hoods/housings

Degree of protection： IP65

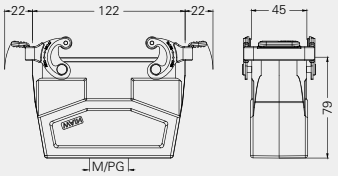
Housings, cable to cable

high construction



Thread	Designation	Order No.
M32	W24B–CCTH–2L/SC–M32	111 124 741 5002
M40	W24B–CCTH–2L/SC–M40	111 124 741 5003
PG21	W24B–CCTH–2L/SC–PG21	111 124 741 5004
PG29	W24B–CCTH–2L/SC–PG29	111 124 741 5005
	with sleeve	
M32	W24B–CCTH–2L/SC–M32 WS	111 124 741 5010
PG21	W24B–CCTH–2L/SC–PG21 WS	111 124 741 5011
PG29	W24B–CCTH–2L/SC–PG29 WS	111 124 741 5012

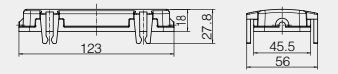
Please refer to page 15–02 for choosing proper model of lock.



Protection covers, plastic



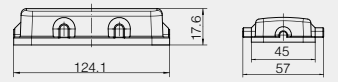
Connect way	Application	Designation	Order No.
---	for hoods	H24B–CV–4C	111 024 090 8009



Protection covers, plastic



Connect way	Application	Designation	Order No.
	for Housings, cable to cable	H24B–CV–4B/1	111 024 030 8001
	for Housings, bulkhead mounting /surface mounting	H24B–CV–4B/2	111 024 030 8002



24B Metal hoods/housings

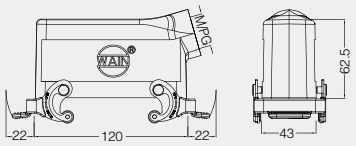
Degree of protection： IP65

Hoods, side entry



Thread	Designation	Order No.
M25	H24B–SE–2L/SC–M25	111 024 541 1003
M32	H24B–SE–2L/SC–M32	111 024 541 1004
PG21	H24B–SE–2L/SC–PG21	111 024 541 1011

Please refer to page 15–02 for choosing proper model of lock.

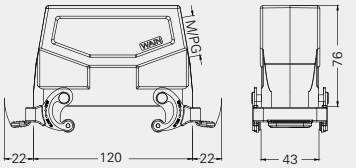


Hoods, side entry, high construction



Thread	Designation	Order No.
M32	W24B–SEH–2L/SC–M32	111 124 541 5001
M40	W24B–SEH–2L/SC–M40	111 124 541 5002
PG21	W24B–SEH–2L/SC–PG21	111 124 541 5003
PG29	W24B–SEH–2L/SC–PG29	111 124 541 5004
	with sleeve	
M32	W24B–SEH–2L/SC–M32 WS	111 124 541 5005
PG21	W24B–SEH–2L/SC–PG21 WS	111 124 541 5011
PG29	W24B–SEH–2L/SC–PG29 WS	111 124 541 5012

Please refer to page 15–02 for choosing proper model of lock.

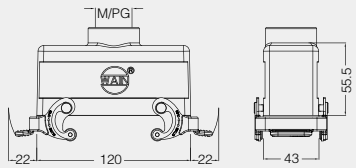


Hoods, top entry



Thread	Designation	Order No.
M25	H24B–TE–2L/SC–M25	111 024 441 1003
M32	H24B–TE–2L/SC–M32	111 024 441 1004
PG21	H24B–TE–2L/SC–PG21	111 024 441 1011
PG29	H24B–TE–2L/SC–PG29	111 024 441 1012

Please refer to page 15–02 for choosing proper model of lock.

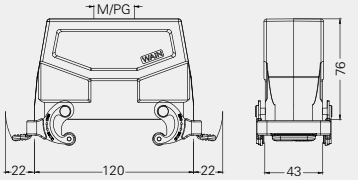


Hoods, top entry, high construction



Thread	Designation	Order No.
M32	W24B–TEH–2L/SC–M32	111 124 441 5001
M40	W24B–TEH–2L/SC–M40	111 124 441 5002
PG21	W24B–TEH–2L/SC–PG21	111 124 441 5003
PG29	W24B–TEH–2L/SC–PG29	111 124 441 5004
	with sleeve	
M32	W24B–TEH–2L/SC–M32 WS	111 124 441 5006
PG21	W24B–TEH–2L/SC–PG21 WS	111 124 441 5011
PG29	W24B–TEH–2L/SC–PG29 WS	111 124 441 5012

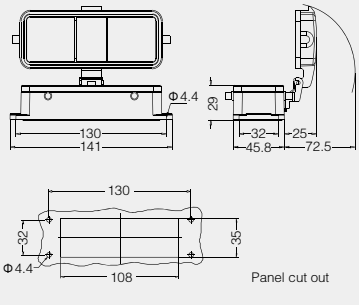
Please refer to page 15–02 for choosing proper model of lock.



Housings, bulkhead mounting



Thread	Designation	Order No.
---	H24B–BK–4B	111 024 330 1001
	with plastic cover	
---	H24B–BK–4B–CV	111 024 370 1001
	with metal cover	
---	H24B–BK–4B–MCV	111 024 370 1101



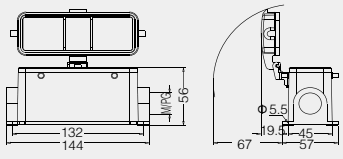
24B Metal hoods/housings

Degree of protection： IP65

Housings, surface mounting



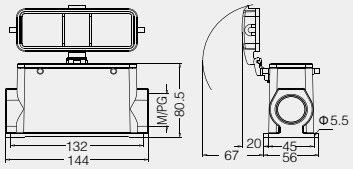
Thread	Designation	Order No.
M25	H24B–SF–4B–M25	111 024 230 1003
2M25	H24B–SF–4B–2M25	111 024 230 1023
PG21	H24B–SF–4B–PG21	111 024 230 1011
2PG21	H24B–SF–4B–2PG21	111 024 230 1031
	with plastic cover	
M25	H24B–SF–4B–CV–M25	111 024 270 1003
2M25	H24B–SF–4B–CV–2M25	111 024 270 1023
PG21	H24B–SF–4B–CV–PG21	111 024 270 1011
2PG21	H24B–SF–4B–CV–2PG21	111 024 270 1031
	with metal cover	
M25	H24B–SF–4B–MCV–M25	111 024 270 1103
2M25	H24B–SF–4B–MCV–2M25	111 024 270 1123
PG21	H24B–SF–4B–MCV–PG21	111 024 270 1111
2PG21	H24B–SF–4B–MCV–2PG21	111 024 270 1131



Housings, surface mounting
high construction



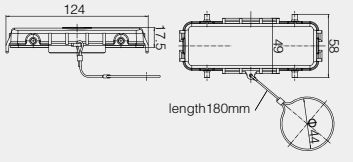
Thread	Designation	Order No.
M32	H24B–SFH–4B–M32	111 024 230 5004
2M32	H24B–SFH–4B–2M32	111 024 230 5024
PG21	H24B–SFH–4B–PG21	111 024 230 5011
2PG21	H24B–SFH–4B–2PG21	111 024 230 5031
PG29	H24B–SFH–4B–PG29	111 024 230 5012
2PG29	H24B–SFH–4B–2PG29	111 024 230 5032
	with plastic cover	
M32	H24B–SFH–4B–CV–M32	111 024 270 5004
2M32	H24B–SFH–4B–CV–2M32	111 024 270 5024
PG21	H24B–SFH–4B–CV–PG21	111 024 270 5011
2PG21	H24B–SFH–4B–CV–2PG21	111 024 270 5031
PG29	H24B–SFH–4B–CV–PG29	111 024 270 5012
2PG29	H24B–SFH–4B–CV–2PG29	111 024 270 5032
	with metal cover	
M32	H24B–SFH–4B–MCV–M32	111 024 270 5104
2M32	H24B–SFH–4B–MCV–2M32	111 024 270 5124
PG21	H24B–SFH–4B–MCV–PG21	111 024 270 5111
2PG21	H24B–SFH–4B–MCV–2PG21	111 024 270 5131
PG29	H24B–SFH–4B–MCV–PG29	111 024 270 5112
2PG29	H24B–SFH–4B–MCV–2PG29	111 024 270 5132



Protection covers, metal



Connect way	Application	Designation	Order No.
	for hoods	H24B–MCV–4B/1S	111 024 030 8103
	for housings, without sealing	H24B–MCV–4B/2	111 024 030 8102

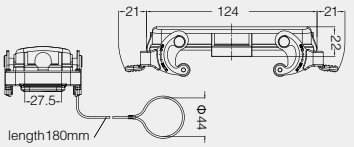


Protection covers, metal



Connect way	Application	Designation	Order No.
	for hoods	H24B–MCV–2L/SC.1S	111 024 041 8101
	for housings	H24B–MCV–2L/SC.2	111 024 041 8102

Please refer to page 15–02 for choosing proper model of lock.



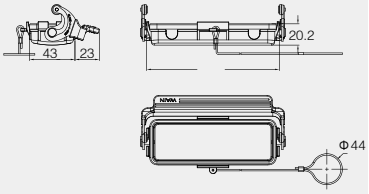
Degree of protection： IP65

Protection covers, metal



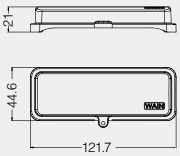
Connect way	Application	Designation	Order No.
⌒○	for hoods	H24B–MCV–1L/SC.1S	111 024 021 1101

Please refer to page 15–02 for choosing proper model of lock.



Protection covers, plastic(IP5X)

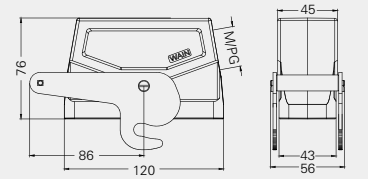
Connect way	Application	Designation	Order No.
	for housings	24B–CV/C	111 024 000 8004



Hoods, side entry, high construction



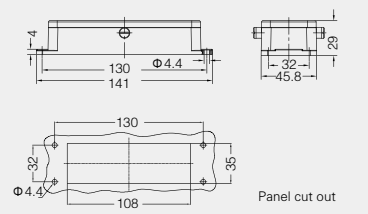
Thread	Designation	Order No.
M25	W24B–SEH–1L/C–M25	111 124 550 5001
M32	W24B–SEH–1L/C–M32	111 124 550 5002
M40	W24B–SEH–1L/C–M40	111 124 550 5003
PG21	W24B–SEH–1L/C–PG21	111 124 550 5004
PG29	W24B–SEH–1L/C–PG29 with sleeve	111 124 550 5005
M32	W24B–SEH–1L/C–M32 WS	111 124 555 5004
PG21	W24B–SEH–1L/C–PG21 WS	111 124 555 5011
PG29	W24B–SEH–1L/C–PG29 WS	111 124 555 5012



Housings, bulkhead mounting



Thread	Designation	Order No.
---	H24B–BK–2B/C	111 024 355 1001



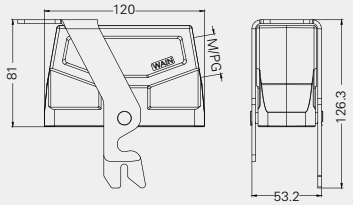
24B Metal hoods/housings

Degree of protection： IP65

Hoods, side entry, high construction



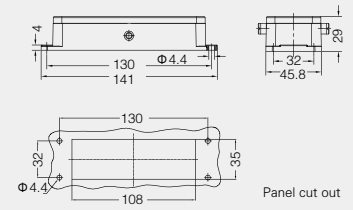
Thread	Designation	Order No.
M40	W24B–SEH–1L/B–M40	111 024 525 5105
PG29	W24B–SEH–1L/B–PG29	111 024 525 5112
	with sleeve	
M32	W24B–SEH–1L/B–M32 WS	111 124 529 5005
PG21	W24B–SEH–1L/B–PG21 WS	111 124 529 5004
PG29	W24B–SEH–1L/B–PG29 WS	111 124 525 5112



Housings, bulkhead mounting



Thread	Designation	Order No.
---	H24B–BK–2B/B	111 024 315 1101



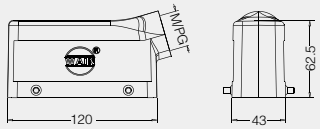
24B Metal hoods/housings
Suitable for harsh environment(anti-corrosion)

Degree of protection： IP65

Hoods, side entry



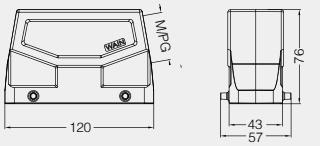
Thread	Designation	Order No.
M25	H24B–MSE–4B–M25	112 024 530 1003
M32	H24B–MSE–4B–M32	112 024 530 1004
PG21	H24B–MSE–4B–PG21	112 024 530 1011



Hoods, side entry, high construction



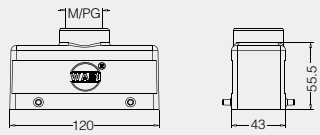
Thread	Designation	Order No.
M32	W24B–MSEH–4B–M32	112 124 530 5005
M40	W24B–MSEH–4B–M40	112 124 530 5006
PG29	W24B–MSEH–4B–PG29	112 124 530 5007
	with sleeve	
M32	W24B–MSEH–4B–M32 WS	112 124 530 5004
PG21	W24B–MSEH–4B–PG21 WS	112 124 530 5013
PG29	W24B–MSEH–4B–PG29 WS	112 124 530 5012



Hoods, top entry



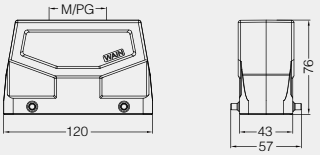
Thread	Designation	Order No.
M25	H24B–MTE–4B–M25	112 024 430 1003
M32	H24B–MTE–4B–M32	112 024 430 1004
PG21	H24B–MTE–4B–PG21	112 024 430 1011
PG29	H24B–MTE–4B–PG29	112 024 430 1005



Hoods, top entry, high construction



Thread	Designation	Order No.
M32	W24B–MTEH–4B–M32	112 124 430 5006
M40	W24B–MTEH–4B–M40	112 124 430 5007
PG29	W24B–MTEH–4B–PG29	112 124 430 5008
	with sleeve	
M32	W24B–MTEH–4B–M32 WS	112 124 430 5004
PG21	W24B–MTEH–4B–PG21 WS	112 124 430 5010
PG29	W24B–MTEH–4B–PG29 WS	112 124 430 5012

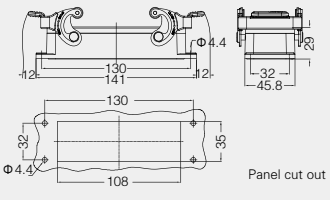


Housings, bulkhead mounting



Thread	Designation	Order No.
---	H24B–MBK–2L/SC	112 024 341 1001

Please refer to page 15–02 for choosing proper model of lock.

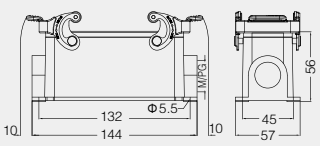


Housings, surface mounting



Thread	Designation	Order No.
M25	H24B–MSF–2L/SC–M25	112 024 241 1003
2M25	H24B–MSF–2L/SC–2M25	112 024 241 1023
PG21	H24B–MSF–2L/SC–PG21	112 024 241 1011
2PG21	H24B–MSF–2L/SC–2PG21	112 024 241 1031

Please refer to page 15–02 for choosing proper model of lock.



24B Metal hoods/housings
Suitable for harsh environment(anti-corrosion)

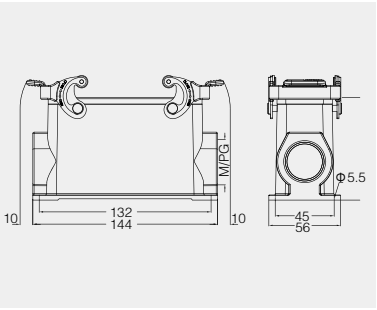
Degree of protection： IP65

Housings, surface mounting



Thread	Designation	Order No.
M32	H24B–MSFH–2L/SC–M32	112 024 241 5004
2M32	H24B–MSFH–2L/SC–2M32	112 024 241 5024
M40	H24B–MSFH–2L/SC–M40	112 024 241 5005
PG21	H24B–MSFH–2L/SC–PG21	112 024 241 5011
2PG21	H24B–MSFH–2L/SC–2PG21	112 024 241 5031
PG29	H24B–MSFH–2L/SC–PG29	112 024 241 5012
2PG29	H24B–MSFH–2L/SC–2PG29	112 024 241 5032

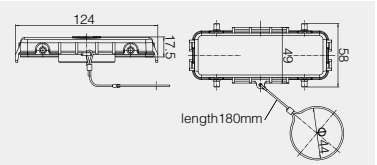
Please refer to page 15–02 for choosing proper model of lock.



Protection covers, metal



Connect way	Application	Designation	Order No.
	for hoods	H24B–MMCV–4B/1	112 024 030 8001
	for housings	H24B–MMCV–4B/2	112 024 030 8002

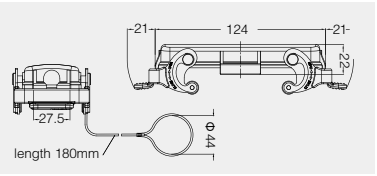


Protection covers, metal



Connect way	Application	Designation	Order No.
	for hoods	H24B–MMCV–2L/SC.1S	112 024 041 8001
	for housings	H24B–MMCV–2L/SC.2	112 024 041 8002

Please refer to page 15–02 for choosing proper model of lock.



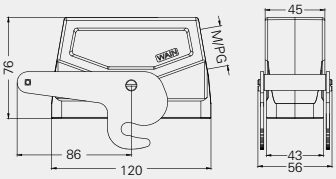
24B Metal hoods/housings
Suitable for harsh environment(anti-corrosion)

Degree of protection： IP65

Hoods, side entry, high construction



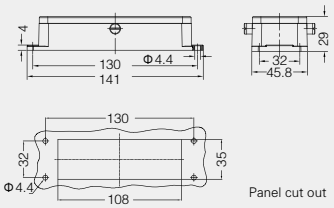
Thread	Designation	Order No.
M32	W24B–MSEH–1L/C–M32	112 124 550 5006
PG21	W24B–MSEH–1L/C–PG21	112 124 555 5011
PG29	W24B–MSEH–1L/C–PG29	112 124 550 5007
	with sleeve	
M32	W24B–MSEH–1L/C–M32 WS	112 124 555 5004
PG21	W24B–MSEH–1L/C–PG21 WS	112 124 555 5013
PG29	W24B–MSEH–1L/C–PG29 WS	112 124 555 5012



Housings, bulkhead mounting



Thread	Designation	Order No.
---	H24B–MBK–2B/C	112 024 350 1001



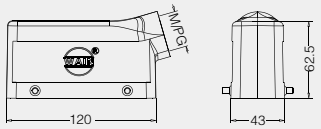
24B EMC Metal hoods/housings

Degree of protection： IP65

Hoods, side entry



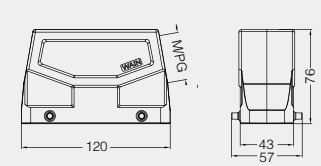
Thread	Designation	Order No.
M25	EMC.H24B–SE–4B–M25	1116245301005
M32	EMC.H24B–SE–4B–M32	1116245351004
PG21	EMC.H24B–SE–4B–PG21	1116245031501



Hoods, side entry, high construction



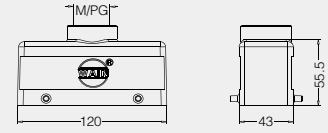
Thread	Designation	Order No.
–––	EMC.W24B–BEH–4B	111 224 930 5004
M32	EMC.W24B–SEH–4B–M32	111 224 530 5008
M40	EMC.W24B–SEH–4B–M40	111 224 530 5009
PG21	EMC.W24B–SEH–4B–PG21	111 224 530 5006
PG29	EMC.W24B–SEH–4B–PG29	111 224 530 5010
	with sleeve	
M32	EMC.W24B–SEH–4B–M32 WS	111 124 535 5501
PG21	EMC.W24B–SEH–4B–PG21 WS	111 224 535 5001
PG29	EMC.W24B–SEH–4B–PG29 WS	111 124 535 5013



Hoods, top entry



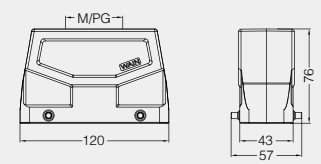
Thread	Designation	Order No.
M25	EMC.H24B–TE–4B–M25	111 624 435 1003
M32	EMC.H24B–TE–4B–M32	111 624 435 1004
PG21	EMC.H24B–TE–4B–PG21	111 624 435 1011
PG29	EMC.H24B–TE–4B–PG29	111 624 435 1012



Hoods, top entry, high construction



Thread	Designation	Order No.
–––	EMC.W24B–BEH–4B	111 224 930 5004
M32	EMC.W24B–TEH–4B–M32	111 224 430 5009
M40	EMC.W24B–TEH–4B–M40	111 224 430 5010
PG21	EMC.W24B–TEH–4B–PG21	111 224 430 5001
PG29	EMC.W24B–TEH–4B–PG29	111 224 430 5011
	with sleeve	
M32	EMC.W24B–TEH–4B–M32 WS	111 124 435 5501
PG21	EMC.W24B–TEH–4B–PG21 WS	111 124 435 5502
PG29	EMC.W24B–TEH–4B–PG29 WS	111 124 435 5015

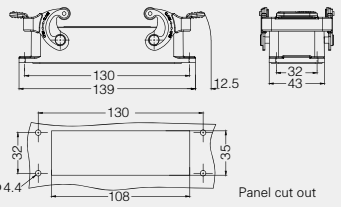


Housings, bulkhead mounting



Thread	Designation	Order No.
---	EMC1.H24B–BK–2L/SC	111 624 341 1501

Please refer to page 15–02 for choosing proper model of lock.

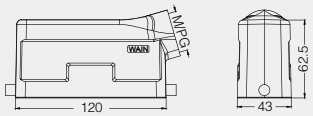


Degree of protection： IP67

Hoods, side entry



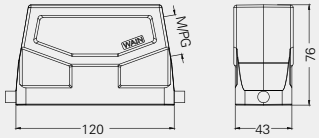
Thread	Designation	Designation
M25	W24B–SE–2B–M25	111 124 510 1001
M32	W24B–SE–2B–M32	111 124 510 1002
PG21	W24B–SE–2B–PG21	111 124 510 1003



Hoods, side entry, high construction



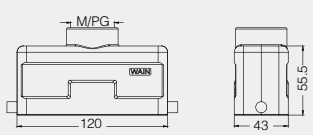
Thread	Designation	Designation
–––	W24B–BEH–2B	111 124 910 5002
M32	W24B–SEH–2B–M32	111 124 510 5001
M40	W24B–SEH–2B–M40	111 124 510 5002
PG21	W24B–SEH–2B–PG21	111 124 510 5003
PG29	W24B–SEH–2B–PG29	111 124 510 5004
	with sleeve	
M32	W24B–SEH–2B–M32 WS	111 124 515 5004
PG21	W24B–SEH–2B–PG21 WS	111 124 515 5011
PG29	W24B–SEH–2B–PG29 WS	111 124 515 5012



Hoods, top entry



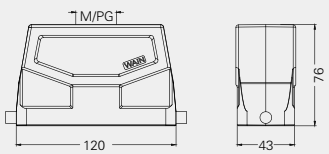
Thread	Designation	Designation
M25	W24B–TE–2B–M25	111 124 410 1001
M32	W24B–TE–2B–M32	111 124 410 1002
PG21	W24B–TE–2B–PG21	111 124 410 1003
PG29	W24B–TE–2B–PG29	111 124 410 1004



Hoods, top entry, high construction



Thread	Designation	Designation
–––	W24B–BEH–2B	111 124 910 5002
M32	W24B–TEH–2B–M32	111 124 410 5001
M40	W24B–TEH–2B–M40	111 124 410 5002
PG21	W24B–TEH–2B–PG21	111 124 410 5003
PG29	W24B–TEH–2B–PG29	111 124 410 5004
	with sleeve	
M32	W24B–TEH–2B–M32 WS	111 124 415 5004
PG21	W24B–TEH–2B–PG21 WS	111 124 415 5011
PG29	W24B–TEH–2B–PG29 WS	111 124 415 5012



24B Metal hoods/housings

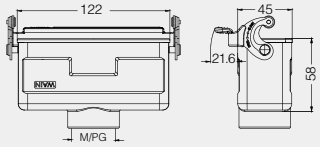
Degree of protection： IP67

Housings, cable to cable



Thread	Designation	Designation
M25	W24B–CCT–1L/SC–M25	111 124 721 1001
M32	W24B–CCT–1L/SC–M32	111 124 721 1002
PG21	W24B–CCT–1L/SC–PG21	111 124 721 1003
PG29	W24B–CCT–1L/SC–PG29	111 124 721 1004

Please refer to page 15–02 for choosing proper model of lock.

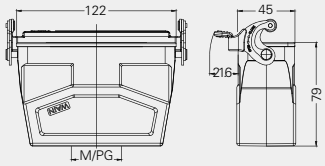


Housings, cable to cable high construction



Thread	Designation	Designation
M32	W24B–CCTH–1L/SC–M32	111 124 721 5002
M40	W24B–CCTH–1L/SC–M40	111 124 721 5003
PG21	W24B–CCTH–1L/SC–PG21	111 124 721 5004
PG29	W24B–CCTH–1L/SC–PG29	111 124 721 5005
	with sleeve	
M32	W24B–CCTH–1L/SC–M32 WS	111 124 721 5006
PG21	W24B–CCTH–1L/SC–PG21 WS	111 124 721 5011
PG29	W24B–CCTH–1L/SC–PG29 WS	111 124 721 5012

Please refer to page 15–02 for choosing proper model of lock.

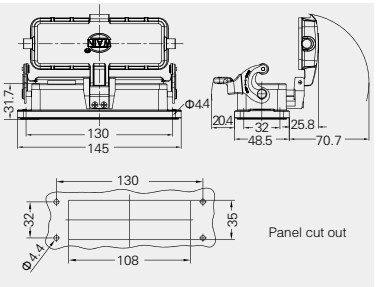


Bulkhead mounted housings



Thread	Designation	Order No.
---	W24B–BK–1L/SC	11 124 321 1001
	with plastic cover	
---	W24B–BK–1L/SC–CV	111 124 321 8001
	with metal cover	
---	W24B–BK–1L/SC–MCV	111 124 321 8002

Please refer to page 15–02 for choosing proper model of lock.

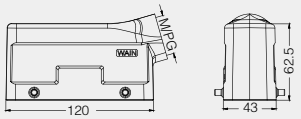


Degree of protection： IP67

Hoods, side entry



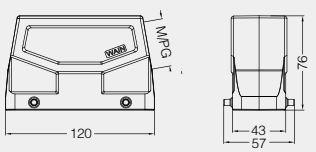
Thread	Designation	Order No.
M25	W24B–SE–4B–M25	111 124 530 1001
M32	W24B–SE–4B–M32	111 124 530 1002
PG21	W24B–SE–4B–PG21	111 124 530 1003



Hoods, side entry, high construction



Thread	Designation	Order No.
–––	W24B–BEH–4B	111 124 930 5003
M32	W24B–SEH–4B–M32	111 124 530 5001
M40	W24B–SEH–4B–M40	111 124 530 5002
PG21	W24B–SEH–4B–PG21	111 124 530 5003
PG29	W24B–SEH–4B–PG29	111 124 530 5004
	with sleeve	
M32	W24B–SEH–4B–M32 WS	111 124 530 5008
PG21	W24B–SEH–4B–PG21 WS	111 124 530 5011
PG29	W24B–SEH–4B–PG29 WS	111 124 530 5012

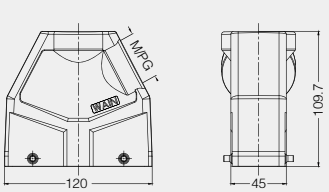


Hoods, side entry, high construction



Thread	Designation	Order No.
M50	W24B–SEH–4B–M50	111 124 530 5006
PG36	W24B–SEH–4B–PG36	111 124 530 5013

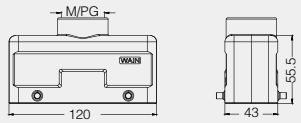
Suitable for cable with maximum OD Φ32mm



Hoods, top entry



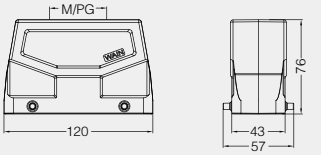
Thread	Designation	Order No.
M25	W24B–TE–4B–M25	111 124 430 1001
M32	W24B–TE–4B–M32	111 124 430 1002
PG21	W24B–TE–4B–PG21	111 124 430 1003
PG29	W24B–TE–4B–PG29	111 124 430 1004



Hoods, top entry, high construction



Thread	Designation	Order No.
–––	W24B–BEH–4B	111 124 930 5003
M32	W24B–TEH–4B–M32	111 124 430 5001
M40	W24B–TEH–4B–M40	111 124 430 5002
PG21	W24B–TEH–4B–PG21	111 124 430 5003
PG29	W24B–TEH–4B–PG29	111 124 430 5004
2M32	W24B–TEH–4B–2M32	111 124 430 5005
	with sleeve	
M32	W24B–TEH–4B–M32 WS	111 124 430 5014
PG21	W24B–TEH–4B–PG21 WS	111 124 430 5011
PG29	W24B–TEH–4B–PG29 WS	111 124 430 5010

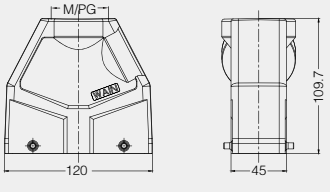


Hoods, top entry, high construction



Thread	Designation	Order No.
M50	W24B–TEH–4B–M50	111 124 430 5006
PG36	W24B–TEH–4B–PG36	111 124 430 5013

Suitable for cable with maximum OD Φ32mm



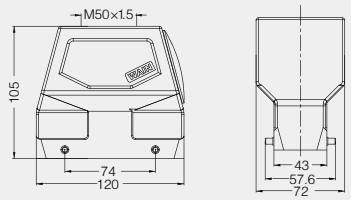
24B Metal hoods/housings

Degree of protection： IP67

Hoods, top entry, high construction



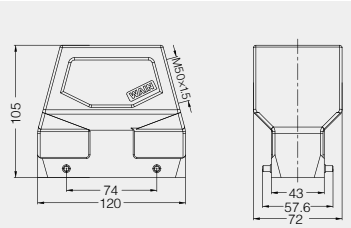
Thread	Designation	Order No.
M50	W24B.C–TEH/E–4B–M50	111 124 430 5007



Hoods, side entry, high construction



Thread	Designation	Order No.
M50	W24B.C–SEH/E–4B–M50	111 124 530 5005



24B Metal hoods/housings

Degree of protection： IP67

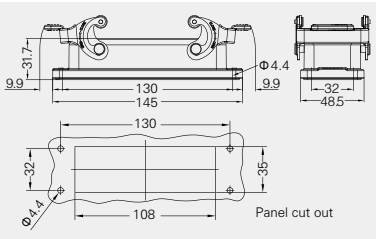
Bulkhead mounted housings

IP67



Thread	Designation	Order No.
–––	W24B–BK–2L/SC	111 124 341 1002

Please refer to page 15–02 for choosing proper model of lock.



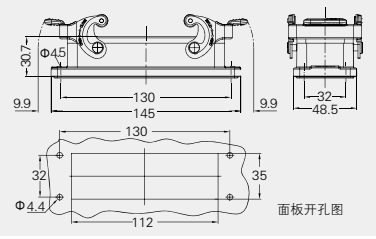
Bulkhead Mounted Housings

(Assemble the inserts in reverse direction)



Thread	Designation	Order No.
–––	W24B–RBK–2L/SC	111 124 341 1003

Please refer to page 15–02 for choosing proper model of lock.

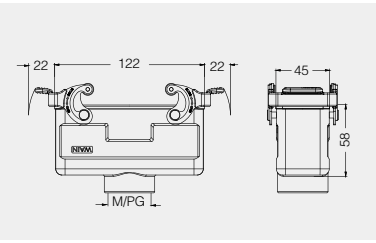


Housings, cable to cable



Thread	Designation	Order No.
M25	W24B–CCT–2L/SC–M25	111 124 741 1001
M32	W24B–CCT–2L/SC–M32	111 124 741 1002
PG21	W24B–CCT–2L/SC–PG21	111 124 741 1003
PG29	W24B–CCT–2L/SC–PG29	111 124 741 1004

Please refer to page 15–02 for choosing proper model of lock.



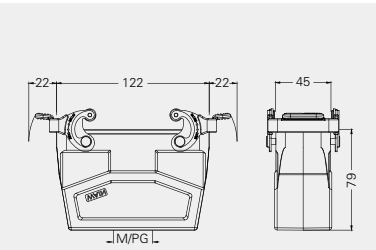
Housings, cable to cable

high construction



Thread	Designation	Order No.
M32	W24B–CCTH–2L/SC–M32	111 124 741 5002
M40	W24B–CCTH–2L/SC–M40	111 124 741 5003
PG21	W24B–CCTH–2L/SC–PG21	111 124 741 5004
PG29	W24B–CCTH–2L/SC–PG29	111 124 741 5005
	with sleeve	
M32	W24B–CCTH–2L/SC–M32 WS	111 124 741 5010
PG21	W24B–CCTH–2L/SC–PG21 WS	111 124 741 5011
PG29	W24B–CCTH–2L/SC–PG29 WS	111 124 741 5012

Please refer to page 15–02 for choosing proper model of lock.



24B Metal hoods/housings

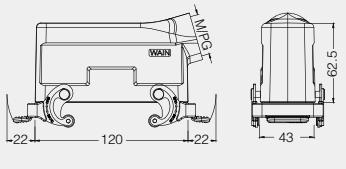
Degree of protection： IP67

Hoods, side entry



Thread	Designation	Order No.
M25	W24B–SE–2L/SC–M25	111 124 541 1001
M32	W24B–SE–2L/SC–M32	111 124 541 1002
PG21	W24B–SE–2L/SC–PG21	111 124 541 1003

Please refer to page 15–02 for choosing proper model of lock.

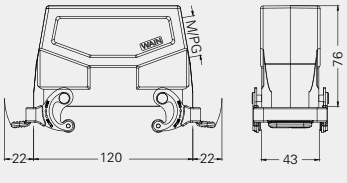


Hoods, side entry, high construction



Thread	Designation	Order No.
M32	W24B–SEH–2L/SC–M32	111 124 541 5001
M40	W24B–SEH–2L/SC–M40	111 124 541 5002
PG21	W24B–SEH–2L/SC–PG21	111 124 541 5003
PG29	W24B–SEH–2L/SC–PG29	111 124 541 5004
	with sleeve	
M32	W24B–SEH–2L/SC–M32 WS	111 124 541 5005
PG21	W24B–SEH–2L/SC–PG21 WS	111 124 541 5011
PG29	W24B–SEH–2L/SC–PG29 WS	111 124 541 5012

Please refer to page 15–02 for choosing proper model of lock.

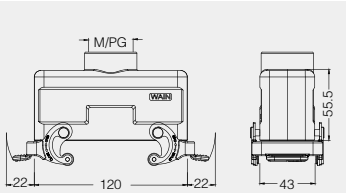


Hoods, top entry



Thread	Designation	Order No.
M25	W24B–TE–2L/SC–M25	111 124 441 1001
M32	W24B–TE–2L/SC–M32	111 124 441 1002
PG21	W24B–TE–2L/SC–PG21	111 124 441 1003
PG29	W24B–TE–2L/SC–PG29	111 124 441 1004

Please refer to page 15–02 for choosing proper model of lock.

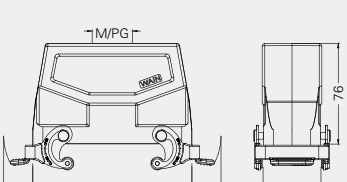


Hoods, top entry, high construction



Thread	Designation	Order No.
M32	W24B–TEH–2L/SC–M32	111 124 441 5001
M40	W24B–TEH–2L/SC–M40	111 124 441 5002
PG21	W24B–TEH–2L/SC–PG21	111 124 441 5003
PG29	W24B–TEH–2L/SC–PG29	111 124 441 5004
	with sleeve	
M32	W24B–TEH–2L/SC–M32 WS	111 124 441 5006
PG21	W24B–TEH–2L/SC–PG21 WS	111 124 441 5011
PG29	W24B–TEH–2L/SC–PG29 WS	111 124 441 5012

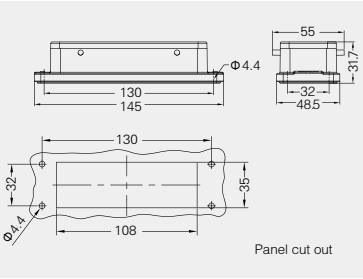
Please refer to page 15–02 for choosing proper model of lock.



Bulkhead mounted housings



Thread	Designation	Order No.
---	W24B–BK–4B	111 124 330 1001

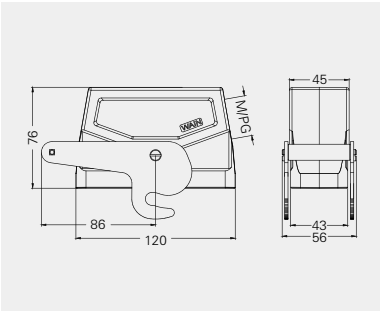


Degree of protection： IP67

Hoods, side entry, high construction



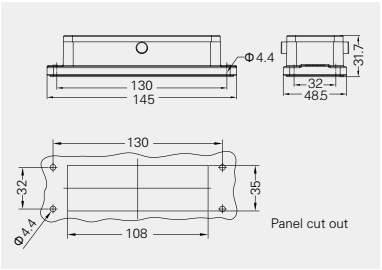
Thread	Designation	Order No.
M25	W24B–SEH–1L/C–M25	111 124 550 5001
M32	W24B–SEH–1L/C–M32	111 124 550 5002
M40	W24B–SEH–1L/C–M40	111 124 550 5003
PG21	W24B–SEH–1L/C–PG21	111 124 550 5004
PG29	W24B–SEH–1L/C–PG29	111 124 550 5005
	with sleeve	
M32	W24B–SEH–1L/C–M32 WS	111 124 555 5004
PG21	W24B–SEH–1L/C–PG21 WS	111 124 555 5011
PG29	W24B–SEH–1L/C–PG29 WS	111 124 555 5012



Bulkhead mounted housings



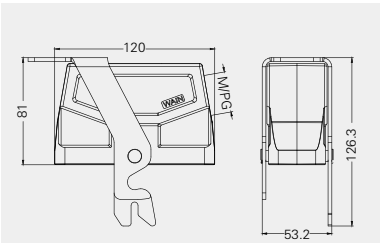
Thread	Designation	Order No.
---	W24B–BK–2B/C	111 024 350 1001



Hoods, side entry, high construction



Thread	Designation	Order No.
M40	W24B–SEH–1L/B–M40	111 124 529 5001
PG29	W24B–SEH–1L/B–PG29	111 124 529 5002
	with sleeve	
M32	W24B–SEH–1L/B–M32 WS	111 124 529 5005
PG21	W24B–SEH–1L/B–PG21 WS	111 124 529 5004
PG29	W24B–SEH–1L/B–PG29 WS	111 124 525 5112



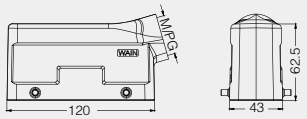
24B Metal hoods/housings
Suitable for harsh environment(anti-corrosion)

Degree of protection： IP67

Hoods, side entry



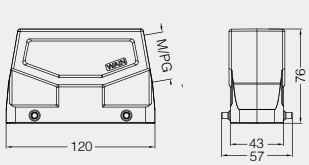
Thread	Designation	Order No.
M25	W24B–MSE–4B–M25	112 124 530 1001
M32	W24B–MSE–4B–M32	112 124 530 1004
PG21	W24B–MSE–4B–PG21	112 124 530 1002



Hoods, side entry, high construction



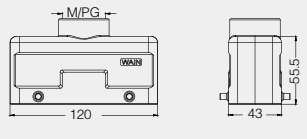
Thread	Designation	Order No.
M32	W24B–MSEH–4B–M32	112 124 530 5005
M40	W24B–MSEH–4B–M40	112 124 530 5006
PG21	W24B–MSEH–4B–PG21	112 124 530 5011
PG29	W24B–MSEH–4B–PG29	112 124 530 5007
	with sleeve	
M32	W24B–MSEH–4B–M32 WS	112 124 530 5004
PG21	W24B–MSEH–4B–PG21 WS	112 124 530 5013
PG29	W24B–MSEH–4B–PG29 WS	112 124 530 5012



Hoods, top entry



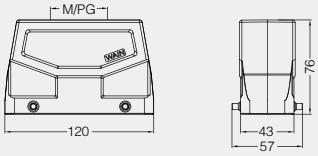
Thread	Designation	Order No.
M25	W24B–MTE–4B–M25	112 124 530 1003
M32	W24B–MTE–4B–M32	112 124 430 1005
PG21	W24B–MTE–4B–PG21	112 124 430 1004
PG29	W24B–MTE–4B–PG29	112 124 430 1003



Hoods, top entry, high construction



Thread	Designation	Order No.
M32	W24B–MTEH–4B–M32	112 124 430 5006
M40	W24B–MTEH–4B–M40	112 124 430 5007
PG21	W24B–MTEH–4B–PG21	112 124 430 5011
PG29	W24B–MTEH–4B–PG29	112 124 430 5008
	with sleeve	
M32	W24B–MTEH–4B–M32 WS	112 124 430 5004
PG21	W24B–MTEH–4B–PG21 WS	112 124 430 5010
PG29	W24B–MTEH–4B–PG29 WS	112 124 430 5012

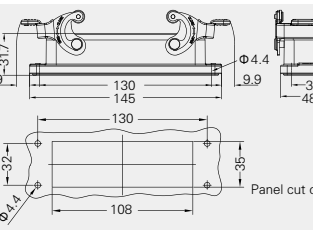


Bulkhead mounted housings



Thread	Designation	Order No.
---	W24B–MBK–2L/SC	112 124 311 1001

Please refer to page 15–02 for choosing proper model of lock.

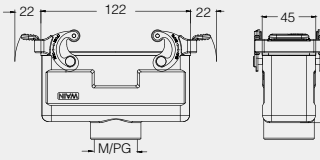


Housings, cable to cable



Thread	Designation	Order No.
M25	W24B–MCCT–2L/SC–M25	112 124 741 1003
M32	W24B–MCCT–2L/SC–M32	112 124 741 1004
PG21	W24B–MCCT–2L/SC–PG21	112 124 741 1005
PG29	W24B–MCCT–2L/SC–PG29	112 124 741 1006

Please refer to page 15–02 for choosing proper model of lock.

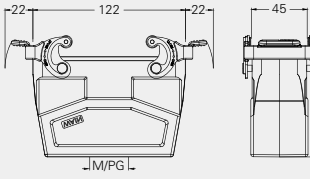


Housings, cable to cable high construction



Thread	Designation	Order No.
M32	W24B–MCCTH–2L/SC–M32	112 124 741 5004
M40	W24B–MCCTH–2L/SC–M40	112 124 741 5005
PG21	W24B–MCCTH–2L/SC–PG21	112 124 741 5011
PG29	W24B–MCCTH–2L/SC–PG29	112 124 741 5012
	with sleeve	
M32	W24B–MCCTH–2L/SC–M32 WS	112 124 741 5003
PG21	W24B–MCCTH–2L/SC–PG21 WS	112 124 741 5001
PG29	W24B–MCCTH–2L/SC–PG29 WS	112 124 741 5002

Please refer to page 15–02 for choosing proper model of lock.



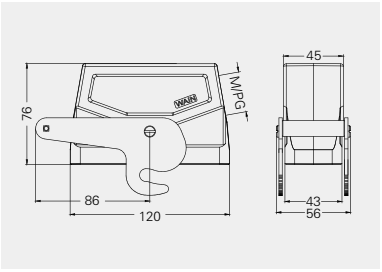
24B Metal hoods/housings
Suitable for harsh environment(anti-corrosion)

Degree of protection： IP67

Hoods, side entry, high construction



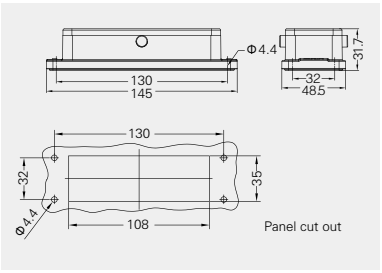
Thread	Designation	Order No.
M32	W24B–MSEH–1L/C–M32	112 124 550 5006
PG21	W24B–MSEH–1L/C–PG21	112 124 555 5011
PG29	W24B–MSEH–1L/C–PG29	112 124 550 5007
	with sleeve	
M32	W24B–MSEH–1L/C–M32 WS	112 124 555 5004
PG21	W24B–MSEH–1L/C–PG21 WS	112 124 555 5013
PG29	W24B–MSEH–1L/C–PG29 WS	112 124 555 5012



Bulkhead mounted housings



Thread	Designation	Order No.
---	W24B–MBK–2B/C	112 124 350 1001



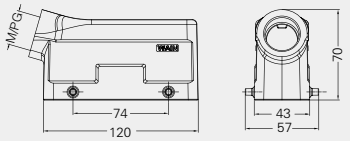
24B EMC Metal hoods/housings

Degree of protection： IP67

Hoods, side entry, high construction



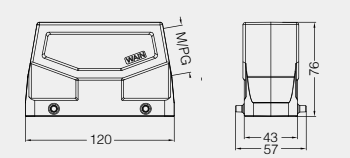
Thread	Designation	Order No.
M25	EMC.W24B–SE–4B–M25	111 224 530 1001
M32	EMC.W24B–SE–4B–M32	111 224 530 1002
PG21	EMC.W24B–SE–4B–PG21	111 224 530 1003



Hoods, side entry, high construction



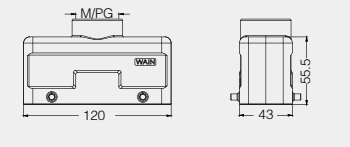
Thread	Designation	Order No.
–––	EMC.W24B–BEH–4B	111 224 930 5004
M32	EMC.W24B–SEH–4B–M32	111 224 530 5008
M40	EMC.W24B–SEH–4B–M40	111 224 530 5009
PG21	EMC.W24B–SEH–4B–PG21	111 224 530 5006
PG29	EMC.W24B–SEH–4B–PG29	111 224 530 5010
	with sleeve	
M32	EMC.W24B–SEH–4B–M32 WS	111 124 535 5501
PG21	EMC.W24B–SEH–4B–PG21 WS	111 224 535 5001
PG29	EMC.W24B–SEH–4B–PG29 WS	111 124 535 5013



Hoods, top entry



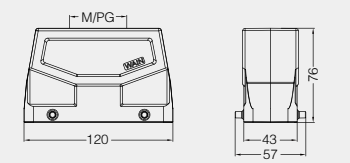
Thread	Designation	Order No.
M25	EMC.W24B–TE–4B–M25	111 224 430 1001
M32	EMC.W24B–TE–4B–M32	111 224 430 1002
PG21	EMC.W24B–TE–4B–PG21	111 224 430 1003
PG29	EMC.W24B–TE–4B–PG29	111 224 430 1004



Hoods, top entry, high construction



Thread	Designation	Order No.
–––	EMC.W24B–BEH–4B	111 224 930 5004
M32	EMC.W24B–TEH–4B–M32	111 224 430 5009
M40	EMC.W24B–TEH–4B–M40	111 224 430 5010
PG21	EMC.W24B–TEH–4B–PG21	111 224 430 5001
PG29	EMC.W24B–TEH–4B–PG29	111 224 430 5011
	with sleeve	
M32	EMC.W24B–TEH–4B–M32 WS	111 124 435 5501
PG21	EMC.W24B–TEH–4B–PG21 WS	111 124 435 5502
PG29	EMC.W24B–TEH–4B–PG29 WS	111 124 435 5015

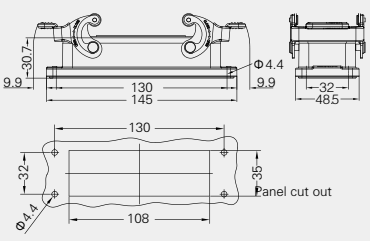


Bulkhead mounted housings



Thread	Designation	Order No.
---	EMC1.W24B–BK–2L/SC	111 124 341 1001

Please refer to page 15–02 for choosing proper model of lock.



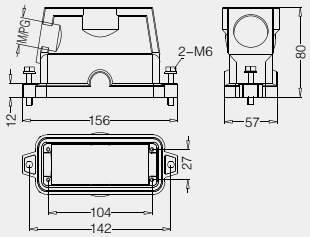
Degree of protection： IP68/IP69K

W version

Hoods, side entry, high construction



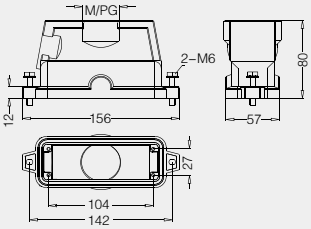
Thread	Designation	Order No.
M25	HP24B–SEH–2S–M25	115 024 520 5103
M32	HP24B–SEH–2S–M32	115 024 520 5104
M40	HP24B–SEH–2S–M40	115 024 520 5105
PG21	HP24B–SEH–2S–PG21	115 024 520 5111
PG29	HP24B–SEH–2S–PG29	115 024 520 5112



Hoods, top entry, high construction



Thread	Designation	Order No.
M25	HP24B–TEH–2S–M25	115 024 420 5103
M32	HP24B–TEH–2S–M32	115 024 420 5104
M40	HP24B–TEH–2S–M40	115 024 420 5105
M50	HP24B–TEH–2S–M50	115 024 420 5106
PG21	HP24B–TEH–2S–PG21	115 024 420 5111
PG29	HP24B–TEH–2S–PG29	115 024 420 5112
PG36	HP24B–TEH–2S–PG36	115 024 420 5113

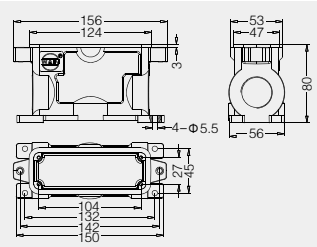


Surface mounted housings

high construction



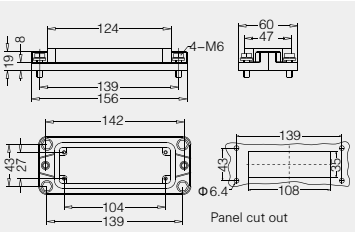
Thread	Designation	Order No.
M25	HP24B–SFH–2H–M25	115 024 220 5003
M32	HP24B–SFH–2H–M32	115 024 220 5004
M40	HP24B–SFH–2H–M40	115 024 220 5005
PG21	HP24B–SFH–2H–PG21	115 024 220 5011
PG29	HP24B–SFH–2H–PG29	115 024 220 5012



Bulkhead mounted housings



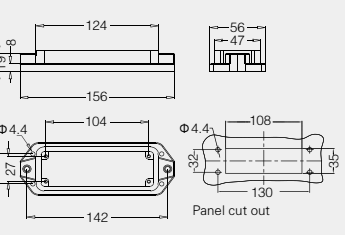
Thread	Designation	Order No.
---	HP24B–BK–2H	115 024 320 1001



Bulkhead mounted housings



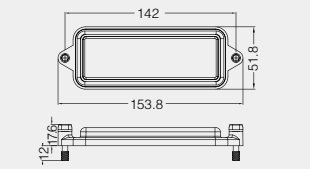
Thread	Designation	Order No.
---	HP24B–BK/S–2H	115 024 320 1101



Protection covers, plastic



Thread	Designation	Order No.
---	HP24B–CV–2S/2	115 024 020 8002



24B Pressure tight hoods/housings

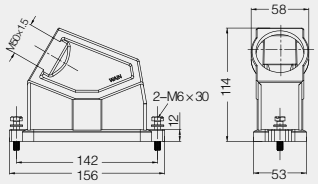
Degree of protection： IP68/IP69K

W version

Hoods, side entry, high construction



Thread	Designation	Order No.
M50	HP24B–SEHH–2S–M50	115 024 520 5106



24B Pressure tight hoods/housings

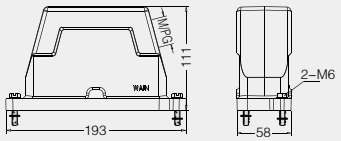
Degree of protection： IP68/IP69K

H version

Hoods, side entry, high construction



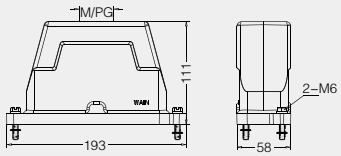
Thread	Designation	Order No.
	Screw locking	
M25	HP24B/H–SEH–2S–M25	113 624 520 5003
M32	HP24B/H–SEH–2S–M32	113 624 520 5004
M40	HP24B/H–SEH–2S–M40	113 624 520 5005
M50	HP24B/H–SEH–2S–M50	113 624 520 5006
PG21	HP24B/H–SEH–2S–PG21	113 624 520 5011
PG29	HP24B/H–SEH–2S–PG29	113 624 520 5012
PG36	HP24B/H–SEH–2S–PG36	113 624 520 5013
	Toggle locking	
M25	HP24B/H–SEH–2T–M25	113 624 540 5003
M32	HP24B/H–SEH–2T–M32	113 624 540 5004
M40	HP24B/H–SEH–2T–M40	113 624 540 5005
M50	HP24B/H–SEH–2T–M50	113 624 540 5006
PG21	HP24B/H–SEH–2T–PG21	113 624 540 5011
PG29	HP24B/H–SEH–2T–PG29	113 624 540 5012
PG36	HP24B/H–SEH–2T–PG36	113 624 540 5013



Hoods, top entry, high construction



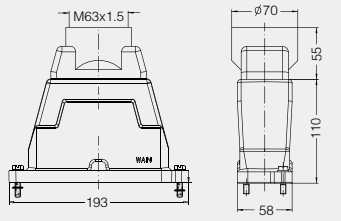
Thread	Designation	Order No.
	Screw locking	
M25	HP24B/H–TEH–2S–M25	113 624 420 5003
M32	HP24B/H–TEH–2S–M32	113 624 420 5004
M40	HP24B/H–TEH–2S–M40	113 624 420 5005
M50	HP24B/H–TEH–2S–M50	113 624 420 5006
PG21	HP24B/H–TEH–2S–PG21	113 624 420 5011
PG29	HP24B/H–TEH–2S–PG29	113 624 420 5012
PG36	HP24B/H–TEH–2S–PG36	113 624 420 5013
	Toggle locking	
M25	HP24B/H–TEH–2T–M25	113 624 440 5003
M32	HP24B/H–TEH–2T–M32	113 624 440 5004
M40	HP24B/H–TEH–2T–M40	113 624 440 5005
M50	HP24B/H–TEH–2T–M50	113 624 440 5006
PG21	HP24B/H–TEH–2T–PG21	113 624 440 5011
PG29	HP24B/H–TEH–2T–PG29	113 624 440 5012
PG36	HP24B/H–TEH–2T–PG36	113 624 440 5013



Hoods, top entry, high construction



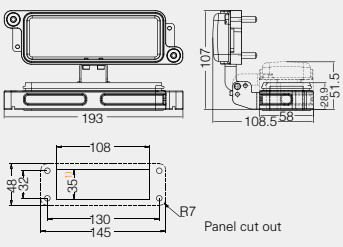
Thread	Designation	Order No.
	Screw locking	
M63	HP24B/H–TEH–2S–M63	113 624 420 5007
	Toggle locking	
M63	HP24B/H–TEH–2T–M63	113 624 440 5007



Bulkhead mounted housings



Thread	Designation	Order No.
	Screw locking	
---	HP24B/H–BK–2H	113 624 320 1001
	Toggle locking	
---	HP24B/H–BK–2T	113 624 340 1001
	with metal cover	
---	Screw locking	
	HP24B/H–BK–2H–MCV	113 624 360 1001
---	Toggle locking	
	HP24B/H–BK–2T–MCV	113 624 370 1001



Remark: 1).When mached the HC650 insert, the size is 45

24B Pressure tight hoods/housings

Degree of protection： IP68/IP69K

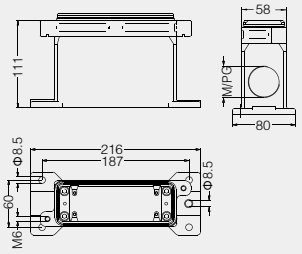
H version

Surface mounted housings

high construction



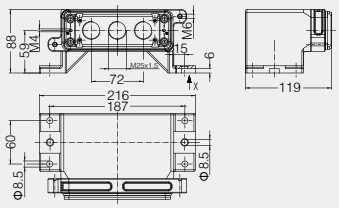
Thread	Designation	Order No.
	Screw locking	
M25	HP24B/H–SFH–2H–M25	113 624 220 5003
M32	HP24B/H–SFH–2H–M32	113 624 220 5004
M40	HP24B/H–SFH–2H–M40	113 624 220 5005
2M40	HP24B/H–SFH–2H–2M40	113 624 220 5025
PG21	HP24B/H–SFH–2H–PG21	113 624 220 5011
PG29	HP24B/H–SFH–2H–PG29	113 624 220 5012
PG36	HP24B/H–SFH–2H–PG36	113 624 220 5013
	轴销联锁	
M25	HP24B/H–SFH–2T–M25	113 624 240 5003
M32	HP24B/H–SFH–2T–M32	113 624 240 5004
M40	HP24B/H–SFH–2T–M40	113 624 240 5005
2M40	HP24B/H–SFH–2T–2M40	113 624 240 5025
PG21	HP24B/H–SFH–2T–PG21	113 624 240 5011
PG29	HP24B/H–SFH–2T–PG29	113 624 240 5012
PG36	HP24B/H–SFH–2T–PG36	113 624 240 5013



Surface mounted housings



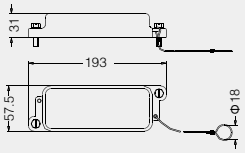
Thread	Designation	Order No.
	Screw locking	
3M25	HP24B/H–BK–SE–2H–3M25	113 624 920 1036
	Toggle locking	
3M25	HP24B/H–BK–SE–2T–3M25	113 624 940 1036



Protection covers,for housings



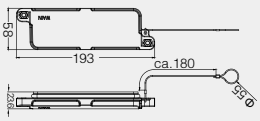
Connect way	Designation	Order No.
	Screw locking	
⏦	HP24B/H–MCV–2S	113 624 020 8101
	Toggle locking	
⏦	HP24B/H–MCV–2T	113 624 040 8103



Protection covers,for hoods

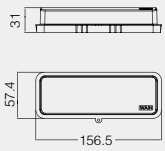


Connect way	Designation	Order No.
	Screw locking	
⏦	HP24B/H–MCV–2H/1	113 624 020 8111
	Toggle locking	
⏦	HP24B/H–MCV–2T/1	113 624 040 8101



Protection covers, for housings(IP5X)

Thread	Designation	Order No.
---	HP24B/H–CV/C	113 024 900 8001



Degree of protection： IP68/IP69K

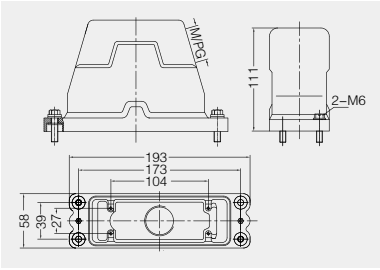
The following hoods/housings comply with the standards for rail transport industry in China.

H version

Hoods, side entry, high construction



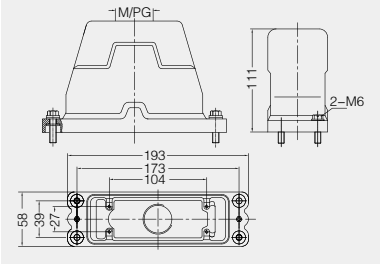
Thread	Designation	Order No.
M25	HP24B/H–SEH–4S–M25	113 624 530 5003
M32	HP24B/H–SEH–4S–M32	113 624 530 5004
M40	HP24B/H–SEH–4S–M40	113 624 530 5005
PG21	HP24B/H–SEH–4S–PG21	113 624 530 5011
PG29	HP24B/H–SEH–4S–PG29	113 624 530 5012



Hoods, top entry, high construction



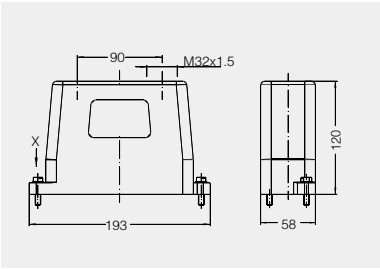
Thread	Designation	Order No.
M25	HP24B/H–TEH–4S–M25	113 624 430 5003
M32	HP24B/H–TEH–4S–M32	113 624 430 5004
M40	HP24B/H–TEH–4S–M40	113 624 430 5005
M50	HP24B/H–TEH–4S–M50	113 624 430 5006
PG21	HP24B/H–TEH–4S–PG21	113 624 430 5011
PG29	HP24B/H–TEH–4S–PG29	113 624 430 5012
PG36	HP24B/H–TEH–4S–PG36	113 624 430 5013



Hoods, top entry, high construction



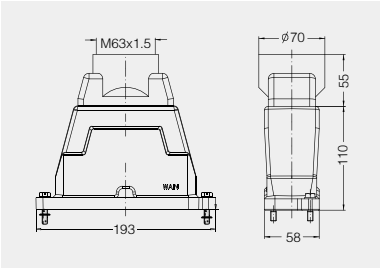
Thread	Designation	Order No.
3M32	HP24B/H–TEHH–4S–3M32	113 624 430 5037



Hoods, top entry, high construction



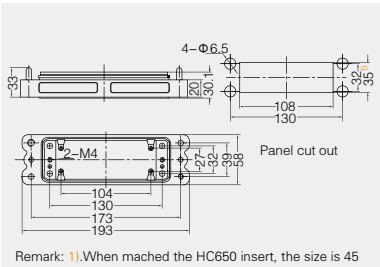
Thread	Designation	Order No.
M63	HP24B/H–TEH–4S–M63	113 624 430 5007



Bulkhead mounted housings



Thread	Designation	Order No.
---	HP24B/H–BK–4H	113 624 330 1001



Remark: 1).When mached the HC650 insert, the size is 45

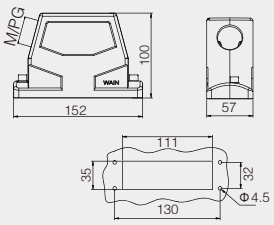
24B Pressure tight hoods/housings

Degree of protection： IP68/IP69K

Hoods, side entry, high construction



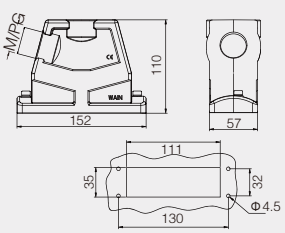
Thread	Designation	Order No.
M32	HC24B–SEH–2S–M32	114 024 520 5004
M40	HC24B–SEH–2S–M40	114 024 520 5005
PG21	HC24B–SEH–2S–PG21	114 024 520 5011
PG29	HC24B–SEH–2S–PG29	114 024 520 5012



Hoods, side entry, high construction



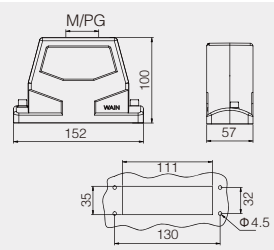
Thread	Designation	Order No.
M32	HC24B–SEHH–2S–M32	130 024 520 1003
M40	HC24B–SEHH–2S–M40	130 024 520 1005
M50	HC24B–SEHH–2S–M50	130 024 520 1001
PG21	HC24B–SEHH–2S–PG21	130 024 520 1007
PG29	HC24B–SEHH–2S–PG29	130 024 520 1009



Hoods, top entry, high construction



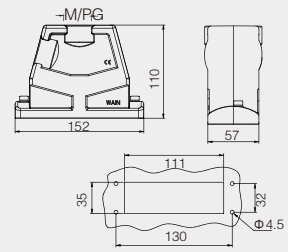
Thread	Designation	Order No.
M32	HC24B–TEH–2S–M32	114 024 420 5004
M40	HC24B–TEH–2S–M40	114 024 420 5005
PG21	HC24B–TEH–2S–PG21	114 024 420 5011
PG29	HC24B–TEH–2S–PG29	114 024 420 5012



Hoods, top entry, high construction



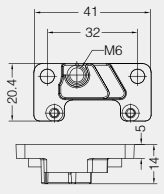
Thread	Designation	Order No.
M32	HC24B–TEHH–2S–M32	130 024 420 1003
M40	HC24B–TEHH–2S–M40	130 024 420 1005
M50	HC24B–TEHH–2S–M50	130 024 420 1001
PG21	HC24B–TEHH–2S–PG21	130 024 420 1007
PG29	HC24B–TEHH–2S–PG29	130 024 420 1009



Mounting flange



Application	Designation	Order No.
for integral type hoods	APT–C	114 000 000 1001

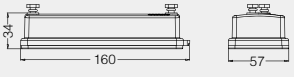


Protection covers,plastic

Degree of protection: IP65



Thread	Designation	Order No.
–––	HC24B–CV–2S/2	130 024 020 8001



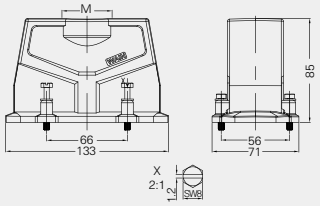
Degree of protection： IP68/IP69K

EMC Pressure tight hoods/housings

Hoods, top entry, high construction



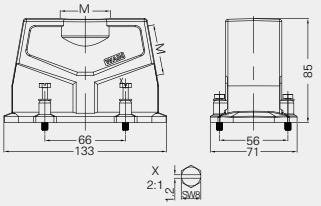
Thread	Designation	Order No.
M25	EMC.W24B–TEH–4S–M32	111 124 430 5012
M32	EMC.W24B–TEH–4S–M40	111 224 430 1005
PG21	EMC.W24B–TEH–4S–PG21	111 224 430 1006
PG29	EMC.W24B–TEH–4S–PG29	111 224 430 1007



Hoods, side entry, high construction



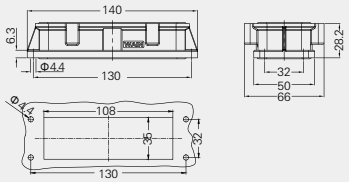
Thread	Designation	Order No.
M25	EMC.W24B–SEH–4S–M32	111 224 530 5002
M32	EMC.W24B–SEH–4S–M40	111 224 530 5003
PG21	EMC.W24B–SEH–4S–PG21	111 224 530 5004
PG29	EMC.W24B–SEH–4S–PG29	111 224 530 5005



Bulkhead mounted housings



Thread	Designation	Order No.
---	EMC.W24B–BK–4H	111 224 330 1001



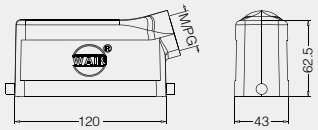
HV24B Metal hoods/housings
- for high voltage inserts(HVE Series)

Degree of protection： IP65

Hoods, side entry



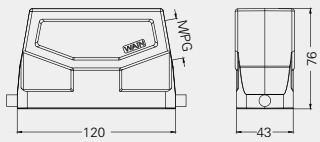
Thread	Designation	Order No.
M25	HV24B–SE–2B–M25	124 024 515 1003
M32	HV24B–SE–2B–M32	124 024 515 1004
PG21	HV24B–SE–2B–PG21	124 024 515 1011



Hoods, side entry, high construction



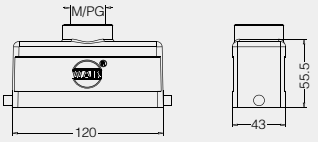
Thread	Designation	Order No.
M32	WV24B–SEH–2B–M32	124 124 510 5001
M40	WV24B–SEH–2B–M40	124 124 510 5002
PG21	WV24B–SEH–2B–PG21	124 124 510 5003
PG29	WV24B–SEH–2B–PG29	124 124 510 5004
	with sleeve	
M32	WV24B–SEH–2B–M32 WS	124 124 515 5004
PG21	WV24B–SEH–2B–PG21 WS	124 124 515 5011
PG29	WV24B–SEH–2B–PG29 WS	124 124 515 5012



Hoods, top entry



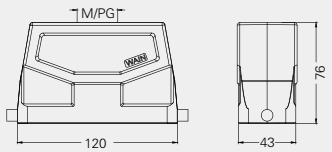
Thread	Designation	Order No.
M25	HV24B–TE–2B–M25	124 024 415 1003
M32	HV24B–TE–2B–M32	124 024 415 1004
PG21	HV24B–TE–2B–PG21	124 024 415 1011



Hoods, top entry, high construction



Thread	Designation	Order No.
M32	WV24B–TEH–2B–M32	124 124 410 5001
M40	WV24B–TEH–2B–M40	124 124 410 5002
PG21	WV24B–TEH–2B–PG21	124 124 410 5003
PG29	WV24B–TEH–2B–PG29	124 124 410 5004
	with sleeve	
M32	WV24B–TEH–2B–M32 WS	124 124 415 5004
PG21	WV24B–TEH–2B–PG21 WS	124 124 415 5011
PG29	WV24B–TEH–2B–PG29 WS	124 124 415 5012

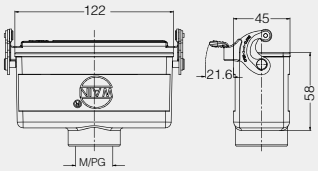


Housings, cable to cable



Thread	Designation	Order No.
M25	HV24B–CCT–1L/SC–M25	124 024 721 1003
PG21	HV24B–CCT–1L/SC–PG21	124 024 721 1011

Please refer to page 15–02 for choosing proper model of lock.

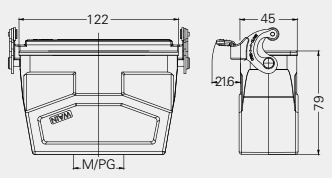


Housings, cable to cable
high construction



Thread	Designation	Order No.
M32	WV24B–CCTH–1L/SC–M32	124 124 721 5001
M40	WV24B–CCTH–1L/SC–M40	124 124 721 5002
PG21	WV24B–CCTH–1L/SC–PG21	124 124 721 5003
PG29	WV24B–CCTH–1L/SC–PG29	124 124 721 5004
	with sleeve	
M32	WV24B–CCTH–1L/SC–M32 WS	124 124 721 5005
PG21	WV24B–CCTH–1L/SC–PG21 WS	124 124 721 5011
PG29	WV24B–CCTH–1L/SC–PG29 WS	124 124 721 5012

Please refer to page 15–02 for choosing proper model of lock.



HV24B Metal hoods/housings

- for high voltage inserts(HVE Series)

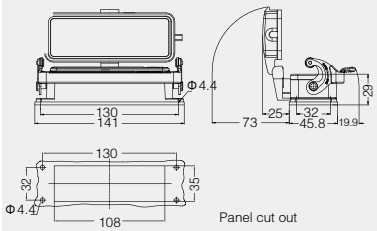
Degree of protection： IP65

Housings, bulkhead mounting



Thread	Designation	Order No.
---	HV24B–BK–1L/SC	124 024 321 1001
	with plastic cover	
---	HV24B–BK–1L/SC–CV	124 024 361 1001
	with metal cover	
---	HV24B–BK–1L/SC–MCV	124 024 361 1101

Please refer to page 15–02 for choosing proper model of lock.

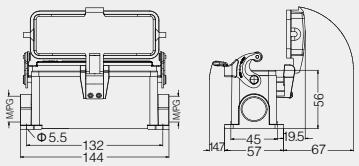


Housings, surface mounting



Thread	Designation	Order No.
M25	HV24B–SF–1L/SC–M25	124 024 221 1003
2M25	HV24B–SF–1L/SC–2M25	124 024 221 1023
PG21	HV24B–SF–1L/SC–PG21	124 024 221 1011
2PG21	HV24B–SF–1L/SC–2PG21	124 024 221 1031
	with plastic cover	
M25	HV24B–SF–1L/SC–CV–M25	124 024 261 1003
2M25	HV24B–SF–1L/SC–CV–2M25	124 024 261 1023
PG21	HV24B–SF–1L/SC–CV–PG21	124 024 261 1011
2PG21	HV24B–SF–1L/SC–CV–2PG21	124 024 261 1031
	with metal cover	
M25	HV24B–SF–1L/SC–MCV–M25	124 024 261 1103
2M25	HV24B–SF–1L/SC–MCV–2M25	124 024 261 1123
PG21	HV24B–SF–1L/SC–MCV–PG21	124 024 261 1111
2PG21	HV24B–SF–1L/SC–MCV–2PG21	124 024 261 1131

Please refer to page 15–02 for choosing proper model of lock.



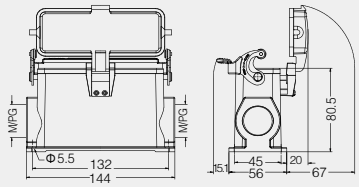
Housings, surface mounting

high construction



Thread	Designation	Order No.
M32	HV24B–SFH–1L/SC–M32	124 024 221 5004
2M32	HV24B–SFH–1L/SC–2M32	124 024 221 5024
PG21	HV24B–SFH–1L/SC–PG21	124 024 221 5011
2PG21	HV24B–SFH–1L/SC–2PG21	124 024 221 5031
PG29	HV24B–SFH–1L/SC–PG29	124 024 221 5012
2PG29	HV24B–SFH–1L/SC–2PG29	124 024 221 5032
	with plastic cover	
M32	HV24B–SFH–1L/SC–CV–M32	124 024 261 5004
2M32	HV24B–SFH–1L/SC–CV–2M32	124 024 261 5024
PG21	HV24B–SFH–1L/SC–CV–PG21	124 024 261 5011
2PG21	HV24B–SFH–1L/SC–CV–2PG21	124 024 261 5031
PG29	HV24B–SFH–1L/SC–CV–PG29	124 024 261 5012
2PG29	HV24B–SFH–1L/SC–CV–2PG29	124 024 261 5032
	with metal cover	
M32	HV24B–SFH–1L/SC–MCV–M32	124 024 261 5104
2M32	HV24B–SFH–1L/SC–MCV–2M32	124 024 261 5124
PG21	HV24B–SFH–1L/SC–MCV–PG21	124 024 261 5111
2PG21	HV24B–SFH–1L/SC–MCV–2PG21	124 024 261 5131
PG29	HV24B–SFH–1L/SC–MCV–PG29	124 024 261 5112
2PG29	HV24B–SFH–1L/SC–MCV–2PG29	124 024 261 5132

Please refer to page 15–02 for choosing proper model of lock.



HV24B Metal hoods/housings

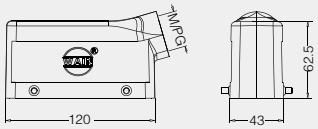
- for high voltage inserts(HVE Series)

Degree of protection： IP65

Hoods, side entry



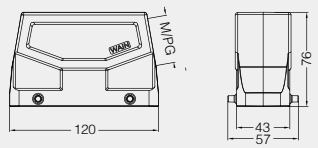
Thread	Designation	Order No.
M25	HV24B–SE–4B–M25	124 024 530 1003
M32	HV24B–SE–4B–M32	124 024 530 1004
PG21	HV24B–SE–4B–PG21	124 024 530 1011



Hoods, side entry, high construction



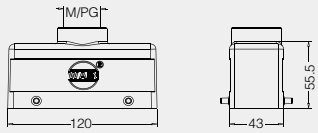
Thread	Designation	Order No.
M32	WV24B–SEH–4B–M32	124 124 530 5001
M40	WV24B–SEH–4B–M40	124 124 530 5002
PG21	WV24B–SEH–4B–PG21	124 124 530 5003
PG29	WV24B–SEH–4B–PG29	124 124 530 5004
	with sleeve	
M32	WV24B–SEH–4B–M32 WS	124 124 530 5007
PG21	WV24B–SEH–4B–PG21 WS	124 124 530 5011
PG29	WV24B–SEH–4B–PG29 WS	124 124 530 5012



Hoods, top entry



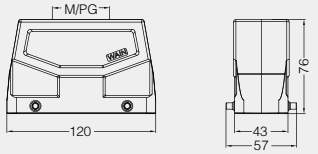
Thread	Designation	Order No.
M25	HV24B–TE–4B–M25	124 024 430 1003
M32	HV24B–TE–4B–M32	124 024 430 1004
PG21	HV24B–TE–4B–PG21	124 024 430 1011



Hoods, top entry, high construction



Thread	Designation	Order No.
M32	WV24B–TEH–4B–M32	124 124 430 5001
M40	WV24B–TEH–4B–M40	124 124 430 5002
PG21	WV24B–TEH–4B–PG21	124 124 430 5003
PG29	WV24B–TEH–4B–PG29	124 124 430 5004
	with sleeve	
M32	WV24B–TEH–4B–M32 WS	124 124 430 5008
PG21	WV24B–TEH–4B–PG21 WS	124 124 430 5011
PG29	WV24B–TEH–4B–PG29 WS	124 124 430 5012



HV24B Metal hoods/housings
- for high voltage inserts(HVE Series)

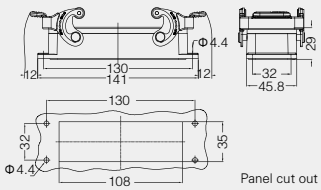
Degree of protection： IP65

Housings, bulkhead mounting



Thread	Designation	Order No.
---	HV24B–BK–2L/SC	124 024 341 1001

Please refer to page 15–02 for choosing proper model of lock.

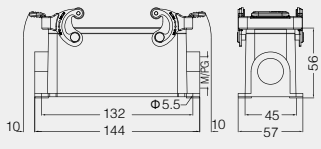


Housings, surface mounting



Thread	Designation	Order No.
M25	HV24B–SF–2L/SC–M25	124 024 241 1003
2M25	HV24B–SF–2L/SC–2M25	124 024 241 1023
PG21	HV24B–SF–2L/SC–PG21	124 024 241 1011
2PG21	HV24B–SF–2L/SC–2PG21	124 024 241 1031

Please refer to page 15–02 for choosing proper model of lock.

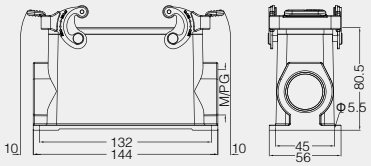


Housings, surface mounting
high construction



Thread	Designation	Order No.
M32	HV24B–SFH–2L/SC–M32	124 024 241 5004
2M32	HV24B–SFH–2L/SC–2M32	124 024 241 5024
PG21	HV24B–SFH–2L/SC–PG21	124 024 241 5011
2PG21	HV24B–SFH–2L/SC–2PG21	124 024 241 5031
PG29	HV24B–SFH–2L/SC–PG29	124 024 241 5012
2PG29	HV24B–SFH–2L/SC–2PG29	124 024 241 5032

Please refer to page 15–02 for choosing proper model of lock.

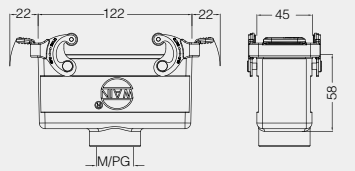


Housings, cable to cable



Thread	Designation	Order No.
M25	HV24B–CCT–2L/SC–M25	124 024 741 1003
PG21	HV24B–CCT–2L/SC–PG21	124 024 741 1011

Please refer to page 15–02 for choosing proper model of lock.



HV24B Metal hoods/housings

- for high voltage inserts(HVE Series)

Degree of protection： IP65

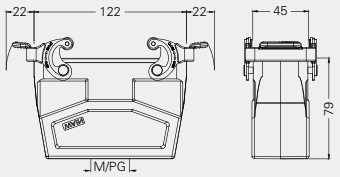
Housings, cable to cable

high construction



Thread	Designation	Order No.
M32	WV24B–CCTH–2L/SC–M32	124 124 741 5001
M40	WV24B–CCTH–2L/SC–M40	124 124 741 5002
PG21	WV24B–CCTH–2L/SC–PG21	124 124 741 5003
PG29	WV24B–CCTH–2L/SC–PG29	124 124 741 5004
	with sleeve	
M32	WV24B–CCTH–2L/SC–M32 WS	124 124 741 5005
PG21	WV24B–CCTH–2L/SC–PG21 WS	124 124 741 5011
PG29	WV24B–CCTH–2L/SC–PG29 WS	124 124 741 5012

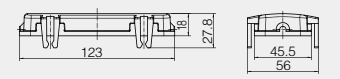
Please refer to page 15–02 for choosing proper model of lock.



Protection covers, plastic



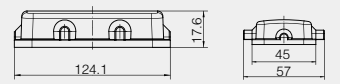
Connect way	Application	Designation	Order No.
---	for hoods	H24B–CV–4C	111 024 090 8009



Protection covers, plastic



Connect way	Application	Designation	Order No.
	for Housings, cable to cable	H24B–CV–4B/1	111 024 030 8001
	for Housings, bulkhead mounting /surface mounting	H24B–CV–4B/2	111 024 030 8002



HV24B Metal hoods/housings

- for high voltage inserts(HVE Series)

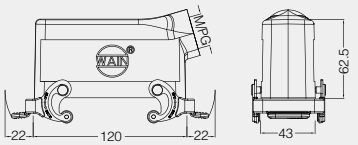
Degree of protection： IP65

Hoods, side entry



Thread	Designation	Order No.
M25	HV24B–SE–2L/SC–M25	124 024 541 1003
M32	HV24B–SE–2L/SC–M32	124 024 541 1004
PG21	HV24B–SE–2L/SC–PG21	124 024 541 1011

Please refer to page 15–02 for choosing proper model of lock.

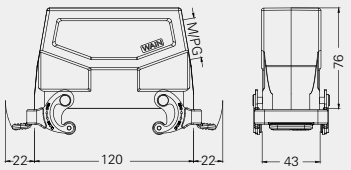


Hoods, side entry, high construction



Thread	Designation	Order No.
M32	WV24B–SEH–2L/SC–M32	124 124 541 5001
M40	WV24B–SEH–2L/SC–M40	124 124 541 5002
PG21	WV24B–SEH–2L/SC–PG21	124 124 541 5003
PG29	WV24B–SEH–2L/SC–PG29 with sleeve	124 124 541 5004
M32	WV24B–SEH–2L/SC–M32 WS	124 124 541 5005
PG21	WV24B–SEH–2L/SC–PG21 WS	124 124 541 5011
PG29	WV24B–SEH–2L/SC–PG29 WS	124 124 541 5012

Please refer to page 15–02 for choosing proper model of lock.

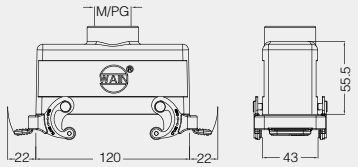


Hoods, top entry



Thread	Designation	Order No.
M25	HV24B–TE–2L/SC–M25	124 024 441 1003
PG21	HV24B–TE–2L/SC–PG21	124 024 441 1011

Please refer to page 15–02 for choosing proper model of lock.

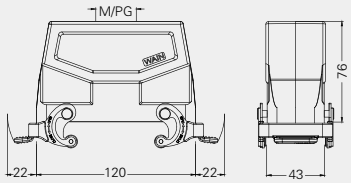


Hoods, top entry, high construction



Thread	Designation	Order No.
M32	WV24B–TEH–2L/SC–M32	124 124 441 5001
M40	WV24B–TEH–2L/SC–M40	124 124 441 5002
PG21	WV24B–TEH–2L/SC–PG21	124 124 441 5003
PG29	WV24B–TEH–2L/SC–PG29 with sleeve	124 124 441 5004
M32	WV24B–TEH–2L/SC–M32 WS	124 124 441 5005
PG21	WV24B–TEH–2L/SC–PG21 WS	124 124 441 5011
PG29	WV24B–TEH–2L/SC–PG29 WS	124 124 441 5012

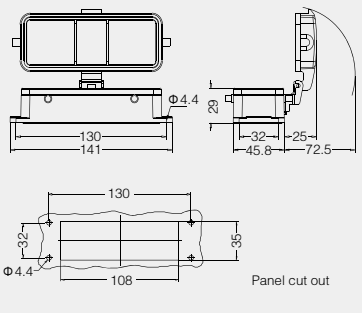
Please refer to page 15–02 for choosing proper model of lock.



Housings, bulkhead mounting



Thread	Designation	Order No.
---	HV24B–BK–4B	124 024 330 1001
	with plastic cover	
---	HV24B–BK–4B–CV	124 024 370 1001
	with metal cover	
---	HV24B–BK–4B–MCV	124 024 370 1101



HV24B Metal hoods/housings

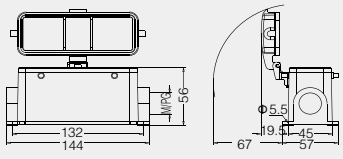
- for high voltage inserts(HVE Series)

Degree of protection： IP65

Housings, surface mounting



Thread	Designation	Order No.
M25	HV24B–SF–4B–M25	124 024 230 1003
2M25	HV24B–SF–4B–2M25	124 024 230 1023
PG21	HV24B–SF–4B–PG21	124 024 230 1011
2PG21	HV24B–SF–4B–2PG21	124 024 230 1031
	with plastic cover	
M25	HV24B–SF–4B–CV–M25	124 024 270 1003
2M25	HV24B–SF–4B–CV–2M25	124 024 270 1023
PG21	HV24B–SF–4B–CV–PG21	124 024 270 1011
2PG21	HV24B–SF–4B–CV–2PG21	124 024 270 1031
	with metal cover	
M25	HV24B–SF–4B–MCV–M25	124 024 270 1103
2M25	HV24B–SF–4B–MCV–2M25	124 024 270 1123
PG21	HV24B–SF–4B–MCV–PG21	124 024 270 1111
2PG21	HV24B–SF–4B–MCV–2PG21	124 024 270 1131

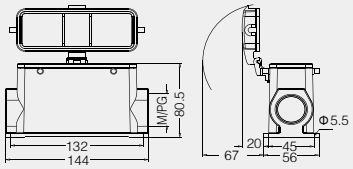


Housings, surface mounting

high construction



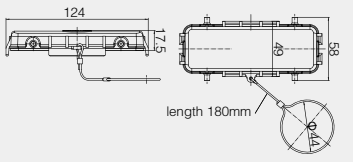
Thread	Designation	Order No.
M32	HV24B–SFH–4B–M32	124 024 230 5004
2M32	HV24B–SFH–4B–2M32	124 024 230 5024
PG21	HV24B–SFH–4B–PG21	124 024 230 5011
2PG21	HV24B–SFH–4B–2PG21	124 024 230 5031
PG29	HV24B–SFH–4B–PG29	124 024 230 5012
2PG29	HV24B–SFH–4B–2PG29	124 024 230 5032
	with plastic cover	
M32	HV24B–SFH–4B–CV–M32	124 024 270 5004
2M32	HV24B–SFH–4B–CV–2M32	124 024 270 5024
PG21	HV24B–SFH–4B–CV–PG21	124 024 270 5011
2PG21	HV24B–SFH–4B–CV–2PG21	124 024 270 5031
PG29	HV24B–SFH–4B–CV–PG29	124 024 270 5012
2PG29	HV24B–SFH–4B–CV–2PG29	124 024 270 5032
	with metal cover	
M32	HV24B–SFH–4B–MCV–M32	124 024 270 5104
2M32	HV24B–SFH–4B–MCV–2M32	124 024 270 5124
PG21	HV24B–SFH–4B–MCV–PG21	124 024 270 5111
2PG21	HV24B–SFH–4B–MCV–2PG21	124 024 270 5131
PG29	HV24B–SFH–4B–MCV–PG29	124 024 270 5112
2PG29	HV24B–SFH–4B–MCV–2PG29	124 024 270 5132



Protection covers, metal



Connect way	Application	Designation	Order No.
	for hoods	H24B–MCV–4B/1S	111 024 030 8103
	for housings, without sealing	H24B–MCV–4B/2	111 024 030 8102

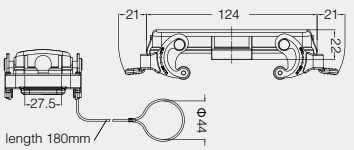


Protection covers, metal



Connect way	Application	Designation	Order No.
	for hoods	H24B–MCV–2L/SC.1S	111 024 041 8101
	for housings	H24B–MCV–2L/SC.2	111 024 041 8102

Please refer to page 15–02 for choosing proper model of lock.



HV24B Metal hoods/housings

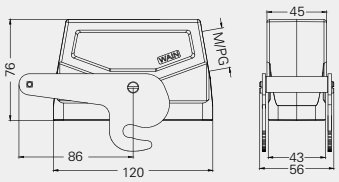
- for high voltage inserts(HVE Series)

Degree of protection： IP65

Hoods, side entry, high construction



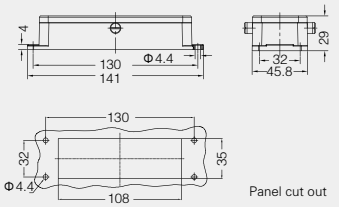
Thread	Designation	Order No.
M32	WV24B–SEH–1L/C–M32	124 124 550 5001
PG29	WV24B–SEH–1L/C–PG29	124 124 550 5002
	with sleeve	
M32	WV24B–SEH–1L/C–M32 WS	124 124 555 5004
PG21	WV24B–SEH–1L/C–PG21 WS	124 124 550 5003
PG29	WV24B–SEH–1L/C–PG29 WS	124 124 555 5012



Housings, bulkhead mounting



Thread	Designation	Order No.
---	HV24B–BK–2B/C	124 024 355 1001



HV24B Metal hoods/housings

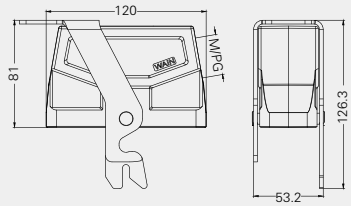
- for high voltage inserts(HVE Series)

Degree of protection： IP65

Hoods, side entry, high construction



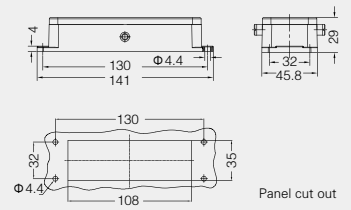
Thread	Designation	Order No.
M32	WV24B–SEH–1L/B–M32	124 124 529 5001
PG29	WV24B–SEH–1L/B–PG29	124 124 529 5002
	with sleeve	
M32	WV24B–SEH–1L/B–M32 WS	124 124 525 5004
PG21	WV24B–SEH–1L/B–PG21 WS	124 124 525 5013
PG29	WV24B–SEH–1L/B–PG29 WS	124 124 525 5012



Housings, bulkhead mounting



Thread	Designation	Order No.
---	HV24B–BK–2B/B	124 024 315 1001



24B Metal hoods/housings

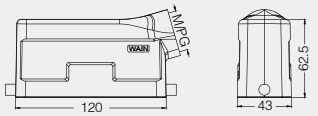
- for high voltage inserts(HVE Series)

Degree of protection： IP67

Hoods, side entry



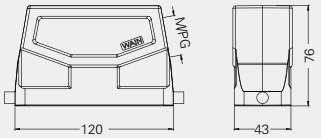
Thread	Designation	Order No.
M25	WV24B–SE–2B–M25	124 124 510 1001
M32	WV24B–SE–2B–M32	124 124 510 1002
PG21	WV24B–SE–2B–PG21	124 124 510 1003



Hoods, side entry, high construction



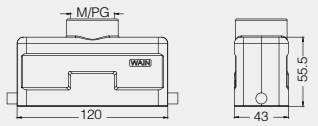
Thread	Designation	Order No.
M32	WV24B–SEH–2B–M32	124 124 510 5001
M40	WV24B–SEH–2B–M40	124 124 510 5002
PG21	WV24B–SEH–2B–PG21	124 124 510 5003
PG29	WV24B–SEH–2B–PG29	124 124 510 5004
	with sleeve	
M32	WV24B–SEH–2B–M32 WS	124 124 515 5004
PG21	WV24B–SEH–2B–PG21 WS	124 124 515 5011
PG29	WV24B–SEH–2B–PG29 WS	124 124 515 5012



Hoods, top entry



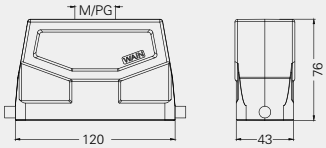
Thread	Designation	Order No.
M25	WV24B–TE–2B–M25	124 124 410 1001
M32	WV24B–TE–2B–M32	124 124 410 1002
PG21	WV24B–TE–2B–PG21	124 124 410 1003



Hoods, top entry, high construction



Thread	Designation	Order No.
M32	WV24B–TEH–2B–M32	124 124 410 5001
M40	WV24B–TEH–2B–M40	124 124 410 5002
PG21	WV24B–TEH–2B–PG21	124 124 410 5003
PG29	WV24B–TEH–2B–PG29	124 124 410 5004
	with sleeve	
M32	WV24B–TEH–2B–M32 WS	124 124 415 5004
PG21	WV24B–TEH–2B–PG21 WS	124 124 415 5011
PG29	WV24B–TEH–2B–PG29 WS	124 124 415 5012



24B Metal hoods/housings
- for high voltage inserts(HVE Series)

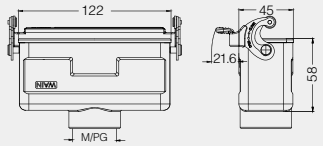
Degree of protection： IP67

Housings, cable to cable



Thread	Designation	Order No.
M25	WV24B–CCT–1L/SC–M25	124 124 721 1001
PG21	WV24B–CCT–1L/SC–PG21	124 124 721 1002

Please refer to page 15–02 for choosing proper model of lock.

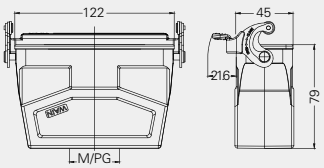


Housings, cable to cable
high construction



Thread	Designation	Order No.
M32	WV24B–CCTH–1L/SC–M32	124 124 721 5001
M40	WV24B–CCTH–1L/SC–M40	124 124 721 5002
PG21	WV24B–CCTH–1L/SC–PG21	124 124 721 5003
PG29	WV24B–CCTH–1L/SC–PG29	124 124 721 5004
	with sleeve	
M32	WV24B–CCTH–1L/SC–M32 WS	124 124 721 5005
PG21	WV24B–CCTH–1L/SC–PG21 WS	124 124 721 5011
PG29	WV24B–CCTH–1L/SC–PG29 WS	124 124 721 5012

Please refer to page 15–02 for choosing proper model of lock.

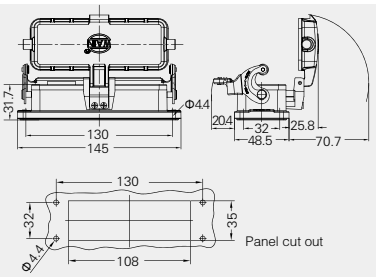


Bulkhead mounted housings



Thread	Designation	Order No.
–––	WV24B–BK–1L/SC	124 124 321 1101
	with plastic cover	
–––	WV24B–BK–1L/SC–CV	111 124 321 8003
	with metal cover	
–––	WV24B–BK–1L/SC–MCV	111 124 321 8004

Please refer to page 15–02 for choosing proper model of lock.



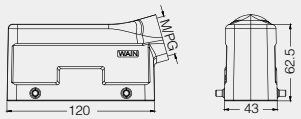
24B Metal hoods/housings
- for high voltage inserts(HVE Series)

Degree of protection： IP67

Hoods, side entry



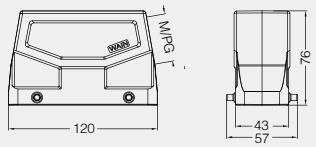
Thread	Designation	Order No.
M25	WV24B–SE–4B–M25	124 124 530 1001
M32	WV24B–SE–4B–M32	124 124 530 1002
PG21	WV24B–SE–4B–PG21	124 124 530 1003



Hoods, side entry, high construction



Thread	Designation	Order No.
M32	WV24B–SEH–4B–M32	124 124 530 5001
M40	WV24B–SEH–4B–M40	124 124 530 5002
PG21	WV24B–SEH–4B–PG21	124 124 530 5003
PG29	WV24B–SEH–4B–PG29	124 124 530 5004
	with sleeve	
M32	WV24B–SEH–4B–M32 WS	124 124 530 5007
PG21	WV24B–SEH–4B–PG21 WS	124 124 530 5011
PG29	WV24B–SEH–4B–PG29 WS	124 124 530 5012

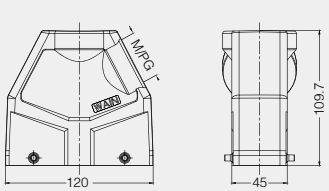


Hoods, side entry, high construction



Thread	Designation	Order No.
M50	WV24B–SEH–4B–M50	124 124 530 5005
PG36	WV24B–SEH–4B–PG36	124 124 530 5006

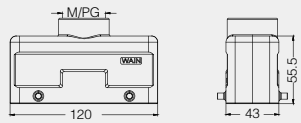
Suitable for cable with maximum OD Φ32mm



Hoods, top entry



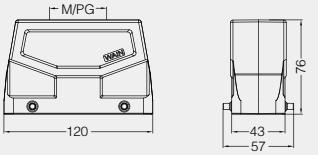
Thread	Designation	Order No.
M25	WV24B–TE–4B–M25	124 124 430 1001
M32	WV24B–TE–4B–M32	124 124 430 1002
PG21	WV24B–TE–4B–PG21	124 124 430 1003



Hoods, top entry, high construction



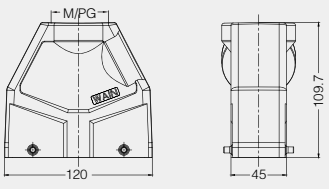
Thread	Designation	Order No.
M32	WV24B–TEH–4B–M32	124 124 430 5001
M40	WV24B–TEH–4B–M40	124 124 430 5002
PG21	WV24B–TEH–4B–PG21	124 124 430 5003
PG29	WV24B–TEH–4B–PG29	124 124 430 5004
	with sleeve	
M32	WV24B–TEH–4B–M32 WS	124 124 430 5008
PG21	WV24B–TEH–4B–PG21 WS	124 124 430 5011
PG29	WV24B–TEH–4B–PG29 WS	124 124 430 5012



Hoods, top entry, high construction



Thread	Designation	Order No.
M50	WV24B–TEH–4B–M50	124 124 430 5005
PG36	WV24B–TEH–4B–PG36	124 124 430 5006



24B Metal hoods/housings
- for high voltage inserts(HVE Series)

Degree of protection： IP67

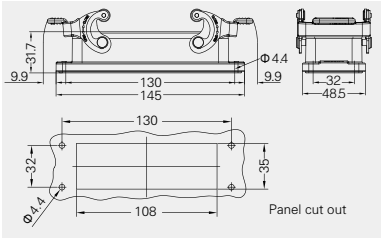
Bulkhead mounted housings

IP67



Thread	Designation	Order No.
---	WV24B–BK–2L/SC	124 124 341 1101

Please refer to page 15–02 for choosing proper model of lock.

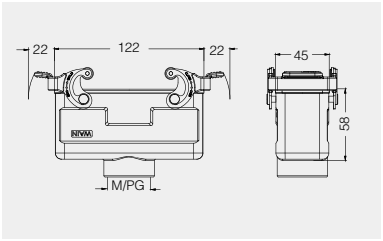


Housings, cable to cable



Thread	Designation	Order No.
M25	WV24B–CCT–2L/SC–M25	124 124 741 1001
PG21	WV24B–CCT–2L/SC–PG21	124 124 741 1002

Please refer to page 15–02 for choosing proper model of lock.



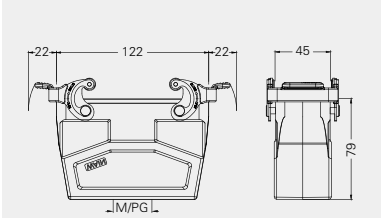
Housings, cable to cable

high construction



Thread	Designation	Order No.
M32	WV24B–CCTH–2L/SC–M32	124 124 741 5001
M40	WV24B–CCTH–2L/SC–M40	124 124 741 5002
PG21	WV24B–CCTH–2L/SC–PG21	124 124 741 5003
PG29	WV24B–CCTH–2L/SC–PG29	124 124 741 5004
	with sleeve	
M32	WV24B–CCTH–2L/SC–M32 WS	124 124 741 5005
PG21	WV24B–CCTH–2L/SC–PG21 WS	124 124 741 5011
PG29	WV24B–CCTH–2L/SC–PG29 WS	124 124 741 5012

Please refer to page 15–02 for choosing proper model of lock.



24B Metal hoods/housings
- for high voltage inserts(HVE Series)

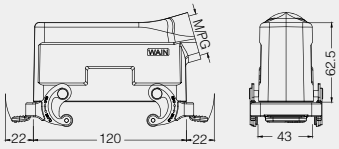
Degree of protection： IP67

Hoods, side entry



Thread	Designation	Order No.
M25	WV24B–SE–2L/SC–M25	124 124 541 1001
M32	WV24B–SE–2L/SC–M32	124 124 541 1002
PG21	WV24B–SE–2L/SC–PG21	124 124 541 1003

Please refer to page 15–02 for choosing proper model of lock.

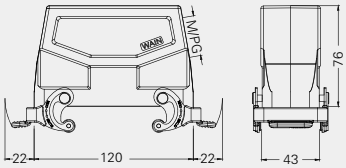


Hoods, side entry, high construction



Thread	Designation	Order No.
M32	WV24B–SEH–2L/SC–M32	124 124 541 5001
M40	WV24B–SEH–2L/SC–M40	124 124 541 5002
PG21	WV24B–SEH–2L/SC–PG21	124 124 541 5003
PG29	WV24B–SEH–2L/SC–PG29	124 124 541 5004
	with sleeve	
M32	WV24B–SEH–2L/SC–M32 WS	124 124 541 5005
PG21	WV24B–SEH–2L/SC–PG21 WS	124 124 541 5011
PG29	WV24B–SEH–2L/SC–PG29 WS	124 124 541 5012

Please refer to page 15–02 for choosing proper model of lock.

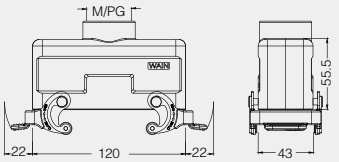


Hoods, top entry



Thread	Designation	Order No.
M25	WV24B–TE–2L/SC–M25	124 124 441 1001
PG21	WV24B–TE–2L/SC–PG21	124 124 441 1002

Please refer to page 15–02 for choosing proper model of lock.

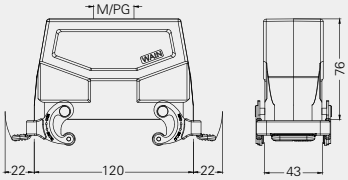


Hoods, top entry, high construction



Thread	Designation	Order No.
M32	WV24B–TEH–2L/SC–M32	124 124 441 5001
M40	WV24B–TEH–2L/SC–M40	124 124 441 5002
PG21	WV24B–TEH–2L/SC–PG21	124 124 441 5003
PG29	WV24B–TEH–2L/SC–PG29	124 124 441 5004
	with sleeve	
M32	WV24B–TEH–2L/SC–M32 WS	124 124 441 5005
PG21	WV24B–TEH–2L/SC–PG21 WS	124 124 441 5011
PG29	WV24B–TEH–2L/SC–PG29 WS	124 124 441 5012

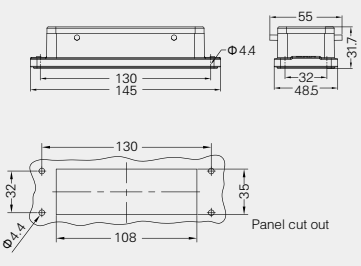
Please refer to page 15–02 for choosing proper model of lock.



Bulkhead mounted housings



Thread	Designation	Order No.
---	WV24B–BK–4B	124 124 330 1101



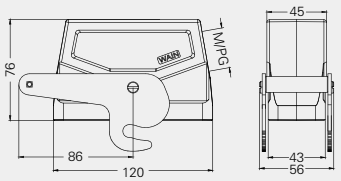
24B Metal hoods/housings
- for high voltage inserts(HVE Series)

Degree of protection： IP67

Hoods, side entry, high construction



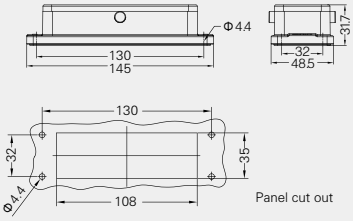
Thread	Designation	Order No.
M32	WV24B–SEH–1L/C–M32	124 124 550 5001
PG29	WV24B–SEH–1L/C–PG29	124 124 550 5002
	with sleeve	
M32	WV24B–SEH–1L/C–M32 WS	124 124 555 5004
PG21	WV24B–SEH–1L/C–PG21 WS	124 124 550 5003
PG29	WV24B–SEH–1L/C–PG29 WS	124 124 555 5012



Bulkhead mounted housings



Thread	Designation	Order No.
---	WV24B–BK–2B/C	124 124 350 1101



24B Metal hoods/housings

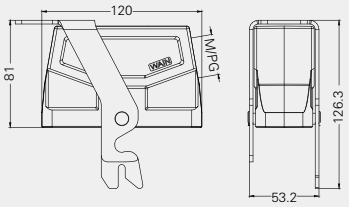
- for high voltage inserts(HVE Series)

Degree of protection： IP67

Hoods, side entry, high construction



Thread	Designation	Order No.
M32	WV24B–SEH–1L/B–M32	124 124 529 5001
PG29	WV24B–SEH–1L/B–PG29	124 124 529 5002
	with sleeve	
M32	WV24B–SEH–1L/B–M32 WS	124 124 525 5004
PG21	WV24B–SEH–1L/B–PG21 WS	124 124 525 5013
PG29	WV24B–SEH–1L/B–PG29 WS	124 124 525 5012



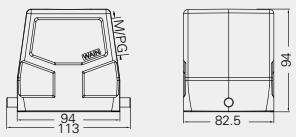
32B Metal hoods/housings

Degree of protection： IP65

Hoods, side entry



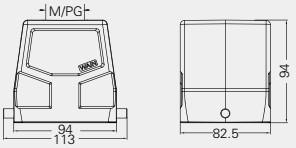
Thread	Designation	Order No.
M32	H32B–SE–2B–M32	111 032 515 1004
M40	H32B–SE–2B–M40	111 032 515 1005
M50	H32B–SE–2B–M50	111 032 515 1006
PG29	H32B–SE–2B–PG29	111 032 515 1012
PG36	H32B–SE–2B–PG36	111 032 515 1013
PG42	H32B–SE–2B–PG42	111 032 515 1014



Hoods, top entry



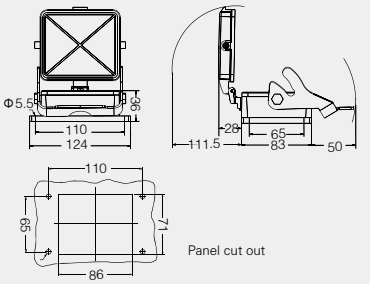
Thread	Designation	Order No.
M32	H32B–TE–2B–M32	111 032 415 1004
M40	H32B–TE–2B–M40	111 032 415 1005
M50	H32B–TE–2B–M50	111 032 415 1006
PG29	H32B–TE–2B–PG29	111 032 415 1012
PG36	H32B–TE–2B–PG36	111 032 415 1013
PG42	H32B–TE–2B–PG42	111 032 415 1014



Housings, bulkhead mounting



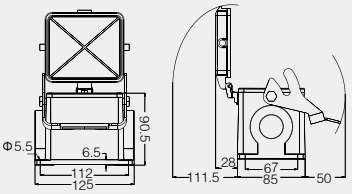
Thread	Designation	Order No.
---	H32B–BK–1L/S	111 032 325 1001
	with plastic cover	
---	H32B–BK–1L/S–CV	111 032 365 1001
	with metal cover	
---	H32B–BK–1L/S–MCV	111 032 365 1101



Housings, surface mounting



Thread	Designation	Order No.
M32	H32B–SF–1L/S–M32	111 032 225 1004
2M32	H32B–SF–1L/S–2M32	111 032 225 1024
M40	H32B–SF–1L/S–M40	111 032 225 1005
2M40	H32B–SF–1L/S–2M40	111 032 225 1025
PG29	H32B–SF–1L/S–PG29	111 032 225 1012
2PG29	H32B–SF–1L/S–2PG29	111 032 225 1032
PG36	H32B–SF–1L/S–PG36	111 032 225 1013
2PG36	H32B–SF–1L/S–2PG36	111 032 225 1033
	with plastic cover	
M32	H32B–SF–1L/S–CV–M32	111 032 265 1004
2M32	H32B–SF–1L/S–CV–2M32	111 032 265 1024
M40	H32B–SF–1L/S–CV–M40	111 032 265 1005
2M40	H32B–SF–1L/S–CV–2M40	111 032 265 1025
PG29	H32B–SF–1L/S–CV–PG29	111 032 265 1012
2PG29	H32B–SF–1L/S–CV–2PG29	111 032 265 1032
PG36	H32B–SF–1L/S–CV–PG36	111 032 265 1013
2PG36	H32B–SF–1L/S–CV–2PG36	111 032 265 1033
	with metal cover	
M32	H32B–SF–1L/S–MCV–M32	111 032 265 1104
2M32	H32B–SF–1L/S–MCV–2M32	111 032 265 1124
M40	H32B–SF–1L/S–MCV–M40	111 032 265 1105
2M40	H32B–SF–1L/S–MCV–2M40	111 032 265 1125
PG29	H32B–SF–1L/S–MCV–PG29	111 032 265 1112
2PG29	H32B–SF–1L/S–MCV–2PG29	111 032 265 1132
PG36	H32B–SF–1L/S–MCV–PG36	111 032 265 1113
2PG36	H32B–SF–1L/S–MCV–2PG36	111 032 265 1133



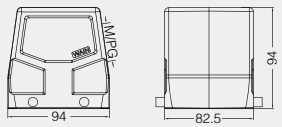
32B Metal hoods/housings

Degree of protection： IP65

Hoods, side entry



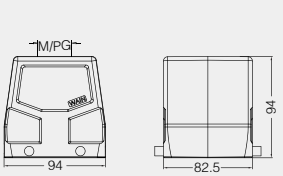
Thread	Designation	Order No.
M32	H32B–SE–4B–M32	111 032 530 1004
M40	H32B–SE–4B–M40	111 032 530 1005
M50	H32B–SE–4B–M50	111 032 530 1006
PG29	H32B–SE–4B–PG29	111 032 530 1012
PG36	H32B–SE–4B–PG36	111 032 530 1013
PG42	H32B–SE–4B–PG42	111 032 530 1014



Hoods, top entry



Thread	Designation	Order No.
M32	H32B–TE–4B–M32	111 032 430 1004
M40	H32B–TE–4B–M40	111 032 430 1005
M50	H32B–TE–4B–M50	111 032 430 1006
PG29	H32B–TE–4B–PG29	111 032 430 1012
PG36	H32B–TE–4B–PG36	111 032 430 1013
PG42	H32B–TE–4B–PG42	111 032 430 1014

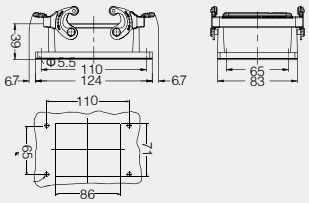


Housings, bulkhead mounting



Thread	Designation	Order No.
---	H32B–BK–2L/SC	111 032 341 1001

Please refer to page 15–02 for choosing proper model of lock.

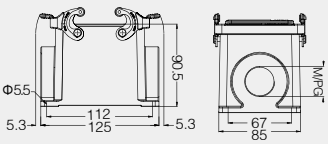


Housings, surface mounting



Thread	Designation	Order No.
M32	H32B–SF–2L/SC–M32	111 032 241 1004
2M32	H32B–SF–2L/SC–2M32	111 032 241 1024
M40	H32B–SF–2L/SC–M40	111 032 241 1005
2M40	H32B–SF–2L/SC–2M40	111 032 241 1025
PG29	H32B–SF–2L/SC–PG29	111 032 241 1012
2PG29	H32B–SF–2L/SC–2PG29	111 032 241 1032
PG36	H32B–SF–2L/SC–PG36	111 032 241 1013
2PG36	H32B–SF–2L/SC–2PG36	111 032 241 1033
2PG42	H32B–SF–2L/SC–2PG42	111 032 241 1034

Please refer to page 15–02 for choosing proper model of lock.

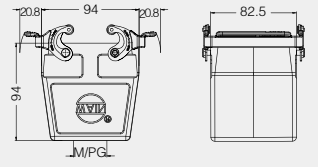


Housings, cable to cable



Thread	Designation	Order No.
M32	H32B–CCT–2L/SC–M32	111 032 741 1004
M40	H32B–CCT–2L/SC–M40	111 032 741 1005
M50	H32B–CCT–2L/SC–M50	111 032 741 1006
PG29	H32B–CCT–2L/SC–PG29	111 032 741 1012
PG36	H32B–CCT–2L/SC–PG36	111 032 741 1013
PG42	H32B–CCT–2L/SC–PG42	111 032 741 1014

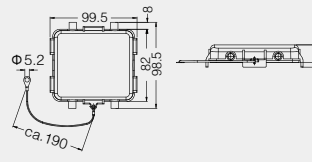
Please refer to page 15–02 for choosing proper model of lock.



Protection covers, metal



Connect way	Designation	Order No.
	H32B–MCV–4B/2	111 032 030 8102

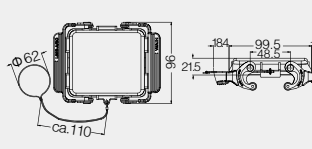


Protection covers, metal



Connect way	Designation	Order No.
	H32B–MCV–2L/SC.1S	111 032 041 8101

Please refer to page 15–02 for choosing proper model of lock.



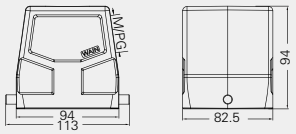
32B Metal hoods/housings

Degree of protection： IP67

Hoods, side entry



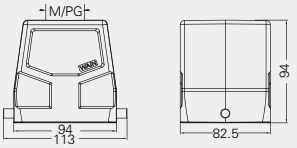
Thread	Designation	Order No.
M32	W32B–SE–2B–M32	111 132 510 1001
M40	W32B–SE–2B–M40	111 132 510 1002
M50	W32B–SE–2B–M50	111 132 510 1003
PG29	W32B–SE–2B–PG29	111 132 510 1004
PG36	W32B–SE–2B–PG36	111 132 510 1005
PG42	W32B–SE–2B–PG42	111 132 510 1006



Hoods, top entry



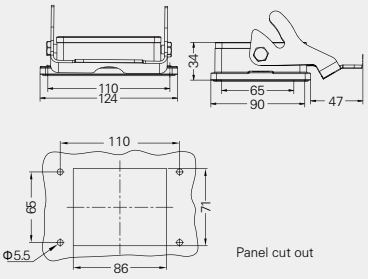
Thread	Designation	Order No.
M32	W32B–TE–2B–M32	111 132 410 1001
M40	W32B–TE–2B–M40	111 132 410 1002
M50	W32B–TE–2B–M50	111 132 410 1003
PG29	W32B–TE–2B–PG29	111 132 410 1004
PG36	W32B–TE–2B–PG36	111 132 410 1005
PG42	W32B–TE–2B–PG42	111 132 410 1006



Bulkhead mounted housings



Thread	Designation	Order No.
---	W32B–BK–1L/S	111 132 325 1001



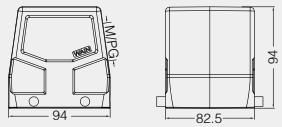
32B Metal hoods/housings

Degree of protection： IP67

Hoods, side entry



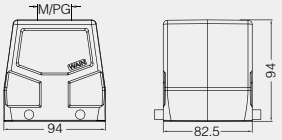
Thread	Designation	Order No.
M32	W32B–SE–4B–M32	111 132 530 1001
M40	W32B–SE–4B–M40	111 132 530 1002
M50	W32B–SE–4B–M50	111 132 530 1003
PG29	W32B–SE–4B–PG29	111 132 530 1004
PG36	W32B–SE–4B–PG36	111 132 530 1005
PG42	W32B–SE–4B–PG42	111 132 530 1006



Hoods, top entry



Thread	Designation	Order No.
M32	W32B–TE–4B–M32	111 132 430 1001
M40	W32B–TE–4B–M40	111 132 430 1002
M50	W32B–TE–4B–M50	111 132 430 1003
PG29	W32B–TE–4B–PG29	111 132 430 1004
PG36	W32B–TE–4B–PG36	111 132 430 1005
PG42	W32B–TE–4B–PG42	111 132 430 1006

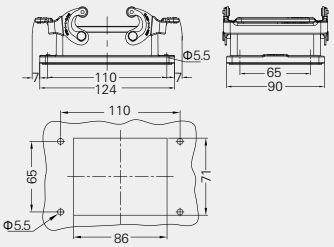


Bulkhead mounted housings



Thread	Designation	Order No.
---	W32B–BK–2L/SC	111 132 341 1001

Please refer to page 15–02 for choosing proper model of lock.

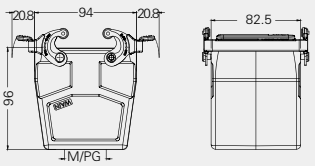


Housings, cable to cable



Thread	Designation	Order No.
M32	W32B–CCT–2L/SC–M32	111 132 741 1002
M40	W32B–CCT–2L/SC–M40	111 132 741 1003
M50	W32B–CCT–2L/SC–M50	111 132 741 1004
PG29	W32B–CCT–2L/SC–PG29	111 132 741 1005
PG36	W32B–CCT–2L/SC–PG36	111 132 741 1006
PG42	W32B–CCT–2L/SC–PG42	111 132 741 1007

Please refer to page 15–02 for choosing proper model of lock.



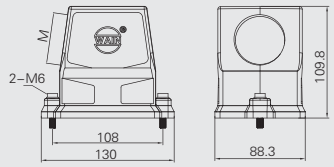
32B Pressure tight hoods/housings

Degree of protection： IP68/IP69K

Hoods, side entry, high construction



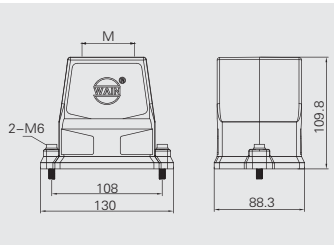
Thread	Designation	Order No.
M40	HP32B–SEH–2S–M40	115 032 520 5005
M50	HP32B–SEH–2S–M50	115 032 520 5006



Hoods, top entry, high construction



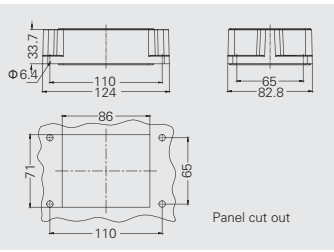
Thread	Designation	Order No.
M40	HP32B–TEH–2S–M40	115 032 420 5005
M50	HP32B–TEH–2S–M50	115 032 420 5006
M63	HP32B–TEH–2S–M63	115 032 420 5007



Bulkhead mounted housings



Thread	Designation	Order No.
–––	HP32B–BK–2H	115 032 320 1001

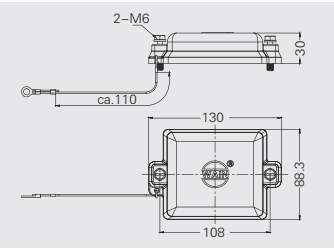


Protection covers, metal

for housings



Thread	Designation	Order No.
–––	HP32B–MCV–2S/2	115 032 020 8102

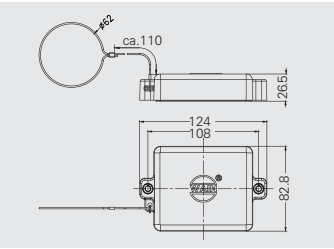


Protection covers, metal

for hoods



Thread	Designation	Order No.
–––	HP32B–MCV–2H/1	115 032 020 8103



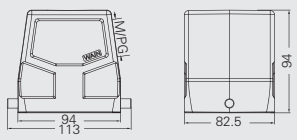
HV32B Metal hoods/housings
- for high voltage inserts(HVE Series)

Degree of protection： IP65

Hoods, side entry



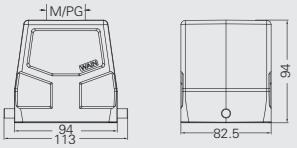
Thread	Designation	Order No.
M32	WV32B–SE–2B–M32	124 132 510 1001
PG29	WV32B–SE–2B–PG29	124 132 510 1002



Hoods, top entry



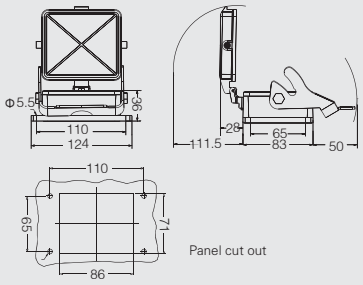
Thread	Designation	Order No.
M32	WV32B–TE–2B–M32	124 132 410 1001
M40	WV32B–TE–2B–M40	124 132 410 1002
M50	WV32B–TE–2B–M50	124 132 410 1003
PG29	WV32B–TE–2B–PG29	124 132 410 1004
PG36	WV32B–TE–2B–PG36	124 132 410 1005
PG42	WV32B–TE–2B–PG42	124 132 410 1006



Housings, bulkhead mounting



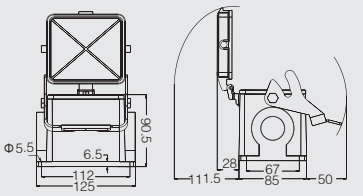
Thread	Designation	Order No.
---	HV32B–BK–1L/S	124 032 325 1001
	with plastic cover	
---	HV32B–BK–1L/S–CV	124 032 365 1001
	with metal cover	
---	HV32B–BK–1L/S–MCV	124 032 365 1101



Housings, surface mounting



Thread	Designation	Order No.
M32	HV32B–SF–1L/S–M32	124 032 225 1004
2M32	HV32B–SF–1L/S–2M32	124 032 225 1024
M40	HV32B–SF–1L/S–M40	124 032 225 1005
2M40	HV32B–SF–1L/S–2M40	124 032 225 1025
PG29	HV32B–SF–1L/S–PG29	124 032 225 1012
2PG29	HV32B–SF–1L/S–2PG29	124 032 225 1032
PG36	HV32B–SF–1L/S–PG36	124 032 225 1013
2PG36	HV32B–SF–1L/S–2PG36	124 032 225 1033
	with plastic cover	
M32	HV32B–SF–1L/S–CV–M32	124 032 265 1004
2M32	HV32B–SF–1L/S–CV–2M32	124 032 265 1024
M40	HV32B–SF–1L/S–CV–M40	124 032 265 1005
2M40	HV32B–SF–1L/S–CV–2M40	124 032 265 1025
PG29	HV32B–SF–1L/S–CV–PG29	124 032 265 1012
2PG29	HV32B–SF–1L/S–CV–2PG29	124 032 265 1032
PG36	HV32B–SF–1L/S–CV–PG36	124 032 265 1013
2PG36	HV32B–SF–1L/S–CV–2PG36	124 032 265 1033
	with metal cover	
M32	HV32B–SF–1L/S–MCV–M32	124 032 265 1104
2M32	HV32B–SF–1L/S–MCV–2M32	124 032 265 1124
M40	HV32B–SF–1L/S–MCV–M40	124 032 265 1105
2M40	HV32B–SF–1L/S–MCV–2M40	124 032 265 1125
PG29	HV32B–SF–1L/S–MCV–PG29	124 032 265 1112
2PG29	HV32B–SF–1L/S–MCV–2PG29	124 032 265 1132
PG36	HV32B–SF–1L/S–MCV–PG36	124 032 265 1113
2PG36	HV32B–SF–1L/S–MCV–2PG36	124 032 265 1133



HV32B Metal hoods/housings

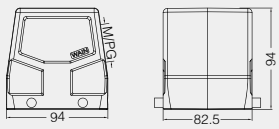
- for high voltage inserts(HVE Series)

Degree of protection： IP65

Hoods, side entry



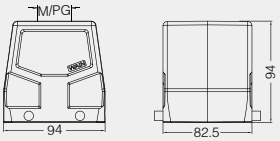
Thread	Designation	Order No.
M32	WV32B–SE–4B–M32	124 132 530 1001
M40	WV32B–SE–4B–M40	124 132 530 1002
PG29	WV32B–SE–4B–PG29	124 132 530 1003
PG36	WV32B–SE–4B–PG36	124 132 530 1004



Hoods, top entry



Thread	Designation	Order No.
M32	WV32B–TE–4B–M32	124 132 430 1001
M40	WV32B–TE–4B–M40	124 132 430 1002
M50	WV32B–TE–4B–M50	124 132 430 1003
PG29	WV32B–TE–4B–PG29	124 132 430 1004
PG36	WV32B–TE–4B–PG36	124 132 430 1005
PG42	WV32B–TE–4B–PG42	124 132 430 1006

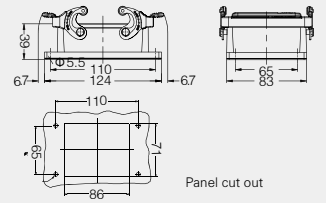


Housings, bulkhead mounting



Thread	Designation	Order No.
---	HV32B–BK–2L/SC	124 032 341 1001

Please refer to page 15–02 for choosing proper model of lock.

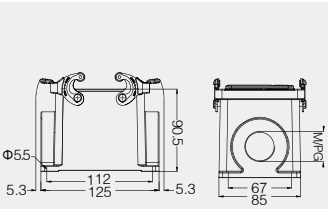


Housings, surface mounting



Thread	Designation	Order No.
M32	HV32B–SF–2L/SC–M32	124 032 241 1004
2M32	HV32B–SF–2L/SC–2M32	124 032 241 1024
M40	HV32B–SF–2L/SC–M40	124 032 241 1005
2M40	HV32B–SF–2L/SC–2M40	124 032 241 1025
PG29	HV32B–SF–2L/SC–PG29	124 032 241 1012
2PG29	HV32B–SF–2L/SC–2PG29	124 032 241 1032
PG36	HV32B–SF–2L/SC–PG36	124 032 241 1013
2PG36	HV32B–SF–2L/SC–2PG36	124 032 241 1033

Please refer to page 15–02 for choosing proper model of lock.

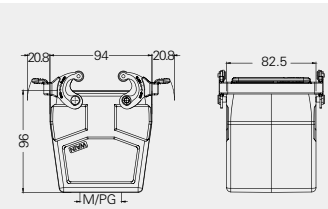


Housings, cable to cable



Thread	Designation	Order No.
M32	WV32B–CCT–2L/SC–M32	124 132 741 1001
M40	WV32B–CCT–2L/SC–M40	124 132 741 1002
PG29	WV32B–CCT–2L/SC–PG29	124 132 741 1003
PG36	WV32B–CCT–2L/SC–PG36	124 132 741 1004
PG42	WV32B–CCT–2L/SC–PG42	124 132 741 1005

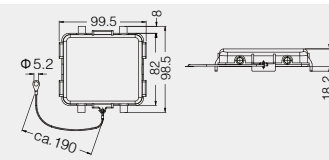
Please refer to page 15–02 for choosing proper model of lock.



Protection covers, metal



Connect way	Designation	Order No.
	H32B–MCV–4B/2	111 032 030 8102

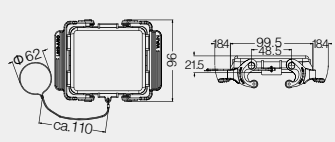


Protection covers, metal



Connect way	Designation	Order No.
	H32B–MCV–2L/SC.1S	111 032 041 8101

Please refer to page 15–02 for choosing proper model of lock.



32B Metal hoods/housings

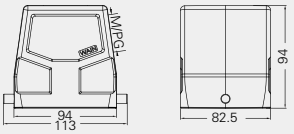
- for high voltage inserts(HVE Series)

Degree of protection： IP67

Hoods, side entry



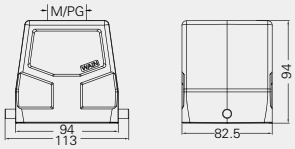
Thread	Designation	Order No.
M32	WV32B–SE–2B–M32	124 132 510 1001
PG29	WV32B–SE–2B–PG29	124 132 510 1002



Hoods, top entry



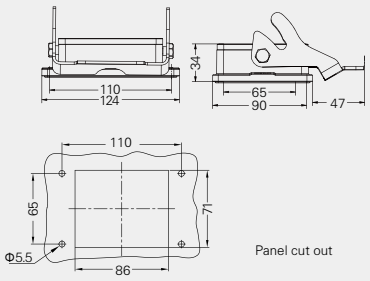
Thread	Designation	Order No.
M32	WV32B–TE–2B–M32	124 132 410 1001
M40	WV32B–TE–2B–M40	124 132 410 1002
M50	WV32B–TE–2B–M50	124 132 410 1003
PG29	WV32B–TE–2B–PG29	124 132 410 1004
PG36	WV32B–TE–2B–PG36	124 132 410 1005
PG42	WV32B–TE–2B–PG42	124 132 410 1006



Bulkhead mounted housings



Thread	Designation	Order No.
---	WV32B–BK–1L/S	124 132 325 1101



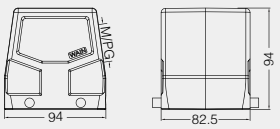
32B Metal hoods/housings
- for high voltage inserts(HVE Series)

Degree of protection： IP67

Hoods, side entry



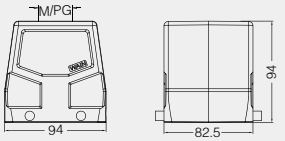
Thread	Designation	Order No.
M32	WV32B–SE–4B–M32	124 132 530 1001
M40	WV32B–SE–4B–M40	124 132 530 1002
PG29	WV32B–SE–4B–PG29	124 132 530 1003
PG36	WV32B–SE–4B–PG36	124 132 530 1004



Hoods, top entry



Thread	Designation	Order No.
M32	WV32B–TE–4B–M32	124 132 430 1001
M40	WV32B–TE–4B–M40	124 132 430 1002
M50	WV32B–TE–4B–M50	124 132 430 1003
PG29	WV32B–TE–4B–PG29	124 132 430 1004
PG36	WV32B–TE–4B–PG36	124 132 430 1005
PG42	WV32B–TE–4B–PG42	124 132 430 1006

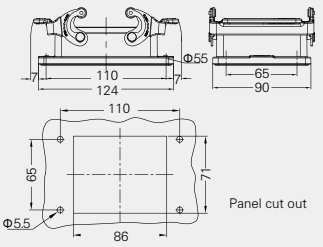


Bulkhead mounted housings



Thread	Designation	Order No.
---	WV32B–BK–2L/SC	124 132 341 1101

Please refer to page 15–02 for choosing proper model of lock.

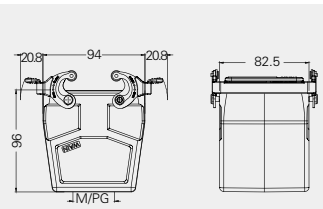


Housings, cable to cable



Thread	Designation	Order No.
M32	WV32B–CCT–2L/SC–M32	124 132 741 1001
M40	WV32B–CCT–2L/SC–M40	124 132 741 1002
PG29	WV32B–CCT–2L/SC–PG29	124 132 741 1003
PG36	WV32B–CCT–2L/SC–PG36	124 132 741 1004
PG42	WV32B–CCT–2L/SC–PG42	124 132 741 1005

Please refer to page 15–02 for choosing proper model of lock.



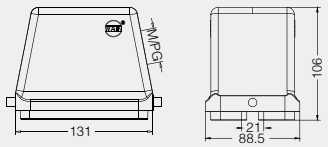
48B Metal hoods/housings

Degree of protection： IP65

Hoods, side entry



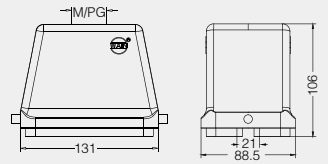
Thread	Designation	Order No.
M32	H48B–SE–2B–M32	111 048 515 1004
M40	H48B–SE–2B–M40	111 048 515 1005
M50	H48B–SE–2B–M50	111 048 515 1006
PG29	H48B–SE–2B–PG29	111 048 515 1012
PG36	H48B–SE–2B–PG36	111 048 515 1013
PG42	H48B–SE–2B–PG42	111 048 515 1014



Hoods, top entry



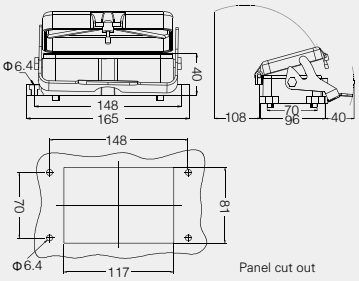
Thread	Designation	Order No.
M32	H48B–TE–2B–M32	111 048 415 1004
M40	H48B–TE–2B–M40	111 048 415 1005
M50	H48B–TE–2B–M50	111 048 415 1006
PG29	H48B–TE–2B–PG29	111 048 415 1012
PG36	H48B–TE–2B–PG36	111 048 415 1013
PG42	H48B–TE–2B–PG42	111 048 415 1014



Bulkhead mounted housings



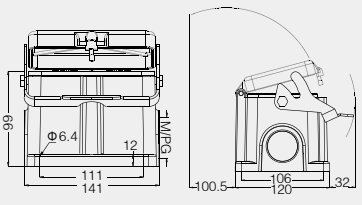
Thread	Designation	Order No.
---	H48B–BK–1L/S	111 048 325 1001
	with plastic cover	
---	H48B–BK–1L/S–CV	111 048 365 1001
	with metal cover	
---	H48B–BK–1L/S–MCV	111 048 365 1101



Surface mounted housings



Thread	Designation	Order No.
M32	H48B–SF–1L/S–M32	111 048 225 1004
2M32	H48B–SF–1L/S–2M32	111 048 225 1024
M40	H48B–SF–1L/S–M40	111 048 225 1005
2M40	H48B–SF–1L/S–2M40	111 048 225 1025
PG29	H48B–SF–1L/S–PG29	111 048 225 1012
2PG29	H48B–SF–1L/S–2PG29	111 048 225 1032
PG36	H48B–SF–1L/S–PG36	111 048 225 1013
2PG36	H48B–SF–1L/S–2PG36	111 048 225 1033
	with plastic cover	
M32	H48B–SF–1L/S–CV–M32	111 048 265 1004
2M32	H48B–SF–1L/S–CV–2M32	111 048 265 1024
M40	H48B–SF–1L/S–CV–M40	111 048 265 1005
2M40	H48B–SF–1L/S–CV–2M40	111 048 265 1025
PG29	H48B–SF–1L/S–CV–PG29	111 048 265 1012
2PG29	H48B–SF–1L/S–CV–2PG29	111 048 265 1032
PG36	H48B–SF–1L/S–CV–PG36	111 048 265 1013
2PG36	H48B–SF–1L/S–CV–2PG36	111 048 265 1033
	with metal cover	
M32	H48B–SF–1L/S–MCV–M32	111 048 265 1104
2M32	H48B–SF–1L/S–MCV–2M32	111 048 265 1124
M40	H48B–SF–1L/S–MCV–M40	111 048 265 1105
2M40	H48B–SF–1L/S–MCV–2M40	111 048 265 1125
PG29	H48B–SF–1L/S–MCV–PG29	111 048 265 1112
2PG29	H48B–SF–1L/S–MCV–2PG29	111 048 265 1132
PG36	H48B–SF–1L/S–MCV–PG36	111 048 265 1113
2PG36	H48B–SF–1L/S–MCV–2PG36	111 048 265 1133



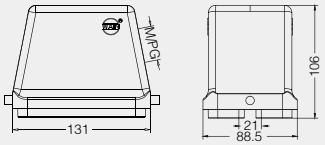
48B Metal hoods/housings
Suitable for harsh environment(anti-corrosion)

Degree of protection： IP65

Hoods, side entry



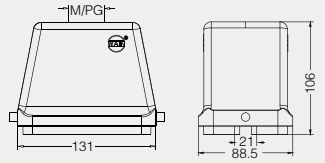
Thread	Designation	Order No.
M32	H48B–MSE–2B–M32	112 048 510 1004
M40	H48B–MSE–2B–M40	112 048 510 1005
M50	H48B–MSE–2B–M50	112 048 510 1006



Hoods, top entry



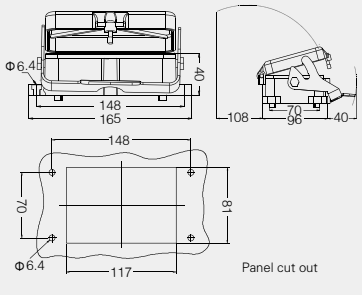
Thread	Designation	Order No.
M40	H48B–MTE–2B–M40	112 048 410 1005
M50	H48B–MTE–2B–M50	112 048 410 1006



Bulkhead mounted housings



Thread	Designation	Order No.
	with plastic cover	
---	H48B–MBK–1L/S–CV	112 048 365 1001
	with metal cover	
---	H48B–MBK–1L/S–MMCV	112 048 365 1101



48B Metal hoods/housings

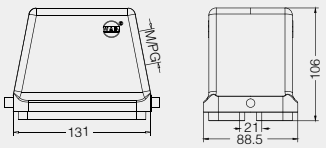
- for high voltage inserts(HVE Series)

Degree of protection： IP65

Hoods, side entry



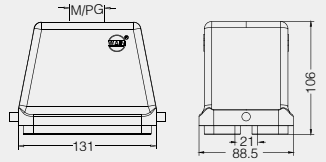
Thread	Designation	Order No.
M32	HV48B–SE–2B–M32	124 048 515 1004
M40	HV48B–SE–2B–M40	124 048 515 1005
M50	HV48B–SE–2B–M50	124 048 515 1006
PG29	HV48B–SE–2B–PG29	124 048 515 1012
PG36	HV48B–SE–2B–PG36	124 048 515 1013
PG42	HV48B–SE–2B–PG42	124 048 515 1014



Hoods, top entry



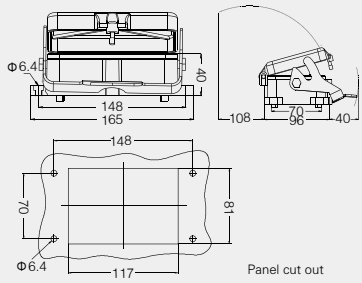
Thread	Designation	Order No.
M32	HV48B–TE–2B–M32	124 048 415 1004
M40	HV48B–TE–2B–M40	124 048 415 1005
M50	HV48B–TE–2B–M50	124 048 415 1006
PG29	HV48B–TE–2B–PG29	124 048 415 1012
PG36	HV48B–TE–2B–PG36	124 048 415 1013
PG42	HV48B–TE–2B–PG42	124 048 415 1014



Bulkhead mounted housings



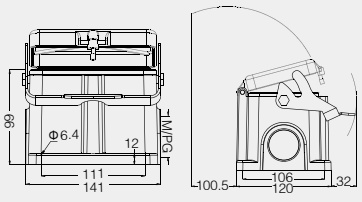
Thread	Designation	Order No.
---	HV48B–BK–1L/S	124 048 325 1001
	with plastic cover	
---	HV48B–BK–1L/S–CV	124 048 365 1001
	with metal cover	
---	HV48B–BK–1L/S–MCV	124 048 365 1101



Surface mounted housings



Thread	Designation	Order No.
M32	HV48B–SF–1L/S–M32	124 048 225 1004
2M32	HV48B–SF–1L/S–2M32	124 048 225 1024
M40	HV48B–SF–1L/S–M40	124 048 225 1005
2M40	HV48B–SF–1L/S–2M40	124 048 225 1025
PG29	HV48B–SF–1L/S–PG29	124 048 225 1012
2PG29	HV48B–SF–1L/S–2PG29	124 048 225 1032
PG36	HV48B–SF–1L/S–PG36	124 048 225 1013
2PG36	HV48B–SF–1L/S–2PG36	124 048 225 1033
	with plastic cover	
M32	HV48B–SF–1L/S–CV–M32	124 048 265 1004
2M32	HV48B–SF–1L/S–CV–2M32	124 048 265 1024
M40	HV48B–SF–1L/S–CV–M40	124 048 265 1005
2M40	HV48B–SF–1L/S–CV–2M40	124 048 265 1025
PG29	HV48B–SF–1L/S–CV–PG29	124 048 265 1012
2PG29	HV48B–SF–1L/S–CV–2PG29	124 048 265 1032
PG36	HV48B–SF–1L/S–CV–PG36	124 048 265 1013
2PG36	HV48B–SF–1L/S–CV–2PG36	124 048 265 1033
	with metal cover	
M32	HV48B–SF–1L/S–MCV–M32	124 048 265 1104
2M32	HV48B–SF–1L/S–MCV–2M32	124 048 265 1124
M40	HV48B–SF–1L/S–MCV–M40	124 048 265 1105
2M40	HV48B–SF–1L/S–MCV–2M40	124 048 265 1125
PG29	HV48B–SF–1L/S–MCV–PG29	124 048 265 1112
2PG29	HV48B–SF–1L/S–MCV–2PG29	124 048 265 1132
PG36	HV48B–SF–1L/S–MCV–PG36	124 048 265 1113
2PG36	HV48B–SF–1L/S–MCV–2PG36	124 048 265 1133



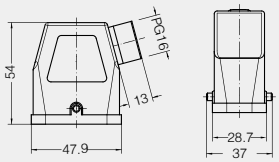
HC Plastic hoods/housings

Degree of protection： IP65

Hoods, side entry



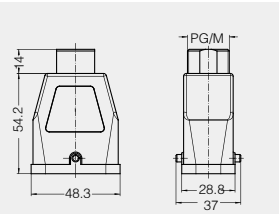
Thread	Designation	Order No.
PG16	HC.P–SE–2B–PG16	130 008 510 1010



Hoods, top entry



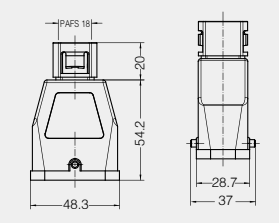
Thread	Designation	Order No.
M25	HC.P–TE–2B–M25	130 008 410 1003
PG16	HC.P–TE–2B–PG16	130 008 410 1010
PG21	HC.P–TE–2B–PG21	130 008 410 1011



Hoods, top entry



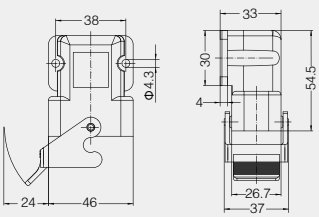
Thread	Designation	Order No.
PAFS18	HC.P–TE–2B–PAFS18	130 008 410 1091



Bulkhead mounted housings



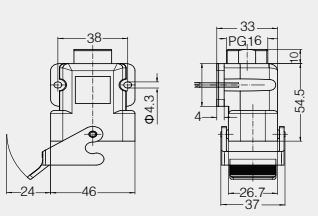
Thread	Designation	Order No.
---	HC.P–BK–1L–SE	130 008 927 1001



Surface mounted housings



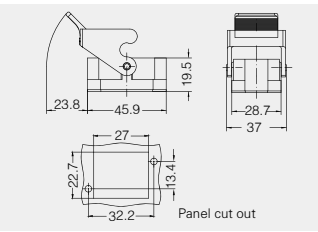
Thread	Designation	Order No.
PG16	HC.P–SF–1L–PG16	130 008 227 1010



Bulkhead mounted housings



Thread	Designation	Order No.
---	HC.P–BK–1L	130 008 327 1001

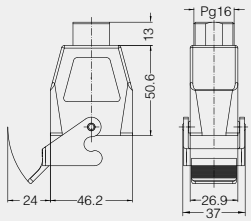


Degree of protection： IP65

Housings, cable to cable



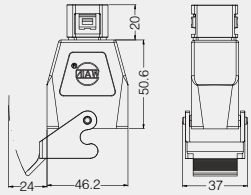
Thread	Designation	Order No.
M25	HC.P–CCT–1L–M25	130 008 727 1003
PG16	HC.P–CCT–1L–PG16	130 008 727 1010



Housings, cable to cable



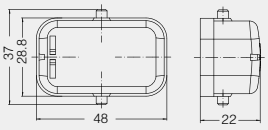
Thread	Designation	Order No.
PAFS18	HC.P–CCT–1L–PAFS18	130 008 727 1001



Protection covers



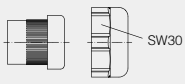
Thread	Designation	Order No.
	Without sealing	
---	HC.P–CV–2B/1	130 008 010 8001
	With sealing	
---	HC.P–CV–2B/2	130 008 010 8002



Cable gland, for hoods



Thread	Designation	Order No.
M25	WNAPC–M25B(D6.5–9.5)	102 112 018 2002
M25	WNAPC–M25B(D10.5–14)	102 112 018 2004
M25	WNAPC–M25B(D14–17)	102 112 018 2006
PG16	WNAPC–PG16B(D11.5–15.5)	102 112 005 2002
PG21	WNAPC–PG21B(D14–18)	102 112 006 2002
PG21	WNAPC–PG21B(D17–20.5)	102 112 006 2004

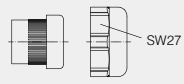


	cable		SW
	min.	max.	
WNAPC–M25B/(D6.5–9.5)	6.5 mm	9.5 mm	30
WNAPC–M25B/(D10.5–14)	10.5 mm	14 mm	30
WANPC–M25B/(D14–17)	14 mm	17 mm	30
WANPC–PG16B/(D11.5–15.5)	11.5 mm	15.5 mm	27
WANPC–PG21B/(D14–18)	14 mm	18 mm	33
WANPC–PG21B/(D17–20.5)	17 mm	20.5 mm	33

Cable gland, for housings



Thread	Designation	Order No.
PG16	WNAPC–PG16BS(D6.5–9.5)	102 112 005 2102
PG16	WNAPC–PG16BS(D11.5–15.5)	102 112 005 2004



	cable		SW
	min.	max.	
WNAPC–PG16BS/(D6.5–9.5)	6.5 mm	9.5 mm	27
WNAPC–PG16BS/(D11.5–15.5)	11.5 mm	15.5 mm	27

HC Metal hoods/housings

Epoxy power paint

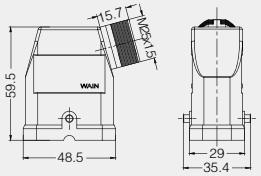
Degree of protection： IP65

Hoods, side entry



Thread	Designation	Order No.
M25	HC–SE–2B–M25	130 008 510 1003

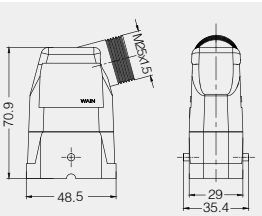
Cannot match the Inserts:130 008 510 1003，130 608 510 1003 please find the details on page 11–17



Hoods, side entry, high construction



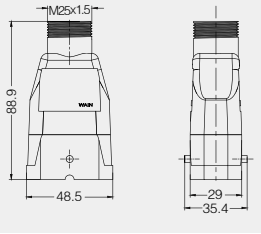
Thread	Designation	Order No.
M25	HC–SEH–2B–M25	130 008 510 5003



Hoods, top entry, high construction



Thread	Designation	Order No.
M25	HC–TEH–2B–M25	130 008 410 5003

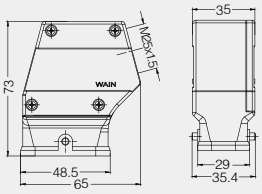


Hoods, side entry, high construction

Split type



Thread	Designation	Order No.
M25	HC–SEHS–2B–M25	130 008 510 5103

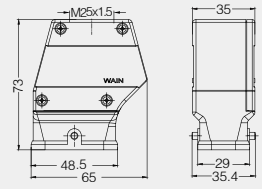


Hoods, top entry, high construction

Split type



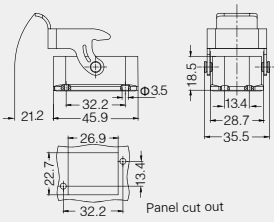
Thread	Designation	Order No.
M25	HC–TEHS–2B–M25	130 008 410 5103



Bulkhead mounted housings



Thread	Designation	Order No.
---	HC–BK–1L/S	130 008 325 1001



HC Metal hoods/housings

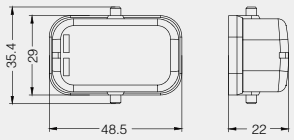
Epoxy power paint

Degree of protection： IP65

Protection covers



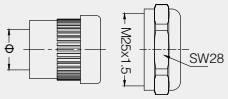
Thread	Designation	Order No.
	Without sealing	
---	HC–MCV–2B/1	130 008 010 8101
	With sealing	
---	HC–MCV–2B/2	130 008 010 8102



Cable gland, for hoods



Thread	Designation	Order No.
M25	WNAMC–M25(D6.5–9.5)	102 111 018 1001
M25	WNAMC–M25(D10.5–14)	102 111 018 1002
M25	WNAMC–M25(D14–17)	102 111 018 1003



	Φ	cable		SW
		min.	max.	
WNAMC–M25	10.5–14	10.5 mm	14 mm	28
WNAMC–M25	14–17	14 mm	17 mm	28

HC Metal hoods/housings(EMC)

Nickel plating

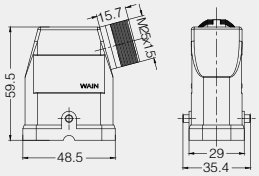
Degree of protection： IP65

Hoods, side entry



Thread	Designation	Order No.
M25	EMC.HC–SE–2B–M25	130 608 510 1003

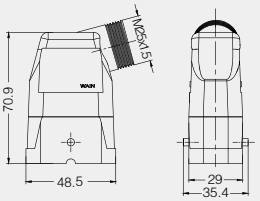
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please find the details on page 11–17



Hoods, side entry, high construction



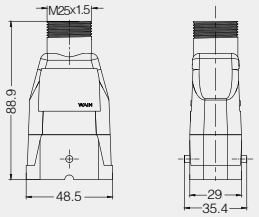
Thread	Designation	Order No.
M25	EMC.HC–SEH–2B–M25	130 608 510 5003



Hoods, top entry, high construction



Thread	Designation	Order No.
M25	EMC.HC–TEH–2B–M25	130 608 410 5003

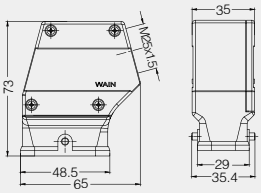


Hoods, side entry, high construction

Split type



Thread	Designation	Order No.
M25	EMC.HC–SEHS–2B–M25	130 608 510 5103

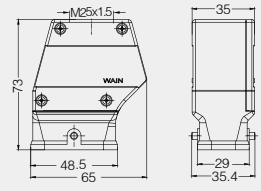


Hoods, top entry, high construction

Split type



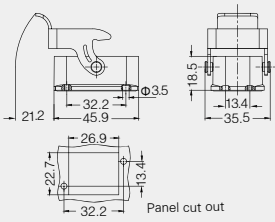
Thread	Designation	Order No.
M25	EMC.HC–TEHS–2B–M25	130 608 410 5103



Bulkhead mounted housings



Thread	Designation	Order No.
---	EMC.HC–BK–1L/S	130 608 325 1001



HC Metal hoods/housings

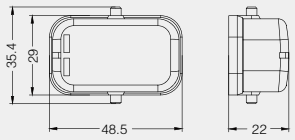
Nickel plating

Degree of protection： IP65

Protection covers



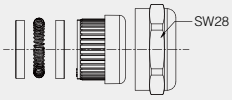
Thread	Designation	Order No.
	Without sealing	
---	EMC.HC–MCV–2B/1	130 608 010 8101
	With sealing	
---	EMC.HC–MCV–2B/2	130 608 010 8102



Cable gland, for hoods



Thread	Designation	Order No.
M25	EMC.WNAMC–M25(D10.5–14/D6–11)	102 118 018 1001
M25	EMC.WNAMC–M25(D14–17/D9–13)	102 118 018 1003
M25	EMC.WNAMC–M25(D10.5–14/D9–13)	102 118 018 1002



	Clamping range	Clamping range,shield
EMC.WNAMC–M25	10.5–14 mm	6–11 mm
EMC.WNAMC–M25	14–17 mm	9–13mm
EMC.WNAMC–M25	10.5–14 mm	9–13mm

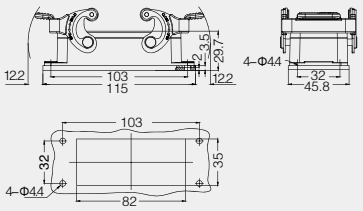
Seal part

Material: EPDM

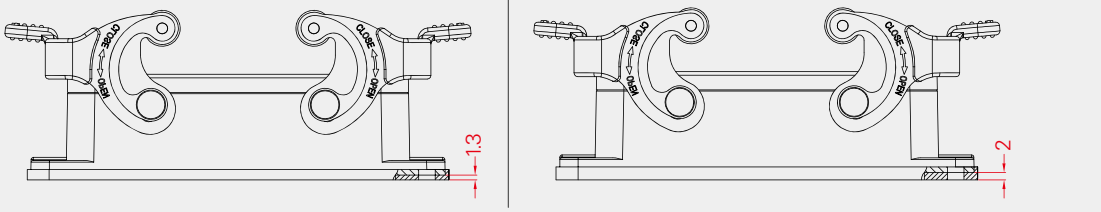


Thread	Designation	Order No.
---	H10A–BK–1L/SC–T	110 010 321 1002
---	H16A–BK–1L/SC–T	110 016 321 1002
---	H6B–BK–1L/SC–T	111 006 321 1007
---	H10B–BK–2L/SC–T	111 010 341 1005
---	H16B–BK–2L/SC–T	111 016 341 1005
---	H24B–BK–2L/SC–T	111 024 341 1003

The thickened bottom gasket shown above is applicable to the regular BK housing of the same specification of H series.



Panel cut out



H16B–BK–2L/SC
(Regular gasket)

H16B–BK–2L/SC–T
(thickened gasket)

(Thickened position)

Performance characteristics:

- ○ Color: dark grey
- ○ Increase the compression thickness of sealing surface
  Take "H16B–BK–2L/SC–T" as an example:
  The thickness of regular gasket is 1.3mm, and thickened gasket is 2mm
- ○ Limiting temperatures:–40℃...+125℃
- ○ Gasket material: EPDM
- ○ It has good weather resistance and can effectively slowdown aging!

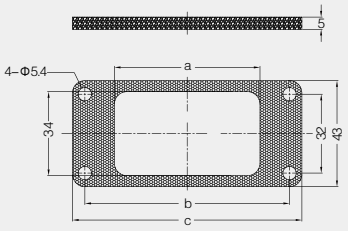
Seal part

Material:CR



Thread	Designation	Order No.
---	6B–F/N	903 000 000 0107
---	10B–F/N	903 000 000 0040
---	16B–F/N	903 000 000 0062
---	24B–F/N	903 000 000 0081

The thickened bottom gasket shown above is applicable to the regular BK housing of the same specification of H series.



Designation	a	b	c
24B–F/N	106	130	140
16B–F/N	79	103	113
10B–F/N	59	83	93
6B–F/N	46	70	80

Performance characteristics:

- Color: beige
- The thickness of the gasket is 5mm
- Limiting temperatures:–40℃...+125℃
- Gasket material: CR
- Good weather resistance, ozone resistance, oil resistance and solventresistance, suitable for pitch system in wind power industry.

PCB Connector



PCB Connector



Technical specification

Specifications	
	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
No.of contact	48
Termination length	4.5mm
Contact rows	3
Contact spacing	3.81mm/5.08mm
Rated current	6A
Test voltage Ur.m.s	1.5KV(contact–contact)
	2.5KV(contact–ground)
Insulatin resistance	$\geqslant 10^{12}\,\Omega$
Flammability acc.to UL94	V0
Material	thermoplastic rsein
Colour	RAL 7032(light grey)
Temperature range	–55℃...+125℃
Mating cycles	⩾50
Contacts	
Terminal	wave soldering termination
Contact	$\leqslant 15\mathrm{m}\,\Omega$
Material	copper alloy
Susface	selective gold plating

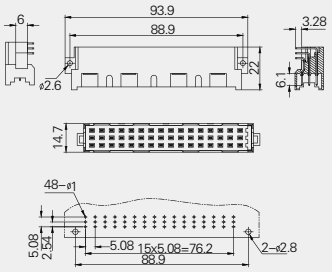
PCB Connector

1.5V 6A 48

Inserts



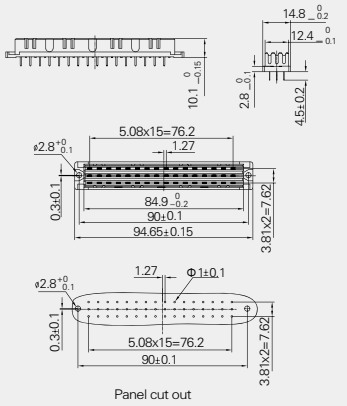
Description	Designation	Order No.
male	WBF–048–MSHT	139 048 013 0001



Inserts



Description	Designation	Order No.
female	WBF–048–FTHT	139 048 024 0001

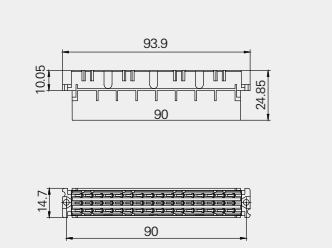


Inserts

order crimp contacts separately



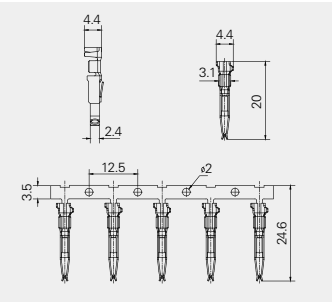
Description	Designation	Order No.
female	WBF–048–FC	139 048 020 0001



contacts



Description	Designation	Order No.
	CBGF–1.5P	101 040 202 0901



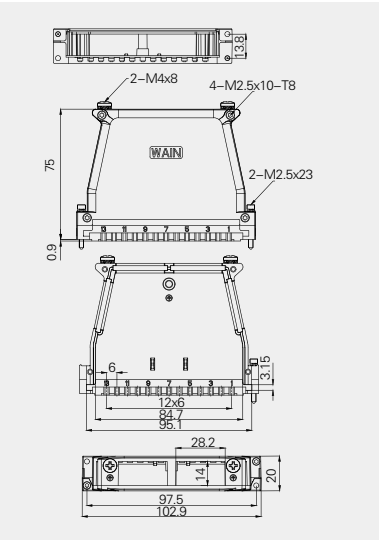
PCB Connector

1.5V 6A 48

Hoods/Housings



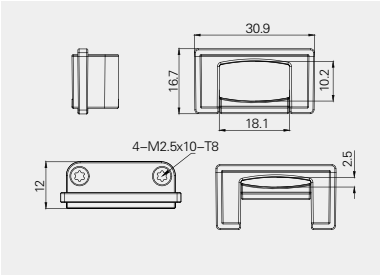
Description	Designation	Order No.
	W20D-2TE/2SE	120 120 900 1001



Cable clamp



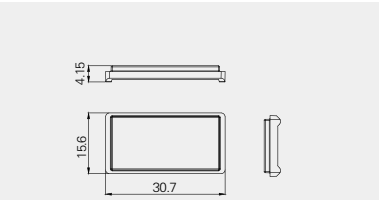
Description	Designation	Order No.
	W20D-CLP	198 002 006 0021



Outlet-hole cover plate



Description	Designation	Order No.
	W20D-CV	120 120 000 8001



Circular connector



Contents

	Rated voltage	Rated current	Number of contacts	Terminal	Page
Technical characteristics					P16–02 ~ P16–11
M8	30V, 60V	4A	3, 4, 5	screw clamp connection, solder, dip solder, moulded	P17–01 ~ P17–23
M12–A	60V, 125V, 250V	2A, 4A, 8A	3, 4, 5, 8, 12	screw clamp connection, solder, dip solder, moulded,single wires	P18–01 ~ P18–40
M12–B	125V, 250V	4A, 8A	2, 3, 4, 5	screw clamp connection, solder, dip solder, moulded,single wires	P18B–01 ~ P18B–27
M12–D	250V	4A	4	screw clamp connection, solder, dip solder, moulded,single wires	P19–01 ~ P19–15
M12–X	250V	4A	8	crimp terminal,single wires	P19X–01 ~ P19X–08
M12 Distributor Sensor junction box	60/250V 10~30V DC	4A 2A, 9A	4, 5 4, 5	– pluggable M23	P20–01 ~ P20–04
7/8	300V	8A, 9A, 10A, 12A	3(2+PE), 4(3+PE), 5(4+PE),	screw clamp connection,	P21–01 ~ P21–08
M17	32V,60V,630V	3.6A,7A,14A	7,12,17	crimp terminal	P21S–01 ~ P21S–10
HR23(M23)	25V~/60V–	7A, 15A	6, 9, 12, 17, 19	crimp terminal, (PCB)solder terminal screw clamp connection	P22–01 ~ P22–13
MR23	25V~/60V–	7A	12, 17	crimp terminal	P23–01 ~ P23–08
M23	250V, 630V	9A, 30A	6, 8	crimp terminal	P24–01~ P24–10
M40	250V	20A, 60A	4/4	crimp terminal	P25–01~ P25–04
Power electrical connector	250V	1A, 13A, 20A, 25A, 40A	4, 5, 6, 10, 26, RJ45&3	crimp terminal, solder terminal	P26–01~ P26–08
Customized product–HW	1000V	800A	1	crimp terminal	P27–01~ P27–04
Customized product–MI	400/30V	6/1A	6+6(5+PE)	crimp terminal	P27–05~ P27–06

Important user information

- Binding for the applications of connectors are the requirements of the equipment specifications of the users.
- We reserve the right to change the design due to improvements in quality,further development or production requirements.
- All technical data mentioned in this catalog are related to connectors, meaning connecting devices which in normal use (when under load) shall not be inserted or withdrawn.
- Regarding the CE marking it has to be noted that electronic components such as connectors are not subject to a marking, and therefore must not be marked with a CE mark. This is confirmed by the rules of the European commission for low voltage and EMC guidelines.
- The listed technical data are intended to help selecting the appropriate product and to secure a proper application.
- The connectors are developed and designed for the use in the field of equipment, control and electrical appliances. Whether they also can be used in other applications has to be checked by the user.
- When mounting electrical conductive socket housings, they have to be integrated into the protection measures.
- The wires to be connected shall be stripped only so far that distances to conductive parts are not shortened. When wires are soldered, it has to be beared in mind that no single strands stick out and no short circuit can occur.
- All dimensions in this catalog are in mm.
- For connectors with strain relief the following minimum parameters are valid:

		Recommended tightening torque of the pressing screw
2–3	Cable Φ： min.20N	30–40 Ncm
3–4	Cable Φ： min.30N	30–40 Ncm
4–5	Cable Φ： min.40N	80–100 Ncm
5–6	Cable Φ： min.50N	80–100 Ncm
6–7	Cable Φ： min.60N	80–100 Ncm
7–8	Cable Φ： min.70N	80–100 Ncm
8–12	Cable Φ： min.80N	100–140 Ncm

General user information

Connectors

Connectors are components which are not to be engaged or disengaged in normal use (under live).

Plug and socket devices

Plug and socket devices are components which in normal use (under live or load) may be engaged or disengaged when live or under load.

Termination methods

Screw connection

A screw connection is a detachable electrical connection between a conductor and a screw clamp. Screw clamps are designed acc. to DIN/EN 60999/VDE 0609. The chart below shows the screw size and the required clamping and testing torque.

Screw size		M2.5	M3	M3.5
Torque(Ncm)	Cap screw	40	50	60
	Headless screw	20	25	40

Solder connection

Besides the soldering of single wires with solder irons or soldering machines, the method of wave soldering or infra–red vapor phase soldering has gained great importance for connectors for printed boards or flexible wiring.

We recommend the following soldering parameters

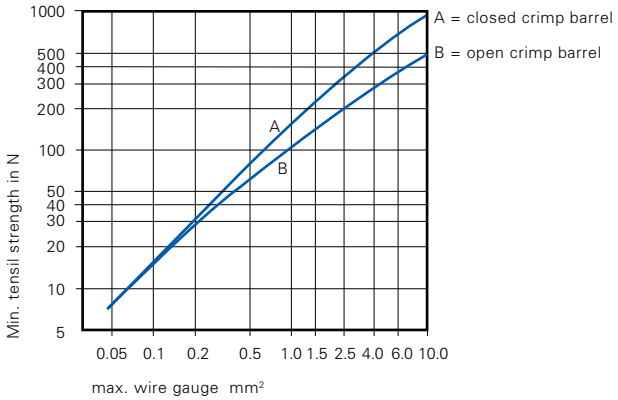
- hand–soldering: soldering bold temperature max. 370° C/max. 4s
- dip soldering: soldering bath temperature max. 270° C/max. 4s
- alternativ dip soldering: soldering bath temperature max. 260° C/max. 10s

When wires are soldered, it has to be watched that no single strands stick out which could lead to a short circuit and that no large solder joints occur which would reduce the clearance and creepage distances unfavourably.
Testing and valuation of solder joints and the relevant components is regulated in DIN EN 60068

General user information

Crimp connection

A crimp connection is a non–detachable electrical connection between a conductor and a crimp contact produced with the crimp technology. The requirements for crimp connections are defined in DIN IEC 60352 part 2.
An important point for the qualitiy of a crimp connection is the achieved tensile strength of the termination. Since easy to measure, the tensile strength is a practible means for qualitiy control purposes. The diagram below shows the req–uired minimum tensile strength depending on the wire size.



American Wire Gauges

Since various areas of industry are also using wires according to the American Wire Gauge (AWG),the following comparison chart is included to allow a cross reference between AWG and metric wire sizes

AWG	Wire composition (mm)	Wire – Ø(mm)	Wire gauge(mm²)
30	1 x 0.25 7 x 0.10	0.25 0.36	0.05 0.06
28	1 x 0.32 7 x 0.13	0.32 0.38	0.08 0.09
26	1 x 0.40 7 x 0.16 19 x 0.10	0.40 0.48 0.51	0.13 0.14 0.15
24	1 x 0.51 7 x 0.20 19 x 0.13	0.51 0.61 0.64	0.21 0.22 0.25
22	1 x 0.64 7 x 0.25 19 x 0.16	0.64 0.76 0.81	0.33 0.34 0.38
20	1 x 0.81 7 x 0.32 19 x 0.20	0.81 0.97 1.02	0.52 0.56 0.60
18	1 x 1.02 19 x 0.25	1.02 0.27	0.82 0.93
16	19 x 0.29	1.44	1.25
14	19 x 0.36	1.80	1.93
12	19 x 0.46	2.29	3.16
10	19 x 0.56	3.10	4.65

Composition and dimensions of commonly used copper wires based on VDE 0295

Wire gauge(mm²)	Wire composition (mm)	Wire – Ø(mm)
0.09	12 x 0.10	0.5
0.14	18 x 0.10	0.5
0.25	14 x 0.16 32 x 0.10	0.7 0.7
0.34	19 x 0.16 42 x 0.10	0.8 0.9
0.5	7 x 0.30 16 x 0.21 28 x 0.16	1.0 1.1 1.1
0.75	7 x 0.37 24 x 0.21 42 x 0.16	1.2 1.2 1.3
1.0	7 x 0.43 32 x 0.21 56 x 0.16	1.4 1.4 1.5
1.5	7 x 0.52 30 x 0.26 84 x 0.16	1.6 1.7 1.8
2.5	7 x 0.67 50 x 0.26 140 x 0.16	2.2 2.3 2.3
4.0	7 x 0.85 56 x 0.31 224 x 0.16	2.7 2.8 2.9

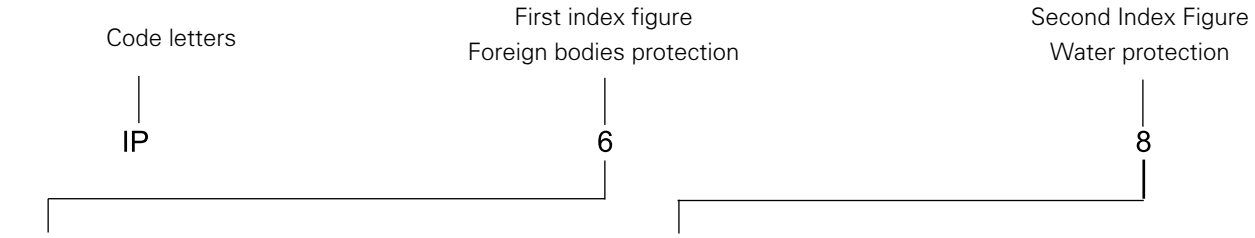
It has to be noted that wires of the same AWG number but with different composition have slightly different mm²!

General user information

Hoods/housings connector insert protection

For safety reasons, connectors have to be protected from outside influences like dust, foreign objects, direct contact, moisture and water.This protection is provided on industrial connectors by their housings with their latching devices and sealed cable entries. The degree of protection can be selected depending on the type of intended use. The sta–ndard IEC 60529 and/or DIN EN 60529 has specified and divided the degree of protection into several classes.

The degree of protection is indicated in the following way:



Index figure	Degree of protection	Index figure	Degree of protection
0	No protection:No protection against accidental contact, no protection against solid foreign bodies	0	No protection against water
1	Protection against large foreign bodies: Protection against contact with any large area by hand and against large solid foreign bodies with Ø > 50 mm	1	Drip–proof：Protection against vertical water drips
2	Protection against medium sized foreign: bodiesProtection against contact with the fingers, protection against solid foreign bodies with Ø > 12 mm	2	Drip–proof：Protection against water drips (up to a15° angle)
3	Protection against small solid foreignbodies: Protection aga–inst tools, wires or similar objects with Ø > 2.5 mm, protec–tion against small foreign solid bodies with Ø > 2.5 mm	3	Spray–proof：Protection against diagonal water drips (up to a 60° angle)
4	Protection against grain–shaped foreign bodies: As 3 however Ø > 1 mm	4	Spray–proof：Protection against splashed water from all directions
5	Protection against injurious deposits of dust: Full protection against contact. Protection against interior injuriousdust deposits	5	Hose–proof：Protection against water (out of a nozzle) from all directions
6	Protection against ingress of dust: Total protection against contact. Protection against penetration of dust	6	Strong hose–proof：Protection against strong water (out of a nozzle) from all directions
		7	Protected against immersion：Protected against temporary immersion
		8	Water–tight：Protected against water pressure

Electrotechnical information

Voltage grading of connectors (insulation coordination)

Clearances and creepage distances are the base of voltage grading of connectors. Valuation and dimensioning of clearances and creepage distances have changed since the introduction of insulation coordination. The following standards apply for this:

- IEC 60664–1/11.92 Insulation coordination for equipment within low–voltage systems
- DIN VDE 0110/4.97 Insulation coordination for equipment within low–voltage systems

Insulation coordination comprises the selection of the electrical insulation performances of an equipment (e.g. connector), taking into account the expected use and its environment.

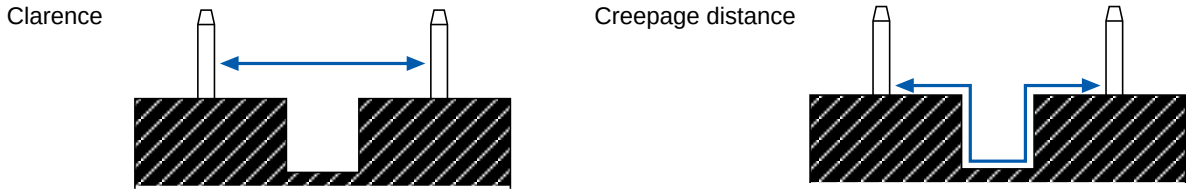
In this respect some definitions are explained in short:

Rated voltage: The value of voltage assigned by the manufacturer to the connector and to which operation and performance characteristics are referred.

Rated impulse voltage: The value of an impulse withstand voltage assigned by the manufacturer to the connector characterising the specified withstand capability of its insulation against transient overvoltages.

Clearance: The shortest distance in air between two conductive parts.

Creepage distance: The shortest distance along the surface of the insulating material between two conductive parts.



Voltage grading of connectors (insulation coordination)

Overvoltage categories: The standard has divided the possible overvoltages into four categories. The three categories which relate to connectors are shortly described below:

Overvoltage category I

Equipment (e.g. connectors) intended for the use in applications or parts of installations in which no overvoltage can occur. Examples are low voltage equipments.

Overvoltage category II

Equipment (e.g. connectors) intended for the use in installations or parts of it, in which lightning overvoltages do not need to be considered, however switching overvoltages generated by the equipment. Examples are household appliances.

Overvoltage category III

Equipment (e.g. connectors) intended for the use in installations or parts of it in which lightning overvoltages do not need to be considered, however switching overvoltages generated by the equipment, and for cases where the reliability and the availability of the equipment (e.g. connectors) or its dependent circuits are subject to special requirements. Examples are protecting means, switches and sockets.

Material groups

For the dimensioning of the creepage distance, the tracking formation of the insulating material used by the manufacturer has to be considered.The materials are separated into three groups according to their CTI values (Comparative Tracking Index):

Material group I 600≤ CTI

Material group II 400≤ CTI ＜600

Material group III 175≤ CTI ＜400

Pollution degree of connectors

Pollution degree: The expected pollution around the equipment (e.g. connector) was established in the standard in four degrees:

Pollution degree 1: No pollution or only dry, non–conductive pollution occurs. The pollution has no influence.Examples: The inside of electrical measuring instruments, electronic measuring devices.

Pollution degree 2: Only non–conductive pollution occurs. Except that occasionally a temporary conductivity caused by con–densation is to be expected.

Examples: Household appliances, installation material, lamps, power supplies of office equipment.

Pollution degree 3: Conductive pollution occurs or dry non–conductive pollution occurs which becomes conductive due to condensation which is to be expected.

Examples: Electrical equipment of machine tools and processing machines, low voltage switches at machine tools.

Pollution degree 4: The pollution generates persistent conductivity caused by conductive dust or by rain or snow.

Examples: Equipment on wagon roofs and beneath wagons at electrical locomotives, rail cars, trolley busses. Equipment at electrical locomotives underground.

Additional remarks: If connectors being defined for pollution degree 1 and overvoltage categorie 1 are applied for other conditions (higher pollution degree and higher overvoltage category), voltage levels reduce correspondingly. But the connectors can be used without any problems at reduced maximum voltages.

It has to be noted that for a connector with a degree of protection of at least IP 54 the parts inside the enclosure may be dimensioned for a lower pollution degree. This also applies to mated connectors whose enclosure is ensured through the connector housing and which may only be disengaged for test and maintenance purposes.

Electrotechnical information

Current carrying capacity

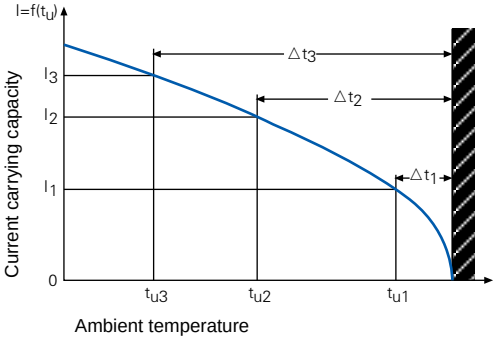
The current carrying capacity of a connector denotes the current that can be carried continuously and simultaneously through all its contacts. It is determined by testing following the standard DIN IEC 60512.

The upper limit temperature results from the thermal properties of the contact and insulating materials. The sum of the ambient temperature and the temperature created by the current flow may not exceed the upper limit temperature of the connector.

This means, that the current carrying capacity is no fixed value but decreases with increasing ambient temperatures. This relation between current, the causedtemperature rise and ambient temperature of the connector is depicted in a curve, the so–called derating curve. As one can see, the current carrying capacity decreases with increasing ambient temperature.

On the other hand, very often not all contacts are loaded simultaneously with the whole rated current, so that some single contacts can carry a higher currentthan that according to the derating curve. These currents have to be determined by testing.

Derating curve:



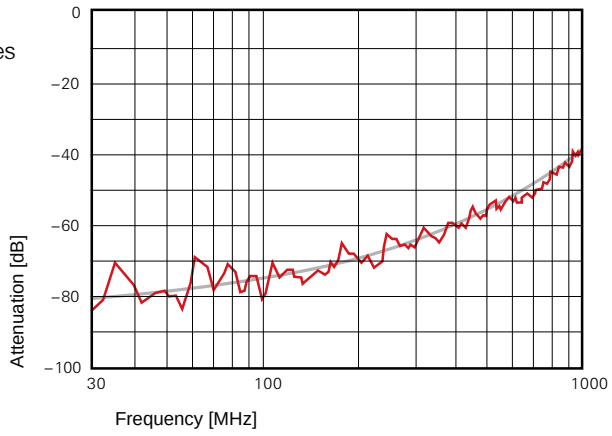
Shielding, Electromagnetic compatibility (EMC)

Since the issue of the German law about electromagnetic compatibility of equipment, more attention is paid to EMC within the concerned equipment.
The equipment has to be designed in such a way that:
1. the generation of electromagnetic interference is limited to such extend that the determined operation of this equipment is not hampered,
2. the equipment has a reasonable resistance against electromagnetic interference so that the determined operation is not hampered.

To satisfy the requirements of the equipment manufacturers, more and more connectors with shielding properties are applied where shielded cables can be connected. In use are conductive housings to which the cable shield can be terminated. In case of circular connectors, it should be watched that the cable shield is carefully connected to the connector shield. A circumferencially (360°) contact is optimal in this case. Good shielding values (and very often sufficient for practical use) are also achieved when the shielding braid is firmly connected to the conductive housing. Not sufficient are fully plastic connectors without metal sleeves with no possibility to terminate the cable shield.

Furthermore, it is important that during mating a secure electrical connection between plug and socket housing is achieved and that the panel mounted connector part has a good metallic connection with the chassis wall.
The shielding attenuation is stated in decibel (db) and depends on the frequency. Good shieldings have a high attenuation, which over a large frequency band (MHz) does not decrease too heavily.

Attenuation curve acc. to DIN 47250–6
Example 360° shielding: M12–A series



Information about used materials

Two material groups are used to manufacture the connectors described in this catalog:
1: Metals for contacts and housings
2: Plastic material for inserts and housings

Materials for contacts

The properties of contacts are defined to a large extent by the used materials. Decisive features are:

- strength and spring properties
- electrical conductivity
- max. operating temperature

Considering these points, Wain is using proven copper–alloys for the manufacture of contacts;

Materials for metal housings

Depending on the application, the metal housings are produced from eitherbrass, zinc die–cast or an aluminium alloy. For circular housing parts, mainly
brass is used due to its good machine ability and strength. For angled housings and parts with minor finishing work, zinc die–cast or an aluminium alloy is used.

Plastic material for inserts

The inserts of Wain–connectors are manufactured primarily from PBT (Polybutylen–terephthalate), a plastic material with a temperature stability of up to 130 ° C and special properties for high grade moulded parts. The material has very good chemical and electrical properties and very good dimensional stability.

Surface finishes

In order to protect contacts and housings from aggressive environments and to improve the conductivity, the surfaces are treated accordingly. At wain, contacts are gold or silver plated. These platings improve the conductivity and are very corrosion–proof. For applications in the mA–range at very low voltages, gold plated contacts are recommended to improve the electrical properties and in addition, it increases the corrosion–proofness. Housings are anodised or covered with a plating of either nickel or chromium for anti–corrosion and decorative reasons.

Material for sealing gaskets

To achieve the required protection class, all Wain circular connectors are equipped with sealing rings of an elastomeric material. Depending on the final use, wain has selected Chloroprene Rubber (Trademark Neoprene), Nitrid Rubber (Trademark Perbunan) or Fluorsilicon Rubber (Trademark Viton).The chemical resistance of these elastomeric materials can be depicted from table on page 16–09.

Plastic material for housings

Plastic housings are primarily manufactured from PA (Polyamide). This wellproven material (internationally known under the name Nylon) is very tough, non–abrasive, resistant against solvents, oils and greases and can be used at temperatures up to 120 ℃.

Important data of used metals

Material	Letter symbol	Conductivity $\left(\frac{m}{\Omega \times mm^2}\right)$	Tensile strength (N/mm²)	Limit temperature (℃)	Corrosion resistance 1)
Coatings					
Gold	Au	44	–	–	Very good
Silver	Ag	62	–	–	Good
Nickel	Ni	10	–	–	Very good
Optaloy	CuSnZn	15	–	–	Good
Basic material					
Copper	Cu	55	ca.400	90	Partially resistant. Surface coating recommanded.
Brass	CuZn	15	ca.500	90	Partially resistant. Surface coating recommanded.
Phos. bronce	CuSn	9	ca.700	120	Good
Zinc die – cast	GD–Zn	16	ca.300	–	Non – resistant. Surface coating required.
Auminium die – cast	GD–Al	20	ca.250	–	Partially resistant. Surface coating recommanded.

1) Depends on environmental influences.

Information about used materials

Chemical resistance of used plastic material and elastomeres

	Polyamid(PA)	PBT	CR	NBR	FPM	PUR(Ester)[1)]	PUR(Ether)[1)]
Hydrocarbons							
Gasolin	+	+	0	+	+	+	+
Fuel oil	+	+	+	+	+	+	+
Benzole	+	0	–	–	+	0	0
Naphthalene	+	0	–	+	+	0	0
Alcohols							
Ethyl alcohol	0	+	+	+	+	+	+
Isopropanol	0	0	+	+	+	+	+
Glycol	–	0	+	+	+	+	+
Glycerine	+	+	+	+	0	+	+
Ketons							
Acetone	+	+	0	–	–	–	–
Acids						3%	3%
Hydrochloric acid(20%)	–	0	0	0	+	–	+
Nitric acid(10%)	–	0	0	0	+	–	–
Phosphoric acid(30%)	–	0	+	+	+	–	+
Sulphuric acid(30%)	–	0	+	+	+	–	+
Citric acid(10%)	+	+	+	+	+	0/–	+
Lactic acid(10%)	+	+	0	0	+	0/–	+
Acetic acid(10%)	0	0	+	+	+	0/–	+
Bases (solutions)						3%	3%
Caustic soda(10%)	+	–	0	0	0	0	+
Ammonia, diluted	+	+	+	+	+	–	+
Oils, greases							
Soybean oil	+	+	+	+	0	0/–	0
Olive oil	+	+	+	+	+	0/–	0
Butter	+	+	+	+	+	0/–	0/–
Salt water	+	+	+	+	+	0	+
Cleaning agents							
Detergents	+	0	+	+	+	+/–	+/–
Detergents	+	+	+	+	+	+/–	+/–

+: resistant
0: resistant
–: non–resistant

1) Data are only valid for unmoved liquids and room ambient temperature.
Petrol: no low ester oder ether in the medium for ester and ether T PUR.

Information to used standards

The standards used in this catalog for definition and testing of the connectors are described below in more detail. These are:

IEC 60664–1; (2007 – 4), Insulation coordination

This international standard, which is identical to the German standard DIN VDE 0110–1 issued April 1997, is a basic safety standard to achieve insulation coordination. It provides the information necessary to specify clearances, creepage distances and solid insulation for electrical equipment (e.g.connectors), taking into account the expected micro–environment and other influencing stresses to which it is likely to be subjected during its anticipated lifetime. Included are methods for voltage testing in regards to the insulation coordination.

IEC 60512; (2001–1), Testing procedures and measuring methods

This international standard, which is identical with the European standard DIN EN 60512, has replaced the earlier German standard DIN 41640. It is the basic standard for testing procedures and measuring methods for electrome chanical components (e.g. connectors). The standard is very comprehensive and consists of nine parts in total in which all electrical, mechanical and climatic tests are described. Furthermore, it contains tests about solderability, sealing, shielding and cable strain relieve.

IEC 60529; (2001 – 2), Degrees of protection provided by enclosures (IP–Code)

This international standard, which is identical with the European standard DIN EN 60529 and the German standard DIN VDE 0470–1 of Nov. 1992, defines the designation, requirements and testing for the classification of degrees of protection by enclosures for electrical equipment (e.g. connectors). It classifies the protection against access to hazardous parts, protection against foreign objects and protection against ingress of water. The degree of protection is indicated by an IP–Code.

IEC 60068-1; March 1995, Environmental testing

This international standard, which is identical with the European standard DIN EN 60068, contains basic procedures for environmental tests and test severities. The test procedures are intended to prove the resistance of components against expected environmental influences under working conditions. Typical tests are: cold, dry and damp heat, shock, vibration, temperature change and more.

DIN EN 61984 (VDE 0627); 2009–11, Connectors and Connection devices

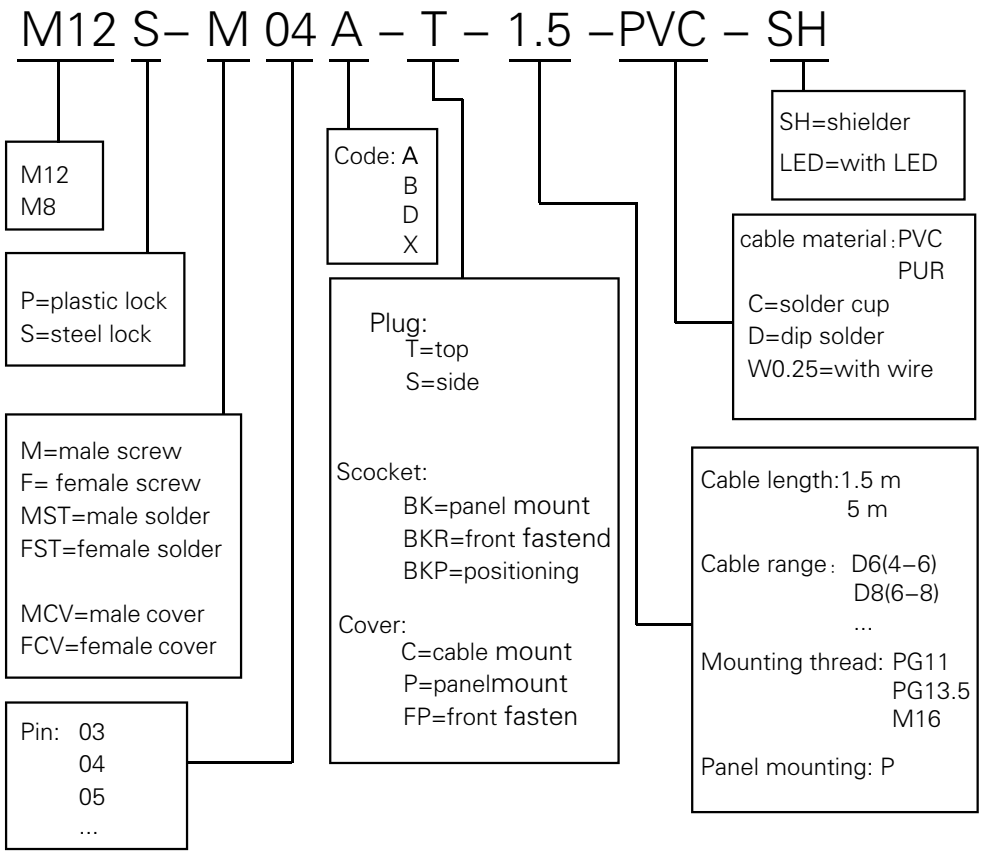
This international standard is applicable for plug connectors with rated voltages ranging from 50 V to 1000 V AC and DC and rated currents up to 500 A per contact for which there is either no detail specification (DS), or if the detail specification with reference to the safety requirements is based on this standard. This standard may be used as a guide for plug connector with rated voltages up to 50 V. In this case the design for clearances and leakage paths must be based on IEC 60664–1.

This standard may also be used as a guide for plug connectors with rated voltages greater than 125 A per pole.

This standard is not applicable for plug connectors in or on equipment for which there are application–specific safety requirements for plug connectors.

Naming Rule

M8/M12 Circular connector naming rule



M8 Circular connectors

Standards: IEC–61076–2–104



Cable Connector

- Versions with assembly
- Thread locking M8x1
- Screw–, solder termination
- Connector moulded on cable
- Degree of protection IP67/IP65 [1)]
- Cable length 2m and 5m (PVC and PUR)
- Further cable length upon request, minimum order quantity 200 pieces

Cable Connector shielded

- Assembly possible, moulded on cable
- Thread locking M8x1
- Solder–, screw termination

1)Explanation of protection standards see page P16–05

M8 Circular Connector

30/60V 4A

Technical characteristics

Number of contacts	3	4
Rated current (40℃)	4A	4A
Rated voltage	60V	30V
Rated impulse voltage	800V	800V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw
Termination	screw, solder	screw, solder
Wire gauge	screw 0.14–0.5mm²(AWG26–20) ,solder 0.25mm²(AWG24)	screw 0.14–0.5mm²(AWG26–20) ,solder 0.25mm²(AWG24)
Cable outlet	3.5–5 mm	3.5–5 mm
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	III	III
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	PA	PA

Straight cable connectors

Male cable connector, solder

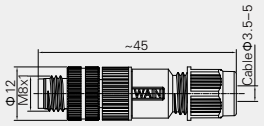


Contact arrangements



3 pin 4 pin

Contacts	Cable outlet	Designation	Order No.
3	3.5–5 mm	M8–MST03–T–D5	162 003 413 3001
4	3.5–5 mm	M8–MST04–T–D5	162 004 413 3001



Male cable connector, screw

Recommend to use

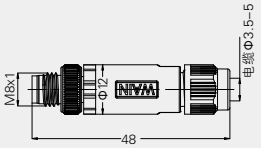


Contact arrangements



3 pin 4 pin

Contacts	Cable outlet	Designation	Order No.
3	3.5–5 mm	M8–M03–T–D5	162 003 411 3001
4	3.5–5 mm	M8–M04–T–D5	162 004 411 3001



M8 Circular Connector

30/60V 4A

Technical characteristics

Number of contacts	3	4
Rated current (40 ℃)	4A	4A
Rated voltage	60V	30V
Rated impulse voltage	800V	800V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw
Termination	screw,solder	screw,solder
Wire gauge	screw 0.14–0.5mm²(AWG26–20),solder 0.25mm²(AWG24)	screw 0.14–0.5mm²(AWG26–20),solder 0.25mm²(AWG24)
Cable outlet	3.5–5 mm,3.5–5.5 mm	3.5–5 mm,3.5–5.5 mm
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	III	III
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	CuZn	CuZn

Straight cable connectors,shielded

Male cable connector, shielded, solder

Recommend to use

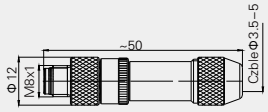


Contact arrangements



3 pin 4 pin

Contacts	Cable outlet	Designation	Order No.
3	3.5–5 mm	M8–MST03–T–D5–SH	162 003 413 2001
4	3.5–5 mm	M8–MST04–T–D5–SH	162 004 413 2001



Male cable connector, shielded, screw

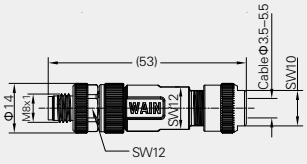


Contact arrangements



3 pin 4 pin

Contacts	Cable outlet	Designation	Order No.
3	3.5–5.5 mm	M8–M03–T–D5.5–SH	162 003 411 2001
4	3.5–5.5mm	M8–M04–T–D5.5–SH	162 004 411 2001



M8 Circular Connector

30/60V 4A

Technical characteristics

Number of contacts	3	4
Rated current (40 ℃)	4A	4A
Rated voltage	60V	30V
Rated impulse voltage	800V	800V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	≤10 mΩ	≤10 mΩ
Connector locking system	screw	screw
Termination	screw,solder	screw,solder
Wire gauge	screw 0.14–0.5mm²(AWG26–20),solder 0.25mm²(AWG24)	screw 0.14–0.5mm²(AWG26–20),solder 0.25mm²(AWG24)
Cable outlet	3.5–5 mm	3.5–5 mm
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	III	III
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	PA	PA

Angled cable connectors

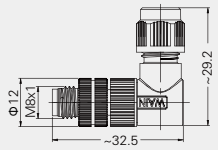
Male angled connector, solder



Contact arrangements



Contacts	Cable outlet	Designation	Order No.
3	3.5–5 mm	M8–MST03–S–D5	162 003 513 3001
4	3.5–5 mm	M8–MST04–S–D5	162 004 513 3001



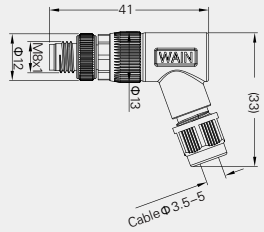
Male angled connector, screw



Contact arrangements



Contacts	Cable outlet	Designation	Order No.
3	3.5–5 mm	M8–M03–S–D5	162 003 511 3001
4	3.5–5 mm	M8–M04–S–D5	162 004 511 3001



M8 Circular Connector

30/60V 4A

Technical characteristics

Number of contacts	3	4
Rated current (40 ℃)	4A	4A
Rated voltage	60V	30V
Rated impulse voltage	800V	800V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw
Termination	screw	screw,solder
Wire gauge	screw 0.14–0.5mm²(AWG26–20)	screw 0.14–0.5mm²(AWG26–20)
Cable outlet	3.5–5.5 mm	3.5–5.5 mm
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	III	III
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	CuZn	CuZn

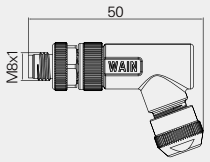
Angled cable connectors,shielded

Male cable connector, shielded, screw

Recommend to use



Contacts	Cable outlet	Designation	Order No.
3	3.5–5 mm	M8–M03–S–D5.5–SH	162 003 501 2003
4	3.5–5 mm	M8–M04–S–D5.5–SH	162 004 501 2003



M8 Circular Connector

30/60V 4A

Technical characteristics

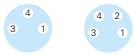
Number of contacts	3	4
Rated current (40 ℃)	4A	4A
Rated voltage	60V	30V
Rated impulse voltage	800V	800V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw
Termination	screw,solder	screw,solder
Wire gauge	screw 0.14–0.5mm²(AWG26–20),solder 0.25mm²(AWG24)	screw 0.14–0.5mm²(AWG26–20),solder 0.25mm²(AWG24)
Cable outlet	3.5–5 mm	3.5–5 mm
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	III	III
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	PA	PA

Straight cable connectors

Female cable connector, solder

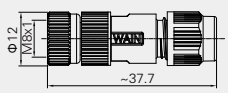


Contact arrangements



3 pin 4 pin

Contacts	Cable outlet	Designation	Order No.
3	3.5–5 mm	M8–FST03–T–D5	162 003 423 3001
4	3.5–5 mm	M8–FST04–T–D5	162 004 423 3001

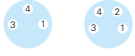


Female cable connector, screw

Recommend to use

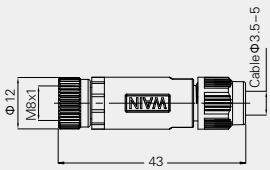


Contact arrangements



3 pin 4 pin

Contacts	Cable outlet	Designation	Order No.
3	3.5–5 mm	M8–F03–T–D5	162 003 421 3001
4	3.5–5 mm	M8–F04–T–D5	162 004 421 3001



M8 Circular Connector

30/60V 4A

Technical characteristics

Number of contacts	3	4
Rated current (40 ℃)	4A	4A
Rated voltage	60V	30V
Rated impulse voltage	800V	800V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw
Termination	screw,solder	screw,solder
Wire gauge	screw 0.14–0.5mm²(AWG26–20),solder 0.25mm²(AWG24)	screw 0.14–0.5mm²(AWG26–20),solder 0.25mm²(AWG24)
Cable outlet	3.5–5 mm,3.5–5.5 mm	3.5–5 mm,3.5–5.5 mm
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	III	III
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	CuZn	CuZn

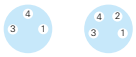
Straight cable connectors, shielded

Female cable connector, solder, shielded

Recommended use

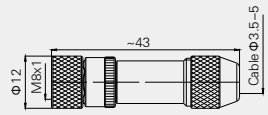


Contact arrangements



3 pin 4 pin

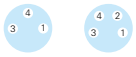
Contacts	Cable outlet	Designation	Order No.
3	3.5–5 mm	M8–FST03–T–D5–SH	162 003 423 2001
4	3.5–5 mm	M8–FST04–T–D5–SH	162 004 423 2001



Female cable connector, screw, shielded

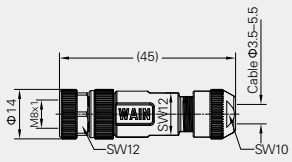


Contact arrangements



3 pin 4 pin

Contacts	Cable outlet	Designation	Order No.
3	3.5–5.5 mm	M8–F03–T–D5.5–SH	162 003 421 2001
4	3.5–5.5 mm	M8–F04–T–D5.5–SH	162 004 421 2001



M8 Circular Connector

30/60V 4A

Technical characteristics

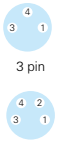
Number of contacts	3	4
Rated current (40 ℃)	4A	4A
Rated voltage	60V	30V
Rated impulse voltage	800V	800V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw
Termination	screw,solder	screw,solder
Wire gauge	screw 0.14–0.5mm²(AWG26–20),solder 0.25mm²(AWG24)	screw 0.14–0.5mm²(AWG26–20),solder 0.25mm²(AWG24)
Cable outlet	3.5–5 mm	3.5–5 mm
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	III	III
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	PA	PA

Angled cable connectors

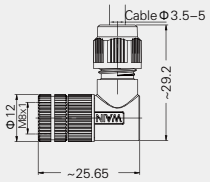
Female cable connector, solder



Contact arrangements



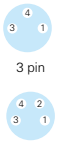
Contacts	Cable outlet	Designation	Order No.
3	3.5–5 mm	M8–FST03–S–D5	162 003 523 3001
4	3.5–5 mm	M8–FST04–S–D5	162 004 523 3001



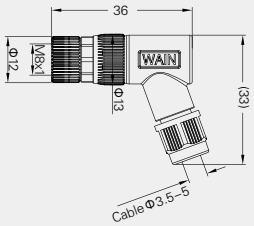
Female cable connector, screw



Contact arrangements



Contacts	Cable outlet	Designation	Order No.
3	3.5–5 mm	M8–F03–S–D5	162 003 521 3001
4	3.5–5 mm	M8–F04–S–D5	162 004 521 3001



M8 Circular Connector

30/60V 4A

Technical characteristics

Number of contacts	3	4
Rated current (40 ℃)	4A	4A
Rated voltage	60V	30V
Rated impulse voltage	800V	800V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw
Termination	screw	screw
Wire gauge	screw 0.14–0.5mm²(AWG26–20)	screw 0.14–0.5mm²(AWG26–20)
Cable outlet	3.5–5.5 mm	3.5–5.5 mm
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	III	III
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	CuZn	CuZn

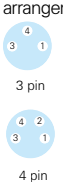
Straight cable connectors，shielded

Female cable connector, screw, shielded

Recommended use



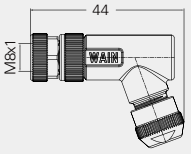
Contact arrangements



3 pin

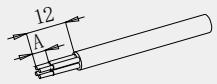
4 pin

Contacts	Cable outlet	Designation	Order No.
3	3.5–5 mm	M8–F03–S–D5.5–SH	162 003 502 2007
4	3.5–5 mm	M8–F04–S–D5.5–SH	162 004 502 2003



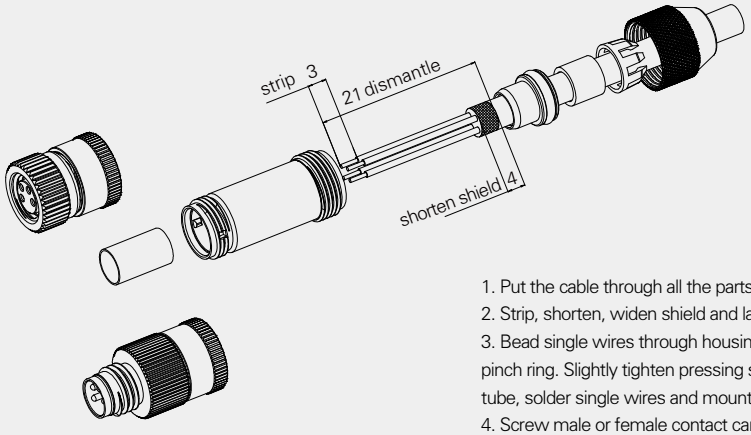
Assembly instruction

Strip length cable connectors



	Screw termination	solder version
Strip length A/mm	4mm	3mm

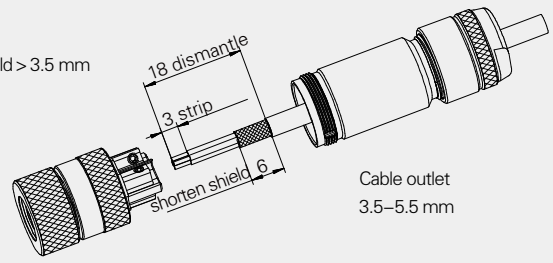
Straight cable connectors, shielded, solder



1. Put the cable through all the parts of the connector.
2. Strip, shorten, widen shield and lay around shielding ring.
3. Bead single wires through housing, mount shieldingring, sealing ring and pinch ring. Slightly tighten pressing screw to fix the cable. Bead insulating tube, solder single wires and mount insulting tube.
4. Screw male or female contact carrier to housing and tighten pressing screw.
5. Angled version: tighten locking screw.

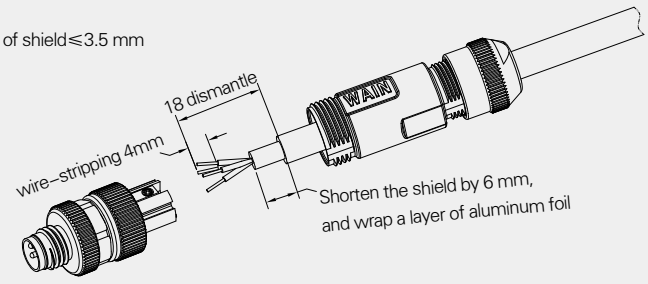
Straight cable connectors, shielded, screw clamp connection

Diameter of shield > 3.5 mm



1. Put the cable through the housing.
2. Strip cable, shorten shielding braid.
3. Connect single wires.
4. Screw housing to either male or female contact carrier and tighten pressing screw.

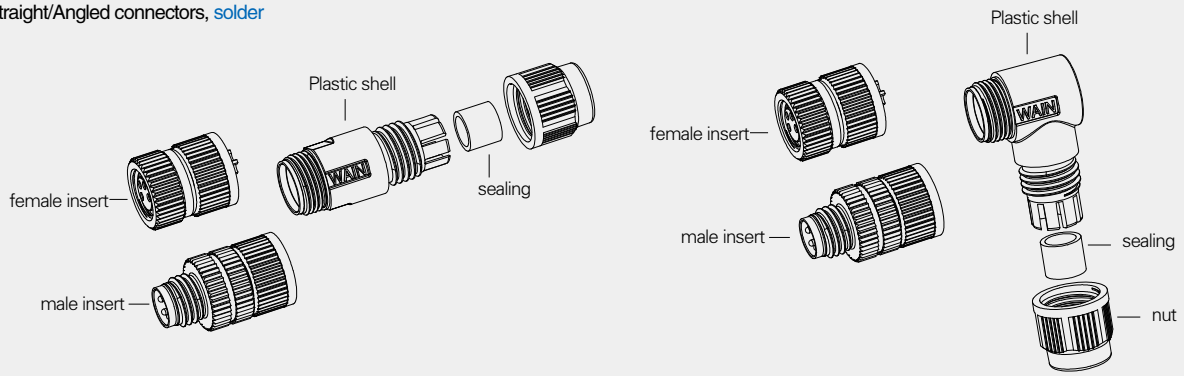
Diameter of shield≤3.5 mm



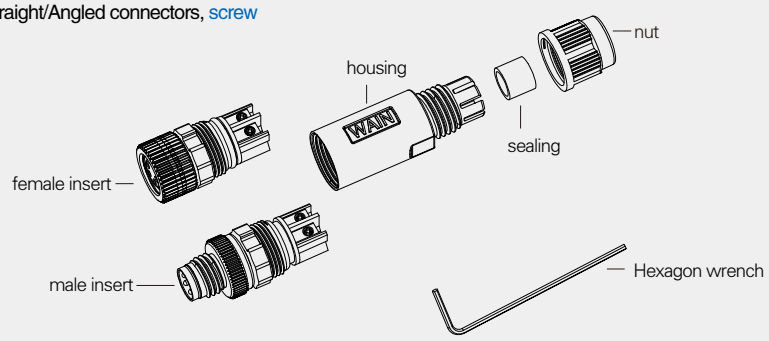
1. Put the cable through the housing.
2. Strip cable, shorten shielding braid, place it over cable coating and wrap it with copper tape.
3. Connect single wires.
4. Screw housing to either male or female contact carrier and tighten pressing screw.

Component part drawing

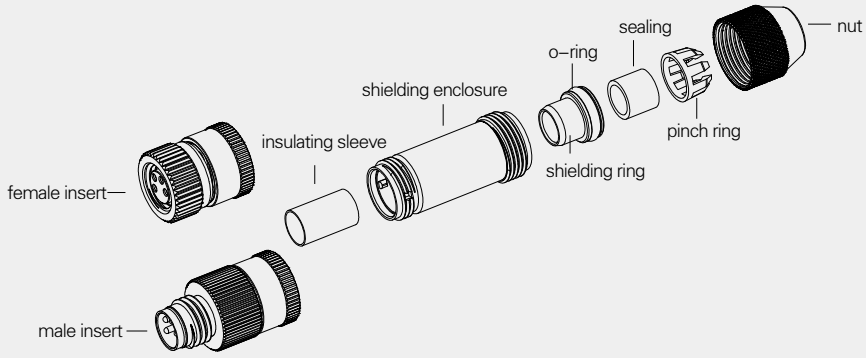
Straight/Angled connectors, solder



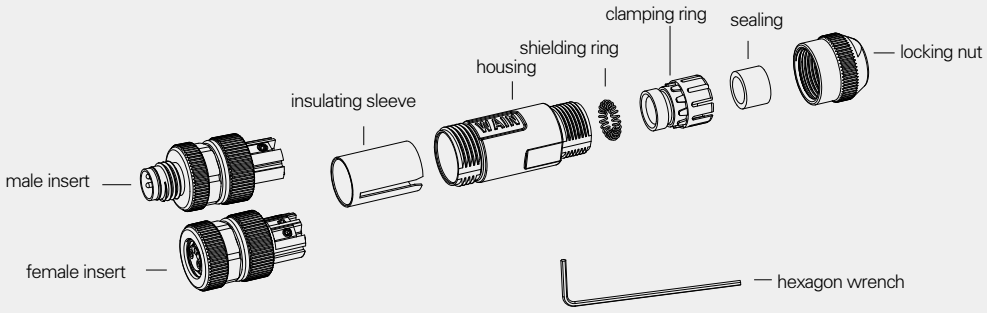
Straight/Angled connectors, screw



Straight/Angled connectors, shielded, solder



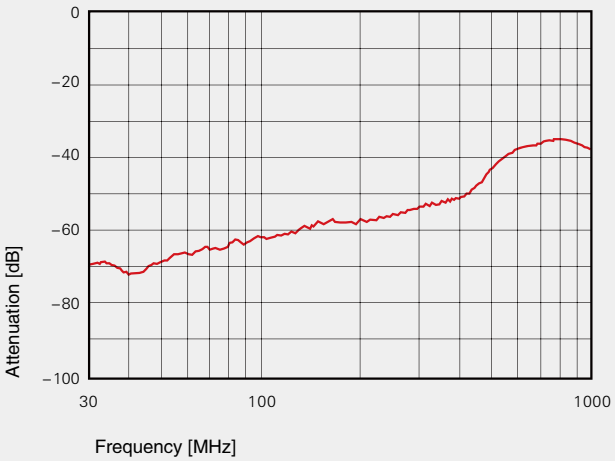
Straight connectors shielded, screw, iris type spring



Rating

Attenuat ion curve

Attenuation curve according to DIN 47250–6
for straight cable connectors
(cable version IEEE 802.3)
shieldable



M8 Circular Connector

30/60V 4A

Technical characteristics

Number of contacts	3	4
Rated current (40 ℃)	4A	4A
Rated voltage	60V	30V
Rated impulse voltage	800V	800V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw
Termination	crimp, moulded	crimp, moulded
Wire gauge	0.25mm²(AWG24)	0.25mm²(AWG24)
Cable outlet	–	–
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	TPU	TPU

Straight cable connectors,cable

Male cable connector moulded, screw

Recommended use

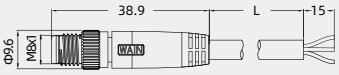


Contact arrangements



3 pin 4 pin

Contacts	Cable length	Cable	Designation	Order No.
3	1.5m	3x0.25PVC	M8–M03–T–1.5–PVC	162 003 401 4001
		3x0.25PUR	M8–M03–T–1.5–PUR	162 003 401 4041
	5.0m	3x0.25PVC	M8–M03–T–5.0–PVC	162 003 401 4002
		3x0.25PUR	M8–M03–T–5.0–PUR	162 003 401 4042
4	1.5m	4x0.25PVC	M8–M04–T–1.5–PVC	162 004 401 4001
		4x0.25PUR	M8–M04–T–1.5–PUR	162 004 401 4041
	5.0m	4x0.25PVC	M8–M04–T–5.0–PVC	162 004 401 4002
		4x0.25PUR	M8–M04–T–5.0–PUR	162 004 401 4042



Male cable connector moulded, screw

Recommended use

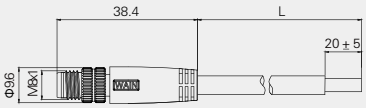


Contact arrangements



3 pin 4 pin

Contacts	Cable length	Cable	Designation	Order No.
3	1.5m	3x0.25PVC	M8–M03–T–1.5–PVC–SH	162 003 401 2001
		3x0.25PUR	M8–M03–T–1.5–PUR–SH	162 003 401 2041
	5.0m	3x0.25PVC	M8–M03–T–5.0–PVC–SH	162 003 401 2002
		3x0.25PUR	M8–M03–T–5.0–PUR–SH	162 003 401 2042
4	1.5m	4x0.25PVC	M8–M04–T–1.5–PVC–SH	162 004 401 2001
		4x0.25PUR	M8–M04–T–1.5–PUR–SH	162 004 401 2041
	5.0m	4x0.25PVC	M8–M04–T–5.0–PVC–SH	162 004 401 2002
		4x0.25PUR	M8–M04–T–5.0–PUR–SH	162 004 401 2043



•Further cable length upon request, minimum order quantity 200 pieces.

M8 Circular Connector

30/60V 4A

Technical characteristics

Number of contacts	3	4
Rated current (40 ℃)	4A	4A
Rated voltage	60V	30V
Rated impulse voltage	800V	800V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	≤10 mΩ	≤10 mΩ
Connector locking system	screw	screw
Termination	crimp, moulded	crimp, moulded
Wire gauge	0.25mm²(AWG24)	0.25mm²(AWG24)
Cable outlet	–	–
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	TPU	TPU

Angled cable connectors,cable

Male cable connector moulded, screw

Recommended use

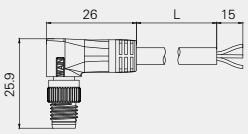


Contact arrangements



3 pin 4 pin

Contacts	Cable length	Cable	Designation	Order No.
3	1.5m	3x0.25PVC	M8–M03–S–1.5–PVC	162 003 501 4001
		3x0.25PUR	M8–M03–S–1.5–PUR	162 003 501 4041
	5.0m	3x0.25PVC	M8–M03–S–5.0–PVC	162 003 501 4002
		3x0.25PUR	M8–M03–S–5.0–PUR	162 003 501 4042
4	1.5m	4x0.25PVC	M8–M04–S–1.5–PVC	162 004 501 4001
		4x0.25PUR	M8–M04–S–1.5–PUR	162 004 501 4041
	5.0m	4x0.25PVC	M8–M04–S–5.0–PVC	162 004 501 4002
		4x0.25PUR	M8–M04–S–5.0–PUR	162 004 501 4042



Male cable connector moulded, screw

shielded

Recommended use

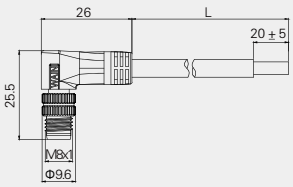


Contact arrangements



3 pin 4 pin

Contacts	Cable length	Cable	Designation	Order No.
3	1.5m	3x0.25PVC	M8–M03–S–1.5–PVC–SH	162 003 501 2001
		3x0.25PUR	M8–M03–S–1.5–PUR–SH	162 003 501 2041
	5.0m	3x0.25PVC	M8–M03–S–5.0–PVC–SH	162 003 501 2002
		3x0.25PUR	M8–M03–S–5.0–PUR–SH	162 003 501 2042
4	1.5m	4x0.25PVC	M8–M04–S–1.5–PVC–SH	162 004 501 2001
		4x0.25PUR	M8–M04–S–1.5–PUR–SH	162 004 501 2041
	5.0m	4x0.25PVC	M8–M04–S–5.0–PVC–SH	162 004 501 2002
		4x0.25PUR	M8–M04–S–5.0–PUR–SH	162 004 501 2042



•Further cable length upon request, minimum order quantity 200 pieces.

M8 Circular Connector

30/60V 4A

Technical characteristics

Number of contacts	3	4
Rated current (40℃)	4A	4A
Rated voltage	60V	30V
Rated impulse voltage	800V	800V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw
Termination	crimp, moulded	crimp, moulded
Wire gauge	0.25mm²(AWG24)	0.25mm²(AWG24)
Cable outlet	–	–
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	TPU	TPU

Straight cable connectors,cable

Female cable connector moulded, screw

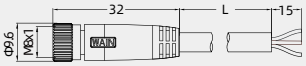
Recommended use



Contact arrangements



Contacts	Cable length	Cable	Designation	Order No.
3	1.5m	3x0.25PVC	M8–F03–T–1.5–PVC	162 003 402 4001
		3x0.25PUR	M8–F03–T–1.5–PUR	162 003 402 4041
	5.0m	3x0.25PVC	M8–F03–T–5.0–PVC	162 003 402 4002
		3x0.25PUR	M8–F03–T–5.0–PUR	162 003 402 4042
4	1.5m	4x0.25PVC	M8–F04–T–1.5–PVC	162 004 402 4001
		4x0.25PUR	M8–F04–T–1.5–PUR	162 004 402 4041
	5.0m	4x0.25PVC	M8–F04–T–5.0–PVC	162 004 402 4002
		4x0.25PUR	M8–F04–T–5.0–PUR	162 004 402 4042



Female cable connector moulded, screw

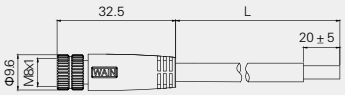
shielded



Contact arrangements



Contacts	Cable length	Cable	Designation	Order No.
3	1.5m	3x0.25PVC	M8–F03–T–1.5–PVC–SH	162 003 402 2001
		3x0.25PUR	M8–F03–T–1.5–PUR–SH	162 003 402 4061
	5.0m	3x0.25PVC	M8–F03–T–5.0–PVC–SH	162 003 402 4022
		3x0.25PUR	M8–F03–T–5.0–PUR–SH	162 003 402 4062
4	1.5m	4x0.25PVC	M8–F04–T–1.5–PVC–SH	162 004 402 2001
		4x0.25PUR	M8–F04–T–1.5–PUR–SH	162 004 402 2041
	5.0m	4x0.25PVC	M8–F04–T–5.0–PVC–SH	162 004 402 2002
		4x0.25PUR	M8–F04–T–5.0–PUR–SH	162 004 402 2042



•Further cable length upon request, minimum order quantity 200 pieces.

M8 Circular Connector

60V 4A

Technical characteristics

Number of contacts	3
Rated current (40℃)	4A
Rated voltage	60V
Rated impulse voltage	800V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	≤10 mΩ
Connector locking system	screw
Termination	crimp, moulded
Wire gauge	0.25mm²(AWG24)
Cable outlet	–
Degree of protection	IP67
Mechanical operation	>100
Limiting temperature	–25℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	TPU

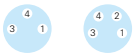
Angled cable connectors,cable

Female cable connector moulded, screw,

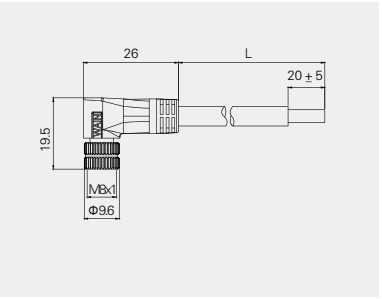
shielded



Contact arrangements



Contacts	Cable length	Cable	Designation	Order No.
3	1.5m	33x0.25PVC	M8–F03–S–1.5–PVC–SH	162 003 502 2001
		3x0.25PUR	M8–F03–S–1.5–PUR–SH	162 003 502 4061
	5.0m	3x0.25PVC	M8–F03–S–5.0–PVC–SH	162 003 502 2002
		3x0.25PUR	M8–F03–S–5.0–PUR–SH	162 003 502 4062
4	1.5m	4x0.25PVC	M8–F04–S–1.5–PVC–SH	162 004 502 2001
		4x0.25PUR	M8–F04–S–1.5–PUR–SH	162 004 502 2041
	5.0m	4x0.25PVC	M8–F04–S–5.0–PVC–SH	162 004 502 2002
		4x0.25PUR	M8–F04–S–5.0–PUR–SH	162 004 502 2042



Female cable connector moulded, screw

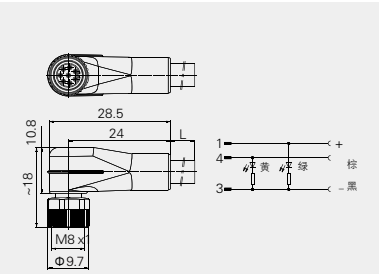
LED



Contact arrangements



Contacts	Cable length	Cable	Designation	Order No.
3	1.5m	3x0.25PVC	M8–F03–S–1.5–PVC–LED	162 003 502 4003
		3x0.25PUR	M8–F03–S–1.5–PUR–LED	162 003 502 4043
	5.0m	3x0.25PVC	M8–F03–S–5.0–PVC–LED	162 003 502 4004
		3x0.25PUR	M8–F03–S–5.0–PUR–LED	162 003 502 4044



•Further cable length upon request, minimum order quantity 200 pieces.

M8 Circular Connector

30/60V 4A

Technical characteristics

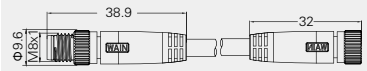
Number of contacts	3	4
Rated current (40℃)	4A	4A
Rated voltage	60V	30V
Rated impulse voltage	800V	800V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	≤10 mΩ	≤10 mΩ
Connector locking system	screw	screw
Termination	crimp, moulded	crimp, moulded
Wire gauge	0.25mm²(AWG24)	0.25mm²(AWG24)
Cable outlet	–	–
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	TPU	TPU

Cable connectors-wire jumper

Male/female cable connector



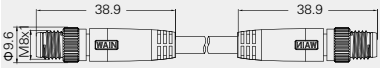
Contacts	Cable length	Cable	Designation	Order No.
3	1.5m	3x0.25PVC	M8–M03–T/F03–T–1.5–PVC	162 003 401 4010
		3x0.25PUR	M8–M03–T/F03–T–1.5–PUR	162 003 401 4011
	5.0m	3x0.25PVC	M8–M03–T/F03–T–5.0–PVC	162 003 401 4506
		3x0.25PUR	M8–M03–T/F03–T–5.0–PUR	162 003 401 4004
4	1.5m	4x0.25PVC	M8–M04–T/F04–T–1.5–PVC	162 004 401 4010
		4x0.25PUR	M8–M04–T/F04–T–1.5–PUR	162 004 401 4011
	5.0m	4x0.25PVC	M8–M04–T/F04–T–5.0–PVC	162 004 401 4007
		4x0.25PUR	M8–M04–T/F04–T–5.0–PUR	162 004 401 4008



Male cable connector



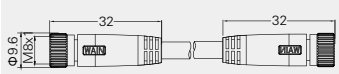
Contacts	Cable length	Cable	Designation	Order No.
3	1.5m	3x0.25PVC	M8–M03–T/M03–T–1.5–PVC	162 003 401 4012
	5.0m	3x0.25PVC	M8–M03–T/M03–T–5.0–PVC	162 003 401 4013
4	1.5m	4x0.25PVC	M8–M04–T/M04–T–1.5–PVC	162 004 401 4012
	5.0m	4x0.25PVC	M8–M04–T/M04–T–5.0–PVC	162 004 401 4009



Female cable connector



Contacts	Cable length	Cable	Designation	Order No.
3	1.5m	3x0.25PVC	M8–F03–T/F03–T–1.5–PVC	162 003 402 4006
	5.0m	3x0.25PVC	M8–F03–T/F03–T–5.0–PVC	162 003 402 4005
4	1.5m	4x0.25PVC	M8–F04–T/F04–T–1.5–PVC	162 004 402 4014
	5.0m	4x0.25PVC	M8–F04–T/F04–T–5.0–PVC	162 004 402 4013



•Other cable lengths can be customized, PVC/PUR double–ended connectors, male/female, straight/angled, shielded/unshielded, freely combinable.

M8 Circular Connector

60V 4A

Technical characteristics

Number of contacts	4
Rated current (40℃)	4A
Rated voltage	30V
Rated impulse voltage	800V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	≤10 mΩ
Connector locking system	screw
Termination	crimp, moulded
Wire gauge	0.25mm²(AWG24)
Cable outlet	–
Degree of protection	IP67
Mechanical operation	> 100
Limiting temperature	–25℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	TPU

Cable connectors-wire jumper

Male/female cable connector

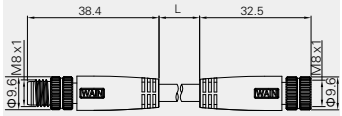


Contact arrangements



4 pin 4 pin

Contacts	Cable length	Cable	Designation	Order No.
4	1.5m	4x0.25PUR	M8–M04–T/F04–T–1.5–PUR–EtherCat	162 004 401 4077
	5.0m	4x0.25PUR	M8–M04–T/F04–T–5.0–PUR–EtherCat	162 004 401 4045



Male cable connector

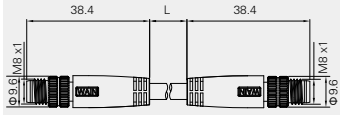


Contact arrangements



4 pin

Contacts	Cable length	Cable	Designation	Order No.
4	1.5m	4x0.25PUR	M8–M04–T/M04–T–1.5–PUR–EtherCat	162 004 401 4080
	5.0m	4x0.25PUR	M8–M04–T/M04–T–5.0–PUR–EtherCat	162 004 401 4014



Female cable connector

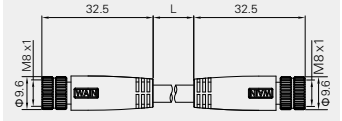


Contact arrangements



4 pin

Contacts	Cable length	Cable	Designation	Order No.
4	1.5m	4x0.25PUR	M8–F04–T/F04–T–1.5–PUR–EtherCat	162 004 402 4021
	5.0m	4x0.25PUR	M8–F04–T/F04–T–5.0–PUR–EtherCat	162 004 402 4022



•Further cable length upon request, minimum order quantity 200 pieces.

M8 Circular Connector

60V 4A

Technical characteristics

Number of contacts	4
Rated current (40℃)	4A
Rated voltage	30V
Rated impulse voltage	800V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	≤10 mΩ
Connector locking system	screw
Termination	crimp, moulded
Wire gauge	0.25mm²(AWG24)
Cable outlet	–
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–25℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	TPU

Cable connectors-wire jumper

Male cable connector

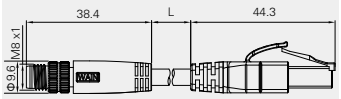


Contact arrangements



4 pin

Contacts	Cable length	Cable	Designation	Order No.
4	1.5m	4x0.25PUR	M8–M04–T/RJ45–1.5–PUR–EtherCat	162 004 401 4054
	5.0m	4x0.25PUR	M8–M04–T/RJ45–5.0–PUR–EtherCat	162 004 401 4039



•Other cable lengths can be customized, PVC/PUR double–ended connectors, male/female, straight/angled, shielded/unshielded, freely combinable.

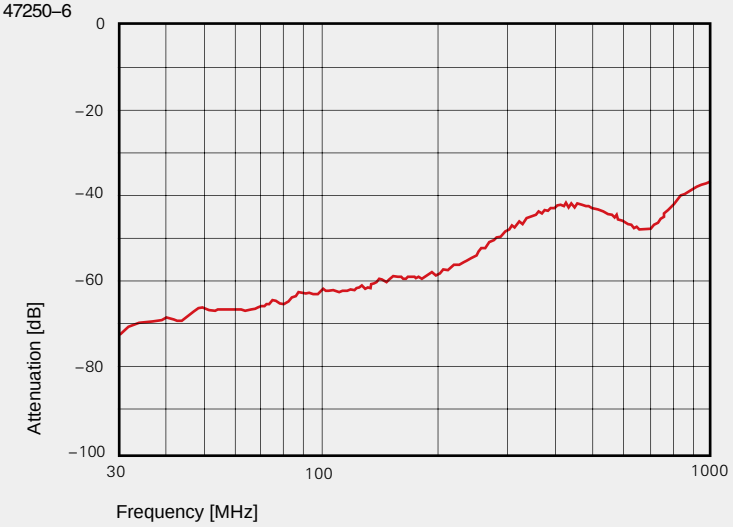
Technical characteristics

Specifications of standard cable

	3–pole	4–pole
Wire gauge mm²	3x0.14mm² / 3x0.25mm²	4x0.25mm²
Material jacket	PVC/PUR / PVC/PUR	PUR / PVC
Insulation wire	PVC	PVC
Design of wire (mm)	18x0.1 / 32x0.1	32x0.1
Cable jacket (mm)	3 / 4.5	4.5
Resistance of wire	148 Ω/Km / 79.5 Ω/Km / 72 Ω/Km	79.9 Ω/Km
Temperature range (cable in move)	–5℃...+70℃	–5℃...+70℃
Temperature range (cable not in move)	–15℃...+70℃	–15℃...+70℃
Bending radius (cable in move)	min. 10xD	min. 10xD
Bending radius (cable not in move)	min. 5xD	min. 5xD
Approval	–	–

Attenuation curve

Attenuation curve according to DIN 47250–6
for straight cable connectors



M8 Circular Connector

30/60V 4A

Technical characteristics

Number of contacts	3	4
Rated current (40℃)	4A	4A
Rated voltage	60V	30V
Rated impulse voltage	800V	800V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw
Termination	dip solder, single–strand 0,25 mm²	dip solder, single–strand 0,25 mm²
Wire gauge	0.25mm²(AWG24)	0.25mm²(AWG24)
Cable outlet	–	–
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	copper alloy	copper alloy

Socket

Male panel mount connector

with single wires 0.25mm²
length 0.2m
Recommended use

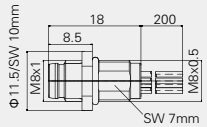


Contact arrangements



Contacts	Thread	Designation	Order No.
3	M8	M8–M03–BK–M8–W0.25	162 003 301 4001
4	M8	M8–M04–BK–M8–W0.25	162 004 301 4001

Customized cable length upon request



Male panel mount connector,

front fastened, with single wires 0.25mm²
length 0.2m

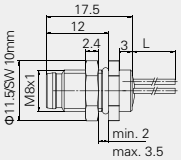


Contact arrangements



Contacts	Thread	Designation	Order No.
3	M8	M8–M03–BKR–M8–W0.25	162 003 301 4011
4	M8	M8–M04–BKR–M8–W0.25	162 004 301 4011

Customized cable length upon request



Male panel mount connector,

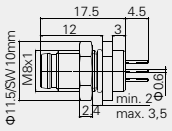
front fastened, dip solder



Contact arrangements



Contacts	Thread	Designation	Order No.
3	M8	M8–M03–BKR–M8–D	162 003 314 1011
4	M8	M8–M04–BKR–M8–D	162 004 314 1011



M8 Circular Connector

30/60V 4A

Technical characteristics

Number of contacts	3	4
Rated current (40℃)	4A	4A
Rated voltage	60V	30V
Rated impulse voltage	800V	800V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw
Termination	dip solder, single–strand wires 0,25 mm²	dip solder, single–strand wires 0,25 mm²
Wire gauge	–	–
Cable outlet	–	–
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	CuZn	CuZn

Socket

Female panel mount connector

with single wires 0.25mm²
length 0.2m



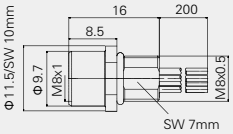
Contact arrangements



3 pin 4 pin

Contacts	Thread	Designation	Order No.
3	M8	M8–F03–BK–M8–W0.25	162 003 302 4001
4	M8	M8–F04–BK–M8–W0.25	162 004 302 4001

Customized cable length upon request

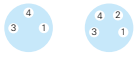


Female panel mount connector,

front fastened,
with single wires 0.25mm²
length 0.2m



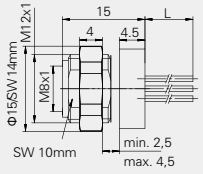
Contact arrangements



3 pin 4 pin

Contacts	Thread	Designation	Order No.
3	M8	M8–F03–BKR–M8–W0.25	162 003 302 4011
4	M8	M8–F04–BKR–M8–W0.25	162 004 302 4011

Customized cable length upon request

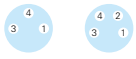


Female panel mount connector,

front fastened, with single wires

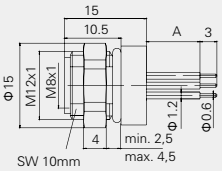


Contact arrangements



3pin 4pin

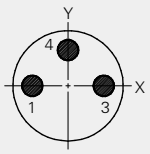
Contacts	Contact length A	Thread	Designation	Order No.
3	9.5 mm	M8	M8–F03–BKR–M8–D9.5	162 003 324 1013
	4.7 mm	M8	M8–F03–BKR–M8–D4.7	162 003 324 1012
	0.5 mm	M8	M8–F03–BKR–M8–D0.5	162 003 324 1011
4	9.5 mm	M8	M8–F04–BKR–M8–D9.5	162 004 324 1013
	4.7 mm	M8	M8–F04–BKR–M8–D4.7	162 004 324 1012
	0.5 mm	M8	M8–F04–BKR–M8–D0.5	162 004 324 1011



Contact arrangements

Male insert (mating side)

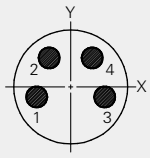
3 contacts



	X	Y
1	–1.75	0.00
2	–	–
3	1.75	0.00
4	0.00	1.75

1 brown
2 –
3 blue
4 black

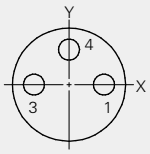
4 Contacts



	X	Y
1	–1.70	–0.50
2	–1.08	1.45
3	1.70	–0.50
4	1.08	1.45

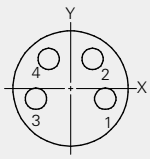
1 brown
2 white
3 blue
4 black

Female insert (mating side)



	X	Y
1	1.75	0.00
2	–	–
3	–1.75	0.00
4	0.00	1.75

1 brown
2 –
3 blue
4 black



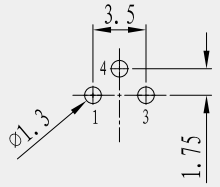
	X	Y
1	1.70	–0.50
2	1.08	1.45
3	–1.70	–0.50
4	–1.08	1.45

1 brown
2 white
3 blue
4 black

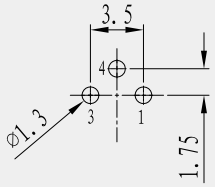
Panel cut out

Drilling schemes male insert (PCB), shielding sheet

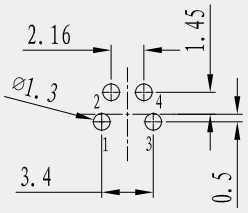
3 contacts

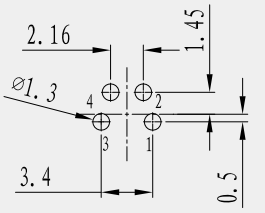


Drilling schemes male insert (PCB), shielding sheet



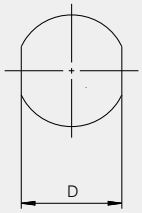
4 contacts



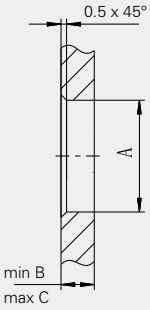


Panel cut out

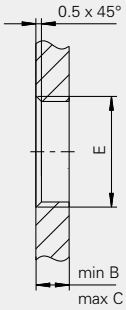
With flats as anti–rotation device



With bore hole



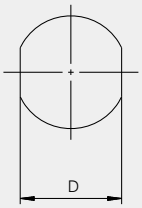
With thread to screw in



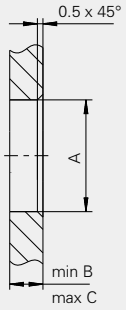
Thread E	A	B	C	D
M8x0.5	8.1	2.5	4.5	7.1

Tightening moment 1Nm

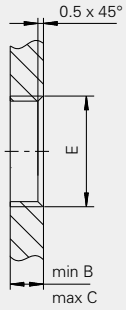
With flats as anti–rotation device



With bore hole



With thread to screw in



Thread E	A	B	C	D
M8x1	8.1	2.0	4.5	7.1

Tightening moment 1Nm

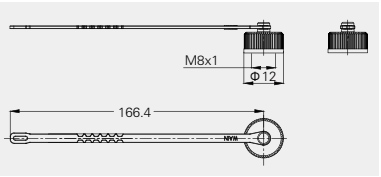
Accessories

Protection cover

for male cable connector



Description	Designation	Order No.
Without cord	M8–MCV	162 000 001 9003
With cord	M8–MCV/1	162 000 001 9001

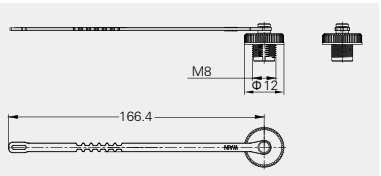


Protection cover

for female cable connector



Description	Designation	Order No.
Without cord	M8–FCV	162 000 002 9003
With cord	M8–FCV/1	162 000 002 9001



M8-B Circular Connector

30V 4A

Technical characteristics

Number of contacts	5
Rated current (40 ℃)	4A
Rated voltage	30V
Rated impulse voltage	800V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	screw
Termination	crimp, moulded
Wire gauge	0.25mm²(AWG24)
Cable outlet	–
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–25℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	TPU

Straight cable connectors,cable

Male cable connector moulded, screw

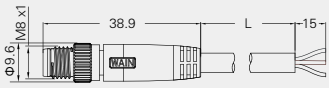


针位图



5pin

Contacts	Cable length	Cable	Designation	Order No.
5	1.5m	5x0.25PVC	M8–M05B–T–1.5–PVC	162 005 401 4001
		5x0.25PUR	M8–M05B–T–1.5–PUR	162 005 401 4002
	5.0m	5x0.25PVC	M8–M05B–T–5.0–PVC	162 005 401 4003
		5x0.25PUR	M8–M05B–T–5.0–PUR	162 005 401 4004



Male cable connector moulded

connect straight

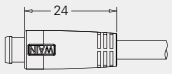


针位图



5pin

Contacts	Cable length	Cable	Designation	Order No.
5	1.5m	5x0.25PVC	M8Q–M05B–T–1.5–PVC	162 005 401 4005
		5x0.25PUR	M8Q–M05B–T–1.5–PUR	162 005 401 4006
	5.0m	5x0.25PVC	M8Q–M05B–T–5.0–PVC	162 005 401 4007
		5x0.25PUR	M8Q–M05B–T–5.0–PUR	162 005 401 4008



M8-B Circular Connector

30 4A

Technical characteristics

Number of contacts	5
Rated current (40 ℃)	4A
Rated voltage	30V
Rated impulse voltage	800V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	screw
Termination	crimp, moulded
Wire gauge	0.25mm²(AWG24)
Cable outlet	–
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–25℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	TPU

Straight cable connectors,cable

Female cable connector moulded, screw

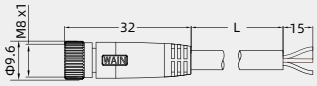


针位图



5pin

Contacts	Cable length	Cable	Designation	Order No.
5	1.5m	5x0.25PVC	M8–F05B–T–1.5–PVC	162 005 402 4001
		5x0.25PUR	M8–F05B–T–1.5–PUR	162 005 402 4002
	5.0m	5x0.25PVC	M8–F05B–T–5.0–PVC	162 005 402 4003
		5x0.25PUR	M8–F05B–T–5.0–PUR	162 005 402 4004



Female cable connector moulded

connect straight

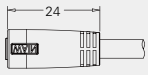


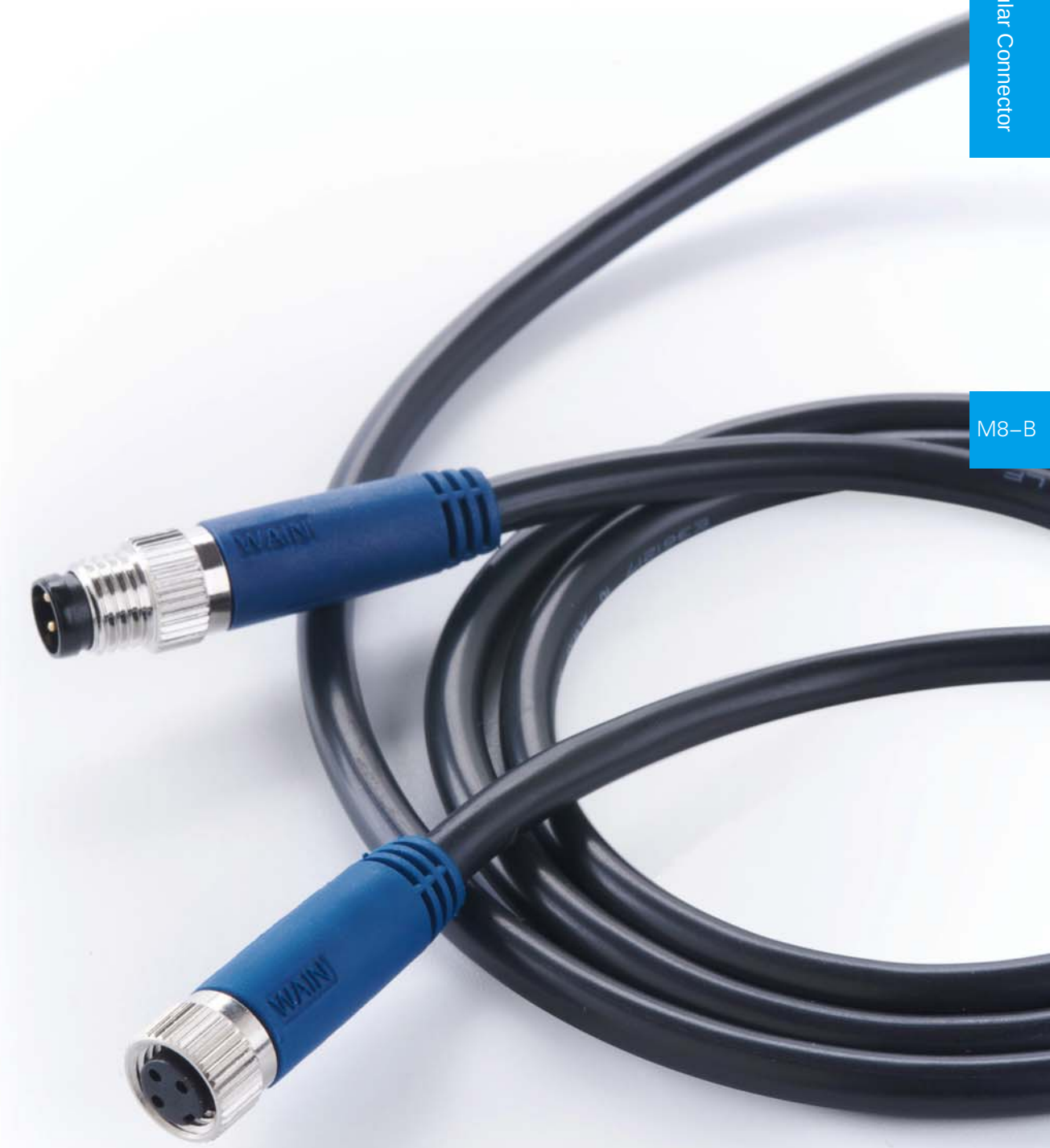
针位图



5pin

Contacts	Cable length	Cable	Designation	Order No.
5	1.5m	5x0.25PVC	M8Q–F05B–T–1.5–PVC	162 005 402 4005
		5x0.25PUR	M8Q–F05B–T–1.5–PUR	162 005 402 4006
	5.0m	5x0.25PVC	M8Q–F05B–T–5.0–PVC	162 005 402 4007
		5x0.25PUR	M8Q–F05B–T–5.0–PUR	162 005 402 4008




WAIN
WAIN

M12 Circular Connector,A-coded

Standards: IEC–61076–2–101



Cable Connector

- Shielded / unshielded series
- Installable series and moulded cable series
- Thread locking M12X1
- Screw terminal and welding terminal
- Shielding ring and ring spring shielding connection
- Cable length 1.5m and 5m
- Other cable length upon request, minimum order quantity 200 pieces
- Cable material can be customized according to requirements
- Degree of protection IP67/ IP68
- Transparent case for PCB with LED

M12-A Circular Connector

30/60/125/250V 1.5/2/4A

Technical characteristics

Number of contacts	3	4	5	8	12
Rated current (40℃)	4A	4A	4A	2A	1.5A
Rated voltage	250V	250V	125V	60V	30V
Rated impulse voltage	2500V	2500V	1500V	800V	800V
Pollution degree	3	3	3	3	3
Overvoltage categorie	II	II	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1	screw M12x1	screw M12x1
Termination	screw	screw	screw	screw	solder
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.5mm²max.AWG20)	max.0.25mm²max.AWG24)
Cable outlet	4–6,6–8 mm	4–6,6–8 mm	4–6,6–8 mm	6–8 mm	6–8 mm
Degree of protection	IP67	IP67	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	III	III	III	III	III
Material of contact	copper alloy	copper alloy	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au	Au	Au
Insulating material	PA	PA	PA	PA	PA
Material of housing	PA/PBT	PA/PBT	PA/PBT	PA/PBT	PA/PBT

Straight cable connectors

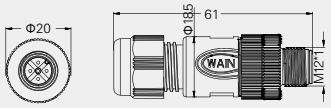
Male cable connector, plastic locking system, screw clamp connection



A–Code



Contacts	Cable outlet	Designation	Order No.
3	4–6 mm	M12P–M03A–T–D6	163 003 411 3101
	6–8 mm	M12P–M03A–T–D8	163 003 411 3102
4	4–6 mm	M12P–M04A–T–D6	163 004 411 3101
	6–8 mm	M12P–M04A–T–D8	163 004 411 3102
5	4–6 mm	M12P–M05A–T–D6	163 005 411 3101
	6–8 mm	M12P–M05A–T–D8	163 005 411 3102
8	6–8 mm	M12P–M08A–T–D8	163 008 401 3003
12	6–8 mm	M12P–MST12A–T–D8	163 012 413 3003



Male cable connector, metal locking system, screw clamp connection

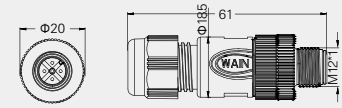
Recommended use



A–Code



Contacts	Cable outlet	Designation	Order No.
3	4–6 mm	M12–M03A–T–D6	163 003 411 3001
	6–8 mm	M12–M03A–T–D8	163 003 411 3002
4	4–6 mm	M12–M04A–T–D6	163 004 411 3001
	6–8 mm	M12–M04A–T–D8	163 004 411 3002
5	4–6 mm	M12–M05A–T–D6	163 005 411 3001
	6–8 mm	M12–M05A–T–D8	163 005 411 3002
8	6–8 mm	M12–M08A–T–D8	163 008 411 3002
12	6–8 mm	M12–MST12A–T–D8	163 012 413 3002



Male cable connector, stainless steel

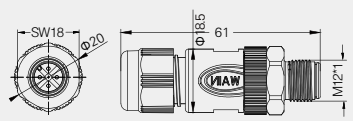
locking system, screw clamp connection,



A–Code



Contacts	Cable outlet	Designation	Order No.
3	4–6 mm	M12S–M03A–T–D6	163 003 401 3001
	6–8 mm	M12S–M03A–T–D8	163 003 401 3002
4	4–6 mm	M12S–M04A–T–D6	163 004 411 3201
	6–8 mm	M12S–M04A–T–D8	163 004 411 3202
5	4–6 mm	M12S–M05A–T–D6	163 005 411 3201
	6–8 mm	M12S–M05A–T–D8	163 005 411 3202
8	6–8 mm	M12S–M08A–T–D8	163 008 411 3202
12	6–8 mm	M12S–MST12A–T–D8	163 012 413 3004



Hexagonal driver



Description	Designation	Order No.
for 8 pin screw clamp connection	SW–1.27*47	198 001 003 0016

M12-A Circular Connector

30/125/250V 1.5/2/8A

Technical characteristics

Number of contacts	4	5	8	12
Rated current (40℃)	8A	Contacts:1–4 8A; Contacts:5 2A	Contacts:2A	1.5A
Rated voltage	250V	125V	125V	30V
Rated impulse voltage	2500V	1500V	1500V	800V
Pollution degree	3	3	3	3
Overvoltage categorie	II	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1	screw M12x1
Termination	screw clamp with ferules	screw clamp with ferules	screw clamp with ferules	solder
Wire gauge	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.0.25mm²max.AWG24)
Cable outlet	8–10mm	8–10mm	8–10mm	6–8 mm
Degree of protection	IP67	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	II	II	II	III
Material of contact	copper alloy	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au	Au
Insulating material	PA	PA	PA	PA
Material of housing	PA/PBT	PA/PBT	PA/PBT	PA/PBT

Straight cable connectors

NEW

Male cable connector, Power

screw clamp connection

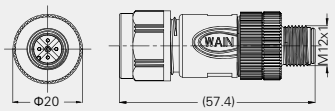


A–Code



4pin 5pin 8pin 12 pin

Contacts	Cable outlet	Designation	Order No.
4	8–10 mm	M12–M04A–T–D10	163 004 411 3003
5	8–10 mm	M12–M05A–T–D10	163 005 411 3003
8	8–10 mm	M12–M08A–T–D10	163 008 401 3001
12	8–10 mm	M12–MST12A–T–D10	163 012 413 3001



M12-A Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	4	5	8
Rated current (40℃)	4A	4A	2A
Rated voltage	250(125)V	125V	60V
Rated impulse voltage	2500V	1500V	800V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1
Termination	screw	screw	screw
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.5mm²(max.AWG20)
Cable outlet	–	–	–
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	III	III	III
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	PA/PBT	PA/PBT	PA/PBT

Straight cable duo connectors

Male cable duo connector,

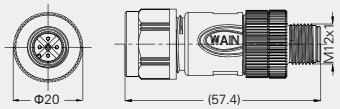
plastic locking system,
screw clamp connection



A–Code



Contacts	Cable outlet	Designation	Order No.
4	2(2.1–3 mm or 4–5 mm)	M12P–M04A–T–2D5	163 004 411 3104
5	2(2.1–3 mm or 4–5 mm)	M12P–M05A–T–2D5	163 005 411 3104
8	2(2.1–3 mm or 4–5 mm)	M12P–M08A–T–2D5	163 008 401 3002



Male cable duo connector,

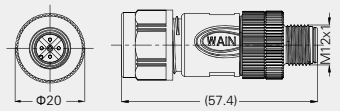
metal locking system,
screw clamp connection



A–Code



Contacts	Cable outlet	Designation	Order No.
4	2(2.1–3 mm or 4–5 mm)	M12–M04A–T–2D5	163 004 411 3004
5	2(2.1–3 mm or 4–5 mm)	M12–M05A–T–2D5	163 005 411 3004
8	2(2.1–3 mm or 4–5 mm)	M12–M08A–T–2D5	163 008 411 3004

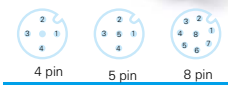


Male cable duo connector,

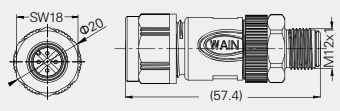
stainless steel locking system,
screw clamp connection



A–Code



Contacts	Cable outlet	Designation	Order No.
4	2(2.1–3 mm or 4–5 mm)	M12S–M04A–T–2D5	163 004 411 3204
5	2(2.1–3 mm or 4–5 mm)	M12S–M05A–T–2D5	163 005 411 3204
8	2(2.1–3 mm or 4–5 mm)	M12S–M08A–T–2D5	163 008 411 3204



Hexagonal driver



Description	Designation	Order No.
for 8 pin screw clamp connection	SW–1.27*47	198 001 003 0016

M12-A Circular Connector

30/60/125/250V 1.5/2/4A

Technical characteristics

Number of contacts	3	4	5	8	12
Rated current (40℃)	4A	4A	4A	2A	1.5A
Rated voltage	250V	250V	125V	60V	30V
Rated impulse voltage	2500V	2500V	1500V	800V	800V
Pollution degree	3	3	3	3	3
Overvoltage categorie	II	II	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1	screw M12x1	screw M12x1
Termination	screw	screw	screw	screw	solder
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.5mm²(max.AWG20)	max.0.25mm²(max.AWG24)
Cable outlet	4–6,6–8mm	4–6,6–8mm	4–6,6–8mm	6–8,8–10mm	6–8,8–10mm
Degree of protection	IP67	IP67	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	II	II	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au	Au	Au
Insulating material	PA	PA	PA	PA	PA
Material of housing	zinc diecasting nickel plated, brass nickel plated	zinc diecasting nickel plated, brass nickel plated	zinc diecasting nickel plated, brass nickel plated	zinc diecasting nickel plated, brass nickel plated	zinc diecasting nickel plated, brass nickel plated

Straight cable connectors, shielded

Male cable connector, shielded,

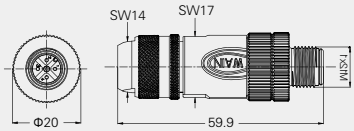
screw clamp connection,
version with shielding ring,
Recommended use



A–Code



Contacts	Cable outlet	Designation	Order No.
3	4–6 mm	M12–M03A–T–D6–SH	163 003 414 2002
	6–8 mm	M12–M03A–T–D8–SH	163 003 414 2003
4	4–6 mm	M12–M04A–T–D6–SH	163 004 411 2001
	6–8 mm	M12–M04A–T–D8–SH	163 004 411 2002
5	4–6 mm	M12–M05A–T–D6–SH	163 005 411 2001
	6–8 mm	M12–M05A–T–D8–SH	163 005 411 2002
8	6–8 mm	M12–M08A–T–D8–SH	163 008 411 2002
12	6–8 mm	M12–MST12A–T–D8–SH	163 012 413 2003



Hexagonal driver



Description	Designation	Order No.
for 8 pin screw clamp connection	SW–1.27*47	198 001 003 0016

M12-A Circular Connector

125/250V 4A

Technical characteristics

Number of contacts	3	4	5
Rated current (40℃)	4A	4A	4A
Rated voltage	250V	250V	125V
Rated impulse voltage	2500V	2500V	1500V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1
Termination	screw	screw	screw
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)
Cable outlet	4–6,6–8 mm	4–6,6–8 mm	4–6,6–8 mm
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	PA/PBT	PA/PBT	PA/PBT

Angled cable connectors

Male angled connector,

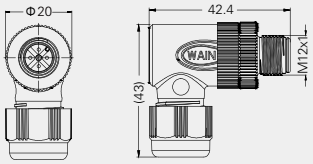
plastic locking system,
screw clamp connection

A–Code





Contacts	Cable outlet	Designation	Order No.
3	4–6 mm	M12P–M03A–S–D6	163 003 511 3101
	6–8 mm	M12P–M03A–S–D8	163 003 511 3102
4	4–6 mm	M12P–M04A–S–D6	163 004 511 3101
	6–8 mm	M12P–M04A–S–D8	163 004 511 3102
5	4–6 mm	M12P–M05A–S–D6	163 005 511 3101
	6–8 mm	M12P–M05A–S–D8	163 005 511 3102



Male angled connector,

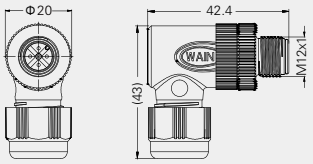
metal locking system,
screw clamp connection
Recommended use

A–Code





Contacts	Cable outlet	Designation	Order No.
3	4–6 mm	M12–M03A–S–D6	163 003 511 3001
	6–8 mm	M12–M03A–S–D8	163 003 511 3002
4	4–6 mm	M12–M04A–S–D6	163 004 511 3001
	6–8 mm	M12–M04A–S–D8	163 004 511 3002
5	4–6 mm	M12–M05A–S–D6	163 005 511 3001
	6–8 mm	M12–M05A–S–D8	163 005 511 3002



Male angled connector,

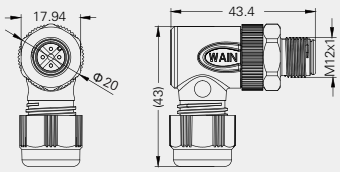
stainless steel locking system,
screw clamp connection,

A–Code





Contacts	Cable outlet	Designation	Order No.
3	4–6 mm	M12S–M03A–S–D6	163 003 414 1001
	6–8 mm	M12S–M03A–S–D8	163 003 514 1001
4	4–6 mm	M12S–M04A–S–D6	163 004 511 3201
	6–8 mm	M12S–M04A–S–D8	163 004 511 3202
5	4–6 mm	M12S–M05A–S–D6	163 005 511 3201
	6–8 mm	M12S–M05A–S–D8	163 005 511 3202



M12-A Circular Connector

125/250V 4A

Technical characteristics

Number of contacts	4	5
Rated current (40℃)	4A	4A
Rated voltage	250V	125V
Rated impulse voltage	2500V	1500V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1
Termination	screw	screw
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)
Cable outlet	2.1–3,4–5 mm	2.1–3,4–5 mm
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	PA/PBT	PA/PBT

Angled cable duo connectors

Male angled duo connector,

plastic locking system, screw clamp connection

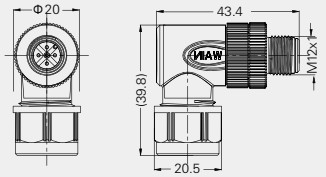
A–Code







Contacts	Cable outlet	Designation	Order No.
4	2(2.1–3 mm or 4–5 mm)	M12P–M04A–S–2D5	163 004 511 3104
5	2(2.1–3 mm or 4–5 mm)	M12P–M05A–S–2D5	163 005 511 3104



Male angled duo connector,

metal locking system, s crew clamp connection

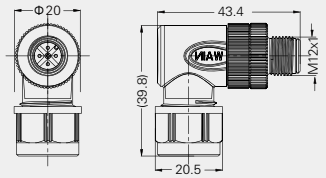
A–Code







Contacts	Cable outlet	Designation	Order No.
4	2(2.1–3 mm or 4–5 mm)	M12–M04A–S–2D5	163 004 511 3004
5	2(2.1–3 mm or 4–5 mm)	M12–M05A–S–2D5	163 005 511 3004



M12-A Circular Connector

125/250V 4A

Technical characteristics

Number of contacts	3–pole	4–pole	5–pole
Rated current (40℃)	4A	4A	4A
Rated voltage	250V	250V	125V
Rated impulse voltage	2500V	2500V	1500V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	≤10 mΩ	≤10 mΩ	≤10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1
Termination	screw	screw	screw
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)
Cable outlet	4–6,6–8 mm	4–6,6–8 mm	4–6,6–8 mm
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	III	III	III
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	zinc diecasting nickel plated	zinc diecasting nickel plated	zinc diecasting nickel plated

Angled cable connectors，shielded

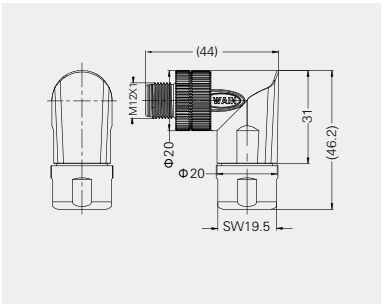
Male angled connector, shielded,

screw clamp connection,
version with shielding ring

A–Code



Contacts	Cable outlet	Designation	Order No.
3	4–6 mm	M12–M03A–S–D6–SH	163 003 414 2001
	6–8 mm	M12–M03A–S–D8–SH	163 003 514 2001
4	4–6 mm	M12–M04A–S–D6–SH	163 004 511 2001
	6–8 mm	M12–M04A–S–D8–SH	163 004 511 2002
5	4–6 mm	M12–M05A–S–D6–SH	163 005 511 2001
	6–8 mm	M12–M05A–S–D8–SH	163 005 511 2002



M12-A Circular Connector

30/60/125/250V 1.5/2/4A

Technical characteristics

Number of contacts	3	4	5	8	12
Rated current (40℃)	4A	4A	4A	2A	1.5A
Rated voltage	250V	250V	125V	60V	30V
Rated impulse voltage	2500V	2500V	1500V	800V	800V
Pollution degree	3	3	3	3	3
Overvoltage categorie	II	II	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1	screw M12x1	screw M12x1
Termination	screw	screw	screw	screw	solder
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.5mm²max.AWG20)	max.0.25mm²max.AWG24)
Cable outlet	4–6,6–8 mm	4–6,6–8 mm	4–6,6–8 mm	6–8 mm	6–8 mm
Degree of protection	IP67	IP67	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	III	III	III	III	III
Material of contact	copper alloy	copper alloy	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au	Au	Au
Insulating material	PA	PA	PA	PA	PA
Material of housing	PA/PBT	PA/PBT	PA/PBT	PA/PBT	PA/PBT

Straight cable connectors

Female cable connector,

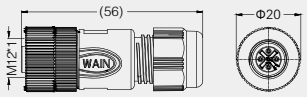
plastic locking system,
screw clamp connection



A–Code



Contacts	Cable outlet	Designation	Order No.
3	4–6 mm	M12P–F03A–T–D6	163 003 421 3101
	6–8 mm	M12P–F03A–T–D8	163 003 421 3102
4	4–6 mm	M12P–F04A–T–D6	163 004 421 3101
	6–8 mm	M12P–F04A–T–D8	163 004 421 3102
5	4–6 mm	M12P–F05A–T–D6	163 005 421 3101
	6–8 mm	M12P–F05A–T–D8	163 005 421 3102
8	6–8 mm	M12P–F08A–T–D8	163 008 424 3002
12	6–8 mm	M12P–FST12A–T–D8	163 012 423 3003



Female cable connector,

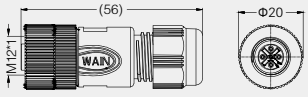
metal locking system,
screw clamp connection
Recommended use



A–Code



Contacts	Cable outlet	Designation	Order No.
3	4–6 mm	M12–F03A–T–D6	163 003 421 3001
	6–8 mm	M12–F03A–T–D8	163 003 421 3002
4	4–6 mm	M12–F04A–T–D6	163 004 421 3001
	6–8 mm	M12–F04A–T–D8	163 004 421 3002
5	4–6 mm	M12–F05A–T–D6	163 005 421 3001
	6–8 mm	M12–F05A–T–D8	163 005 421 3002
8	6–8 mm	M12–F08A–T–D8	163 008 421 3002
12	6–8 mm	M12–FST12A–T–D8	163 012 423 3002

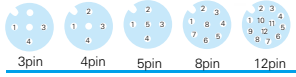


Female cable connector,

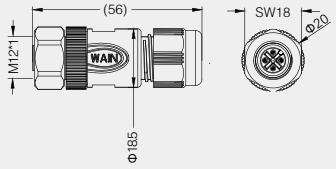
stainless steel locking system,
screw clamp connection,



A–Code



Contacts	Cable outlet	Designation	Order No.
3	4–6 mm	M12S–F03A–T–D6	163 003 424 1001
	6–8 mm	M12S–F03A–T–D8	163 003 424 1002
4	4–6 mm	M12S–F04A–T–D6	163 004 421 3201
	6–8 mm	M12S–F04A–T–D8	163 004 421 3202
5	4–6 mm	M12S–F05A–T–D6	163 005 421 3201
	6–8 mm	M12S–F05A–T–D8	163 005 421 3202
8	6–8 mm	M12S–F08A–T–D8	163 008 421 3202
12	6–8 mm	M12S–FST12A–T–D8	163 012 423 3004



Hexagonal driver



Description	Designation	Order No.
for 8 pin screw clamp connection	SW–1.27*47	198 001 003 0016

M12-A Circular Connector

30/125/250V 1.5/2/8A

Technical characteristics

Number of contacts	4	5	8	12
Rated current (40℃)	8A	contacts:1–4 8A; contacts:5 2A	contacts:2A	1.5A
Rated voltage	250V	125V	125V	30V
Rated impulse voltage	2500V	1500V	1500V	800V
Pollution degree	3	3	3	3
Overvoltage categorie	II	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1	screw M12x1
Termination	screw clamp with ferules	screw clamp with ferules	screw clamp with ferules	solder
Wire gauge	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.0.25mm²max.AWG24)
Cable outlet	8–10mm	8–10mm	8–10mm	6–8 mm
Degree of protection	IP67	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	II	II	II	III
Material of contact	copper alloy	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au	Au
Insulating material	PA	PA	PA	PA
Material of housing	PA/PBT	PA/PBT	PA/PBT	PA/PBT

Straight cable connectors

NEW

Female cable connector, Power

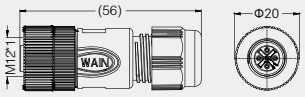
screw clamp with ferules



A–Code



Contacts	Cable outlet	Designation	Order No.
4	8–10 mm	M12–F04A–T–D10	163 004 421 3003
5	8–10 mm	M12–F05A–T–D10	163 005 421 3003
8	8–10 mm	M12–F08A–T–D10	163 008 424 1002
12	8–10 mm	M12–FST12A–T–D10	163 012 423 3001



M12-A Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	4	5	8
Rated current (40℃)	4A	4A	2A
Rated voltage	250(125)V	125V	60V
Rated impulse voltage	2500V	1500V	800V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screwM12x1
Termination	screw	screw	screw
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.5mm²(max.AWG20)
Cable outlet	–	–	–
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	III	III	III
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	PA/PBT	PA/PBT	PA/PBT

Straight cable duo connectors

Female cable duo connector,

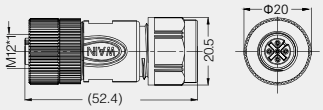
plastic locking system,
screw clamp connection



A–Code



Contacts	Cable outlet	Designation	Order No.
4	2(2.1–3 mm or 4–5 mm)	M12P–F04A–T–2D5	163 004 421 3104
5	2(2.1–3 mm or 4–5 mm)	M12P–F05A–T–2D5	163 005 421 3104
8	2(2.1–3 mm or 4–5 mm)	M12P–F08A–T–2D5	163 008 424 3001

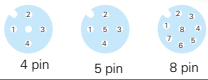


Female cable duo connector,

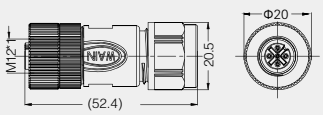
metal locking system,
screw clamp connection



A–Code



Contacts	Cable outlet	Designation	Order No.
4	2(2.1–3 mm or 4–5 mm)	M12–F04A–T–2D5	163 004 421 3105
5	2(2.1–3 mm or 4–5 mm)	M12–F05A–T–2D5	163 005 421 3105
8	2(2.1–3 mm or 4–5 mm)	M12–F08A–T–2D5	163 008 424 1001

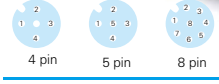


Female cable duo connector,

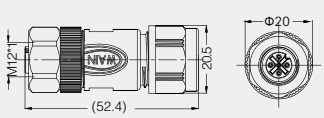
stainless steel locking system,
screw clamp connection



A–Code



Contacts	Cable outlet	Designation	Order No.
4	2(2.1–3 mm or 4–5 mm)	M12S–F04A–T–2D5	163 004 421 3204
5	2(2.1–3 mm or 4–5 mm)	M12S–F05A–T–2D5	163 005 421 3204
8	2(2.1–3 mm or 4–5 mm)	M12S–F08A–T–2D5	163 008 421 3204



Hexagonal driver



Description	Designation	Order No.
for 8 pin screw clamp connection	SW–1.27*47	198 001 003 0016

M12-A Circular Connector

125/250V 4A

Technical characteristics

Number of contacts	4	5
Rated current (40℃)	4A	4A
Rated voltage	250V	125V
Rated impulse voltage	2500V	1500V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1
Termination	screw	screw
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)
Cable outlet	2.1–3,4–5 mm	2.1–3,4–5 mm
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	PA/PBT	PA/PBT

Angled cable duo connectors

Female angled duo connector,

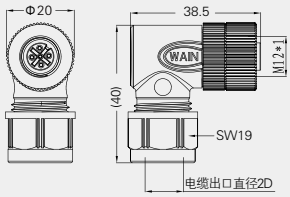
plastic locking system, screw clamp connection

A–Code





Contacts	Cable outlet	Designation	Order No.
4	2(2.1–3 mm or 4–5 mm)	M12P–F04A–S–2D5	163 004 502 3001
5	2(2.1–3 mm or 4–5 mm)	M12P–F05A–S–2D5	163 005 502 3001



Female angled duo connector,

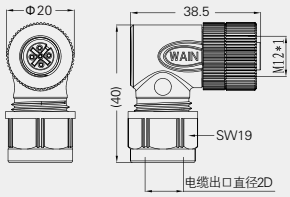
metal locking system, s crew clamp connection

A–Code





Contacts	Cable outlet	Designation	Order No.
4	2(2.1–3 mm or 4–5 mm)	M12–F04A–S–2D5	163 004 502 1001
5	2(2.1–3 mm or 4–5 mm)	M12–F05A–S–2D5	163 005 502 1001



M12-A Circular Connector

30/60/125/250V 1.5/2/4A

Technical characteristics

Number of contacts	3	4	5	8	12
Rated current (40℃)	4A	4A	4A	2A	1.5A
Rated voltage	250V	250V	125V	60V	30V
Rated impulse voltage	2500V	2500V	1500V	800V	800V
Pollution degree	3	3	3	3	3
Overvoltage categorie	II	II	II	II	II
Contact resistance	≤10 mΩ	≤10 mΩ	≤10 mΩ	≤10 mΩ	≤10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1	screw M12x1	screw M12x1
Termination	screw	screw	screw	screw	solder
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.5mm²(max.AWG20)	max.0.25mm²(max.AWG24)
Cable outlet	4–6,6–8mm	4–6,6–8mm	4–6,6–8mm	6–8,8–10mm	6–8,8–10mm
Degree of protection	IP67	IP67	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	II	II	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au	Au	Au
Insulating material	PA	PA	PA	PA	PA
Material of housing	zinc diecasting nickel plated, brass nickel plated	zinc diecasting nickel plated, brass nickel plated	zinc diecasting nickel plated, brass nickel plated	zinc diecasting nickel plated, brass nickel plated	zinc diecasting nickel plated, brass nickel plated

Straight cable connectors, shielded

NEW

Female cable connector, shielded,

screw clamp connection,
version with shielding ring
Recommended use

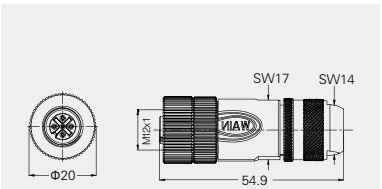


A–Code



3pin 4pin 5pin 8pin 12pin

Contacts	Cable outlet	Designation	Order No.
3	4–6 mm	M12–F03A–T–D6–SH	163 003 421 2001
	6–8 mm	M12–F03A–T–D8–SH	163 003 421 2002
4	4–6 mm	M12–F04A–T–D6–SH	163 004 421 2001
	6–8 mm	M12–F04A–T–D8–SH	163 004 421 2002
5	4–6 mm	M12–F05A–T–D6–SH	163 005 421 2001
	6–8 mm	M12–F05A–T–D8–SH	163 005 421 2002
8	6–8 mm	M12–F08A–T–D8–SH	163 008 421 2002
12	6–8 mm	M12–FST12A–T–D8–SH	163 012 423 2003



Hexagonal driver



Description	Designation	Order No.
for 8 pin screw clamp connection	SW–1.27*47	198 001 003 0016

M12-A Circular Connector

125/250V 4A

Technical characteristics

Number of contacts	3	4	5
Rated current (40℃)	4A	4A	4A
Rated voltage	250V	250V	125V
Rated impulse voltage	2500V	2500V	1500V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1
Termination	screw	screw	screw
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)
Cable outlet	4–6,6–8 mm	4–6,6–8 mm	4–6,6–8 mm
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞50	＞50	＞50
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	PA/PBT	PA/PBT	PA/PBT

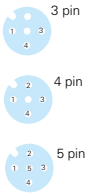
Angled cable connectors

Female angled connector,

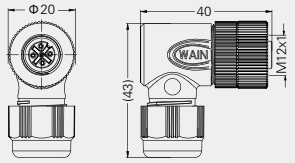
plastic locking system,
screw clamp connection

A–Code





Contacts	Cable outlet	Designation	Order No.
3	4–6 mm	M12P–F03A–S–D6	163 003 521 3101
	6–8 mm	M12P–F03A–S–D8	163 003 521 3102
4	4–6 mm	M12P–F04A–S–D6	163 004 521 3101
	6–8 mm	M12P–F04A–S–D8	163 004 521 3102
5	4–6 mm	M12P–F05A–S–D6	163 005 521 3101
	6–8 mm	M12P–F05A–S–D8	163 005 521 3102

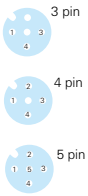


Female angled connector,

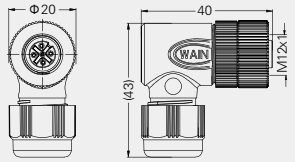
metal locking system,
screw clamp connection
Recommended use

A–Code





Contacts	Cable outlet	Designation	Order No.
3	4–6 mm	M12–F03A–S–D6	163 003 521 3001
	6–8 mm	M12–F03A–S–D8	163 003 521 3002
4	4–6 mm	M12–F04A–S–D6	163 004 521 3001
	6–8 mm	M12–F04A–S–D8	163 004 521 3002
5	4–6 mm	M12–F05A–S–D6	163 005 521 3001
	6–8 mm	M12–F05A–S–D8	163 005 521 3002

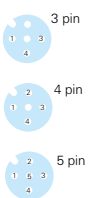


Female angled connector,

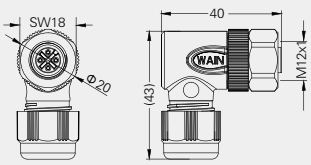
stainless steel locking system,
screw clamp connection,

A–Code





Contacts	Cable outlet	Designation	Order No.
3	4–6 mm	M12S–F03A–S–D6	163 003 524 1001
	6–8 mm	M12S–F03A–S–D8	163 003 524 1002
4	4–6 mm	M12S–F04A–S–D6	163 004 521 3201
	6–8 mm	M12S–F04A–S–D8	163 004 521 3202
5	4–6 mm	M12S–F05A–S–D6	163 005 521 3201
	6–8 mm	M12S–F05A–S–D8	163 005 521 3202



M12-A Circular Connector

125/250V 4A

Technical characteristics

Number of contacts	3	4	5
Rated current (40℃)	4A	4A	4A
Rated voltage	250V	250V	125V
Rated impulse voltage	2500V	2500V	1500V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1
Termination	screw	screw	screw
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)
Cable outlet	4–6,6–8 mm	4–6,6–8 mm	4–6,6–8 mm
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	III	III	III
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	zinc diecasting nickel plated	zinc diecasting nickel plated	zinc diecasting nickel plated

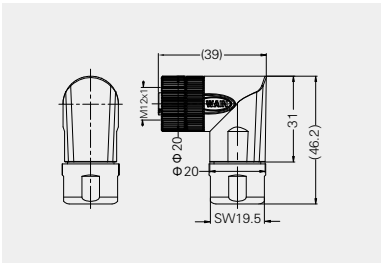
Angled cable connectors, shielded

Female angled connector, shielded,

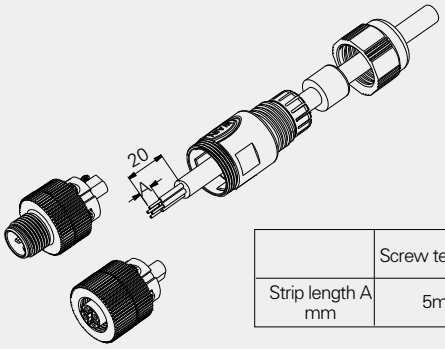
screw clamp connection,
version with shielding ring A–Code

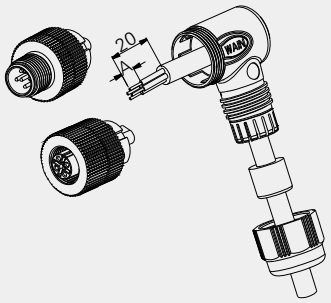


Contacts	Cable outlet	Designation	Order No.
3	4–6 mm	M12–F03A–S–D6–SH	163 003 521 2001
	6–8 mm	M12–F03A–S–D8–SH	163 003 521 2002
4	4–6 mm	M12–F04A–S–D6–SH	163 004 521 2001
	6–8 mm	M12–F04A–S–D8–SH	163 004 521 2002
5	4–6 mm	M12–F05A–S–D6–SH	163 005 521 2001
	6–8 mm	M12–F05A–S–D8–SH	163 005 521 2002



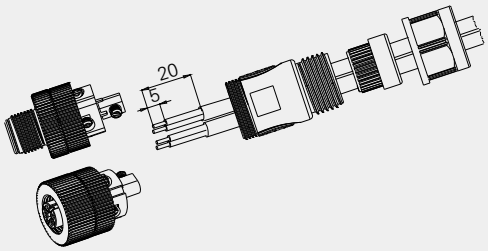
Strip length male/female cable connector, male/female angled connector, not shielded

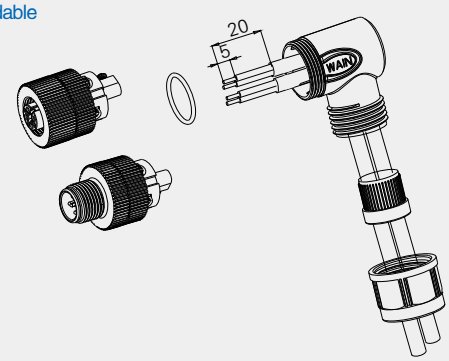




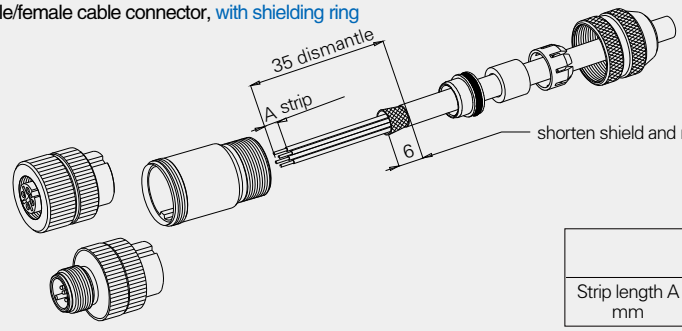
	Screw termination	solder version
Strip length A mm	5mm	3.5mm

Strip length male/female cable duo connector, male/female angled duo connector, not shieldable





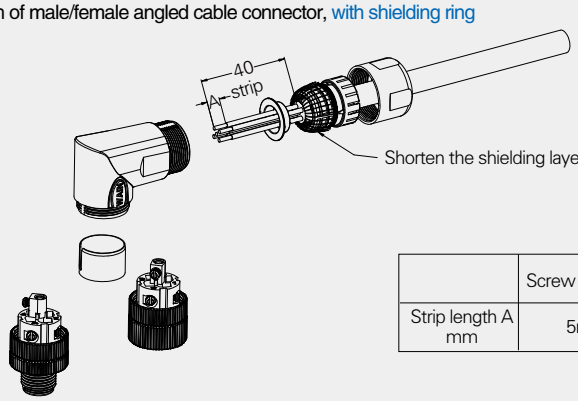
Strip length male/female cable connector, with shielding ring



	Screw termination	solder version
Strip length A mm	5mm	3.5mm

Assembly instruction

Stripping length of male/female angled cable connector, with shielding ring

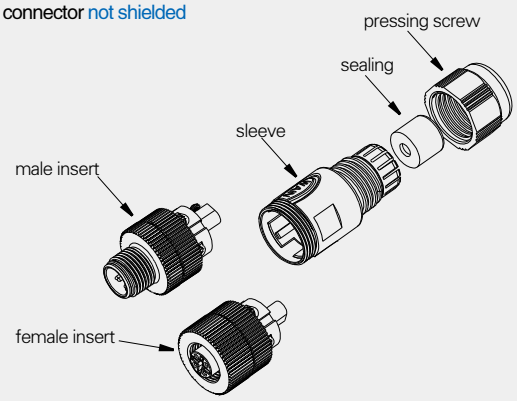


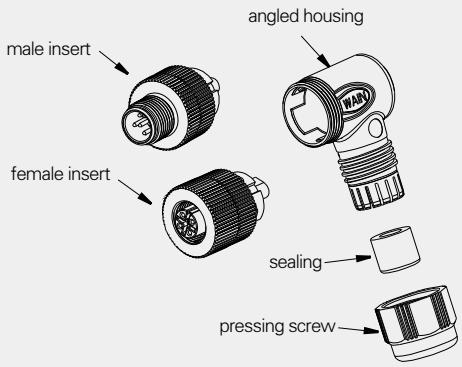
Shorten the shielding layer and turn it over to cover the clamping ring.

	Screw termination	screw connection
Strip length A mm	5mm	3.5mm

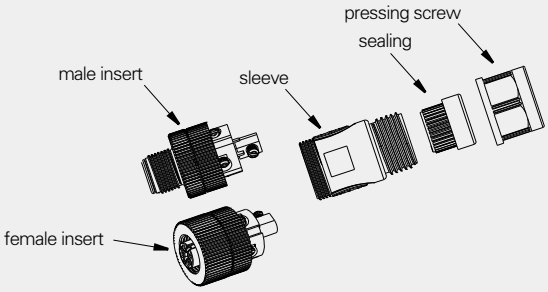
Component part drawing

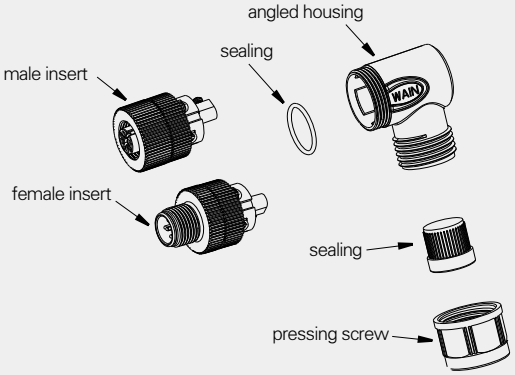
Cable connector not shielded



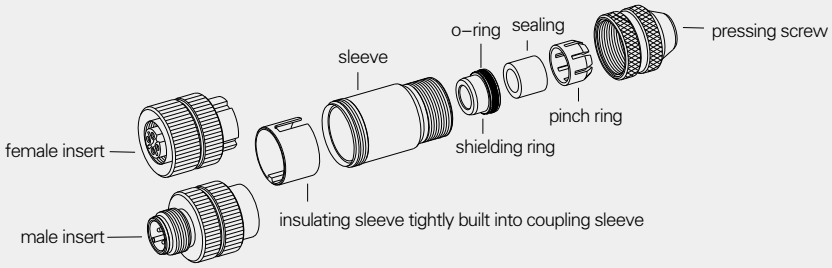


Duo – cable connector screw termination, not shielded

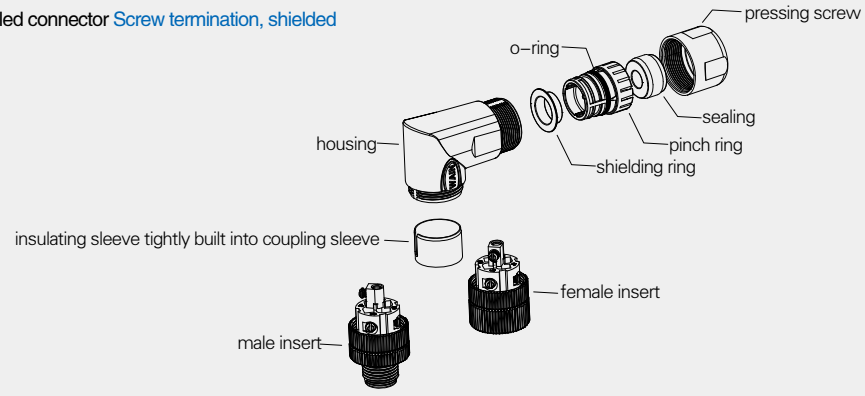




Cable connector with shielding ring

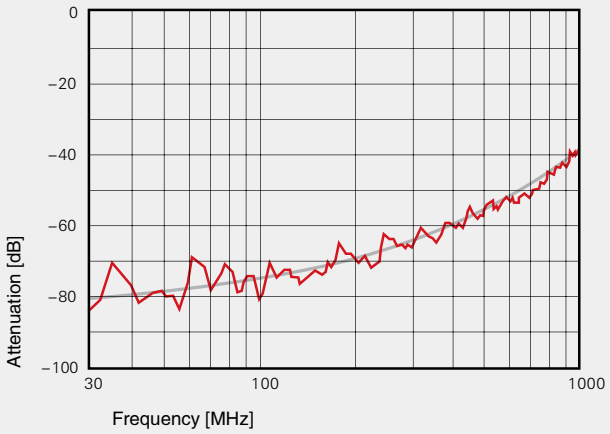


Angled connector Screw termination, shielded

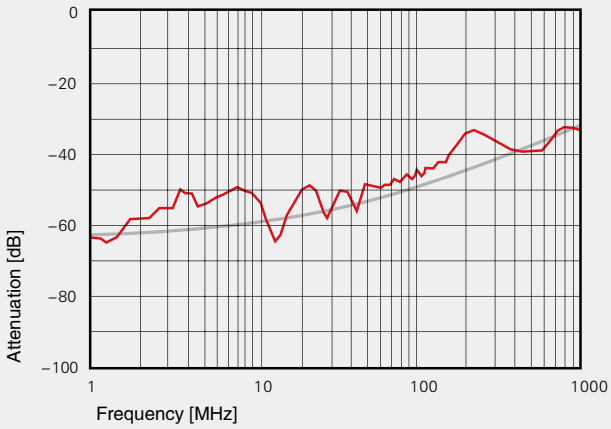


Rating

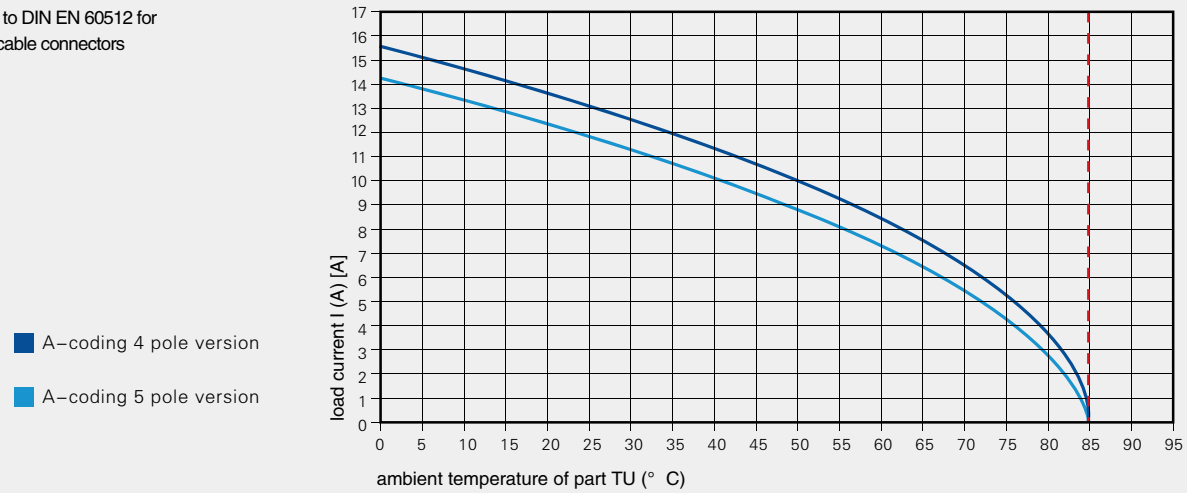
Attenuation curve according to DIN 47250–6 for straight cable connectors, with shielding ring



Attenuation curve according to DIN 47250–6 for straight cable connectors, with iris type spring



Derating curve according to DIN EN 60512 for POWER cable connectors



M12-A Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	3	4	5	8	12
Rated current (40℃)	4A	4A	4A	2A	1.5A
Rated voltage	250V	250V	125V	60V	60V
Rated impulse voltage	2500V	2500V	1500V	800V	800V
Pollution degree	3	3	3	3	3
Overvoltage categorie	II	II	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1	screw M12x1	screw M12x1
Termination	crimp, moulded	crimp, moulded	crimp, moulded	crimp, moulded	crimp, moulded
Wire gauge	0.34mm²(AWG22)	0.34mm²(AWG22)	0.25mm²AWG24)	0.25mm²(AWG24)	0.14mm²(AWG26)
Cable outlet	–	–	–	–	–
Degree of protection	IP67 shielded	IP67 shielded	IP67 shielded	IP67 shielded	IP67 shielded
Mechanical operation	⩾100	⩾100	⩾100	⩾100	⩾100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au	Au	Au
Insulating material	PA	PA	PA	PA	PA
Material of housing	TPU	TPU	TPU	TPU	TPU

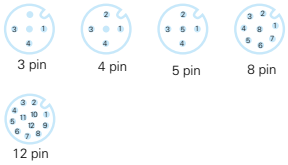
Straight cable connectors，cable

Male cable connector moulded，screw

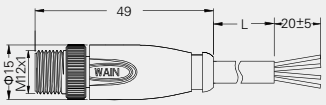
Recommended use



A–Code



Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PVC	1.5 m	M12–M03A–T–1.5–PVC	163 003 401 4001
		5.0 m	M12–M03A–T–5.0–PVC	163 003 401 4002
	3x0.34PUR	1.5 m	M12–M03A–T–1.5–PUR	163 003 401 4041
		5.0 m	M12–M03A–T–5.0–PUR	163 003 401 4042
4	4x0.34PVC	1.5 m	M12–M04A–T–1.5–PVC	163 004 401 4001
		5.0 m	M12–M04A–T–5.0–PVC	163 004 401 4002
	4x0.34PUR	1.5 m	M12–M04A–T–1.5–PUR	163 004 401 4041
		5.0 m	M12–M04A–T–5.0–PUR	163 004 401 4042
5	5x0.25PVC	1.5 m	M12–M05A–T–1.5–PVC	163 005 401 4001
		5.0 m	M12–M05A–T–5.0–PVC	163 005 401 4002
	5x0.25PUR	1.5 m	M12–M05A–T–1.5–PUR	163 005 401 4041
		5.0 m	M12–M05A–T–5.0–PUR	163 005 401 4042
8	8x0.25PUR	1.5 m	M12–M08A–T–1.5–PUR	163 008 401 4041
		5.0 m	M12–M08A–T–5.0–PUR	163 008 401 4042
12	12x0.25PVC	1.5 m	M12–M12A–T–1.5–PVC	163 012 401 4001
		5.0 m	M12–M12A–T–5.0–PVC	163 012 401 4003
	12x0.25PUR	1.5 m	M12–M12A–T–1.5–PUR	163 012 401 4004
		5.0 m	M12–M12A–T–5.0–PUR	163 012 401 4005

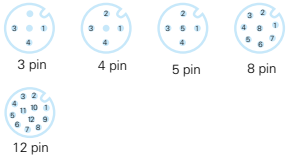


Male cable connector moulded，screw，shielded

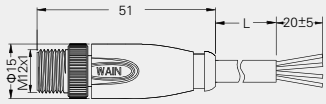
Recommended use



A–Code



Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PVC	1.5 m	M12–M03A–T–1.5–PVC–SH	163 003 401 4021
		5.0 m	M12–M03A–T–5.0–PVC–SH	163 003 401 4022
	3x0.34PUR	1.5 m	M12–M03A–T–1.5–PUR–SH	163 003 401 4061
		5.0 m	M12–M03A–T–5.0–PUR–SH	163 003 401 4062
4	4x0.34PVC	1.5 m	M12–M04A–T–1.5–PVC–SH	163 004 401 4021
		5.0 m	M12–M04A–T–5.0–PVC–SH	163 004 401 4022
	4x0.34PUR	1.5 m	M12–M04A–T–1.5–PUR–SH	163 004 401 4061
		5.0 m	M12–M04A–T–5.0–PUR–SH	163 004 401 4062
5	5x0.25PVC	1.5 m	M12–M05A–T–1.5–PVC–SH	163 005 401 4021
		5.0 m	M12–M05A–T–5.0–PVC–SH	163 005 401 4022
	5x0.25PUR	1.5 m	M12–M05A–T–1.5–PUR–SH	163 005 401 4061
		5.0 m	M12–M05A–T–5.0–PUR–SH	163 005 401 4062
8	8x0.25PUR	1.5 m	M12–M08A–T–1.5–PUR–SH	163 008 401 4061
		5.0 m	M12–M08A–T–5.0–PUR–SH	163 008 401 4062
12	12x0.25PVC	1.5 m	M12–M12A–T–1.5–PVC–SH	163 012 401 2001
		5.0 m	M12–M12A–T–5.0–PVC–SH	163 012 401 2002
	12x0.25PUR	1.5 m	M12–M12A–T–1.5–PUR–SH	163 012 401 2003
		5.0 m	M12–M12A–T–5.0–PUR–SH	163 012 401 2004



•Further cable length upon request.

M12-A Circular Connector

125/250V 4A

Technical characteristics

Number of contacts	3	4	5
Rated current (40℃)	4A	4A	4A
Rated voltage	250V	250V	125V
Rated impulse voltage	2500V	2500V	1500V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1
Termination	crimp, moulded	crimp, moulded	crimp, moulded
Wire gauge	0.34mm²(AWG22)	0.34mm²(AWG22)	0.25mm²(AWG24)
Cable outlet	–	–	–
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	TPU	TPU	TPU

Straight cable connectors，cable

Male cable connector moulded,

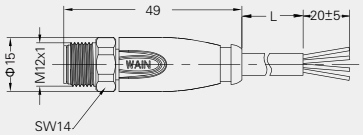
Stainless steel ring nut，screw



A–Code



Contacts	cable	Cable length	Designation	Order No.
3	3x0.34PUR	1.5 m	M12S–M03A–T–1.5–PUR	163 003 401 4241
		5.0 m	M12S–M03A–T–5.0–PUR	163 003 401 4242
4	4x0.34PUR	1.5 m	M12S–M04A–T–1.5–PUR	163 004 401 4241
		5.0 m	M12S–M04A–T–5.0–PUR	163 004 401 4242
5	5x0.25PUR	1.5 m	M12S–M05A–T–1.5–PUR	163 005 401 4241
		5.0 m	M12S–M05A–T–5.0–PUR	163 005 401 4242



•Further cable length upon request.

M12-A Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	3	4	5	8	12
Rated current (40℃)	4A	4A	4A	2A	1.5A
Rated voltage	250V	250V	125V	60V	60V
Rated impulse voltage	2500V	2500V	1500V	800V	800V
Pollution degree	3	3	3	3	3
Overvoltage categorie	II	II	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1	screw M12x1	screw M12x1
Termination	crimp, moulded	crimp, moulded	crimp, moulded	crimp, moulded	crimp, moulded
Wire gauge	0.34mm²(AWG22)	0.34mm²(AWG22)	0.25mm²AWG24)	0.25mm²(AWG24)	0.14mm²(AWG26)
Cable outlet	–	–	–	–	–
Degree of protection	IP67 shielded	IP67 shielded	IP67 shielded	IP67 shielded	IP67 shielded
Mechanical operation	＞100	＞100	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au	Au	Au
Insulating material	PA	PA	PA	PA	PA
Material of housing	TPU	TPU	TPU	TPU	TPU

Angled cable connectors,cable

Male angled connector moulded,screw

Recommended use

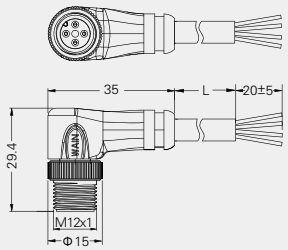


A–Code





Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PVC	1.5 m	M12–M03A–S–1.5–PVC	163 003 501 4001
		5.0 m	M12–M03A–S–5.0–PVC	163 003 501 4002
	3x0.34PUR	1.5 m	M12–M03A–S–1.5–PUR	163 003 501 4041
		5.0 m	M12–M03A–S–5.0–PUR	163 003 501 4042
4	4x0.34PVC	1.5 m	M12–M04A–S–1.5–PVC	163 004 501 4001
		5.0 m	M12–M04A–S–5.0–PVC	163 004 501 4015
	4x0.34PUR	1.5 m	M12–M04A–S–1.5–PUR	163 004 501 4041
		5.0 m	M12–M04A–S–5.0–PUR	163 004 501 4042
5	5x0.25PVC	1.5 m	M12–M05A–S–1.5–PVC	163 005 501 4001
		5.0 m	M12–M05A–S–5.0–PVC	163 005 501 4002
	5x0.25PUR	1.5 m	M12–M05A–S–1.5–PUR	163 005 501 4041
		5.0 m	M12–M05A–S–5.0–PUR	163 005 501 4042
8	8x0.25PUR	1.5 m	M12–M08A–S–1.5–PUR	163 008 501 4041
		5.0 m	M12–M08A–S–5.0–PUR	163 008 501 4042
12	12x0.25PVC	1.5 m	M12–M12A–S–1.5–PVC	163 012 501 4001
		5.0 m	M12–M12A–S–5.0–PVC	163 012 501 4002
	12x0.25PUR	1.5 m	M12–M12A–S–1.5–PUR	163 012 501 4003
		5.0 m	M12–M12A–S–5.0–PUR	163 012 501 4004



Male angled connector moulded,screw

shielded

Recommended use

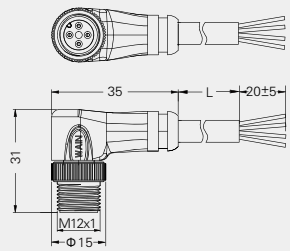


A–Code





Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PVC	1.5 m	M12–M03A–S–1.5–PVC–SH	163 003 501 4021
		5.0 m	M12–M03A–S–5.0–PVC–SH	163 003 501 4022
	3x0.34PUR	1.5 m	M12–M03A–S–1.5–PUR–SH	163 003 501 4061
		5.0 m	M12–M03A–S–5.0–PUR–SH	163 003 501 4062
4	4x0.34PVC	1.5 m	M12–M04A–S–1.5–PVC–SH	163 004 501 4021
		5.0 m	M12–M04A–S–5.0–PVC–SH	163 004 501 4022
	4x0.34PUR	1.5 m	M12–M04A–S–1.5–PUR–SH	163 004 501 4061
		5.0 m	M12–M04A–S–5.0–PUR–SH	163 004 501 4062
5	5x0.25PVC	1.5 m	M12–M05A–S–1.5–PVC–SH	163 005 501 4021
		5.0 m	M12–M05A–S–5.0–PVC–SH	163 005 501 4022
	5x0.25PUR	1.5 m	M12–M05A–S–1.5–PUR–SH	163 005 501 4061
		5.0 m	M12–M05A–S–5.0–PUR–SH	163 005 501 4062
8	7x0.25PUR	1.5 m	M12–M08A–S–1.5–PUR–SH	163 008 514 2001
		5.0 m	M12–M08A–S–5.0–PUR–SH	163 008 514 2002
12	12x0.25PVC	1.5 m	M12–M12A–S–1.5–PVC–SH	163 012 501 2001
		5.0 m	M12–M12A–S–5.0–PVC–SH	163 012 501 2002
	12x0.25PUR	1.5 m	M12–M12A–S–1.5–PUR–SH	163 012 501 2003
		5.0 m	M12–M12A–S–5.0–PUR–SH	163 012 501 2004



•Further cable length upon request.

M12-A Circular Connector

125/250V 4A

Technical characteristics

Number of contacts	3	4	5
Rated current (40℃)	4A	4A	4A
Rated voltage	250V	250V	125V
Rated impulse voltage	2500V	2500V	1500V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1
Termination	crimp, moulded	crimp, moulded	crimp, moulded
Wire gauge	0.34mm²(AWG22)	0.34mm²(AWG22)	0.25mm²AWG24)
Cable outlet	–	–	–
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	TPU	TPU	TPU

Angled cable connectors，cable

Male angled connector moulded,

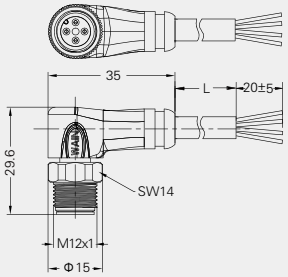
Stainless steel ring nut,screw



A–Code



Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PUR	1.5 m	M12S–M03A–S–1.5–PUR	163 003 501 4241
		5.0 m	M12S–M03A–S–5.0–PUR	163 003 501 4242
4	4x0.34PUR	1.5 m	M12S–M04A–S–1.5–PUR	163 004 501 4241
		5.0 m	M12S–M04A–S–5.0–PUR	163 004 501 4242
5	5x0.25PUR	1.5 m	M12S–M05A–S–1.5–PUR	163 005 501 4241
		5.0 m	M12S–M05A–S–5.0–PUR	163 005 501 4242



•Further cable length upon request.

M12-A Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	3	4	5	8	12
Rated current (40℃)	4A	4A	4A	2A	1.5A
Rated voltage	250V	250V	125V	60V	60V
Rated impulse voltage	2500V	2500V	1500V	800V	800V
Pollution degree	3	3	3	3	3
Overvoltage categorie	II	II	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1	screw M12x1	screw M12x1
Termination	crimp, moulded	crimp, moulded	crimp, moulded	crimp, moulded	crimp, moulded
Wire gauge	0.34mm²(AWG22)	0.34mm²(AWG22)	0.25mm²AWG24)	0.25mm²(AWG24)	0.14mm²(AWG26)
Cable outlet	–	–	–	–	–
Degree of protection	IP67 shielded	IP67 shielded	IP67 shielded	IP67 shielded	IP67 shielded
Mechanical operation	＞100	＞100	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au	Au	Au
Insulating material	PA	PA	PA	PA	PA
Material of housing	TPU	TPU	TPU	TPU	TPU

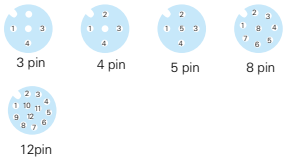
Straight cable connectors,cable

Female connector moulded,screw

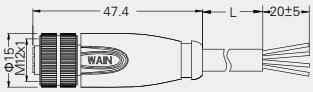
Recommended use



A–Code



Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PVC	1.5 m	M12–F03A–T–1.5–PVC	163 003 402 4001
		5.0 m	M12–F03A–T–5.0–PVC	163 003 402 4002
	3x0.34PUR	1.5 m	M12–F03A–T–1.5–PUR	163 003 402 4041
		5.0 m	M12–F03A–T–5.0–PUR	163 003 402 4042
4	4x0.34PVC	1.5 m	M12–F04A–T–1.5–PVC	163 004 402 4001
		5.0 m	M12–F04A–T–5.0–PVC	163 004 402 4002
	4x0.34PUR	1.5 m	M12–F04A–T–1.5–PUR	163 004 402 4041
		5.0 m	M12–F04A–T–5.0–PUR	163 004 402 4042
5	5x0.25PVC	1.5 m	M12–F05A–T–1.5–PVC	163 005 402 4001
		5.0 m	M12–F05A–T–5.0–PVC	163 005 402 4002
	5x0.25PUR	1.5 m	M12–F05A–T–1.5–PUR	163 005 402 4041
		5.0 m	M12–F05A–T–5.0–PUR	163 005 402 4042
8	8x0.25PUR	1.5 m	M12–F08A–T–1.5–PUR	163 008 402 4041
		5.0 m	M12–F08A–T–5.0–PUR	163 008 402 4042
12	12x0.25PVC	1.5 m	M12–F12A–T–1.5–PVC	163 012 402 4001
		5.0 m	M12–F12A–T–5.0–PVC	163 012 402 4003
	12x0.25PUR	1.5 m	M12–F12A–T–1.5–PUR	163 012 402 4004
		5.0 m	M12–F12A–T–5.0–PUR	163 012 402 4005



Female connector moulded,screw

shielded

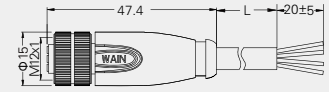
Recommended use



A–Code



Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PVC	1.5 m	M12–F03A–T–1.5–PVC–SH	163 003 402 4021
		5.0 m	M12–F03A–T–5.0–PVC–SH	163 003 402 4022
	3x0.34PUR	1.5 m	M12–F03A–T–1.5–PUR–SH	163 003 402 4061
		5.0 m	M12–F03A–T–5.0–PUR–SH	163 003 402 4062
4	4x0.34PVC	1.5 m	M12–F04A–T–1.5–PVC–SH	163 004 402 4021
		5.0 m	M12–F04A–T–5.0–PVC–SH	163 004 402 4022
	4x0.34PUR	1.5 m	M12–F04A–T–1.5–PUR–SH	163 004 402 4061
		5.0 m	M12–F04A–T–5.0–PUR–SH	163 004 402 4062
5	5x0.25PVC	1.5 m	M12–F05A–T–1.5–PVC–SH	163 005 402 4021
		5.0 m	M12–F05A–T–5.0–PVC–SH	163 005 402 4022
	5x0.25PUR	1.5 m	M12–F05A–T–1.5–PUR–SH	163 005 402 4061
		5.0 m	M12–F05A–T–5.0–PUR–SH	163 005 402 4062
8	8x0.25PUR	1.5 m	M12–F08A–T–1.5–PUR–SH	163 008 402 4061
		5.0 m	M12–F08A–T–5.0–PUR–SH	163 008 402 4062
12	12x0.25PVC		M12–F12A–T–1.5–PVC–SH	163 012 402 2001
			M12–F12A–T–5.0–PVC–SH	163 012 402 2002
	12x0.25PUR		M12–F12A–T–1.5–PUR–SH	163 012 402 2003
			M12–F12A–T–5.0–PUR–SH	163 012 402 2004



•Further cable length upon request.

M12-A Circular Connector

125/250V 4A

Technical characteristics

Number of contacts	3	4	5
Rated current (40℃)	4A	4A	4A
Rated voltage	250V	250V	125V
Rated impulse voltage	2500V	2500V	1500V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	≤10 mΩ	≤10 mΩ	≤10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1
Termination	crimp, moulded	crimp, moulded	crimp, moulded
Wire gauge	0.34mm²(AWG22)	0.34mm²(AWG22)	0.25mm²(AWG24)
Cable outlet	–	–	–
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	TPU	TPU	TPU

Straight cable connectors,cable

Female cable connector moulded,

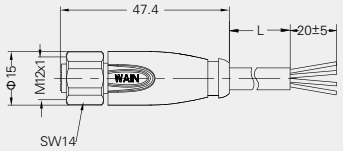
Stainless steel ring nut,screw



A–Code



Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PUR	1.5 m	M12S–F03A–T–1.5–PUR	163 003 402 4241
		5.0 m	M12S–F03A–T–5.0–PUR	163 003 402 4242
4	4x0.34PUR	1.5 m	M12S–F04A–T–1.5–PUR	163 004 402 4241
		5.0 m	M12S–F04A–T–5.0–PUR	163 004 402 4242
5	5x0.25PUR	1.5 m	M12S–F05A–T–1.5–PUR	163 005 402 4241
		5.0 m	M12S–F05A–T–5.0–PUR	163 005 402 4242



•Further cable length upon request.

M12-A Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	3	4	5	8	12
Rated current (40℃)	4A	4A	4A	2A	1.5A
Rated voltage	250V	250V	125V	60V	60V
Rated impulse voltage	2500V	2500V	1500V	800V	800V
Pollution degree	3	3	3	3	3
Overvoltage categorie	II	II	II	II	II
Contact resistance	≤10 mΩ	≤10 mΩ	≤10 mΩ	≤10 mΩ	≤10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1	screw M12x1	screw M12x1
Termination	crimp, moulded	crimp, moulded	crimp, moulded	crimp, moulded	crimp, moulded
Wire gauge	0.34mm²(AWG22)	0.34mm²(AWG22)	0.25mm²AWG24)	0.25mm²(AWG24)	0.14mm²(AWG26)
Cable outlet	–	–	–	–	–
Degree of protection	IP67 shielded	IP67 shielded	IP67 shielded	IP67 shielded	IP67 shielded
Mechanical operation	> 100	> 100	> 100	> 100	> 100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au	Au	Au
Insulating material	PA	PA	PA	PA	PA
Material of housing	TPU	TPU	TPU	TPU	TPU

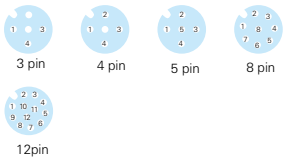
Angled cable connectors，cable

Female angled connector moulded，

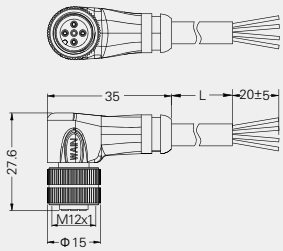
screw
Recommended use



A–Code



Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PVC	1.5 m	M12–F03A–S–1.5–PVC	163 003 502 4001
		5.0 m	M12–F03A–S–5.0–PVC	163 003 502 4002
	3x0.34PUR	1.5 m	M12–F03A–S–1.5–PUR	163 003 502 4041
		5.0 m	M12–F03A–S–5.0–PUR	163 003 502 4042
4	4x0.34PVC	1.5 m	M12–F04A–S–1.5–PVC	163 004 502 4001
		5.0 m	M12–F04A–S–5.0–PVC	163 004 502 4002
	4x0.34PUR	1.5 m	M12–F04A–S–1.5–PUR	163 004 502 4041
		5.0 m	M12–F04A–S–5.0–PUR	163 004 502 4042
5	5x0.25PVC	1.5 m	M12–F05A–S–1.5–PVC	163 005 502 4001
		5.0 m	M12–F05A–S–5.0–PVC	163 005 502 4002
	5x0.25PUR	1.5 m	M12–F05A–S–1.5–PUR	163 005 502 4041
		5.0 m	M12–F05A–S–5.0–PUR	163 005 502 4042
8	8x0.25PUR	1.5 m	M12–F08A–S–1.5–PUR	163 008 502 4041
		5.0 m	M12–F08A–S–5.0–PUR	163 008 502 4042
12	12x0.25PVC	1.5 m	M12–F12A–S–1.5–PVC	163 012 502 4001
		5.0 m	M12–F12A–S–5.0–PVC	163 012 502 4002
	12x0.25PUR	1.5 m	M12–F12A–S–1.5–PUR	163 012 502 4003
		5.0 m	M12–F12A–S–5.0–PUR	163 012 502 4004

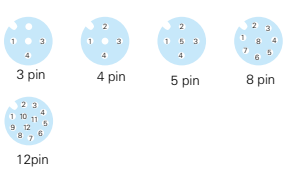


Female angled connector moulded

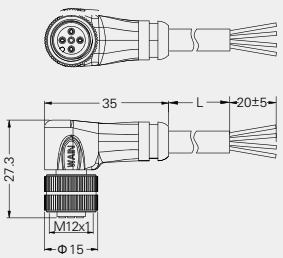
screw，shielded
Recommended use



A–Code



Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PVC	1.5 m	M12–F03A–S–1.5–PVC–SH	163 003 502 4021
		5.0 m	M12–F03A–S–5.0–PVC–SH	163 003 502 4022
	3x0.34PUR	1.5 m	M12–F03A–S–1.5–PUR–SH	163 003 502 4061
		5.0 m	M12–F03A–S–5.0–PUR–SH	163 003 502 4062
4	4x0.34PVC	1.5 m	M12–F04A–S–1.5–PVC–SH	163 004 502 4021
		5.0 m	M12–F04A–S–5.0–PVC–SH	163 004 502 4022
	4x0.34PUR	1.5 m	M12–F04A–S–1.5–PUR–SH	163 004 502 4061
		5.0 m	M12–F04A–S–5.0–PUR–SH	163 004 502 4062
5	5x0.25PVC	1.5 m	M12–F05A–S–1.5–PVC–SH	163 005 502 4021
		5.0 m	M12–F05A–S–5.0–PVC–SH	163 005 502 4022
	5x0.25PUR	1.5 m	M12–F05A–S–1.5–PUR–SH	163 005 502 4061
		5.0 m	M12–F05A–S–5.0–PUR–SH	163 005 502 4062
8	8x0.25PUR	1.5 m	M12–F08A–S–1.5–PUR–SH	163 008 524 2001
		5.0 m	M12–F08A–S–5.0–PUR–SH	163 008 524 2002
12	12x0.25PVC	1.5 m	M12–F12A–S–1.5–PVC–SH	163 012 502 2001
		5.0 m	M12–F12A–S–5.0–PVC–SH	163 012 502 2002
	12x0.25PUR	1.5 m	M12–F12A–S–1.5–PUR–SH	163 012 502 2003
		5.0 m	M12–F12A–S–5.0–PUR–SH	163 012 502 2004



•Further cable length upon request.

M12-A Circular Connector

125/250V 4A

Technical characteristics

Number of contacts	3	4	5
Rated current (40℃)	4A	4A	4A
Rated voltage	250V	250V	125V
Rated impulse voltage	2500V	2500V	1500V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	≤10 mΩ	≤10 mΩ	≤10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1
Termination	crimp, moulded	crimp, moulded	crimp, moulded
Wire gauge	0.34mm²(AWG22)	0.34mm²(AWG22)	0.25mm²(AWG24)
Cable outlet	–	–	–
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	TPU	TPU	TPU

Angled cable connectors，cable

Female angled connector moulded,

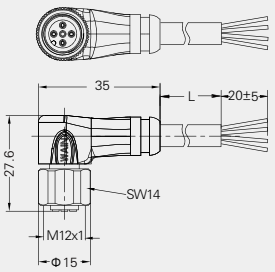
Stainless steel ring nut，screw



A–Code



Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PUR	1.5 m	M12S–F03A–S–1.5–PUR	163 003 502 4241
		5.0 m	M12S–F03A–S–5.0–PUR	163 003 502 4242
4	4x0.34PUR	1.5 m	M12S–F04A–S–1.5–PUR	163 004 502 4241
		5.0 m	M12S–F04A–S–5.0–PUR	163 004 502 4242
5	5x0.25PUR	1.5 m	M12S–F05A–S–1.5–PUR	163 005 502 4241
		5.0 m	M12S–F05A–S–5.0–PUR	163 005 502 4242



•Further cable length upon request.

M12-A Circular Connector

36V 4A

Technical characteristics

Number of contacts	3	4
Rated current (40℃)	4A	4A
Rated voltage	36V	36V
Rated impulse voltage	500V	500V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1
Termination	crimp, moulded	crimp, moulded
Wire gauge	0.34mm²(AWG22)	0.34mm²(AWG22)
Cable outlet	–	–
Degree of protection	IP67	IP67
Mechanical operation	> 100	> 100
Limiting temperature	–25℃...+85℃	–25℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	TPU	TPU

Angled cable connectors ,cable

Female angled connector moulded,

with LED PNP normally open

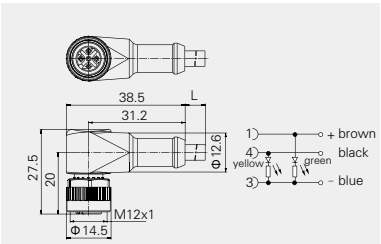


A–Code



3 pin

Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PVC	1.5 m	M12–F03A–S–1.5–PVC–LED	163 003 502 4003
		5.0 m	M12–F03A–S–5.0–PVC–LED	163 003 502 4004
3	3x0.34PUR	1.5 m	M12–F03A–S–1.5–PUR–LED	163 003 502 4043
		5.0 m	M12–F03A–S–5.0–PUR–LED	163 003 502 4044



Female angled connector moulded,

with LED PNP normally closed/open, antivalent

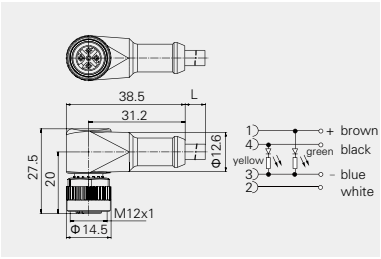


A–Code



4 pin

Contacts	Cable	Cable length	Designation	Order No.
4	4x0.34PVC	1.5 m	M12–F04A–S–1.5–PVC–LED1	163 004 502 4005
		5.0 m	M12–F04A–S–5.0–PVC–LED1	163 004 502 4006
4	4x0.34PUR	1.5 m	M12–F04A–S–1.5–PUR–LED1	163 004 502 4045
		5.0 m	M12–F04A–S–5.0–PUR–LED1	163 004 502 4046



Female angled connector moulded,

with LED PNP normally closed/open,

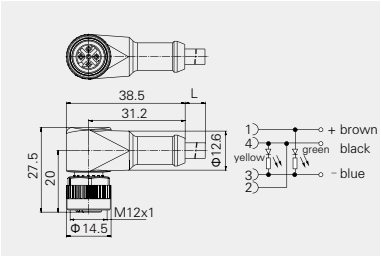


A–Code



3 pin

Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PUR	1.5 m	M12–F03A–S–1.5–PUR–LED2	163 003 502 4047
		5.0 m	M12–F03A–S–5.0–PUR–LED2	163 003 502 4048



Female angled connector moulded,

with LED PNP normally open, stainless steel ring nut

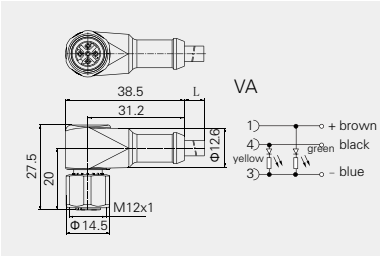


A–Code



3 pin

Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PUR	1.5 m	M12S–F03A–S–1.5–PUR–LED	163 003 502 4243
		5.0 m	M12S–F03A–S–5.0–PUR–LED	163 003 502 4244



•Further cable length upon request.

M12-A Circular Connector

60/125/250V 4A

Technical characteristics

Number of contacts	3	4	5	8	12
Rated current (40℃)	4A	4A	4A	2A	1.5A
Rated voltage	250V	250V	125V	60V	60V
Rated impulse voltage	2500V	2500V	1500V	800V	800V
Pollution degree	3	3	3	3	3
Overvoltage categorie	II	II	II	II	II
Contact resistance	≤10 mΩ	≤10 mΩ	≤10 mΩ	≤10 mΩ	≤10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1	screw M12x1	screw M12x1
Termination	crimp, moulded	crimp, moulded	crimp, moulded	crimp, moulded	crimp, moulded
Wire gauge	0.34mm²(AWG22)	0.34mm²(AWG22)	0.25mm²(AWG24)	0.25mm²(AWG24)	0.14mm²(AWG26)
Cable outlet	–	–	–	–	–
Degree of protection	IP67	IP67	IP67	IP67 shielded	IP67 shielded
Mechanical operation	＞100	＞100	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au	Au	Au
Insulating material	PA	PA	PA	PA	PA
Material of housing	TPU	TPU	TPU	TPU	TPU

Cable connectors-wire jumper

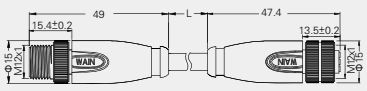
Male cable connector

-female cable connector

Recommended use



Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PUR	1.5 m	M12–M03A–T/F03A–T–1.5–PUR	163 003 400 4041
		5.0 m	M12–M03A–T/F03A–T–5.0–PUR	163 003 400 4042
4	4x0.34PUR	1.5 m	M12–M04A–T/F04A–T–1.5–PUR	163 004 400 4041
		5.0 m	M12–M04A–T/F04A–T–5.0–PUR	163 004 400 4042
5	5x0.25PUR	1.5 m	M12–M05A–T/F05A–T–1.5–PUR	163 005 400 4041
		5.0 m	M12–M05A–T/F05A–T–5.0–PUR	163 005 400 4042
8	8x0.25PUR	1.5 m	M12–M08A–T/F08A–T–1.5–PUR	163 008 400 4007
		5.0 m	M12–M08A–T/F08A–T–5.0–PUR	163 008 400 4011
12	12x0.25PUR	1.5 m	M12–M12A–T/F12A–T–1.5–PUR	163 012 400 4001
		5.0 m	M12–M12A–T/F12A–T–5.0–PUR	163 012 400 4002



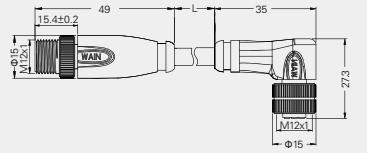
Male cable connector

-female angled cable connector

Recommended use



Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PUR	1.5 m	M12–M03A–T/F03A–S–1.5–PUR	163 003 500 4041
		5.0 m	M12–M03A–T/F03A–S–5.0–PUR	163 003 500 4042
4	4x0.34PUR	1.5 m	M12–M04A–T/F04A–S–1.5–PUR	163 004 500 4041
		5.0 m	M12–M04A–T/F04A–S–5.0–PUR	163 004 500 4042
5	5x0.25PUR	1.5 m	M12–M05A–T/F05A–S–1.5–PUR	163 005 500 4041
		5.0 m	M12–M05A–T/F05A–S–5.0–PUR	163 005 500 4042
8	8x0.25PUR	1.5 m	M12–M08A–T/F08A–S–1.5–PUR	163 008 500 4041
		5.0 m	M12–M08A–T/F08A–S–5.0–PUR	163 008 400 4008
12	12x0.25PUR	1.5 m	M12–M12A–T/F12A–S–1.5–PUR	163 012 400 4003
		5.0 m	M12–M12A–T/F12A–S–5.0–PUR	163 012 500 4001



•Other cable lengths can be customized, double–ended connectors, male/female, straight/angled, shielded/unshielded, freely combinable.

M12-A Circular Connector

60/125/250V 4A

Technical characteristics

Number of contacts	3	4	5
Rated current (40℃)	4A	4A	4A
Rated voltage	250V	250V	125V
Rated impulse voltage	2500V	2500V	1500V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	≤10 mΩ	≤10 mΩ	≤10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1
Termination	crimp, moulded	crimp, moulded	crimp, moulded
Wire gauge	0.34mm²(AWG22)	0.34mm²(AWG22)	0.25mm²(AWG24)
Cable outlet	–	–	–
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	TPU	TPU	TPU

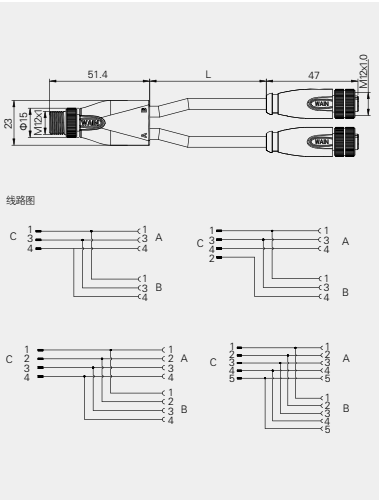
Cable connectors-Y straight head brancher

Male cable connector

-female cable connector



Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PVC	1.5 m	M12Y–M03A/2M12–F03A–T–1.5–PVC	171 302 003 0308
		5.0 m	M12Y–M03A/2M12–F03A–T–5.0–PVC	171 302 003 0309
	3x0.34PUR	1.5 m	M12Y–M03A/2M12–F03A–T–1.5–PUR	171 302003 0306
		5.0 m	M12Y–M03A/2M12–F03A–T–5.0–PUR	171 302 003 0307
	3x0.34PVC	1.5 m	M12Y–M04A/2M12–F03A–T–1.5–PVC	171 302 003 0302
		5.0 m	M12Y–M04A/2M12–F03A–T–5.0–PVC	171 302 003 0303
	3x0.34PUR	1.5 m	M12Y–M04A/2M12–F03A–T–1.5–PUR	171 302 003 0304
		5.0 m	M12Y–M04A/2M12–F03A–T–5.0–PUR	171 302 003 0305
4	4x0.34PVC	1.5 m	M12Y–M04A/2M12–F04A–T–1.5–PVC	171 302 004 0307
		5.0 m	M12Y–M04A/2M12–F04A–T–5.0–PVC	171 302 004 0308
	4x0.34PUR	1.5 m	M12Y–M04A/2M12–F04A–T–1.5–PUR	171 302 004 0305
		5.0 m	M12Y–M04A/2M12–F04A–T–5.0–PUR	171 302 004 0306
5	5x0.25PVC	1.5 m	M12Y–M05A/2M12–F05A–T–1.5–PVC	171 302 005 0302
		5.0 m	M12Y–M05A/2M12–F05A–T–5.0–PVC	171 302 005 0303
	5x0.25PUR	1.5 m	M12Y–M05A/2M12–F05A–T–1.5–PUR	171 302 005 0304
		5.0 m	M12Y–M05A/2M12–F05A–T–5.0–PUR	171 302 005 0305

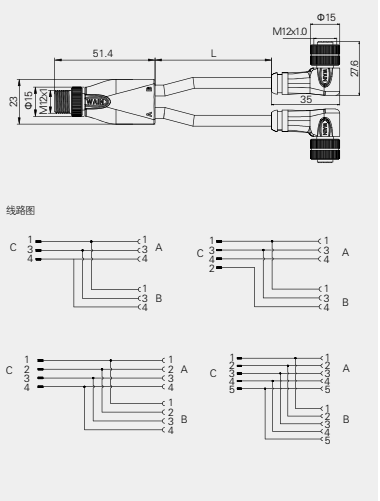


Male cable connector

-female angled cable connector



Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PVC	1.5 m	M12Y–M03A/2M12–F03A–S–1.5–PVC	171 302 003 0318
		5.0 m	M12Y–M03A/2M12–F03A–S–5.0–PVC	171 302 003 0319
	3x0.34PUR	1.5 m	M12Y–M03A/2M12–F03A–S–1.5–PUR	171 302 003 0321
		5.0 m	M12Y–M03A/2M12–F03A–S–5.0–PUR	171 302 003 0322
	3x0.34PVC	1.5 m	M12Y–M04A/2M12–F03A–S–1.5–PVC	171 302 003 0323
		5.0 m	M12Y–M04A/2M12–F03A–S–5.0–PVC	171 302 003 0320
	3x0.34PUR	1.5 m	M12Y–M04A/2M12–F03A–S–1.5–PUR	171 302 003 0324
		5.0 m	M12Y–M04A/2M12–F03A–S–5.0–PUR	171 302 003 0325
4	4x0.34PVC	1.5 m	M12Y–M04A/2M12–F04A–S–1.5–PVC	171 302 004 0327
		5.0 m	M12Y–M04A/2M12–F04A–S–5.0–PVC	171 302 004 0326
	4x0.34PUR	1.5 m	M12Y–M04A/2M12–F04A–S–1.5–PUR	171 302 004 0328
		5.0 m	M12Y–M04A/2M12–F04A–S–5.0–PUR	171 302 004 0329
5	5x0.25PVC	1.5 m	M12Y–M05A/2M12–F05A–S–1.5–PVC	171 302 005 0315
		5.0 m	M12Y–M05A/2M12–F05A–S–5.0–PVC	171 302 005 0314
	5x0.25PUR	1.5 m	M12Y–M05A/2M12–F05A–S–1.5–PUR	171 302 005 0316
		5.0 m	M12Y–M05A/2M12–F05A–S–5.0–PUR	171 302 005 0317



•Other cable lengths can be customized, double–ended connectors, male/female, straight/angled, shielded/unshielded, freely combinable.

M12-A Circular Connector

60/125/250V 4A

Technical characteristics

Number of contacts	3	4	5
Rated current (40℃)	4A	4A	4A
Rated voltage	250V	250V	125V
Rated impulse voltage	2500V	2500V	1500V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	≤10 mΩ	≤10 mΩ	≤10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1
Termination	crimp, moulded	crimp, moulded	crimp, moulded
Wire gauge	0.34mm²(AWG22)	0.34mm²(AWG22)	0.25mm²(AWG24)
Cable outlet	–	–	–
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	TPU	TPU	TPU

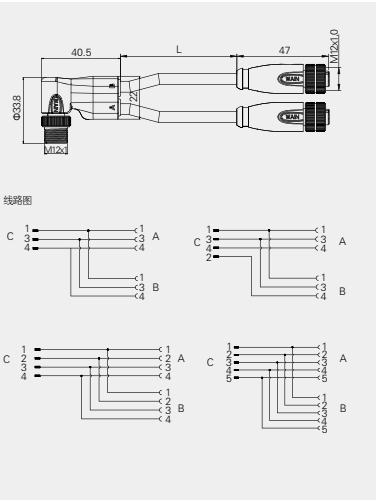
Cable connectors-Y straight head brancher

Male angled cable connector

-female cable connector



Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PVC	1.5 m	M12Y–M03A–S/2M12–F03A–T–1.5–PVC	171 302 003 0310
		5.0 m	M12Y–M03A–S/2M12–F03A–T–5.0–PVC	171 302 003 0312
	3x0.34PUR	1.5 m	M12Y–M03A–S/2M12–F03A–T–1.5–PUR	171 302 003 0311
		5.0 m	M12Y–M03A–S/2M12–F03A–T–5.0–PUR	171 302 003 0313
	3x0.34PVC	1.5 m	M12Y–M04A–S/2M12–F03A–T–1.5–PVC	171 302 004 0309
		5.0 m	M12Y–M04A–S/2M12–F03A–T–5.0–PVC	171 302 004 0311
	3x0.34PUR	1.5 m	M12Y–M04A–S/2M12–F03A–T–1.5–PUR	171 302 004 0310
		5.0 m	M12Y–M04A–S/2M12–F03A–T–5.0–PUR	171 302 004 0312
4	4x0.34PVC	1.5 m	M12Y–M04A–S/2M12–F04A–T–1.5–PVC	171 302 004 0313
		5.0 m	M12Y–M04A–S/2M12–F04A–T–5.0–PVC	171 302 004 0315
	4x0.34PUR	1.5 m	M12Y–M04A–S/2M12–F04A–T–1.5–PUR	171 302 004 0314
		5.0 m	M12Y–M04A–S/2M12–F04A–T–5.0–PUR	171 302 004 0316
5	5x0.25PVC	1.5 m	M12Y–M05A–S/2M12–F05A–T–1.5–PVC	171 302 005 0306
		5.0 m	M12Y–M05A–S/2M12–F05A–T–5.0–PVC	171 302 005 0308
	5x0.25PUR	1.5 m	M12Y–M05A–S/2M12–F05A–T–1.5–PUR	171 302 005 0307
		5.0 m	M12Y–M05A–S/2M12–F05A–T–5.0–PUR	171 302 005 0309

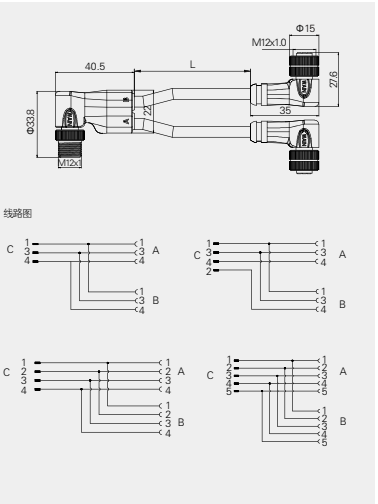


Male angled cable connector

-female angled cable connector



Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PVC	1.5 m	M12Y–M03A–S/2M12–F03A–S–1.5–PVC	171 302 003 0314
		5.0 m	M12Y–M03A–S/2M12–F03A–S–5.0–PVC	171 302 003 0316
	3x0.34PUR	1.5 m	M12Y–M03A–S/2M12–F03A–S–1.5–PUR	171 302 003 0315
		5.0 m	M12Y–M03A–S/2M12–F03A–S–5.0–PUR	171 302 003 0317
	3x0.34PVC	1.5 m	M12Y–M04A–S/2M12–F03A–S–1.5–PVC	171 302 004 0318
		5.0 m	M12Y–M04A–S/2M12–F03A–S–5.0–PVC	171 302 004 0320
	3x0.34PUR	1.5 m	M12Y–M04A–S/2M12–F03A–S–1.5–PUR	171 302 004 0319
		5.0 m	M12Y–M04A–S/2M12–F03A–S–5.0–PUR	171 302 004 0321
4	4x0.34PVC	1.5 m	M12Y–M04A–S/2M12–F04A–S–1.5–PVC	171 302 004 0322
		5.0 m	M12Y–M04A–S/2M12–F04A–S–5.0–PVC	171 302 004 0324
	4x0.34PUR	1.5 m	M12Y–M04A–S/2M12–F04A–S–1.5–PUR	171 302 004 0323
		5.0 m	M12Y–M04A–S/2M12–F04A–S–5.0–PUR	171 302 004 0325
5	5x0.25PVC	1.5 m	M12Y–M05A–S/2M12–F05A–S–1.5–PVC	171 302 005 0310
		5.0 m	M12Y–M05A–S/2M12–F05A–S–5.0–PVC	171 302 005 0312
	5x0.25PUR	1.5 m	M12Y–M05A–S/2M12–F05A–S–1.5–PUR	171 302 005 0311
		5.0 m	M12Y–M05A–S/2M12–F05A–S–5.0–PUR	171 302 005 0313



•Other cable lengths can be customized, double–ended connectors, male/female, straight/angled, shielded/unshielded, freely combinable.

Cable Technical characteristics

Standard cable

	3–pole	4–pole	5–pole	12–pole
Wire gauge mm² [1]	3x0.34mm²	4x0.34mm²2	5x0.25mm²	12x0.25mm²
Material jacket	PVC / TPU	PVC / TPU	PVC / TPU	TPU
Insulation wire	PVC	PVC	PVC	PVC
Design of wire (mm)	42x0.1	7x0.25 / 42x0.1	14x0.16 / 32x0.1	14x0.25
Cable jacket (mm)	5.2	5.6	5.6	7
Resistance of wire	58 Ω/Km / 55 Ω/Km	79.9 Ω/Km / 55 Ω/Km	79.9 Ω/Km / 55 Ω/Km	73 Ω/Km
Temperature range (cable in move)	–5℃...+70℃	–5℃...+70℃	–5℃...+70℃	–5℃...+70℃
Temperature range (cable not in move)	–25℃...+70℃	–25℃...+70℃	–25℃...+70℃	–25℃...+70℃
Bending radius (cable in move)	– / 10xD	– / 10xD	– / 10xD	15xD
Bending radius (cable not in move)	– / 5xD	– / 5xD	– / 5xD	8xD
Approval	–	–	–	–

Shielded cable

	3–pole	4–pole	5–pole	8–pole
Wire gauge mm² [1]	3x0.34mm²	4x0.34mm²	5x0.25mm²	8x0.25mm²
Material jacket	PVC / TPU	PVC / TPU	PVC	TPU
Insulation wire	PVC	PVC	PVC	PVC
Design of wire (mm)	7x0.25	7x0.25	14x0.16	19x0.127
Cable jacket (mm)	5	5	5.3	6
Resistance of wire	53 Ω/Km	53 Ω/Km	75.5 Ω/Km	73 Ω/Km
Temperature range (cable in move)	–5℃...+70℃	–5℃...+70℃	–5℃...+70℃	–5℃...+70℃
Temperature range (cable not in move)	–25℃...+70℃	–25℃...+70℃	–25℃...+70℃	–25℃...+70℃
Bending radius (cable in move)	10xD	10xD	20xD	20xD
Bending radius (cable not in move)	5xD	5xD	10xD	10xD
Approval	–	–	–	–
Cover screen grid	80% / 90%	80% / 90%	90%	85%

M12-A Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	4	5	8	12
Rated current (40℃)	4A	4A	2A	1.5A
Rated voltage	250V	125V	60V	60V
Rated impulse voltage	2500V	1500V	800V	800V
Pollution degree	3	3	3	3
Overvoltage categorie	II	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1	screw M12x1
Termination	single–strand wires	single–strand wires	single wires	single wires
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.34mm²(max.AWG22)	max.0.14mm²(max.AWG26)
Cable outlet	–	–	–	–
Degree of protection	IP67	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	II	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au	Au
Insulating material	PA	PA	PA	PA
Material of housing	zinc diecasting nickel plated	zinc diecasting nickel plated	zinc diecasting nickel plated	zinc diecasting nickel plated

Socket

Male panel mount connector

with single wires, 0.25mm²
length 0.2m
Recommended use

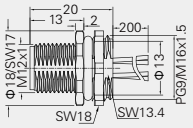


A–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–M04A–BK–PG9–W0.25	163 004 301 4001
	M16x1.5	M12–M04A–BK–M16–W0.25	163 004 301 4021
5	PG9	M12–M05A–BK–PG9–W0.25	163 005 301 4001
	M16x1.5	M12–M05A–BK–M16–W0.25	163 005 301 4021
8	PG9	M12–M08A–BK–PG9–W0.25	163 008 301 4001
	M16x1.5	M12–M08A–BK–M16–W0.25	163 008 301 4021
12	PG9	M12–M12A–BK–PG9–W0.14	163 012 301 4001
	M16x1.5	M12–M12A–BK–M16–W0.14	163 012 301 4002

Customized cable length upon request



Male panel mount connector

with single wires, 0.25mm²
length 0.2m
Recommended use

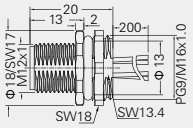


A–Code



Contacts	Thread	Designation	Order No.
4	M16x1.0	M12–M04A–BK–M16*1.0–W0.25	163 004 301 4505
5	M16x1.0	M12–M05A–BK–M16*1.0–W0.25	163 005 301 4506
8	M16x1.0	M12–M08A–BK–M16*1.0–W0.25	163 008 301 4507

Customized cable length upon request



M12-A Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	4	5	8
Rated current (40 ° C)	4A	4A	2A
Rated voltage	250V	125V	60V
Rated impulse voltage	2500V	1500V	800V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1
Termination	solder	solder	solder
Wire gauge	max.0.75mm²(max.AWG18)	max.0.34mm²(max.AWG22)	max.0.14mm²(max.AWG26)
Cable outlet	–	–	–
Degree of protection	IP67	IP67	IP67
Mechanical operation	> 100	> 100	> 100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	zinc diecasting nickel plated	zinc diecasting nickel plated	zinc diecasting nickel plated

Socket

Male panel mount connector, solder

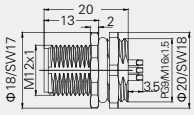
Recommended use



A–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–M04A–BK–PG9–C	163 004 313 1001
	M16x1.5	M12–M04A–BK–M16–C	163 004 313 1021
5	PG9	M12–M05A–BK–PG9–C	163 005 313 1001
	M16x1.5	M12–M05A–BK–M16–C	163 005 313 1021
8	PG9	M12–M08A–BK–PG9–C	163 008 313 1001
	M16x1.5	M12–M08A–BK–M16–C	163 008 313 1021



M12-A Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	4	5	8	12
Rated current (40℃)	4A	4A	2A	1.5A
Rated voltage	250V	125V	60V	60V
Rated impulse voltage	2500V	1500V	800V	800V
Pollution degree	3	3	3	3
Overvoltage categorie	II	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1	screw M12x1
Termination	single–strand wires	single–strand wires	single–strand wires	single–strand wires
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.34mm²(max.AWG22)	max.0.14mm²(max.AWG26)
Cable outlet	–	–	–	–
Degree of protection	IP67	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	II	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au	Au
Insulating material	PA	PA	PA	PA
Material of housing	zinc diecasting nickel plated	zinc diecasting nickel plated	zinc diecasting nickel plated	zinc diecasting nickel plated

Socket

Male panel mount connector

with single wires, 0,25mm²
length 0.2m
front fastened,

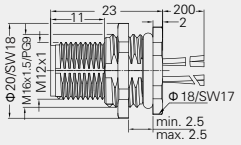


A–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–M04A–BKR–PG9–W0.25	163 004 301 4011
	M16x1.5	M12–M04A–BKR–M16–W0.25	163 004 301 4031
5	PG9	M12–M05A–BKR–PG9–W0.25	163 005 301 4011
	M16x1.5	M12–M05A–BKR–M16–W0.25	163 005 301 4031
8	PG9	M12–M08A–BKR–PG9–W0.25	163 008 301 4011
	M16x1.5	M12–M08A–BKR–M16–W0.25	163 008 301 4031
12	PG9	M12–M12A–BKR–PG9–W0.14	163 012 301 4011
	M16x1.5	M12–M12A–BKR–M16–W0.14	163 012 301 4012

Customized cable length upon request



M12-A Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	4	5	8
Rated current (40℃)	4A	4A	2A
Rated voltage	250V	125V	60V
Rated impulse voltage	2500V	1500V	800V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1
Termination	dip solder	dip solder	dip solder
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.34mm²(max.AWG22)
Cable outlet	–	–	–
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	zinc diecasting nickel plated	zinc diecasting nickel plated	zinc diecasting nickel plated

Socket

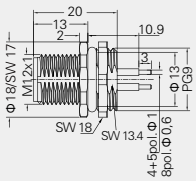
Male panel mount connector, dip solder



A–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–M04A–BK–PG9–D	163 004 314 1001
	M16x1.5	M12–M04A–BK–M16–D	163 004 314 1002
5	PG9	M12–M05A–BK–PG9–D	163 005 314 1001
	M16x1.5	M12–M05A–BK–M16–D	163 005 314 1002
8	PG9	M12–M08A–BK–PG9–D	163 008 314 1001
	M16x1.5	M12–M08A–BK–M16–D	163 008 314 1002



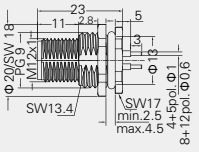
Male panel mount connector, front fastened, dip solder



A–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–M04A–BKR–PG9–D	163 004 314 1011
	M16x1.5	M12–M04A–BKR–M16–D	163 004 614 1001
5	PG9	M12–M05A–BKR–PG9–D	163 005 314 1011
	M16x1.5	M12–M05A–BKR–M16–D	163 005 614 1001
8	PG9	M12–M08A–BKR–PG9–D	163 008 314 1011
	M16x1.5	M12–M08A–BKR–M16–D	163 008 614 1001



M12-A Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	4	5	8	12
Rated current (40℃)	4A	4A	2A	1.5A
Rated voltage	250V	125V	60V	60V
Rated impulse voltage	2500V	1500V	800V	800V
Pollution degree	3	3	3	3
Overvoltage categorie	II	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw	screw	screw
Termination	solder, single–strand wires	solder, single–strand wires	solder, single–strand wires	solder, single–strand wires
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.34mm²(max.AWG22)	max.0.14mm²(max.AWG26)
Cable outlet	–	–	–	–
Degree of protection	IP67	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	II	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au	Au
Insulating material	PA	PA	PA	PA
Material of housing	zinc diecasting nickel plated/	zinc diecasting nickel plated	zinc diecasting nickel plated	zinc diecasting nickel plated

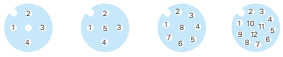
Receptacles

Female panel mount connector

with single wires, /0.25mm²/length 0.2m

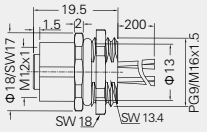


A–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–F04A–BK–PG9–W0.25	163 004 302 4001
	M16x1.5	M12–F04A–BK–M16–W0.25	163 004 302 4021
5	PG9	M12–F05A–BK–PG9–W0.25	163 005 302 4001
	M16x1.5	M12–F05A–BK–M16–W0.25	163 005 302 4021
8	PG9	M12–F08A–BK–PG9–W0.25	163 008 302 4001
	M16x1.5	M12–F08A–BK–M16–W0.25	163 008 302 4021
12	PG9	M12–F12A–BKR–PG9–W0.14	163 012 302 4001
	M16x1.5	M12–F12A–BKR–M16–W0.14	163 012 302 4002

Customized cable length upon request



Female panel mount connector, solder

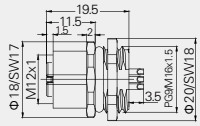
PG9/M16x1.5



A–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–F04A–BK–PG9–C	163 004 323 1001
	M16x1.5	M12–F04A–BK–M16–C	163 004 323 1021
5	PG9	M12–F05A–BK–PG9–C	163 005 323 1001
	M16x1.5	M12–F05A–BK–M16–C	163 005 323 1021
8	PG9	M12–F08A–BK–PG9–C	163 008 324 1002
	M16x1.5	M12–F08A–BK–M16–C	163 008 302 1011



M12-A Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	4	5	8	12
Rated current (40 ° C)	4A	4A	2A	1.5A
Rated voltage	250V	125V	60V	60V
Rated impulse voltage	2500V	1500V	800V	800V
Pollution degree	3	3	3	3
Overvoltage categorie	II	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw	screw	screw
Termination	single–strand wires	single–strand wires	single–strand wires	solder, single–strand wires
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)	max.0.34mm²(max.AWG22)	max.0.14mm²(max.AWG26)
Cable outlet	–	–	–	–
Degree of protection	IP67	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	II	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au	Au
Insulating material	PA	PA	PA	PA
Material of housing	zinc diecasting nickel plated	zinc diecasting nickel plated	zinc diecasting nickel plated	zinc diecasting nickel plated

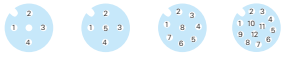
Receptacles

Female panel mount connector,

front fastened, with single wires,
0.25mm²/length 0.2m

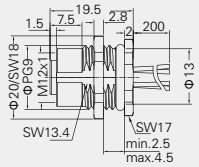


A–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–F04A–BKR–PG9–W0.25	163 004 302 4011
	M16x1.5	M12–F04A–BKR–M16–W0.25	163 004 302 4031
5	PG9	M12–F05A–BKR–PG9–W0.25	163 005 302 4011
	M16x1.5	M12–F05A–BKR–M16–W0.25	163 005 302 4031
8	PG9	M12–F08A–BKR–PG9–W0.25	163 008 302 4011
	M16x1.5	M12–F08A–BKR–M16–W0.25	163 008 624 1002
12	PG9	M12–F12A–BKR–PG9–W0.14	163 012 302 4003
	M16x1.5	M12–F12A–BKR–M16–W0.14	163 012 302 4004

Customized cable length upon request



M12-A Circular Connector

125/250V 4A

Technical characteristics

Number of contacts	4	5	8
Rated current (40℃)	4A	4A	2A
Rated voltage	250V	125V	60V
Rated impulse voltage	2500V	1500V	800V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw	screw
Termination	solder, dip solder	solder, dip solder	solder, dip solder
Wire gauge	max. 0.75mm²(max. AWG18)	max. 0.75mm²(max. AWG18)	max. 0.34mm²(max. AWG22)
Cable outlet	–	–	–
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃	–40℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	zinc diecasting nickel plated	zinc diecasting nickel plated	zinc diecasting nickel plated

Receptacles

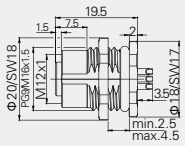
Female panel mount connector, solder, front fastened



A–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–F04A–BKR–PG9–C	163 004 323 1011
	M16x1.5	M12–F04A–BKR–M16–C	163 004 624 1003
5	PG9	M12–F05A–BKR–PG9–C	163 005 323 1011
	M16x1.5	M12–F05A–BKR–M16–C	163 005 624 1001
8	PG9	M12–F08A–BKR–PG9–C	163 008 323 1011
	M16x1.5	M12–F08A–BKR–M16–C	163 008 323 1012



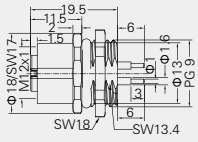
Female panel mount connector, dip solder



A–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–F04A–BK–PG9–D	163 004 324 1001
	M16x1.5	M12–F04A–BK–M16–D	163 004 324 1002
5	PG9	M12–F05A–BK–PG9–D	163 005 324 1001
	M16x1.5	M12–F05A–BK–M16–D	163 005 324 1002
8	PG9	M12–F08A–BK–PG9–D	163 008 324 1003
	M16x1.5	M12–F08A–BK–M16–D	163 008 324 1001



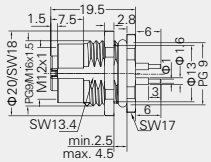
Female panel mount connector, dip solder, front fastened



A–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–F04A–BKR–PG9–D	163 004 324 1011
	M16x1.5	M12–F04A–BKR–M16–D	163 004 624 1004
5	PG9	M12–F05A–BKR–PG9–D	163 005 324 1011
	M16x1.5	M12–F05A–BKR–M16–D	163 005 624 1002
8	PG9	M12–F08A–BKR–PG9–D	163 008 324 1011
	M16x1.5	M12–F08A–BKR–M16–D	163 008 624 1001



Accessories

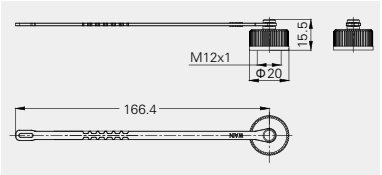
Protection covers IP67

Protection cover

for male cable connector



Application	Designation	Order No.
Without cord	M12–MCV	163 000 001 9003
With cord	M12–MCV/1	163 000 001 9001

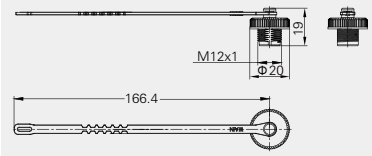


Protection cover

for female cable connector



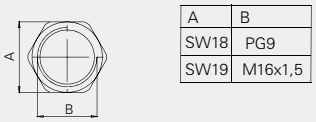
Application	Designation	Order No.
Without cord	M12–FCV	163 000 002 9003
With cord	M12–FCV/1	163 000 002 9001



Hexagonal nut for fixing thread



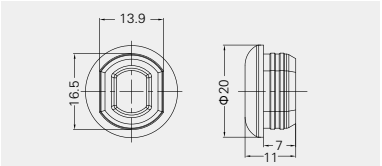
Thread	Designation	Order No.
PG9	WNA–PG9/S	102 105 002 1101
M16X1.5	WNA–M16/S	102 105 013 1101



Protection covers, for flange mount panel



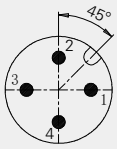
Description	Designation	Order No.
Dust–proof	M12–WNPP–M16/BK	163 000 000 9001



Contact arrangements

Male insert (mating side)

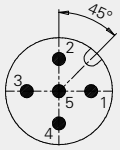
4 contacts



	X	Y
1	2.50	0.00
2	0.00	2.50
3	–2.50	0.00
4	0.00	–2.50

1 brown
2 white
3 blue
4 black

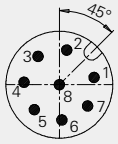
5 contacts



	X	Y
1	2.50	0.00
2	0.00	2.50
3	–2.50	0.00
4	0.00	–2.50
5	0.00	0.00

1 brown
2 white
3 blue
4 black
5 grey

8 contacts

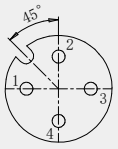


	X	Y
1	2.69	0.57
2	0.57	2.69
3	–1.66	2.20
4	–2.75	0.19
5	–1.94	–1.94
6	0.19	–2.74
7	2.20	–1.65
8	0.00	0.00

1 white
2 brown
3 green
4 yellow
5 grey
6 pink
7 blue
8 red

Female insert (mating side)

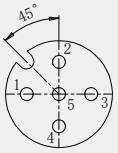
4 contacts



	X	Y
1	–2.50	0.00
2	0.00	2.50
3	2.50	0.00
4	0.00	–2.50

1 brown
2 white
3 blue
4 black

5 contacts



	X	Y
1	–2.50	0.00
2	0.00	2.50
3	2.50	0.00
4	0.00	–2.50
5	0.00	0.00

1 brown
2 white
3 blue
4 black
5 grey

8 contacts



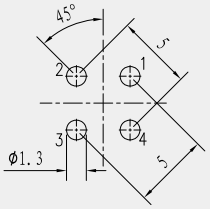
	X	Y
1	–2.69	0.57
2	–0.57	2.69
3	1.66	2.20
4	2.75	0.19
5	1.94	–1.94
6	–0.19	–2.75
7	–2.20	–1.66
8	0.00	0.00

1 white
2 brown
3 green
4 yellow
5 grey
6 pink
7 blue
8 red

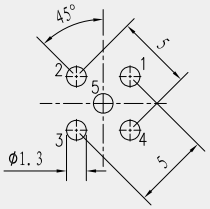
Panel cut out

Opening hole drawing male insert(PCB), Panel mount connectors

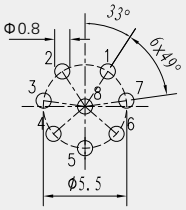
4 contacts



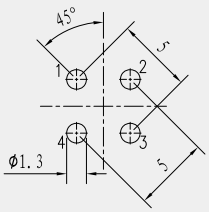
5 contacts

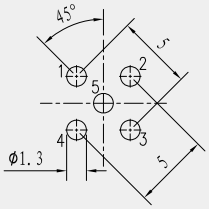


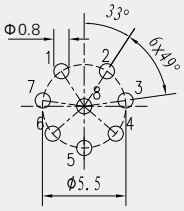
8 contacts



Opening hole drawing female insert(PCB), Panel mount connectors

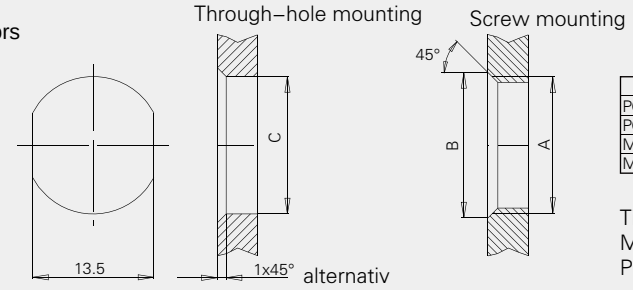






Panel cut out

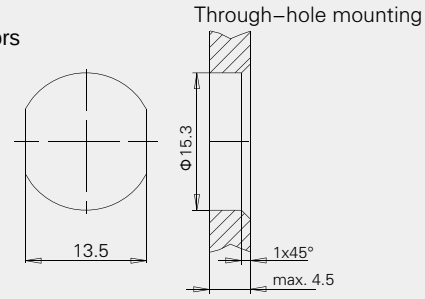
Panel mount connectors



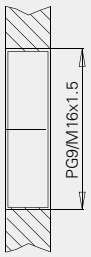
	A	B	C
PG9	PG9	16.2	15.3
PG13.5	PG13.5	21.5	20.5
M16x1.5	M16x1.5	17.0	16.1
M20x1.5	M20x1.5	21.0	20.1

Tightening torque according to DIN VDE 0619
Metal housing 6,25 Nm
Plastic housing 3,75 Nm

Panel mount connectors
Rear panel mounting,
front tighten



Panel mount connectors
front tighten



Tightening torque 6,25 Nm

M12 Circular Connector,B-coded



Cable Connector

- Shielded / unshielded series
- Installable series and moulded cable series
- Thread locking M12X1
- Screw terminal
- Shielding ring and ring spring shielding connection
- Cable length 1.5m and 5m
- Other cable length upon request, minimum order quantity 200 pieces
- Cable material can be customized according to requirements
- Degree of protection IP67
- Anti–loose spring with nut

M12-B Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	4	5
Rated current (40℃)	4A	4A
Rated voltage	250V	125V
Rated impulse voltage	2500V	1500V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1
Termination	screw	screw
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)
Cable outlet	4–6,6–8 mm	4–6,6–8 mm
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	III	III
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	PA/PBT	PA/PBT

Straight cable connectors

Male cable connector, plastic locking

system, screw clamp connection

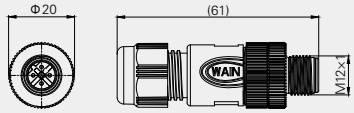


B–Code



4pin 5pin

Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12P–M04B–T–D6	163 004 411 3105
	6–8 mm	M12P–M04B–T–D8	163 004 411 3106
5	4–6 mm	M12P–M05B–T–D6	163 005 411 3105
	6–8 mm	M12P–M05B–T–D8	163 005 411 3106



Male cable connector,

metal locking system,
screw clamp connection
Recommended use

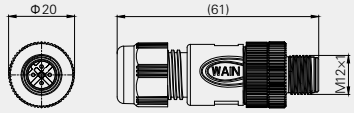


B–Code



4pin 5pin

Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12–M04B–T–D6	163 004 411 1001
	6–8 mm	M12–M04B–T–D8	163 004 411 1002
5	4–6 mm	M12–M05B–T–D6	163 005 411 1001
	6–8 mm	M12–M05B–T–D8	163 105 411 3002



Male cable connector, stainless steel

locking system, screw clamp connection,

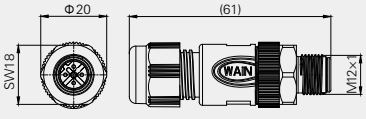


B–Code



4pin 5pin

Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12S–M04B–T–D6	163 004 411 1003
	6–8 mm	M12S–M04B–T–D8	163 004 411 1004
5	4–6 mm	M12S–M05B–T–D6	163 005 411 1003
	6–8 mm	M12S–M05B–T–D8	163 005 411 1004



M12-B Circular Connector

125/250V 2/8A

Technical characteristics

Number of contacts	5
Rated current (40℃)	Contacts:1–4 8A; Contacts:5 2A
Rated voltage	125V
Rated impulse voltage	1500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	screw M12x1
Termination	screw clamp with ferules
Wire gauge	max.1.5mm²(max.AWG16)
Cable outlet	8–10mm
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–40℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	PA/PBT

Straight cable connectors

Male cable connector, plastic locking

system, screw clamp connection

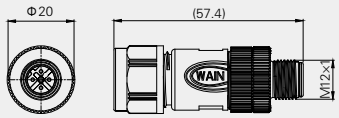


B–Code



5pin

Contacts	Cable outlet	Designation	Order No.
5	8–10 mm	M12P–M05B–T–D10	163 005 411 3107



Male cable connector,

metal locking system,
screw clamp connection
Recommended use

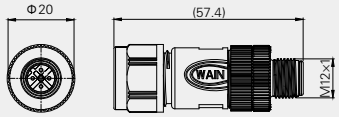


B–Code



5pin

Contacts	Cable outlet	Designation	Order No.
5	8–10 mm	M12–M05B–T–D10	163 005 411 1002



Male cable connector, stainless steel

locking system, screw clamp connection,

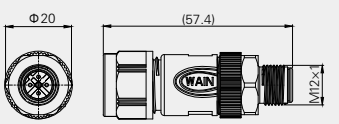


B–Code



5pin

Contacts	Cable outlet	Designation	Order No.
5	8–10 mm	M12S–M05B–T–D10	163 005 411 1005



M12-B Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	4	5
Rated current (40℃)	4A	4A
Rated voltage	250V	125V
Rated impulse voltage	2500V	1500V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1
Termination	screw	screw
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)
Cable outlet	4–6,6–8mm	4–6,6–8mm
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	zinc diecasting nickel plated, brass nickel plated	zinc diecasting nickel plated, brass nickel plated

Straight cable connectors, shielded

Male cable connector, shielded,

screw clamp connection,
with shielding ring
Recommended use

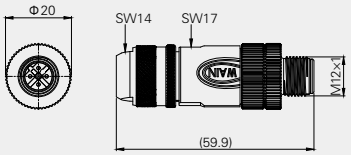


B–Code



4pin 5pin

Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12–M04B–T–D6–SH	163 004 411 2006
	6–8 mm	M12–M04B–T–D8–SH	163 004 411 2007
5	4–6 mm	M12–M05B–T–D6–SH	163 005 411 2007
	6–8 mm	M12–M05B–T–D8–SH	163 005 411 2008



M12-B Circular Connector

125/250V 4A

Technical characteristics

Number of contacts	4	5
Rated current (40℃)	4A	4A
Rated voltage	250V	125V
Rated impulse voltage	2500V	1500V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1
Termination	screw	screw
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)
Cable outlet	4–6,6–8 mm	4–6,6–8 mm
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	PA/PBT	PA/PBT

Angled cable connectors

Male angled connector,

plastic locking system,
screw clamp connection

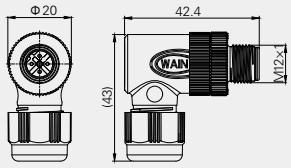


B–Code





Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12P–M04B–S–D6	163 004 511 3105
	6–8 mm	M12P–M04B–S–D8	163 004 511 3106
5	4–6 mm	M12P–M05B–S–D6	163 005 511 3105
	6–8 mm	M12P–M05B–S–D8	163 005 511 3106



Male angled connector,

metal locking system,
screw clamp connection
Recommended use

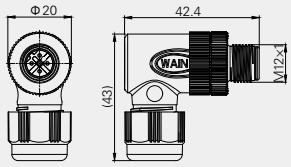


B–Code





Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12–M04B–S–D6	163 004 511 1001
	6–8 mm	M12–M04B–S–D8	163 004 511 1002
5	4–6 mm	M12–M05B–S–D6	163 005 511 1001
	6–8 mm	M12–M05B–S–D8	163 005 511 1002



Male angled connector,

stainless steel locking system,
screw clamp connection,

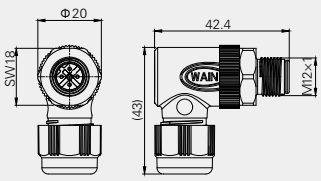


B–Code





Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12S–M04B–S–D6	163 004 511 1003
	6–8 mm	M12S–M04B–S–D8	163 004 511 1004
5	4–6 mm	M12S–M05B–S–D6	163 004 511 1004
	6–8 mm	M12S–M05B–S–D8	163 005 511 1005



M12-B Circular Connector

125/250V 4A

Technical characteristics

Number of contacts	5
Rated current (40℃)	contacts:1–4 8A; contacts:5 2A
Rated voltage	125V
Rated impulse voltage	1500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	screw M12x1
Termination	screw clamp with ferules
Wire gauge	max.1.5mm²(max.AWG16)
Cable outlet	8–10mm
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–40℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	PA/PBT

Angled cable connectors

Male angled connector,

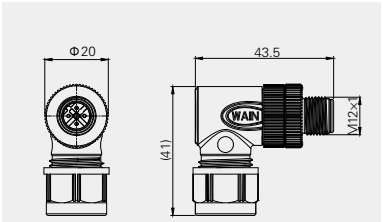
plastic locking system,
screw clamp connection

B–Code





Contacts	Cable outlet	Designation	Order No.
5	8–10 mm	M12P–M05B–S–D10	163 005 511 3107



Male angled connector,

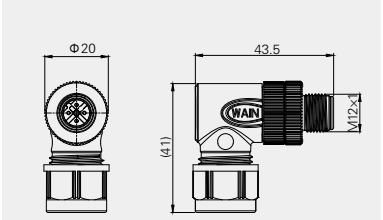
metal locking system,
screw clamp connection
Recommended use

B–Code





Contacts	Cable outlet	Designation	Order No.
5	8–10 mm	M12–M05B–S–D10	163 005 511 1003



Male angled connector,

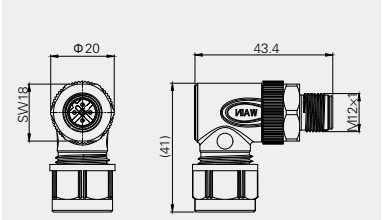
stainless steel locking system,
screw clamp connection,

B–Code





Contacts	Cable outlet	Designation	Order No.
5	8–10 mm	M12S–M05B–S–D10	163 005 511 1006



M12-B Circular Connector

125/250V 4A

Technical characteristics

Number of contacts	4–pole	5–pole
Rated current (40℃)	4A	4A
Rated voltage	250V	125V
Rated impulse voltage	2500V	1500V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	≤10 mΩ	≤10 mΩ
Connector locking system	screw M12x1	screw M12x1
Termination	screw	screw
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)
Cable outlet	4–6,6–8 mm	4–6,6–8 mm
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	III	III
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	zinc diecasting nickel plated	zinc diecasting nickel plated

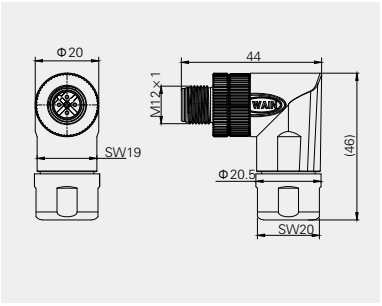
Angled cable connectors，shielded

Male angled connector, shieldable,

screw clamp connection,
with shielding ring



Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12–M04B–S–D6–SH	163 004 511 2003
	6–8 mm	M12–M04B–S–D8–SH	163 004 511 2004
5	4–6 mm	M12–M05B–S–D6–SH	163 005 511 2003
	6–8 mm	M12–M05B–S–D8–SH	163 005 511 2004



M12-B Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	4	5
Rated current (40℃)	4A	4A
Rated voltage	250V	125V
Rated impulse voltage	2500V	1500V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1
Termination	screw	screw
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)
Cable outlet	4–6,6–8 mm	4–6,6–8 mm
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	PA/PBT	PA/PBT

Straight cable connectors

Female cable connector,

plastic locking system,
screw clamp connection

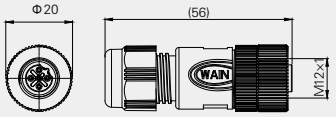


B–Code



4pin 5pin

Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12P–F04B–T–D6	163 004 421 3106
	6–8 mm	M12P–F04B–T–D8	163 004 421 3107
5	4–6 mm	M12P–F05B–T–D6	163 005 421 3106
	6–8 mm	M12P–F05B–T–D8	163 005 421 3107



Female cable connector,

metal locking system,
screw clamp connection
Recommended use

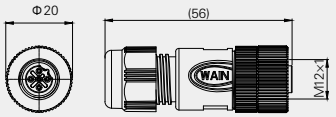


B–Code



4pin 5pin

Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12–F04B–T–D6	163 004 421 1001
	6–8 mm	M12–F04B–T–D8	163 004 421 1002
5	4–6 mm	M12–F05B–T–D6	163 005 421 1001
	6–8 mm	M12–F05B–T–D8	163 105 421 3002



Female cable connector,

stainless steel locking system,
screw clamp connection,

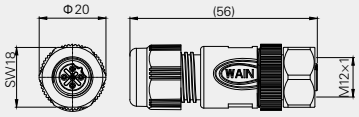


B–Code



4pin 5pin

Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12S–F04B–T–D6	163 004 421 1003
	6–8 mm	M12S–F04B–T–D8	163 004 421 1004
5	4–6 mm	M12S–F05B–T–D6	163 005 421 1003
	6–8 mm	M12S–F05B–T–D8	163 005 421 1004



M12-B Circular Connector

125/250V 2/8A

Technical characteristics

Number of contacts	5
Rated current (40℃)	contacts:1–4 8A; contacts:5 2A
Rated voltage	125V
Rated impulse voltage	1500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	screw M12x1
Termination	screw clamp with ferules
Wire gauge	max.1.5mm²(max.AWG16)
Cable outlet	8–10mm
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–40℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	PA/PBT

Straight cable connectors

Female cable connector,

plastic locking system,
screw clamp connection

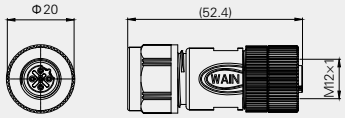


B–Code



5pin

Contacts	Cable outlet	Designation	Order No.
5	8–10 mm	M12P–F05B–T–D10	163 005 421 3108



Female cable connector,

metal locking system,
screw clamp connection
Recommended use

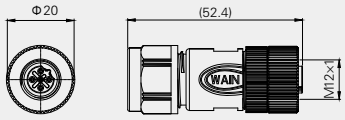


B–Code



5pin

Contacts	Cable outlet	Designation	Order No.
5	8–10 mm	M12–F05B–T–D10	163 005 421 1002



Female cable connector,

stainless steel locking system,
screw clamp connection,

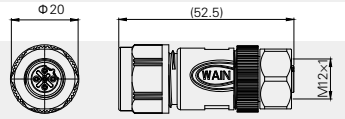


B–Code



5pin

Contacts	Cable outlet	Designation	Order No.
5	8–10 mm	M12S–F05B–T–D10	163 005 421 1005



M12-B Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	4	5
Rated current (40℃)	4A	4A
Rated voltage	250V	125V
Rated impulse voltage	2500V	1500V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	≤10 mΩ	≤10 mΩ
Connector locking system	screw M12x1	screw M12x1
Termination	screw	screw
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)
Cable outlet	4–6,6–8mm	4–6,6–8mm
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	zinc diecasting nickel plated, brass nickel plated	zinc diecasting nickel plated, brass nickel plated

Straight cable connectors, shielded

Female cable connector, shielded,

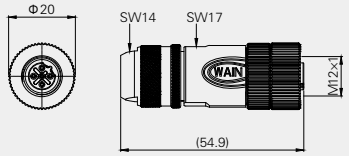
screw clamp connection,
with shielding ring
Recommended use



B–Code

4pin 5pin

Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12–F04B–T–D6–SH	163 104 421 2001
	6–8 mm	M12–F04B–T–D8–SH	163 004 421 2005
5	4–6 mm	M12–F05B–T–D6–SH	163 005 421 2006
	6–8 mm	M12–F05B–T–D8–SH	163 105 421 3003



M12-B Circular Connector

125/250V 4A

Technical characteristics

Number of contacts	4	5
Rated current (40℃)	4A	4A
Rated voltage	250V	125V
Rated impulse voltage	2500V	1500V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1
Termination	screw	screw
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)
Cable outlet	4–6,6–8 mm	4–6,6–8 mm
Degree of protection	IP67	IP67
Mechanical operation	＞50	＞50
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	PA/PBT	PA/PBT

Angled cable connectors

Female angled connector,

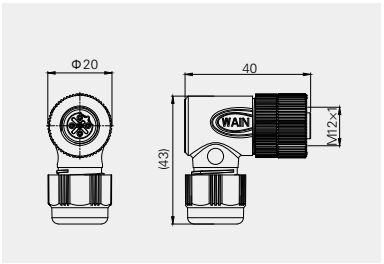
plastic locking system,
screw clamp connection

B–Code





Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12P–F04B–S–D6	163 004 521 3105
	6–8 mm	M12P–F04B–S–D8	163 004 521 3106
5	4–6 mm	M12P–F05B–S–D6	163 005 521 3103
	6–8 mm	M12P–F05B–S–D8	163 005 521 3104



Female angled connector,

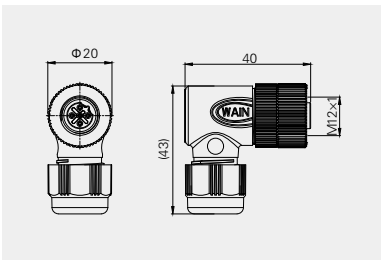
metal locking system,
screw clamp connection
Recommended use

B–Code





Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12–F04B–S–D6	163 004 521 1001
	6–8 mm	M12–F04B–S–D8	163 004 521 1002
5	4–6 mm	M12–F05B–S–D6	163 005 521 1001
	6–8 mm	M12–F05B–S–D8	163 005 521 1002



Female angled connector,

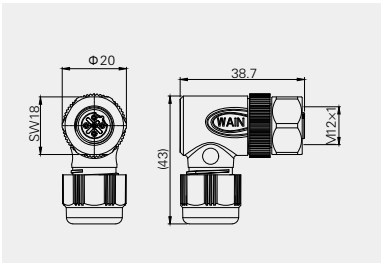
stainless steel
locking system,
screw clamp connection,

B–Code





Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12S–F04B–S–D6	163 004 521 1003
	6–8 mm	M12S–F04B–S–D8	163 004 521 1004
5	4–6 mm	M12S–F05B–S–D6	163 005 521 1004
	6–8 mm	M12S–F05B–S–D8	163 005 521 1005



M12-B Circular Connector

125V 2/8A

Technical characteristics

Number of contacts	5
Rated current (40℃)	contacts:1–4 8A; contacts:5 2A
Rated voltage	125V
Rated impulse voltage	1500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	screw M12x1
Termination	screw clamp with ferules
Wire gauge	max.1.5mm²(max.AWG16)
Cable outlet	8–10mm
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–40℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	PA/PBT

Angled cable connectors

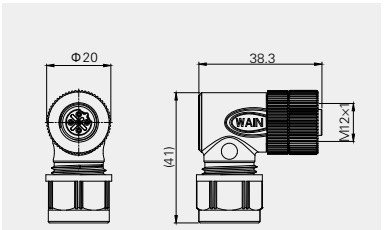
Female angled connector,

plastic locking system,
screw clamp connection B–Code





Contacts	Cable outlet	Designation	Order No.
5	8–10 mm	M12P–F05B–S–D10	163 005 521 3105



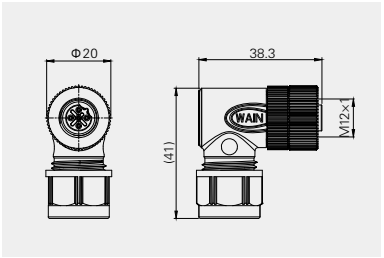
Female angled connector,

metal locking system,
screw clamp connection B–Code
Recommended use





Contacts	Cable outlet	Designation	Order No.
5	8–10 mm	M12–F05B–S–D10	163 005 521 1003



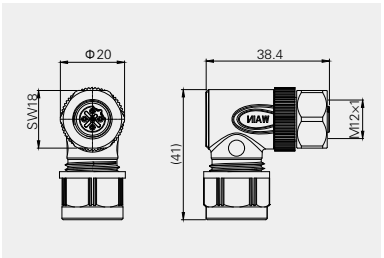
Female angled connector,

stainless steel
locking system,
screw clamp connection, B–Code





Contacts	Cable outlet	Designation	Order No.
5	8–10 mm	M12S–F05B–S–D10	163 005 521 1006



M12-B Circular Connector

125/250V 4A

Technical characteristics

Number of contacts	4	5
Rated current (40℃)	4A	4A
Rated voltage	250V	125V
Rated impulse voltage	2500V	1500V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	≤10 mΩ	≤10 mΩ
Connector locking system	screw M12x1	screw M12x1
Termination	screw	screw
Wire gauge	max.0.75mm²(max.AWG18)	max.0.75mm²(max.AWG18)
Cable outlet	4–6,6–8 mm	4–6,6–8 mm
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	III	III
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	zinc diecasting nickel plated	zinc diecasting nickel plated

Angled cable connectors, shielded

Female angled connector, shielded,

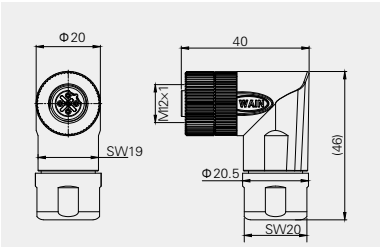
screw clamp connection,
with shielding ring

B–Code



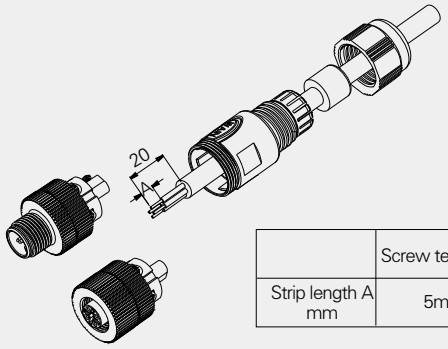


Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12–F04B–S–D6–SH	163 004 521 2003
	6–8 mm	M12–F04B–S–D8–SH	163 004 521 2004
5	4–6 mm	M12–F05B–S–D6–SH	163 005 521 2003
	6–8 mm	M12–F05B–S–D8–SH	163 005 521 2004

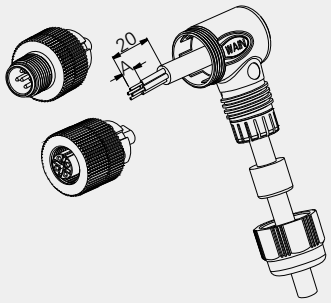


Assembly instruction

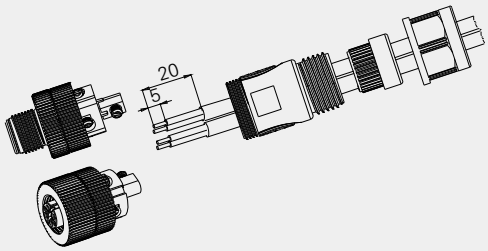
Strip length male/female cable connector, male/female angled connector, not shielded

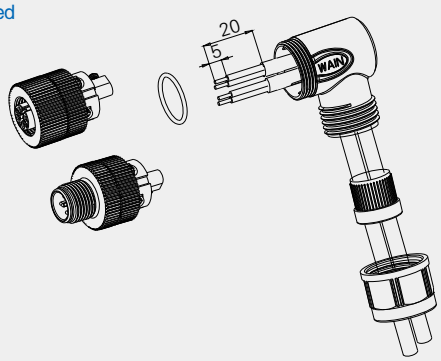


	Screw termination
Strip length A mm	5mm

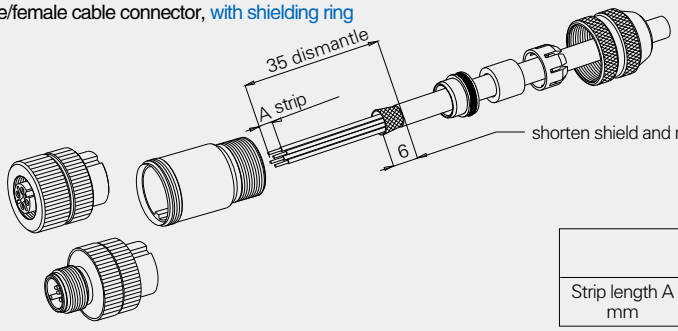


Strip length male/female cable duo connector, male/female angled duo connector, not shielded





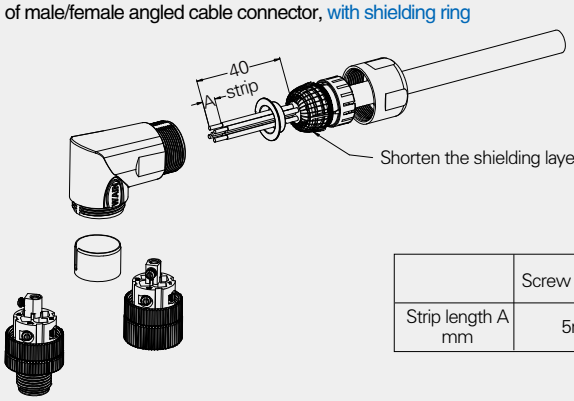
Strip length male/female cable connector, with shielding ring



	Screw termination
Strip length A mm	5mm

Assembly instruction

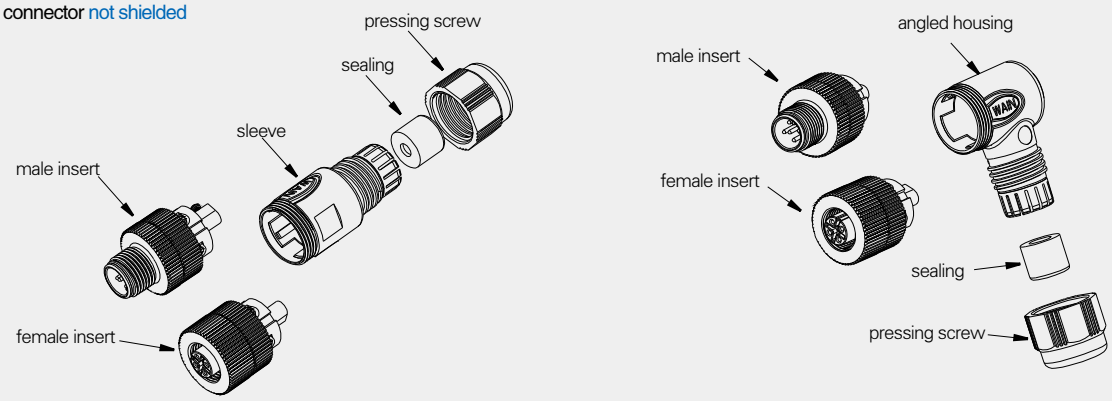
Stripping length of male/female angled cable connector, with shielding ring



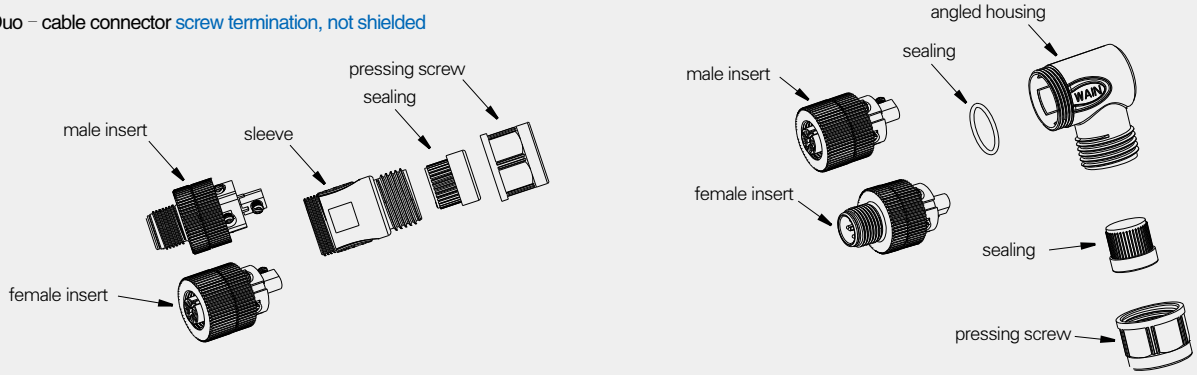
	Screw termination
Strip length A mm	5mm

Component part drawing

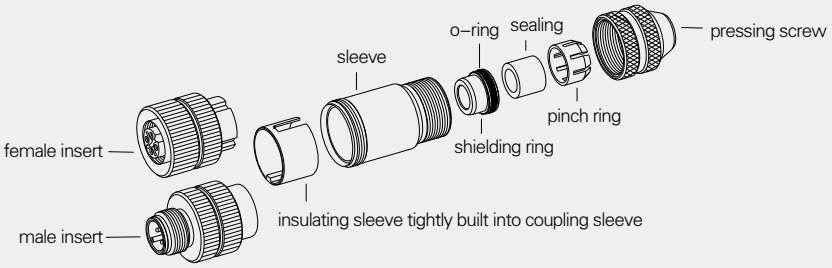
Cable connector not shielded



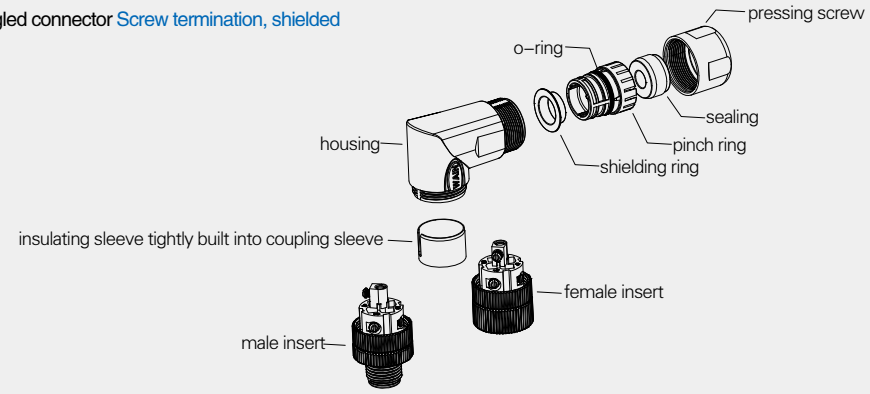
Duo – cable connector screw termination, not shielded



Cable connector with shielding ring

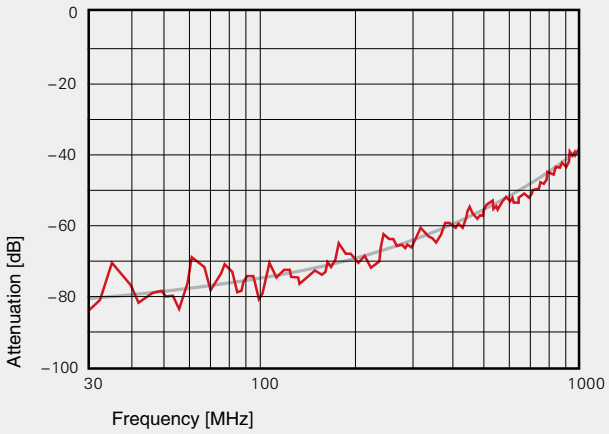


Angled connector Screw termination, shielded

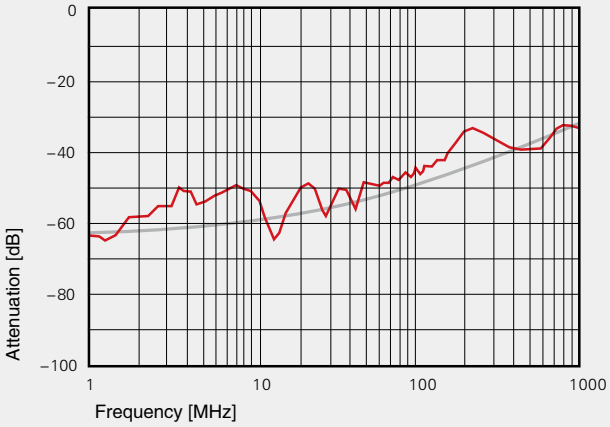


Rating

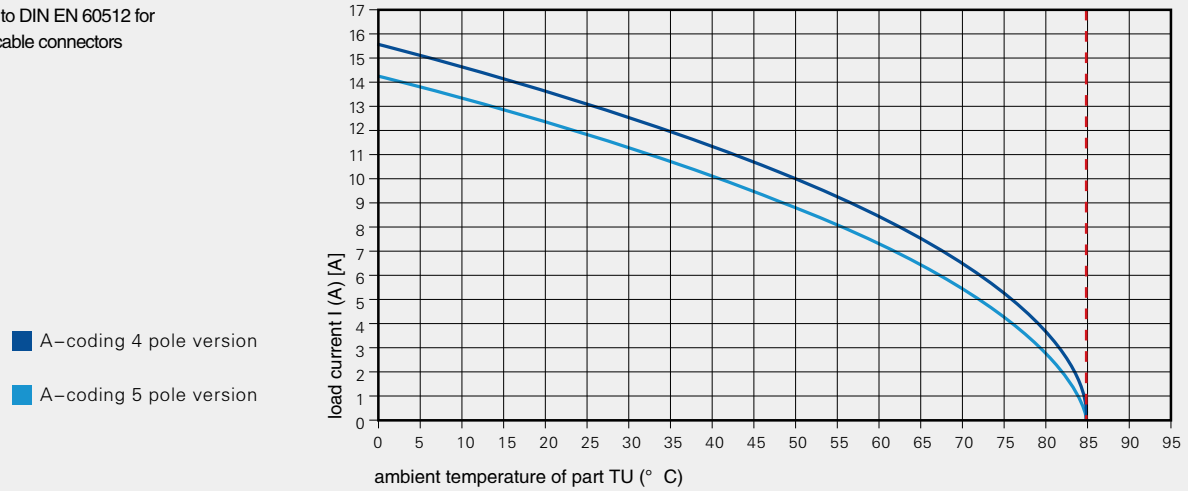
Attenuation curve according to DIN 47250–6 for straight cable connectors, with shielding ring



Attenuation curve according to DIN 47250–6 for straight cable connectors, with iris type spring



Derating curve according to DIN EN 60512 for POWER cable connectors



M12-B Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	3	4	5
Rated current (40℃)	4A	4A	4A
Rated voltage	250V	250V	125V
Rated impulse voltage	2500V	2500V	1500V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1
Termination	crimp, moulded	crimp, moulded	crimp, moulded
Wire gauge	0.34mm²(AWG22)	0.34mm²(AWG22)	0.25mm²AWG24)
Cable outlet	–	–	–
Degree of protection	IP67 shielded	IP67 shielded	IP67 shielded
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	TPU	TPU	TPU

Straight cable connectors，cable

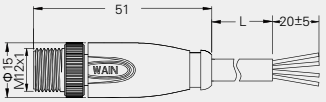
Male cable connector moulded，
screw，shielded
Recommended use



B–Code



Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PVC	1.5 m	M12–M03B–T–1.5–PVC–SH	163 003 401 4045
		5.0 m	M12–M03B–T–5.0–PVC–SH	163 003 401 4046
	3x0.34PUR	1.5 m	M12–M03B–T–1.5–PUR–SH	163 003 401 4043
		5.0 m	M12–M03B–T–5.0–PUR–SH	163 003 401 4044
4	4x0.34PVC	1.5 m	M12–M04B–T–1.5–PVC–SH	163 004 401 4047
		5.0 m	M12–M04B–T–5.0–PVC–SH	163 004 401 4048
	4x0.34PUR	1.5 m	M12–M04B–T–1.5–PUR–SH	163 004 401 4045
		5.0 m	M12–M04B–T–5.0–PUR–SH	163 004 401 4046
5	5x0.25PVC	1.5 m	M12–M05B–T–1.5–PVC–SH	163 005 401 4043
		5.0 m	M12–M05B–T–5.0–PVC–SH	163 005 401 4044
	5x0.25PUR	1.5 m	M12–M05B–T–1.5–PUR–SH	163 005 401 4063
		5.0 m	M12–M05B–T–5.0–PUR–SH	163 005 401 4064



•Further cable length upon request.

WAIN
18B-18

M12-B Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	3	4	5
Rated current (40℃)	4A	4A	4A
Rated voltage	250V	250V	125V
Rated impulse voltage	2500V	2500V	1500V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	≤10 mΩ	≤10 mΩ	≤10 mΩ
Connector locking system	screw M12x1	screw M12x1	screw M12x1
Termination	crimp, moulded	crimp, moulded	crimp, moulded
Wire gauge	0.34mm²(AWG22)	0.34mm²(AWG22)	0.25mm²AWG24)
Cable outlet	–	–	–
Degree of protection	IP67 shielded	IP67 shielded	IP67 shielded
Mechanical operation	>100	>100	>100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	TPU	TPU	TPU

Straight cable connectors,cable

Female connector moulded,screw

shielded

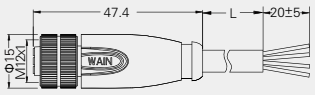
Recommended use



B–Code



Contacts	Cable	Cable length	Designation	Order No.
3	3x0.34PVC	1.5 m	M12–F03B–T–1.5–PVC–SH	163 003 402 4046
		5.0 m	M12–F03B–T–5.0–PVC–SH	163 003 402 4047
	3x0.34PUR	1.5 m	M12–F03B–T–1.5–PUR–SH	163 003 402 4043
		5.0 m	M12–F03B–T–5.0–PUR–SH	163 003 402 4044
4	4x0.34PVC	1.5 m	M12–F04B–T–1.5–PVC–SH	163 004 402 4046
		5.0 m	M12–F04B–T–5.0–PVC–SH	163 004 402 4047
	4x0.34PUR	1.5 m	M12–F04B–T–1.5–PUR–SH	163 004 402 4045
		5.0 m	M12–F04B–T–5.0–PUR–SH	163 004 402 4044
5	5x0.25PVC	1.5 m	M12–F05B–T–1.5–PVC–SH	163 005 402 4046
		5.0 m	M12–F05B–T–5.0–PVC–SH	163 005 402 4044
	5x0.25PUR	1.5 m	M12–F05B–T–1.5–PUR–SH	163 005 402 4064
		5.0 m	M12–F05B–T–5.0–PUR–SH	163 005 402 4065



•Further cable length upon request.

M12-B Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	2
Rated current (40℃)	4A
Rated voltage	250V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	≤10 mΩ
Connector locking system	screw M12x1
Termination	crimp, moulded
Wire gauge	0.34mm²(AWG22)
Cable outlet	–
Degree of protection	IP67 shielded
Mechanical operation	＞100
Limiting temperature	–25℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	TPU

Straight cable connectors，cable

Male cable connector moulded，screw，shielded

Recommended use

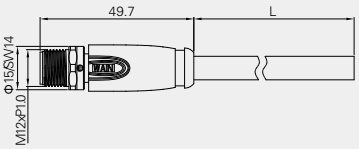


B–Code



2pin

Contacts	Cable	Cable length	Designation	Order No.
2	2x0.25PVC	1.5 m	M12–M02B–T–1.5–PVC–DP	163 002 401 4005
		5.0 m	M12–M02B–T–5.0–PVC–DP	163 002 401 4007
	2x0.25PUR	1.5 m	M12–M02B–T–1.5–PUR–DP	163 002 401 4006
		5.0 m	M12–M02B–T–5.0–PUR–DP	163 002 401 4008



•Further cable length upon request.

WAIN
18B-19.1

M12-B Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	2
Rated current (40℃)	4A
Rated voltage	250V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	≤10 mΩ
Connector locking system	screw M12x1
Termination	crimp, moulded
Wire gauge	0.34mm²(AWG22)
Cable outlet	–
Degree of protection	IP67 shielded
Mechanical operation	＞100
Limiting temperature	–25℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	TPU

Straight cable connectors,cable

Female connector moulded,screw

shielded

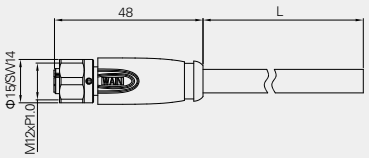
Recommended use



B–Code



Contacts	Cable	Cable length	Designation	Order No.
2	2x0.25PVC	1.5 m	M12–F02B–T–1.5–PVC–DP	163 002 402 4001
		5.0 m	M12–F02B–T–5.0–PVC–DP	163 002 402 4003
	2x0.25PUR	1.5 m	M12–F02B–T–1.5–PUR–DP	163 002 402 4002
		5.0 m	M12–F02B–T–5.0–PUR–DP	163 002 402 4004



•Further cable length upon request.

M12-B Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	4	5
Rated current (40℃)	4A	4A
Rated voltage	250V	125V
Rated impulse voltage	2500V	1500V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1
Termination	single–strand wires	single–strand wires
Wire gauge	0.75mm²(AWG18)	0.75mm²(AWG18)
Cable outlet	–	–
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	zinc diecasting nickel plated	zinc diecasting nickel plated

Socket

Male panel mount connector

with single wires, 0.25mm²
length 0.2m
Recommended use

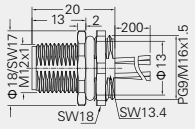


B–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–M04B–BK–PG9–W0.25	163 004 301 4004
	M16x1.5	M12–M04B–BK–M16–W0.25	163 004 301 4005
5	PG9	M12–M05B–BK–PG9–W0.25	163 005 301 4002
	M16x1.5	M12–M05B–BK–M16–W0.25	163 005 301 4003

Customized cable length upon request



Male panel mount connector, solder

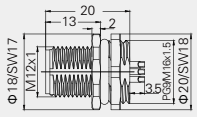
Recommended use



B–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–M04B–BK–PG9–C	163 004 313 1002
	M16x1.5	M12–M04B–BK–M16–C	163 004 313 1003
5	PG9	M12–M05B–BK–PG9–C	163 005 313 1002
	M16x1.5	M12–M05B–BK–M16–C	163 005 313 1003



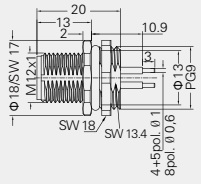
Male panel mount connector, dip solder



B–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–M04B–BK–PG9–D	163 004 314 1003
	M16x1.5	M12–M04B–BK–M16–D	163 004 314 1004
5	PG9	M12–M05B–BK–PG9–D	163 005 314 1003
	M16x1.5	M12–M05B–BK–M16–D	163 005 314 1004



M12-B Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	4	5
Rated current (40 ° C)	4A	4A
Rated voltage	250V	125V
Rated impulse voltage	2500V	1500V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw M12x1	screw M12x1
Termination	solder	solder
Wire gauge	0.75mm²(AWG18)	0.75mm²(AWG18)
Cable outlet	–	–
Degree of protection	IP67	IP67
Mechanical operation	> 100	> 100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	zinc diecasting nickel plated	zinc diecasting nickel plated

Socket

Male panel mount connector

with single wires, 0,25mm²
length 0.2m
front fastened,

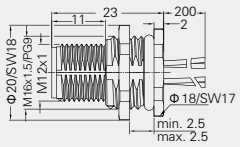


B–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–M04B–BKR–PG9–W0.25	163 004 301 4012
	M16x1.5	M12–M04B–BKR–M16–W0.25	163 004 301 4015
5	PG9	M12–M05B–BKR–PG9–W0.25	163 005 301 4012
	M16x1.5	M12–M05B–BKR–M16–W0.25	163 005 301 4013

Customized cable length upon request



Male panel mount connector,

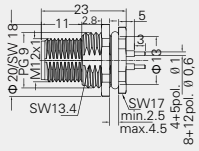
front fastened, dip solder



B–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–M04B–BKR–PG9–D	163 004 314 1012
	M16x1.5	M12–M04B–BKR–M16–D	163 004 314 1013
5	PG9	M12–M05B–BKR–PG9–D	163 005 314 1012
	M16x1.5	M12–M05B–BKR–M16–D	163 005 314 1013



M12-B Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	4	5
Rated current (40℃)	4A	4A
Rated voltage	250V	125V
Rated impulse voltage	2500V	1500V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw
Termination	solder, single–strand wires	solder, single–strand wires
Wire gauge	0.75mm²(AWG18)	0.75mm²(AWG18)
Cable outlet	–	–
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	zinc diecasting nickel plated/	zinc diecasting nickel plated

Receptacles

Female panel mount connector

with single wires, /0.25mm²/length 0.2m

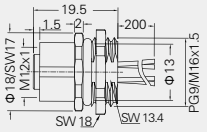


B–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–F04B–BK–PG9–W0.25	163 004 302 4003
	M16x1.5	M12–F04B–BK–M16–W0.25	163 004 302 4004
5	PG9	M12–F05B–BK–PG9–W0.25	163 005 302 4007
	M16x1.5	M12–F05B–BK–M16–W0.25	163 005 302 4008

Customized cable length upon request



Female panel mount connector, solder

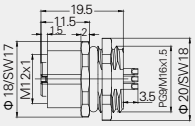
PG9/M16x1.5



B–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–F04B–BK–PG9–C	163 004 323 1002
	M16x1.5	M12–F04B–BK–M16–C	163 004 323 1003
5	PG9	M12–F05B–BK–PG9–C	163 005 323 1002
	M16x1.5	M12–F05B–BK–M16–C	163 005 323 1003



Female panel mount connector,

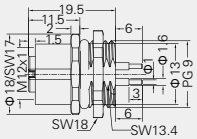
dip solder



B–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–F04B–BK–PG9–D	163 004 324 1003
	M16x1.5	M12–F04B–BK–M16–D	163 004 324 1004
5	PG9	M12–F05B–BK–PG9–D	163 005 324 1003
	M16x1.5	M12–F05B–BK–M16–D	163 005 324 1004



M12-B Circular Connector

60/125/250V 2/4A

Technical characteristics

Number of contacts	4	5
Rated current (40 ° C)	4A	4A
Rated voltage	250V	125V
Rated impulse voltage	2500V	1500V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw
Termination	single–strand wires	single–strand wires
Wire gauge	0.75mm²(AWG18)	0.75mm²(AWG18)
Cable outlet	–	–
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–40℃...+85℃	–40℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	zinc diecasting nickel plated	zinc diecasting nickel plated

Receptacles

Female panel mount connector,

front fastened, with single wires, 0.25mm²/length 0.2m

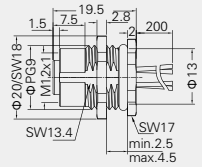


B–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–F04B–BKR–PG9–W0.25	163 004 302 4517
	M16x1.5	M12–F04B–BKR–M16–W0.25	163 004 302 4518
5	PG9	M12–F05B–BKR–PG9–W0.25	163 005 302 4512
	M16x1.5	M12–F05B–BKR–M16–W0.25	163 005 302 4513

Customized cable length upon request



Female panel mount connector,

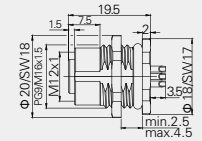
solder, front fastened



B–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–F04B–BKR–PG9–C	163 004 323 1012
	M16x1.5	M12–F04B–BKR–M16–C	163 004 323 1013
5	PG9	M12–F05B–BKR–PG9–C	163 005 323 1012
	M16x1.5	M12–F05B–BKR–M16–C	163 005 323 1013



Female panel mount connector,

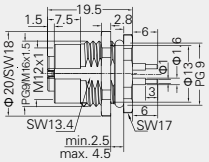
dip solder, front fastened



B–Code



Contacts	Thread	Designation	Order No.
4	PG9	M12–F04B–BKR–PG9–D	163 004 324 1012
	M16x1.5	M12–F04B–BKR–M16–D	163 004 324 1013
5	PG9	M12–F05B–BKR–PG9–D	163 005 324 1012
	M16x1.5	M12–F05B–BKR–M16–D	163 005 324 1013



Accessories

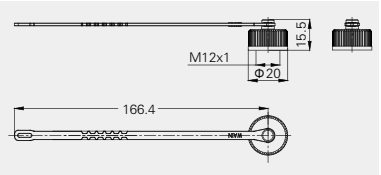
Protection covers IP67

Protection cover

for male cable connector



Description	Designation	Order No.
Without cord	M12–MCV	163 000 001 9003
With cord	M12–MCV/1	163 000 001 9001

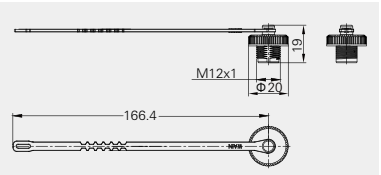


Protection cover

for female cable connector



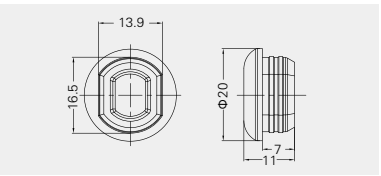
Description	Designation	Order No.
Without cord	M12–FCV	163 000 002 9003
With cord	M12–FCV/1	163 000 002 9001



Protection cover, for flange mount panel



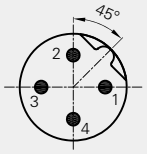
Description	Designation	Order No.
Dust–proof	M12–WNPP–M16/BK	163 000 000 9001



Contact arrangements

Male insert (mating side)

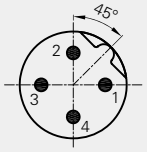
2 contacts



	X	Y
1		
2	0.00	2.50
3		
4	0.00	–2.50

1 n.C
2 green
3 n.C
4 red

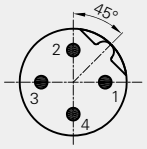
3 contacts



	X	Y
1	2.50	0.00
2		
3	–2.50	0.00
4	0.00	–2.50

1 brown
2 n.C
3 blue
4 black

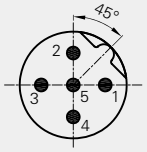
4 contacts



	X	Y
1	2.50	0.00
2	0.00	2.50
3	–2.50	0.00
4	0.00	–2.50

1 brown
2 white
3 blue
4 black

5 contacts

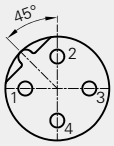


	X	Y
1	2.50	0.00
2	0.00	2.50
3	–2.50	0.00
4	0.00	–2.50
5	0.00	0.00

1 brown
2 white
3 blue
4 black
5 grey

Female insert (mating side)

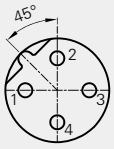
2 contacts



	X	Y
1		
2	0.00	2.50
3		
4	0.00	–2.50

1 n.C
2 green
3 n.C
4 red

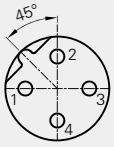
3 contacts



	X	Y
1	–2.50	0.00
2		
3	2.50	0.00
4	0.00	–2.50

1 brown
2 n.C
3 blue
4 black

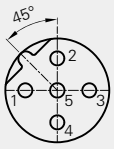
4 contacts



	X	Y
1	–2.50	0.00
2	0.00	2.50
3	2.50	0.00
4	0.00	–2.50

1 brown
2 white
3 blue
4 black

5 contacts



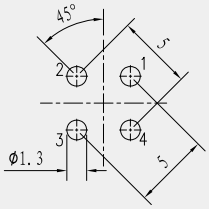
	X	Y
1	–2.50	0.00
2	0.00	2.50
3	2.50	0.00
4	0.00	–2.50
5	0.00	0.00

1 brown
2 white
3 blue
4 black
5 grey

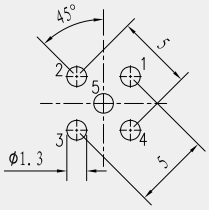
Panel cut out

Opening hole drawing male insert(PCB), Panel mount connectors

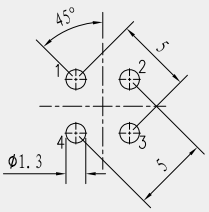
4 contacts

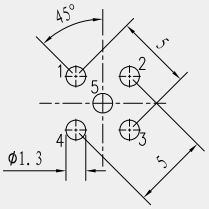


5 contacts



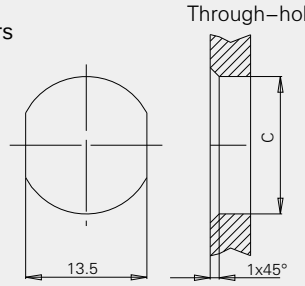
Opening hole drawing female insert(PCB), Panel mount connectors

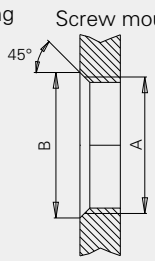




Panel cut out

Panel mount connectors

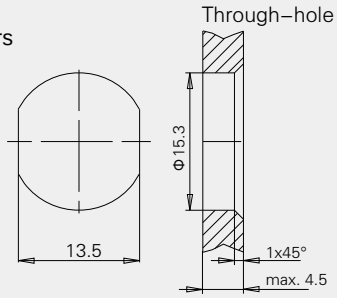




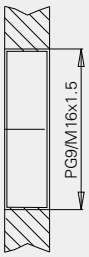
	A	B	C
PG9	PG9	16.2	15.3
PG13.5	PG13.5	21.5	20.5
M16x1.5	M16x1.5	17.0	16.1
M20x1.5	M20x1.5	21.0	20.1

Tightening torque according to DIN VDE 0619
Metal housing 6,25 Nm
Plastic housing 3,75 Nm

Panel mount connectors
Rear panel mounting,
front tighten



Panel mount connectors
front tighten



Tightening torque 6,25 Nm

M12 Circular Connector,D-coded



Cable Connector

- Shielded / unshielded series
- Installable series and cast cable series
- Thread locking M12X1
- Screw terminal
- Shielding ring and ring spring shielding connection
- Cable length 1.5m and 5m
- Other cable length upon request, minimum order quantity 200 pieces
- Cable material can be customized according to requirements
- Protection grade IP67
- Anti–loose spring with nut

M12-D Circular Connector

250V 4A

Technical characteristics

Number of contacts	4
Rated current (40℃)	4A
Rated voltage	250V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	≤10 mΩ
Connector locking system	screw M12x1
Termination	screw,crimp
Wire gauge	max.0.75mm²(max.AWG18)
Cable outlet	4–6mm,6–8mm
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–40℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Straight cable connectors, shielded

Male cable connector, shielded,

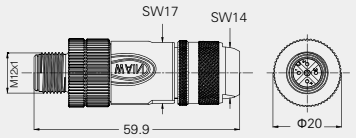
Cat.5e Screw terminal,
with shielding ring



D–Code

4pin

Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12–M04D–T–D6–SH	163 204 411 2001
	6–8 mm	M12–M04D–T–D8–SH	163 204 411 2002



Male cable connector, shieldable,

Cat.5e Crimp terminal ,
with shielding ring
Order crimp contacts separately

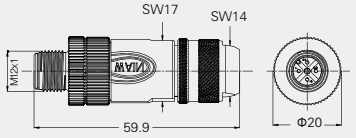


D–Code



4pin

Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12–MC04D–T–D6–SH	163 004 010 2001
	6–8 mm	M12–MC04D–T–D8–SH	163 004 010 2002



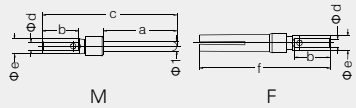
Crimp contacts

Crimp contacts 5A

Contact resistance≤3mΩ
gold plated



Wire gauge	Male	Order No.	Female	Order No.
0.09–0.25	CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
0.13–0.33	CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
0.33–0.52	CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501
0.52–0.82	CSGM–0.82	101 014 210 0701	CSGF–0.82	101 014 220 0701



Detail please find the crimp contacts series

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.09–0.82mm²	TL03	198 001 001 0002

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

M12-D Circular Connector

250V 4A

Technical characteristics

Number of contacts	4
Rated current (40℃)	4A
Rated voltage	250V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	≤10 mΩ
Connector locking system	screw M12x1
Termination	screw, crimp
Wire gauge	max.0.75mm²(max.AWG18), max.0.82mm²(max.AWG18)
Cable outlet	4–6mm,6–8mm
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–40℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Straight cable connectors, shielded

Female cable connector, shielded,

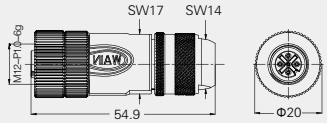
Cat.5e Screw terminal,
with shielding ring



D–Code

4pin

Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12–F04D–T–D6–SH	163 204 421 2001
	6–8 mm	M12–F04D–T–D8–SH	163 204 421 2002



Female cable connector, shielded,

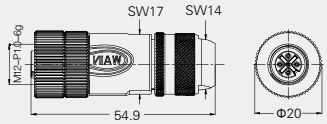
Cat.5e Crimp terminal ,
with shielding ring
Order crimp contacts separately



D–Code

4pin

Contacts	Cable outlet	Designation	Order No.
4	4–6 mm	M12–FC04D–T–D6–SH	163 004 020 2001
	6–8 mm	M12–FC04D–T–D8–SH	163 004 020 2002



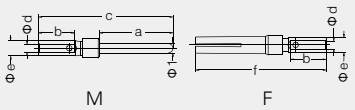
Crimp contacts

Crimp contacts 5A

Contact resistance≤3mΩ
gold plated



Wire gauge	Male	Order No.	Female	Order No.
0.09–0.25	CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
0.13–0.33	CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
0.33–0.52	CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501
0.52–0.82	CSGM–0.82	101 014 210 0701	CSGF–0.82	101 014 220 0701



Detail please find the crimp contacts series

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.09–0.82mm²	TL03	198 001 001 0002

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

M12-D Circular Connector

250V 4A

Technical characteristics

Number of contacts	4
Rated current (40℃)	4A
Rated voltage	250V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	screw M12x1
Termination	crimp
Wire gauge	max.0.82mm²(max.AWG18)
Cable outlet	6–8mm
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–40℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Flange base cable connector, shielded

Male cable connector, shielded,

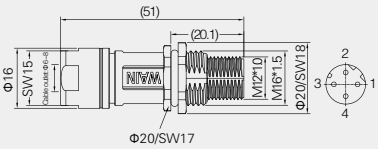
Cat.5e Crimp terminal ,
with shielding ring
Order crimp contacts separately

D–Code



4pin

Contacts	Cable outlet	Designation	Order No.
4	6–8 mm	M12–MC04D–CCT/R–M16–D8–SH	163 004 510 2001



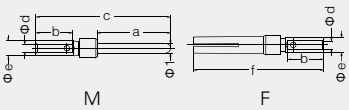
Crimp contacts

Crimp contacts 5A

Contact resistance⩽3mΩ
gold plated



Wire gauge	Male	Order No.	Female	Order No.
0.09–0.25	CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
0.13–0.33	CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
0.33–0.52	CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501
0.52–0.82	CSGM–0.82	101 014 210 0701	CSGF–0.82	101 014 220 0701



Detail please find the crimp contacts series

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.09–0.82mm²	TL03	198 001 001 0002

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

M12-D Circular Connector

250V 4A

Technical characteristics

Number of contacts	4
Rated current (40℃)	4A
Rated voltage	250V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	≤10 mΩ
Connector locking system	screw M12x1
Termination	crimp
Wire gauge	max.0.82mm²(max.AWG18)
Cable outlet	6–8mm
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–40℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Flange base cable connector, shielded

Female cable connector, shielded,

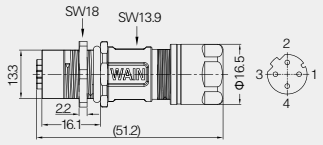
Cat.5e Crimp terminal ,
with shielding ring
Order crimp contacts separately



D–Code

4pin

Contacts	Cable outlet	Designation	Order No.
4	6–8 mm	M12–FC04D–CCT/R–M16–D8–SH	163 004 520 2003



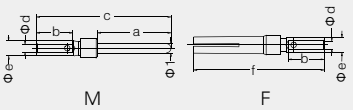
Crimp contacts

Crimp contacts 5A

Contact resistance≤3mΩ
gold plated



Wire gauge	Male	Order No.	Female	Order No.
0.09–0.25	CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
0.13–0.33	CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
0.33–0.52	CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501
0.52–0.82	CSGM–0.82	101 014 210 0701	CSGF–0.82	101 014 220 0701



Detail please find the crimp contacts series

Tools

Crimping tool



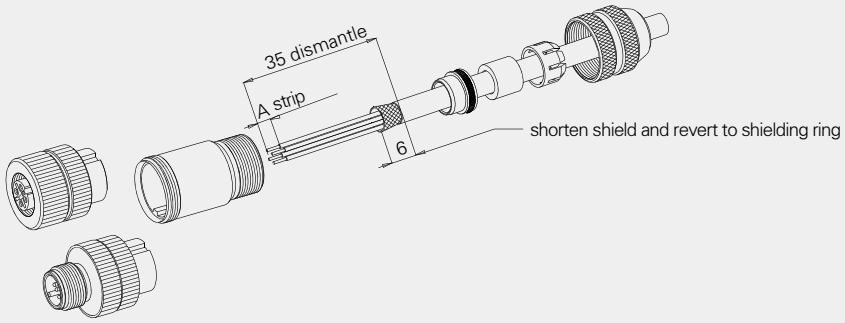
Wire gauge	Designation	Order No.
0.09–0.82mm²	TL03	198 001 001 0002

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Assembly instruction/Component part drawing

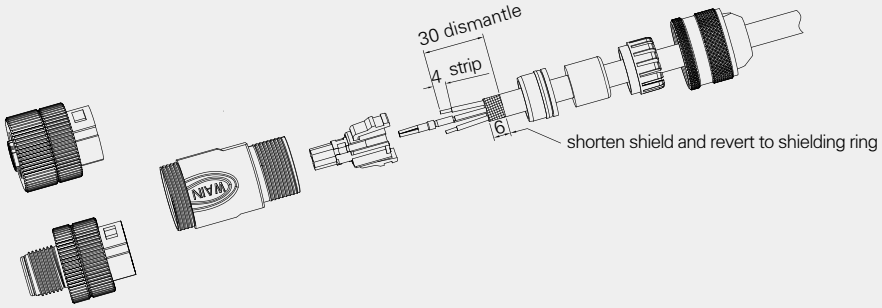
Assembly instruction

Strip length male/female cable connector, with shielding ring, screw terminal



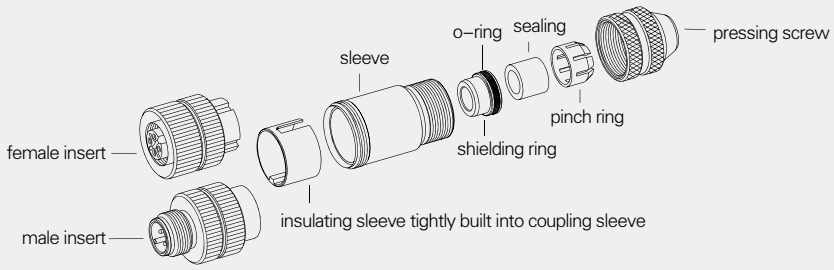
Assembly instruction

Strip length male/female cable connector, with shielding ring, crimp terminal



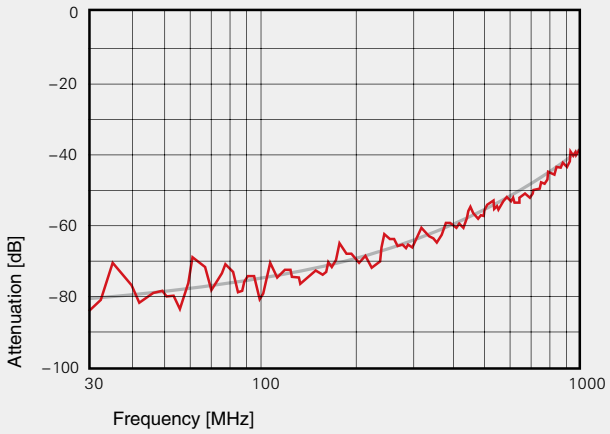
Component part drawing

Cable connector with shielding ring



Rating

Attenuation curve according to DIN 47250–6
for straight cable connectors screw termination
(cable version IEEE 802.3)



M12-D Circular Connector

250V 4A

Technical characteristics

Number of contacts	4
Rated current (40℃)	4A
Rated voltage	250V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	screw M12x1
Termination	crimp, moulded
Wire gauge	0.25mm²(AWG22)
Cable outlet	–
Degree of protection	IP67
Mechanical operation	＞500
Limiting temperature	–20℃...+60℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	TPU

Straight cable connectors，cable

Male cable connector, PROFINET

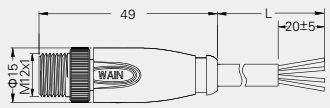


D–Code



4pin

Contacts	Cable length	Designation	Order No.
4	1.5 m	M12–M04D–T–1.5–PUR–PFN	163 204 401 4081
	5.0 m	M12–M04D–T–5.0–PUR–PFN	163 204 401 4082



Male cable connector, Cat.5e Ethernet

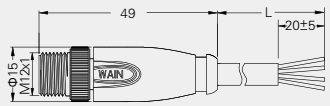


D–Code



4pin

Contacts	Cable length	Designation	Order No.
4	1.5 m	M12–M04D–T–1.5–PUR–Cat.5e	163 204 401 4091
	5.0 m	M12–M04D–T–5.0–PUR–Cat.5e	163 204 401 4092



•Further cable length upon request, minimum order quantity is 200 pcs.

M12-D Circular Connector

250V 4A

Technical characteristics

Number of contacts	4
Rated current (40℃)	4A
Rated voltage	250V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	screw M12x1
Termination	crimp, moulded
Wire gauge	0.25mm²(AWG22)
Cable outlet	–
Degree of protection	IP67
Mechanical operation	＞500
Limiting temperature	–20℃...+60℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	TPU

Straight cable connectors，cable

Female cable connector, PROFINET

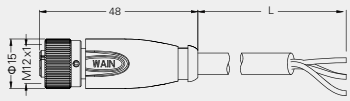


D–Code



4pin

Contacts	Cable length	Designation	Order No.
4	1.5 m	M12–F04D–T–1.5–PUR–PFN	163 204 402 4081
	5.0 m	M12–F04D–T–5.0–PUR–PFN	163 204 402 4082



Female cable connector, Cat.5e

Ethernet

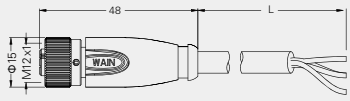


D–Code



4pin

Contacts	Cable length	Designation	Order No.
4	1.5 m	M12–F04D–T–1.5–PUR–Cat.5e	163 204 402 4091
	5.0 m	M12–F04D–T–5.0–PUR–Cat.5e	163 204 402 4092



•Further cable length upon request, minimum order quantity is 200 pcs.

M12-D Circular Connector

250V 4A

Technical characteristics

Number of contacts	4
Rated current (40℃)	4A
Rated voltage	250V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	screw M12x1
Termination	crimp, moulded
Wire gauge	0.25mm²(AWG22)
Cable outlet	–
Degree of protection	IP67
Mechanical operation	＞500
Limiting temperature	–20℃...+60℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	TPU

Cable connectors-wire jumper

Male cable connector, PROFINET

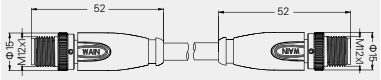


D–Code



4pin

Contacts	Cable length	Designation	Order No.
4	1.5 m	M12–M04D–T/M04D–T–1.5–PUR–PFN	163 004 401 4508
	5.0 m	M12–M04D–T/M04D–T–5.0–PUR–PFN	163 004 401 4507



Female cable connector, PROFINET

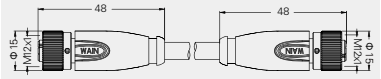


D–Code



4pin

Contacts	Cable length	Designation	Order No.
4	1.5 m	M12–F04D–T/F04D–T–1.5–PUR–PFN	163 004 402 4510
	5.0 m	M12–F04D–T/F04D–T–5.0–PUR–PFN	163 004 402 4509



Male,Female, PROFINET

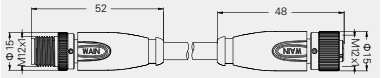


D–Code D–Code



4pin 4pin

Contacts	Cable length	Designation	Order No.
4	1.5 m	M12–M04D–T/F04D–T–1.5–PUR–PFN	163 004 400 4016
	5.0 m	M12–M04D–T/F04D–T–5.0–PUR–PFN	163 004 401 4502



•Further cable length upon request, minimum order quantity is 200 pcs.

M12-D Circular Connector

250V 4A

Technical characteristics

Number of contacts	4
Rated current (40℃)	4A
Rated voltage	250V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	screw M12x1
Termination	crimp, moulded
Wire gauge	0.25mm²(AWG22)
Cable outlet	–
Degree of protection	IP67
Mechanical operation	> 500
Limiting temperature	–20℃...+60℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	TPU

Cable connectors-wire jumper

Male cable connector,Cat.5e

Ethernet

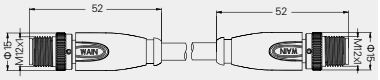


D–Code



4pin

Contacts	Cable length	Designation	Order No.
4	1.5 m	M12–M04D–T/M04D–T–1.5–PUR–Cat.5e	163 004 401 4510
	5.0 m	M12–M04D–T/M04D–T–5.0–PUR–Cat.5e	163 004 401 4509



Female cable connector, Cat.5e

Ethernet



D–Code



4pin

Contacts	Cable length	Designation	Order No.
4	1.5 m	M12–F04D–T/F04D–T–1.5–PUR–Cat.5e	163 004 402 4512
	5.0 m	M12–F04D–T/F04D–T–5.0–PUR–Cat.5e	163 004 402 4511

Cat.5e Ethernet

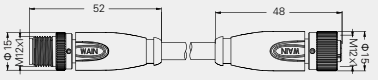


D–Code D–Code



4pin 4pin

Contacts	Cable length	Designation	Order No.
4	1.5 m	M12–M04D–T/F04D–T–1.5–PUR–Cat.5e	163 004 400 4017
	5.0 m	M12–M04D–T/F04D–T–5.0–PUR–Cat.5e	163 004 001 4013



•Further cable length upon request, minimum order quantity is 200 pcs.

M12-D Circular Connector

250V 4A

Technical characteristics

Number of contacts	4
Rated current (40℃)	4A
Rated voltage	250V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	screw M12x1
Termination	crimp, moulded
Wire gauge	0.25mm²(AWG22)
Cable outlet	–
Degree of protection	IP67
Mechanical operation	＞500
Limiting temperature	–20℃...+60℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	TPU

Straight cable connectors，cable

Male cable connector, Cat.5e

Ethernet

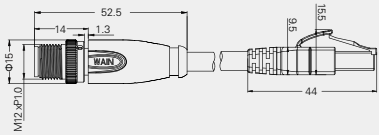


D–Code



4pin

Contacts	Cable length	Designation	Order No.
4	1.5 m	M12–M04D–T/RJ45–1.5–PUR–Cat.5e	163 004 001 4021
	5.0 m	M12–M04D–T/RJ45–5.0–PUR–Cat.5e	163 004 001 4004



Female cable connector, Cat.5e

Ethernet

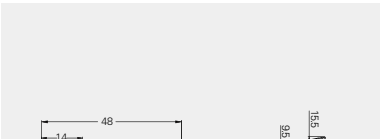


D–Code



4pin

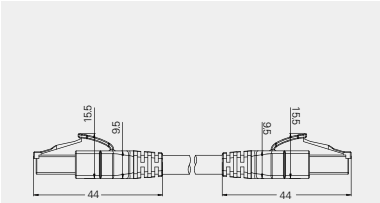
Contacts	Cable length	Designation	Order No.
4	1.5 m	M12–F04D–T/RJ45–1.5–PUR–Cat.5e	163 004 402 4506
	5.0 m	M12–F04D–T/RJ45–5.0–PUR–Cat.5e	163 004 402 4507



Cat.5e Ethernet



Contacts	Cable length	Designation	Order No.
4	1.5 m	2RJ45–M04–T–1.5–PUR–Cat.5e	172 004 000 4002
	5.0 m	2RJ45–M04–T–5.0–PUR–Cat.5e	172 004 000 4001



M12-D Circular Connector

250V 4A

Technical characteristics

Number of contacts	4
Rated current (40℃)	1A
Rated voltage	60V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	screw M12x1
Termination	crimp, moulded
Wire gauge	0.25mm²(AWG22)
Cable outlet	–
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–20℃...+60℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	TPU

Straight cable connectors，cable

Male cable connector, PROFINET

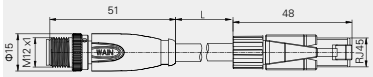


D–Code



4pin

Contacts	Cable length	Designation	Order No.
4	1.5 m	M12–M04D–T/RJ45P–T–1.5–PUR–PFN	163 004 001 4056
	5.0 m	M12–M04D–T/RJ45P–T–5.0–PUR–PFN	163 004 001 4057



Female cable connector, PROFINET

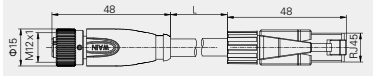


D–Code



4pin

Contacts	Cable length	Designation	Order No.
4	1.5 m	M12–F04D–T/RJ45P–T–1.5–PUR–PFN	163 004 002 4004
	5.0 m	M12–F04D–T/RJ45P–T–5.0–PUR–PFN	163 004 002 4005



Cable Technical characteristics

PROFINET cable

Number of contacts	4
Wire gauge mm²	2 x 2 x AWG 22
Material jacket	PUR
Insulation wire	Polyolefin
Design of wire (mm)	7 x 0,25 (AWG 22)
Cable jacket (mm)	6.7
Resistance of wire	55 Ω/Km
Temperature range (cable in move)	– 5 ° C / + 60 ° C
Temperature range (cable not in move)	– 20 ° C / + 60 ° C
Bending radius (cable in move)	min. 100 mm
Bending radius (cable not in move)	min. 35 mm
Approval	Profinet, UL 20236

M12-D Circular Connector

250V 4A

Technical characteristics

Number of contacts	4
Rated current (40℃)	4A
Rated voltage	250V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	≤10 mΩ
Connector locking system	screw M12x1
Termination	PUR–cable
Wire gauge	AWG 22
Cable outlet	–
Degree of protection	IP67
Mechanical operation	> 100
Limiting temperature	–20℃...+60℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Receptacles

Male panel mount connector ,

PROFINET-cable, shielded

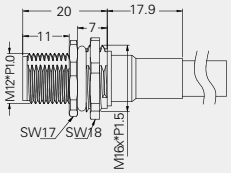


D–Code



4pin

Contacts	Cable length	Thread	Designation	Order No.
4	0.5m	PG9	M12–M04D–BK–PG9–PFN	163 004 301 4017
	0.5m	M16x1.5	M12–M04D–BK–M16–PFN	163 204 301 4022



Male panel mount connector ,

PROFINET-cable, shielded

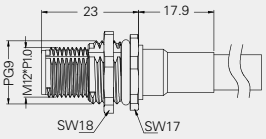


D–Code



4pin

Contacts	Cable length	Thread	Designation	Order No.
4	0.5m	PG9	M12–M04D–BKR–PG9–PFN	163 204 301 4012
	0.5m	M16x1.5	M12–M04D–BKR–M16–PFN	163 004 301 4018



M12-D Circular Connector

250V 4A

Technical characteristics

Number of contacts	4
Rated current (40℃)	4A
Rated voltage	250V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	screw M12x1
Termination	PUR–cable
Wire gauge	AWG 22
Cable outlet	–
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–20℃...+60℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Receptacles

Female panel mount connector ,

PROFINET-cable, shielded

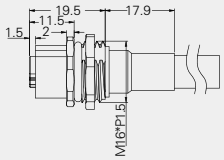


D–Code



4pin

Contacts	Cable length	Thread	Designation	Order No.
4	0.5m	PG9	M12–F04D–BK–PG9–PFN	163 004 302 4022
	0.5m	M16x1.5	M12–F04D–BK–M16–PFN	163 204 302 4022



Female panel mount connector ,

PROFINET-cable, shielded

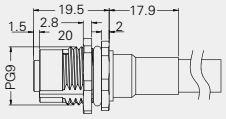


D–Code



4pin

Contacts	Cable length	Thread	Designation	Order No.
4	0.5m	PG9	M12–F04D–BKR–PG9–PFN	163 204 302 4012
	0.5m	M16x1.5	M12–F04D–BKR–M16–PFN	163 004 302 4023



M12-D Circular Connector

250V 4A

Technical characteristics

	4
Rated current (40℃)	4A
Rated voltage	250V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	≤10 mΩ
Connector locking system	screw M12x1
Termination	single wires
Wire gauge	max.0.75mm²(AWG18)
Cable outlet	–
Degree of protection	IP67
Mechanical operation	> 100
Limiting temperature	–40℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Receptacles

Male panel mount connector

with single wires,0.25mm²

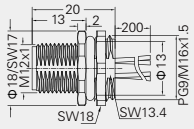


D–Code



4pin

Contacts	Thread	Designation	Order No.
4	PG9	M12–M04D–BK–PG9–W0.25	163 004 301 4003
	M16x1.5	M12–M04D–BK–M16–W0.25	163 204 301 4021



Male panel mount connector

with single wires,0.25mm²

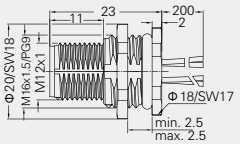


D–Code



4pin

Contacts	Thread	Designation	Order No.
4	PG9	M12–M04D–BKR–PG9–W0.25	163 004 301 4014
	M16x1.5	M12–M04D–BKR–M16–W0.25	163 004 301 4016



M12-D Circular Connector

250V 4A

Technical characteristics

Number of contacts	4
Rated current (40℃)	4A
Rated voltage	250V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	screw
Termination	dip solder
Wire gauge	–
Cable outlet	–
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–40℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Socket

Male panel mount connector, solder

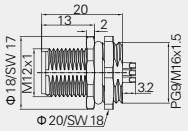


D–Code



4pin

Contacts	Thread	Designation	Order No.
4	PG9	M12–M04D–BK–PG9–C	163 004 301 1006
	M16x1.5	M12–M04D–BK–M16–C	163 004 301 1007



Male panel mount connector, dip solder

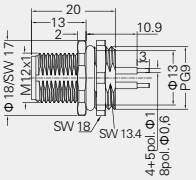


D–Code



4pin

Contacts	Thread	Designation	Order No.
4	PG9	M12–M04D–BK–PG9–D	163 004 314 1005
	M16x1.5	M12–M04D–BK–M16–D	163 004 314 1006



Male panel mount connector, dip solder

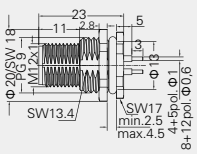


D–Code



4pin

Contacts	Thread	Designation	Order No.
4	PG9	M12–M04D–BKR–PG9–D	163 004 314 1007
	M16x1.5	M12–M04D–BKR–M16–D	163 004 314 1008



M12-D Circular Connector

250V 4A

Technical characteristics

	4
Rated current (40℃)	4A
Rated voltage	250V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	≤10 mΩ
Connector locking system	screw M12x1
Termination	single wires
Wire gauge	max.0.75mm²(AWG18)
Cable outlet	–
Degree of protection	IP67
Mechanical operation	> 100
Limiting temperature	–40℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Receptacles

Female panel mount connector

with single wires,0.25mm²

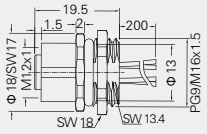


D–Code



4pin

Contacts	Thread	Designation	Order No.
4	PG9	M12–F04D–BK–PG9–W0.25	163 204 302 4001
	M16x1.5	M12–F04D–BK–M16–W0.25	163 204 302 4021



Female panel mount connector

with single wires,0.25mm²

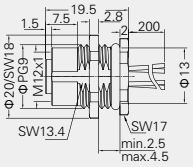


D–Code



4pin

Contacts	Thread	Designation	Order No.
4	PG9	M12–F04D–BKR–PG9–W0.25	163 204 302 4011
	M16x1.5	M12–F04D–BKR–M16–W0.25	163 204 302 4031



M12-D Circular Connector

250V 4A

Technical characteristics

Number of contacts	4
Rated current (40℃)	4A
Rated voltage	250V
Rated impulse voltage	2500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	screw
Termination	dip solder
Wire gauge	–
Cable outlet	–
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–40℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Socket

Female panel mount connector,

solder

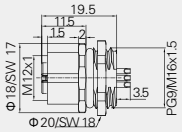


D–Code



4pin

Contacts	Thread	Designation	Order No.
4	PG9	M12–F04D–BK–PG9–C	163 204 324 1002
	M16x1.5	M12–F04D–BK–M16–C	163 004 302 1006



Female panel mount connector,

dip solder

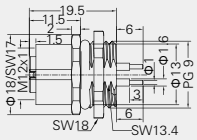


D–Code



4pin

Contacts	Thread	Designation	Order No.
4	PG9	M12–F04D–BK–PG9–D	163 204 324 1001



Female panel mount connector,

dip solder

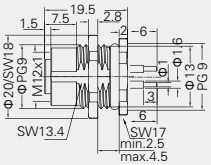


D–Code



4pin

Contacts	Thread	Designation	Order No.
4	PG9	M12–F04D–BKR–PG9–D	163 204 324 1011



Accessories

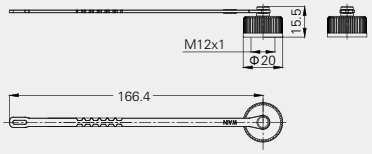
Protection cap IP67

Protection cover

for male cable connector



Description	Designation	Order No.
Without cord	M12–MCV	163 000 001 9003
With cord	M12–MCV/1	163 000 001 9001

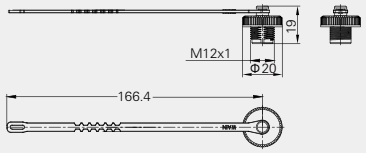


Protection cover

for female cable connector



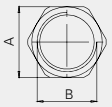
Description	Designation	Order No.
Without cord	M12–FCV	163 000 002 9003
With cord	M12–FCV/1	163 000 002 9001



Hexagonal nut for fixing thread



Thread	Designation	Order No.
PG9	WNA–PG9/S	102 105 002 1101
M16X1.5	WNA–M16/S	102 105 013 1101

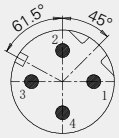


A	B
SW18	PG9
SW19	M16x1,5

Contact arrangements

Male insert (mating side)

4 contacts



	X	Y
1	2.50	0.00
2	0.00	2.50
3	–2.50	0.00
4	0.00	–2.50

PROFINET	cat.5e
1 yellow	1 Orange white
2 white	2 Green and white
3 orange	3 Orange
4 blue	4 green

Female insert (mating side)

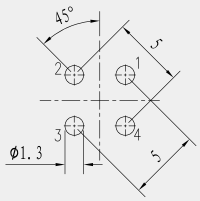


	X	Y
1	–2.50	0.00
2	0.00	2.50
3	2.50	0.00
4	0.00	–2.50

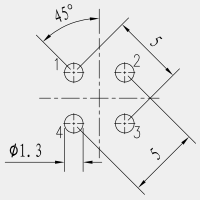
PROFINET	cat.5e
1 yellow	1 Orange white
2 white	2 Green and white
3 orange	3 Orange
4 blue	4 green

Drilling schemes male insert (PCB), receptacles

4 contacts

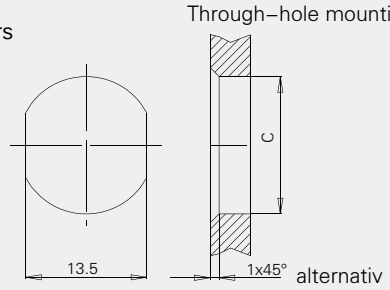


Drilling schemes female insert (PCB), receptacles



Panel cut out

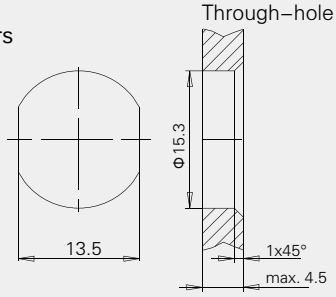
Panel mount connectors



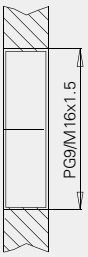
	A	B	C
PG9	PG9	16.2	15.3
PG13.5	PG13.5	21.5	20.5
M16x1.5	M16x1.5	17.0	16.1
M20x1.5	M20x1.5	21.0	20.1

Tightening torque according to DIN VDE 0619
Metal housing 6.25 Nm
Plastic housing 3.75 Nm

Panel mount connectors
Rear panel mounting,
front tighten

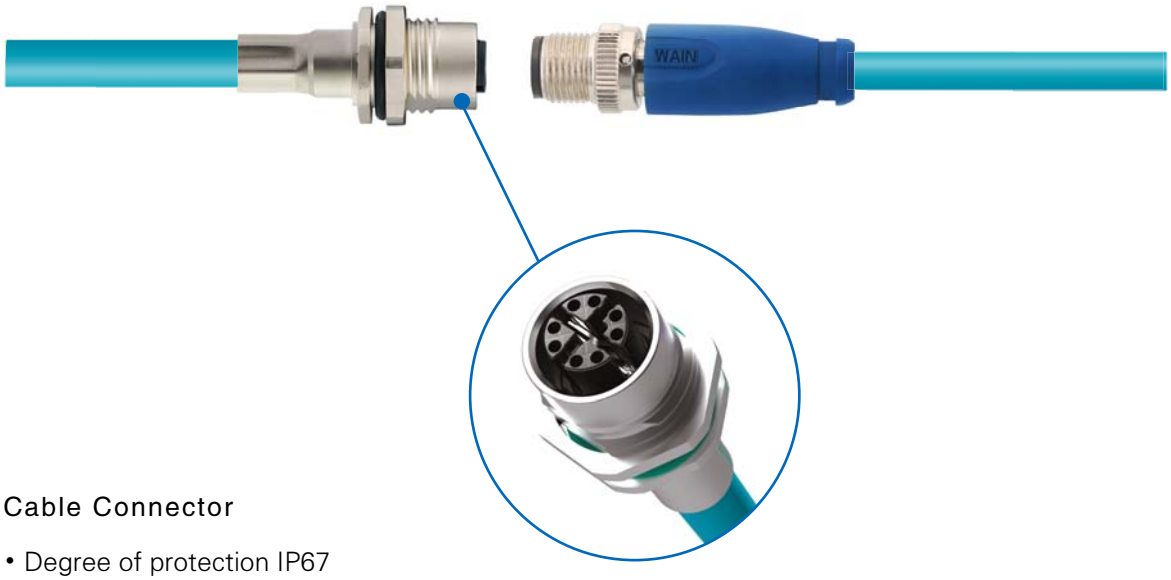


Panel mount connectors
front tighten



Tightening torque 6.25 Nm

M12 Circular Connector,X-coded



Cable Connector

- Degree of protection IP67
- With nut locking spring
- Gigabit transmission
- Shieldable/360° shield connection
- Anti–loose spring with nut

M12-X Circular Connector

50V/60V 0.5A

Technical characteristics

Number of contacts	8
Rated current (40℃)	0.5A
Rated voltage	50V a.c / 60V d.c
Rated impulse voltage	0.8kV
Pollution degree	3
Contact resistance	⩽10 mΩ
Insulation resistance	⩾10 mΩ
Connector locking system	screw M12x1
Wire gauge	0.14mm² (AWG 26)
Degree of protection	IP67
Mechanical operation	⩾100
Limiting temperature	–40℃...+85℃
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Straight cable connectors

Male cable connector, Cat.6a

Order crimp contacts separately

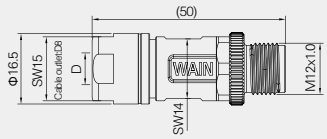


X–Code



8pin

Contacts	Cable outlet	Designation	Order No.
8	6–8 mm	M12–MC08X–T–D8–SH	163 008 010 2001



Male cable connector, Cat.6a

Order crimp contacts separately

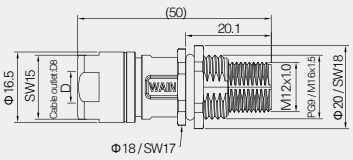


X–Code



8pin

Contacts	Cable outlet	Designation	Order No.
8	6–8 mm	M12–MC08X–CCT/R–M16–D8–SH	163 008 710 2001



Crimp contacts

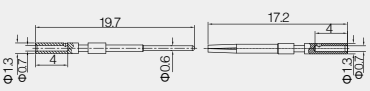
Crimp contacts 5A

Contact resistance⩽3mΩ
gold plated



Wire gauge	Male	Order No.
0.09–0.25	M12–MC0.5G–0.25	101 038 210 0101

Wire gauge	Female	Order No.
0.09–0.25	M12–FC0.5G–0.25	101 038 220 0101



M F

Detail please find the crimp contacts series

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.09–0.25mm²	TL27	198 001 001 0037

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

M12-X Circular Connector

50V/60V 0.5A

Technical characteristics

Number of contacts	8
Rated current (40℃)	0.5A
Rated voltage	50V a.c / 60V d.c
Rated impulse voltage	0.8kV
Pollution degree	3
Contact resistance	⩽10 mΩ
Insulation resistance	⩾10 mΩ
Connector locking system	screw M12x1
Wire gauge	0.14mm² (AWG 26)
Degree of protection	IP67
Mechanical operation	⩾100
Limiting temperature	–40℃...+85℃
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

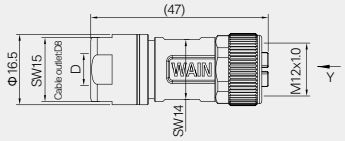
Straight cable connectors

Female cable connector, Cat.6a

Order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
8	6–8 mm	M12–FC08X–T–D8–SH	163 008 020 0001

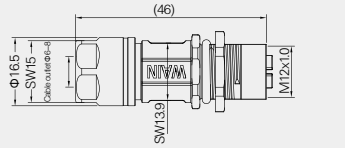


Female cable connector, Cat.6a

Order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
8	6–8 mm	M12–FC08X–CCT/R–M16–D8–SH	163 008 720 2001



Crimp contacts

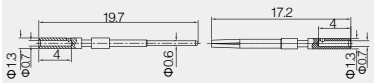
Crimp contacts 5A

Contact resistance⩽3mΩ
gold plated



Wire gauge	Male	Order No.
0.09–0.25	M12–MC0.5G–0.25	101 038 210 0101

Wire gauge	Female	Order No.
0.09–0.25	M12–FC0.5G–0.25	101 038 220 0101



Detail please find the crimp contacts series

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.09–0.25mm²	TL27	198 001 001 0037

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

M12-X Circular Connector

50V/60V 0.5A

Technical characteristics

Number of contacts	8
Rated current (40℃)	0.5A
Rated voltage	50V a.c / 60V d.c
Rated impulse voltage	0.8kV
Pollution degree	3
Contact resistance	⩽10 mΩ
Insulation resistance	⩾10 mΩ
Connector locking system	screw M12x1
Wire gauge	0.14mm² (AWG 26)
Degree of protection	IP67
Mechanical operation	⩾100
Limiting temperature	–40℃...+85℃
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Socket

Female panel mount connector ,

shielded

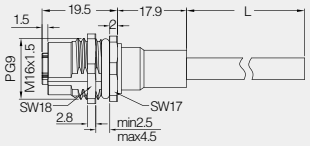


X–Code



8pin

Contacts	Cable length	Thread	Designation	Order No.
8	0.5m	PG9	M12–F08X–BKR–PG9–Cat6a	163 008 302 4003
	0.5m	M16x1.5	M12–F08X–BKR–M16–0.5–PUR–Cat6a	163 008 302 4005



M12-X Circular Connector

50V/60V 0.5A

Technical characteristics

Number of contacts	8
Rated current (40℃)	0.5A
Rated voltage	50V a.c / 60V d.c
Rated impulse voltage	0.8kV
Pollution degree	3
Contact resistance	⩽10 mΩ
Insulation resistance	⩾10 mΩ
Connector locking system	screw M12x1
Wire gauge	0.14mm² (AWG 26)
Degree of protection	IP67
Mechanical operation	⩾100
Limiting temperature	–40℃...+85℃
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Socket

Female panel mount connector ,

shielded

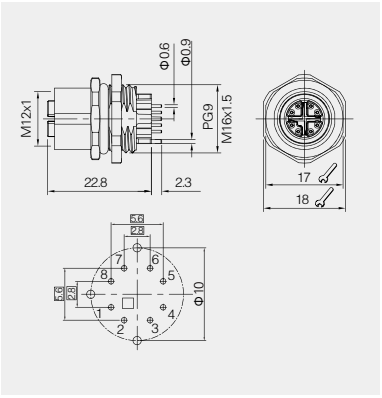


X–Code



8pin

Contacts	Cable length	Thread	Designation	Order No.
8	0.5m	M16x1.5	M12–F08X–BKR–M16–D	163 008 324 1004



M12-X Circular Connector

50V/60V 0.5A

Technical characteristics

Number of contacts	8
Rated current (40℃)	0.5A
Rated voltage	50V a.c / 60V d.c
Rated impulse voltage	0.8kV
Pollution degree	3
Contact resistance	≤10 mΩ
Insulation resistance	≥10 mΩ
Connector locking system	screw M12x1
Wire gauge	0.14mm² (AWG 26)
Degree of protection	IP67
Mechanical operation	≥100
Limiting temperature	–40℃...+85℃
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Straight cable connectors

Male cable connector

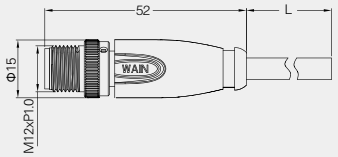


X–Code



8pin

Contacts	Cable length	Designation	Order No.
8	1.5 m	M12–M08X–T–1.5–PUR–Cat.6a	163 008 401 4001
	5.0 m	M12–M08X–T–5.0–PUR–Cat.6a	163 008 401 4002



M12-X Circular Connector

50V/60V 0.5A

Technical characteristics

Number of contacts	8
Rated current (40℃)	0.5A
Rated voltage	50V a.c / 60V d.c
Rated impulse voltage	0.8kV
Pollution degree	3
Contact resistance	⩽10 mΩ
Insulation resistance	⩾10 mΩ
Connector locking system	screw M12x1
Wire gauge	0.14mm² (AWG 26)
Degree of protection	IP67
Mechanical operation	⩾100
Limiting temperature	–40℃...+85℃
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Angled cable connectors

Male cable connector

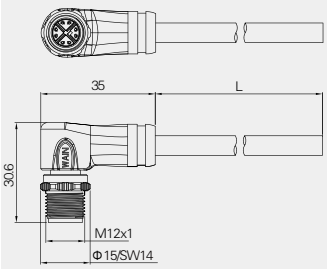


X–Code



8pin

Contacts	Cable length	Designation	Order No.
8	1.5 m	M12–M08X–S–1.5–PUR–Cat.6a	163 008 501 4001
	5.0 m	M12–M08X–S–5.0–PUR–Cat.6a	163 008 501 4002



M12-X Circular Connector

50V/60V 0.5A

Technical characteristics

Number of contacts	8
Rated current (40℃)	0.5A
Rated voltage	50V a.c / 60V d.c
Rated impulse voltage	0.8kV
Pollution degree	3
Contact resistance	⩽10 mΩ
Insulation resistance	⩾10 mΩ
Connector locking system	screw M12x1
Wire gauge	0.14mm² (AWG 26)
Degree of protection	IP67
Mechanical operation	⩾100
Limiting temperature	–40℃...+85℃
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Straight cable connectors

Male cable connector

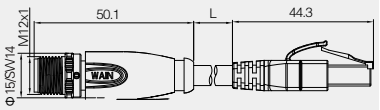


X–Code



8pin

Contacts	Cable length	Designation	Order No.
8	1.5 m	M12–M08X–T/RJ45–T–1.5–PUR–Cat.6a	163 008 402 4040
	5.0 m	M12–M08X–T/RJ45–T–5.0–PUR–Cat.6a	163 008 401 4015



M12-X Circular Connector

50V/60V 0.5A

Technical characteristics

Number of contacts	8
Rated current (40℃)	0.5A
Rated voltage	50V a.c / 60V d.c
Rated impulse voltage	0.8kV
Pollution degree	3
Contact resistance	⩽10 mΩ
Insulation resistance	⩾10 mΩ
Connector locking system	screw M12x1
Wire gauge	0.14mm² (AWG 26)
Degree of protection	IP67
Mechanical operation	⩾100
Limiting temperature	–40℃...+85℃
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	zinc diecasting nickel plated

Angled cable connectors

Male cable connector

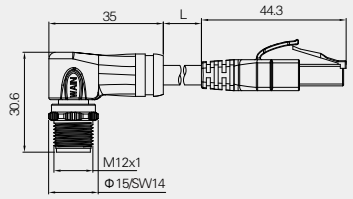


X–Code



8pin

Contacts	Cable length	Designation	Order No.
8	1.5 m	M12–M08X–S/RJ45–T–1.5–PUR–Cat.6a	163 008 001 4002
	5.0 m	M12–M08X–S/RJ45–T–5.0–PUR–Cat.6a	163 008 001 4003



Accessories

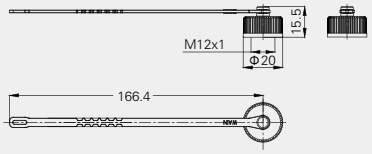
Protection covers IP67

Protection cover

for male cable connector



Description	Designation	Order No.
Without cord	M12–MCV	163 000 001 9003
With cord	M12–MCV/1	163 000 001 9001

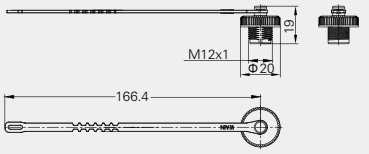


Protection cover

for female cable connector



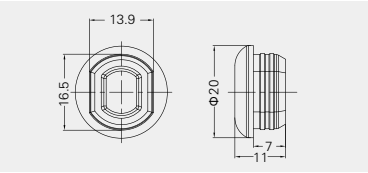
Description	Designation	Order No.
Without cord	M12–FCV	163 000 002 9003
With cord	M12–FCV/1	163 000 002 9001



Protection covers, for flange mount panel



Description	Designation	Order No.
Dust–proof	M12–WNPP–M16/BK	163 000 000 9001



Contact arrangements

Male insert (mating side)

8 contacts



	X	Y
1	1.40	–2.80
2	2.80	–1.40
3	2.80	1.40
4	1.40	2.80
5	–1.40	2.80
6	–2.80	1.40
7	–2.80	–1.40
8	–1.40	–2.80

568A	568B
1 white/green	1white/Orange
2 green	2 Orange
3 white/Orange	3 white/green
4 Orange	4 green
5 white/brown	5 white/brown
6 brown	6 brown
7 white/blue	7 white/blue
8 blue	8 blue

Female insert (mating side)



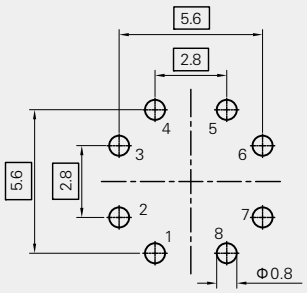
	X	Y
1	–1.40	–2.80
2	–2.80	–1.40
3	–2.80	1.40
4	–1.40	2.80
5	1.40	2.80
6	2.80	1.40
7	2.80	–1.40
8	1.40	–2.80

568A	568B
1 white/green	1white/Orange
2 green	2 Orange
3 white/Orange	3 white/green
4 Orange	4 green
5 white/brown	5 white/brown
6 brown	6 brown
7 white/blue	7 white/blue
8 blue	8 blue

PCB cut out

Opening hole drawing female insert（PCB）， Panel mount connectors

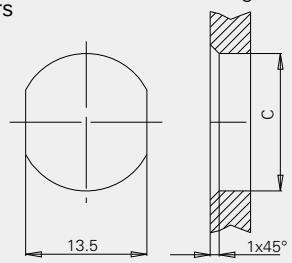
8 contacts



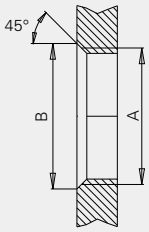
Panel cut out

Panel mount connectors

Through–hole mounting



Screw mounting

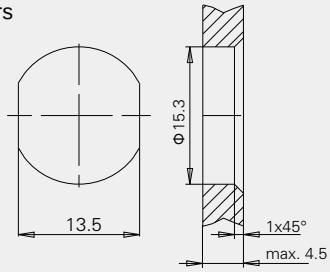


	A	B	C
PG9	PG9	16.2	15.3
PG13.5	PG13.5	21.5	20.5
M16x1.5	M16x1.5	17.0	16.1
M20x1.5	M20x1.5	21.0	20.1

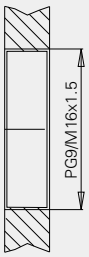
Tightening torque according to DIN VDE 0619
Metal housing 6,25 Nm
Plastic housing 3,75 Nm

Panel mount connectors
Rear panel mounting,
front tighten

Through–hole mounting



Panel mount connectors
front tighten



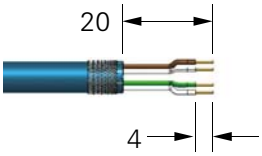
Tightening torque 6,25 Nm

Operating Instruction

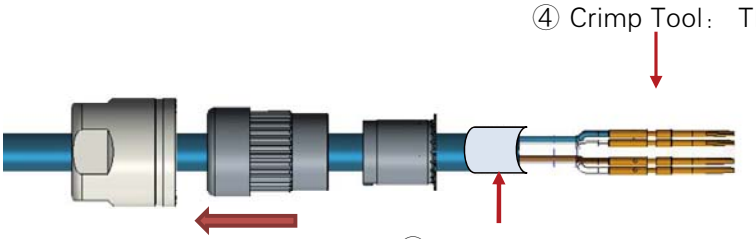
M12–MC08X–T–D8–SH
M12–FC08X–T–D8–SH
M12–MC08X–CCT/R–M16–D8–SH
M12–FC08X–CCT/R–M16–D8–SH

Installation Step



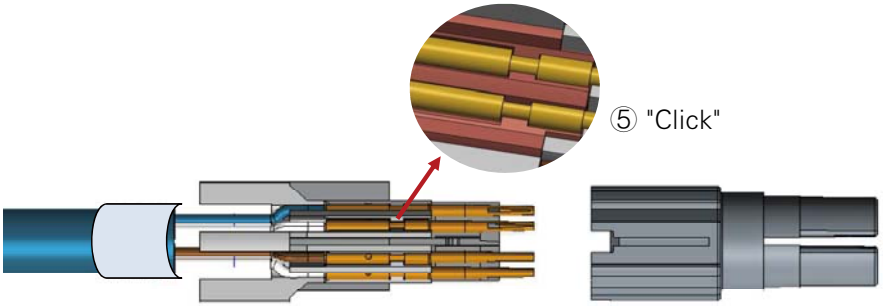


① Cable stripping



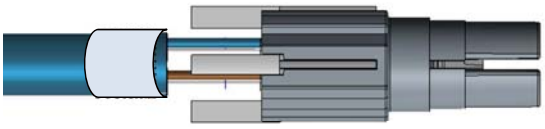
② Press

③ Wrapped aluminum foil

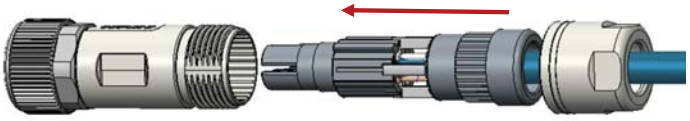


Insert the pin according to the wiring diagram

⑥ Insert body



⑦ Install the insert, seal and nut in turn



⑧ Installation complete



M8/M12 distributor, Sensor junction box





Y distributor

30V 4A

Technical characteristics

Number of contacts	4/3	4/4
Rated current (40℃)	4A	4A
Rated voltage	30V	30V
Rated impulse voltage	800V	800V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽3 mΩ	⩽3 mΩ
Connector locking system	screw	screw
Termination	–	–
Wire gauge	–	–
Cable outlet	–	–
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	TPU	TPU

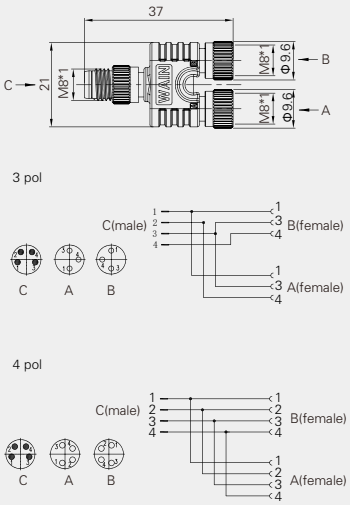
Y distributor

Three-way, male connector M12 x 1

– 2 female connectors M12 x 1



	Designation	Order No.
4–2*3pole	M8Y–M04/2M8–F03–NX	171 202 004 0317
4–2*4pole	M8Y–M04/2M8–F04–NX	171 202 004 0219



Y distributor

60V/250V 4A

Technical characteristics

Number of contacts	5/4	5/5
Rated current (40℃)	4A	4A
Rated voltage	250V	60V
Rated impulse voltage	2500V	1500V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw
Termination	–	–
Wire gauge	–	–
Cable outlet	–	–
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	TPU	TPU

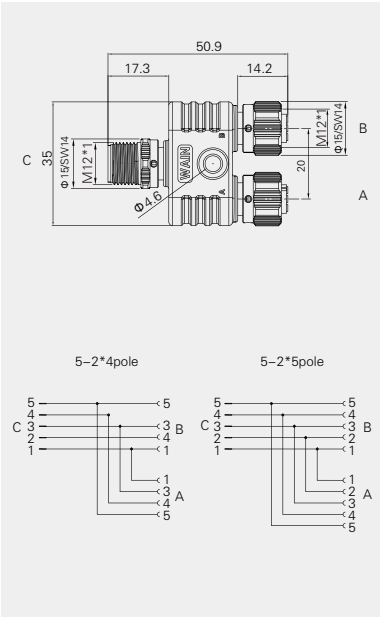
Y distributor

Three-way, male connector M12 x 1

– 2 female connectors M12 x 1



	Designation	Order No.
5–2*4pole	M12Y–M05A/2M12–F04A–NX	171 302 005 0318
5–2*5pole	M12Y–M05A/2M12–F05A–NX	171 302 005 0320



Y distributor

60V/250V 4A

Technical characteristics

Number of contacts	4/3	5/5
Rated current (40℃)	4A	4A
Rated voltage	250V	60V
Rated impulse voltage	2500V	1500V
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	screw	screw
Termination	–	–
Wire gauge	–	–
Cable outlet	–	–
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃
Material group	II	II
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PA	PA
Material of housing	TPU	TPU

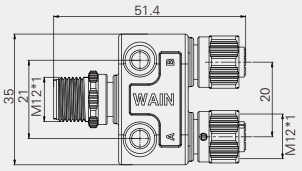
Y distributor

Three-way, male connector M12 x 1

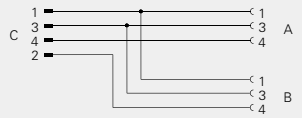
– 2 female connectors M12 x 1



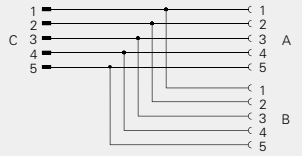
	Designation	Order No.
4–2*3pole	M12Y–M04A/2M12–F03A–CX	171 302 003 0301
5–2*5pole	M12Y–M05A/2M12–F05A–CX	171 302 005 0301



4/3 pol



5 pol



Y distributor

60V 4A

Technical characteristics

Number of contacts	5/5
Rated current (40℃)	4A
Rated voltage	60V
Rated impulse voltage	1500V
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	screw M12*1
Termination	–
Wire gauge	–
Cable outlet	–
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–25℃...+85℃
Material group	II
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	TPU

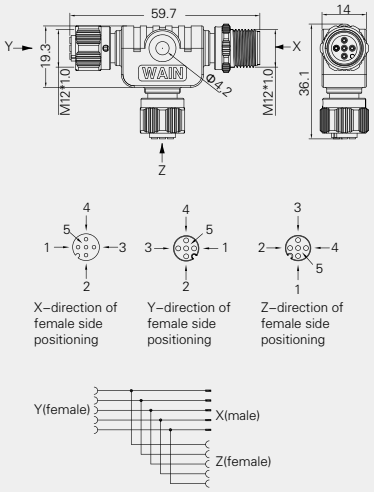
Y distributor

Three-way, male connector M12 x 1

– 2 female connectors M12 x 1



	Designation	Order No.
5–2*5pole	M12T–M05A/2F05A–NX	163 005 000 1003



Distributor

60V 4A

Technical characteristics

Number of contacts	5
Rated current (40℃)	4A
Rated voltage	60V
Rated impulse voltage	–
Pollution degree	3
Overvoltage categorie	II
Contact resistance	⩽10 mΩ
Connector locking system	螺纹M12*1
Termination	–
Wire gauge	–
Cable outlet	–
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–25℃...+85℃
Material group	II
Material of contact	铜合金
Contact plating	Au
Insulating material	PA
Material of housing	TPU

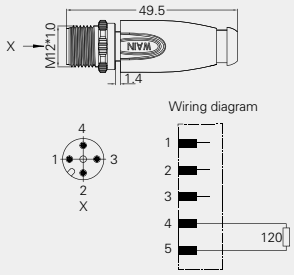
M12 Terminal resistance

Twin distributor, male connector M12 x 1

– 2 female connectors M12 x 1



	Designation	Order No.
5pole	M12–M05A–T–R120	163 005 401 4518



Distributor

60V 4A

Technical characteristics

Number of contacts	5
Rated current (40℃)	4A
Rated voltage	60V
Rated impulse voltage	–
Pollution degree	3
Overvoltage categorie	II
Contact resistance	≤10 mΩ
Connector locking system	螺纹M12*1
Termination	–
Wire gauge	–
Cable outlet	–
Degree of protection	IP67
Mechanical operation	＞100
Limiting temperature	–25℃...+85℃
Material group	II
Material of contact	铜合金
Contact plating	Au
Insulating material	PA
Material of housing	TPU

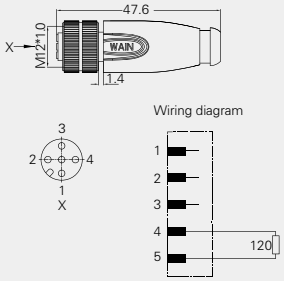
M12 Terminal resistance

Twin distributor, male connector M12 x 1

– 2 female connectors M12 x 1



	Designation	Order No.
5pole	M12–F05A–T–R120	163 005 402 4512



Sensor junction box-M8

24~30V DC 2A/6A

Technical characteristics

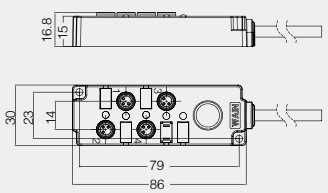
	3–pole
Rated current (40℃)	6A/2A
Rated voltage	24V~30V(max)
Rated impulse voltage	–
Pollution degree	3
Overvoltage categorie	II
Contact resistance	≤3 mΩ
Connector locking system	M8 x 1
Termination	electric cable
Cable outlet	Φ6–12mm
Degree of protection	IP67
Mechanical operation	> 100
Limiting temperature	–25℃...+85℃
Material group	–
Material of contact	copper alloy
Contact plating	Au
Insulating material	PA
Material of housing	PA

Sensor junction box-M8

Pluggable 4-way interface box



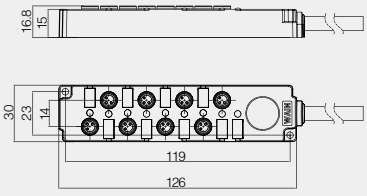
Cable length	Circuit	Designation	Order No.
3.0m	PNP single channel	SJB–M8–4F03–3.0–PUR	171 204 003 0003



Pluggable 8-way interface box



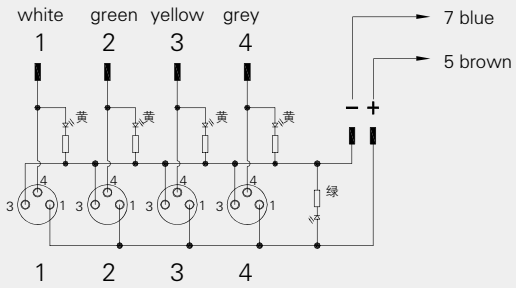
Cable length	Circuit	Designation	Order No.
3.0m	PNP single channel	SJB–M8–8F03–3.0–PUR	171 208 003 0003



Sensor junction box-M8

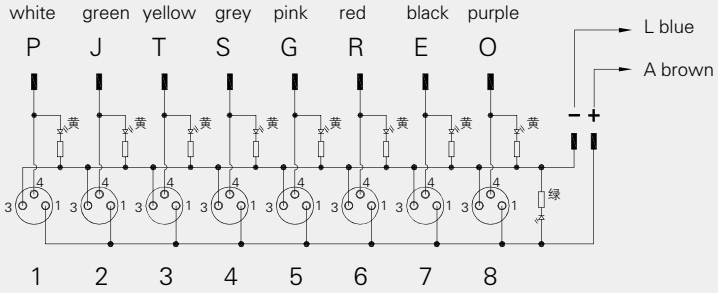
M8 4-way interface box with wire

3



M8 8-way interface box with wire

3



Sensor junction box-M12

10~30V DC 2A/9A

Technical characteristics

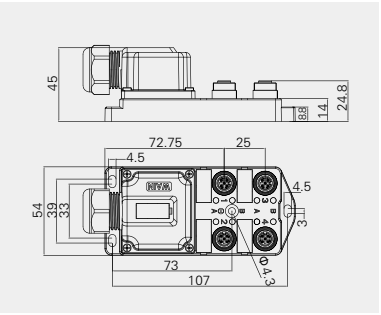
	4–pole	5–pole
Rated current (40℃)	9A/2A	9A/2A
Rated voltage	10–30V	10–30V
Rated impulse voltage	–	–
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	≤10 mΩ	≤10 mΩ
Connector locking system	M12 x 1 Push–Pull	M12 x 1 Push–Pull
Termination	pluggable M23	pluggable M23
Wire gauge	0,34 mm² (AWG 22),	3x0,75 mm2 (AWG 20)
Cable outlet	–	–
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–25℃...+80℃	–25℃...+80℃
Material group	–	–
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PBT/PA	PBT/PA
Material of housing	PA	PA

Sensor junction box-M12

Four-hole junction box without cable



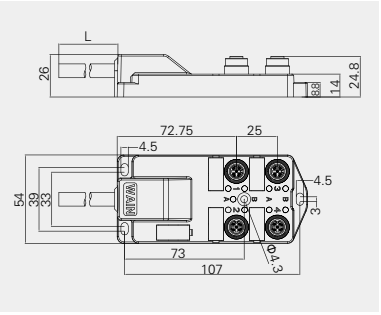
Cable outlet	Circuit	Designation	Order No.
6–8mm	PNP single channel	SJB–M12–4F04A–D8	171 304 004 0001
8–10mm	PNP single channel	SJB–M12–4F04A–D10.5	171 304 004 0002
10–12mm	PNP single channel	SJB–M12–4F04A–D12.5	171 304 004 0003
6–8mm	PNP double channel	SJB–M12–4F05A–D8	171 304 005 0001
8–10mm	PNP double channel	SJB–M12–4F05A–D10.5	171 304 005 0002
10–12mm	PNP double channel	SJB–M12–4F05A–D12.5	171 304 005 0003



Four-hole junction box with cable

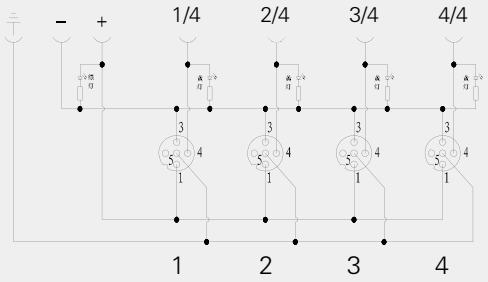


Cable length	Circuit	Designation	Order No.
3.0m	PNP single channel	SJB–M12–4F04A–3.0–PUR	171 304 004 0004
3.0m	PNP single channel	SJB–M12–4F04A–3.0–PVC	171 304 004 0005
3.0m	PNP double channel	SJB–M12–4F05A–3.0–PUR	171 304 005 0004
3.0m	PNP double channel	SJB–M12–4F05A–3.0–PVC	171 304 005 0005



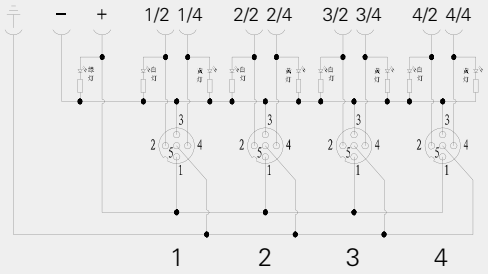
M12 4-way interface box without wire

4



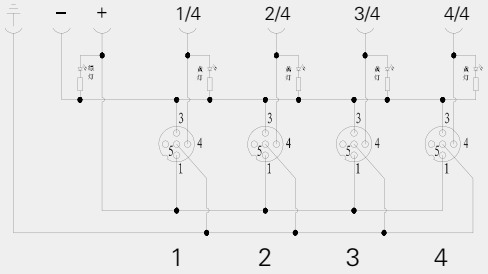
M12 4-way interface box without wire

5



M12 4-way interface box with wire

4

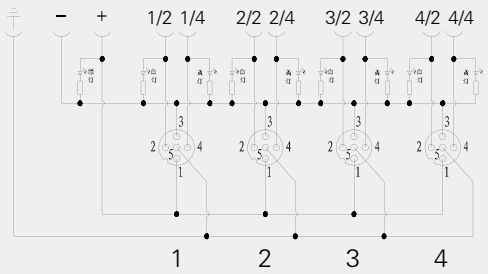


Colors of wires

1/4 – white	(+)–brown
2/4 – green	(–)–blue
3/4 – yellow	(PE)–yellow/green
4/4 – grey	

M12 4-way interface box with wire

5



Colors of wires

1/2 – grey/pink	(+)–brown
1/4 – white	(–)–blue
2/2 – red/blue	(PE)–yellow/green
2/4 – green	
3/2 – white/green	
3/4 – yellow	
4/2 – brown/green	
4/4 – grey	

Sensor junction box-M12

24~30V DC 2A/10A

Technical characteristics

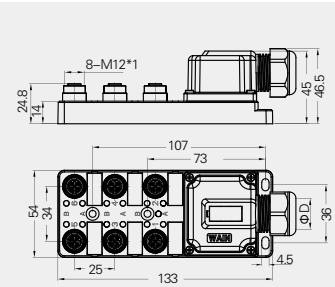
	4–pole	5–pole
Rated current (40℃)	10A/2A	10A/2A
Rated voltage	24–30V	24–30V
Rated impulse voltage	–	–
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	M12 x 1 Push–Pull	M12 x 1 Push–Pull
Wire gauge	0,34 mm² (AWG 22),	3x0,75 mm2 (AWG 20)
Cable outlet	–	–
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–25℃...+80℃	–25℃...+80℃
Material group	–	–
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PBT/PA	PBT/PA
Material of housing	PA	PA

Sensor junction box-M12

6-hole double channel junction box without cable



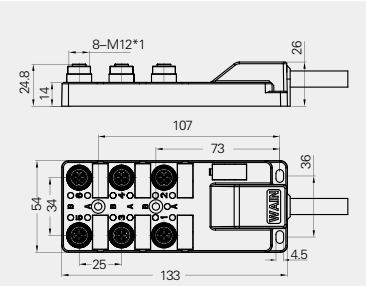
Cable outlet	Circuit	Designation	Order No.
6–8mm	PNP single channel	SJB–M12–6F04A–D8	171 306 004 0001
8–10mm	PNP single channel	SJB–M12–6F04A–D10.5	171 306 004 0002
8–10mm	PNP double channel	SJB–M12–6F05A–D10.5	171 306 005 0001
10–12mm	PNP double channel	SJB–M12–6F05A–D12.5	171 306 005 0002



6-hole double channel junction box with cable

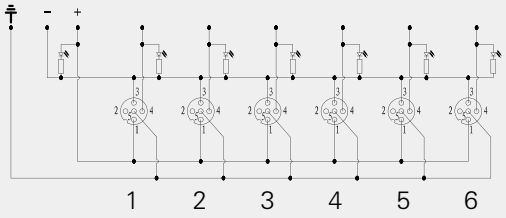


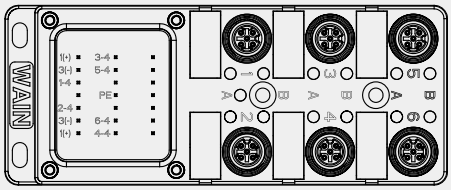
Cable length	Circuit	Designation	Order No.
3.0m	PNP single channel	SJB–M12–6F04A–3.0–PUR	171 306 004 0003
3.0m	PNP single channel	SJB–M12–6F04A–3.0–PVC	171 306 004 0004
3.0m	PNP double channel	SJB–M12–6F05A–3.0–PUR	171 306 005 0003
3.0m	PNP double channel	SJB–M12–6F05A–3.0–PVC	171 306 005 0004



M12 6-way interface box without wire

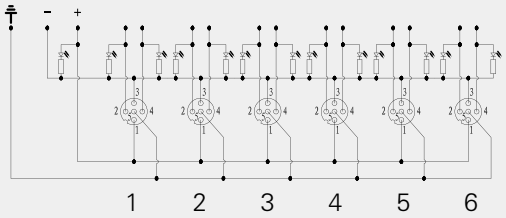
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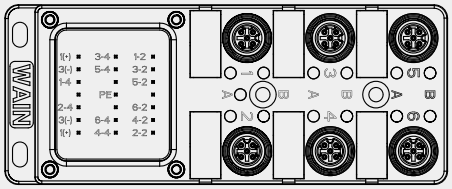




M12 6-way interface box without wire

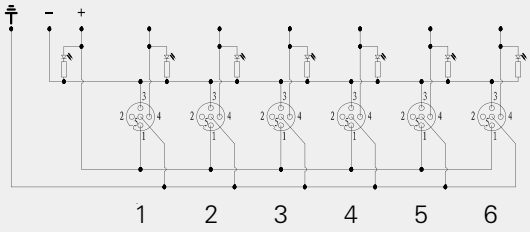
5





M12 6-way interface box with wire

4



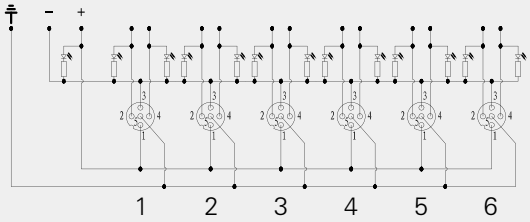
Colors of wires

1/4 – white
2/4 – green
3/4 – yellow
4/4 – grey
5/4 – pink
6/4 – red

1(+)–brown
1(–)–blue
5(PE)–yellow/green

M12 6-way interface box with wire

5



Colors of wires

1/2 – grey/pink
1/4 – white
2/2 – red/blue
2/4 – green
3/2 – white/green
3/4 – yellow
4/2 – brown/green
4/4 – grey

5/2 – white/yellow
5/4 – pink
6/2 – yellow/brown
6/4 – red
1(+)–brown
1(–)–blue
5(PE)–yellow/green

Sensor junction box-M12

10~30V DC 2A/9A

Technical characteristics

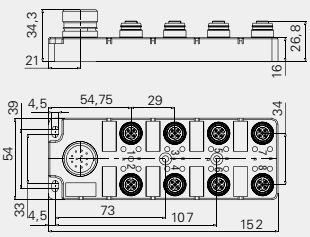
	4–pole	5–pole
Rated current (40℃)	9A/2A	9A/2A
Rated voltage	10–30V	10–30V
Rated impulse voltage	–	–
Pollution degree	3	3
Overvoltage categorie	II	II
Contact resistance	⩽10 mΩ	⩽10 mΩ
Connector locking system	M12 x 1 Push–Pull	M12 x 1 Push–Pull
Termination	pluggable M23	pluggable M23
Wire gauge	0,34 mm² (AWG 22),	3x0,75 mm2 (AWG 20)
Cable outlet	–	–
Degree of protection	IP67	IP67
Mechanical operation	＞100	＞100
Limiting temperature	–25℃...+80℃	–25℃...+80℃
Material group	–	–
Material of contact	copper alloy	copper alloy
Contact plating	Au	Au
Insulating material	PBT/PA	PBT/PA
Material of housing	PA	PA

Sensor junction box-M12

Pluggable 8-way interface box with M23 connector 12/19 pol.,equipement-on LED (green) and functional indicator (yellow) M12 Push-Pull-locking



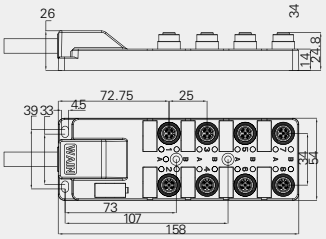
Cable outlet	Circuit	Designation	Order No.
M23–12pole	PNP single channel	SJB–M12–8F04–M23–12P	171 308 004 0601
M23–19pole	PNP double channel	SJB–M12–8F05A–M23–19P	171 308 005 0601



Junction box with wire



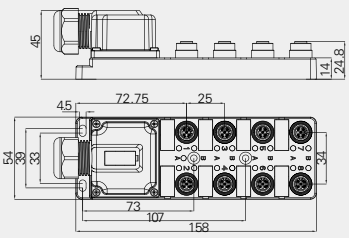
Cable length	Circuit	Designation	Order No.
3.0m	PNP single channel	SJB–M12–8F04A–3.0–PUR	171 308 004 0001
3.0m	PNP double channel	SJB–M12–8F05A–3.0–PUR	171 308 005 0002



Junction box without wire

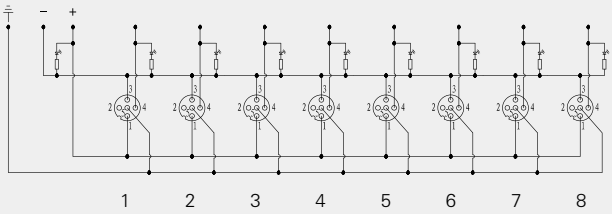


Cable outlet	Circuit	Designation	Order No.
10–12mm	PNP single channel	SJB–M12–8F04A–D12.5	171 308 004 0002
10–12mm	PNP double channel	SJB–M12–8F05A–D12.5	171 308 005 0001



M12 8-way interface box with wire

4

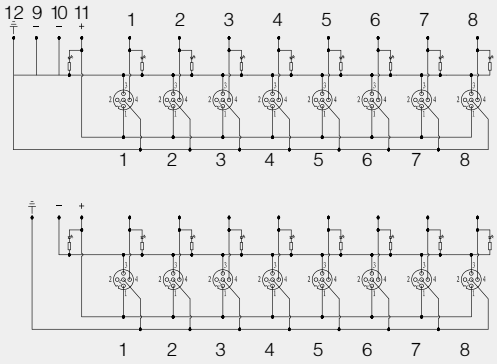


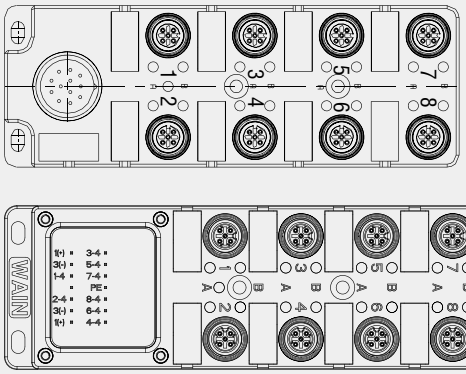
Colors of wires

1/4 – white	1(+)–brown
2/4 – green	1(–)–blue
3/4 – yellow	5(PE)–yellow/green
4/4 – grey	
5/4 – pink	
6/4 – red	
7/4 – black	
8/4 – purple	

M12 8-way interface box

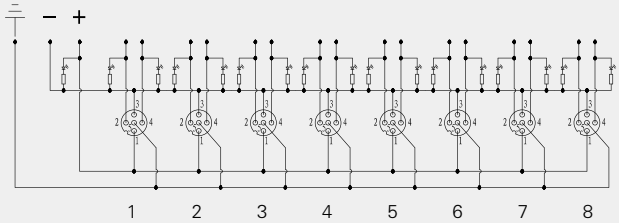
4





M12 8-way interface box with wire

5

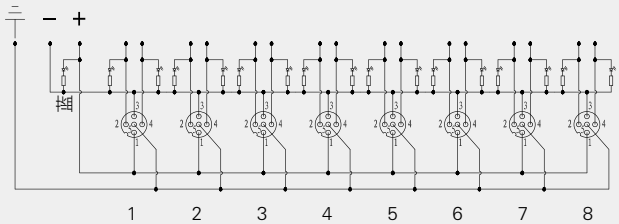


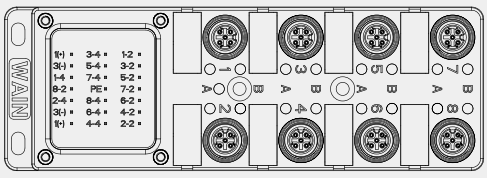
Colors of wires

1/2 – grey/pink	5/2 – white/yellow	1(+)–brown
1/4 – white	5/4 – pink	1(–)–brown
2/2 – red/blue	6/2 – yellow/brown	5(PE)–yellow/green
2/4 – green	6/4 – red	
3/2 – white/green	7/2 – white/grey	
3/4 – yellow	7/4 – black	
4/2 – blue/green	8/2 – grey/brown	
4/4 – grey	8/4 – purple	

M12 8-way interface box

5





7/8 Circular connector



- Panel Mount, socket/receptacle series
- 7/8–16UN Locking
- Screw Terminal
- Blocking nut constructure
- Protection Degree IP67

7/8 Circular Connector

300V 12/9A

Technical characteristics

Number of contacts	3 (2+PE)	4 (3+PE)	5 (4+PE)
Rated current (40℃)	12A	9A	9A
Rated voltage	300V	300V	300V
Rated impulse voltage	4000V	4000V	4000V
Pollution degree	3	3	3
Overvoltage categorie	III	III	III
Contact resistance	≤3 mΩ	≤3 mΩ	≤3 mΩ
Connector locking system	screw 7/8–16UN	screw 7/8–16UN	screw 7/8–16UN
Termination	screw	screw	screw
Wire gauge	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)
Cable outlet	6–8,8–10,10–12mm	6–8,8–10,10–12mm	6–8,8–10,10–12mm
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	III	III	III
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	PA	PA	PA

Straight cable connectors

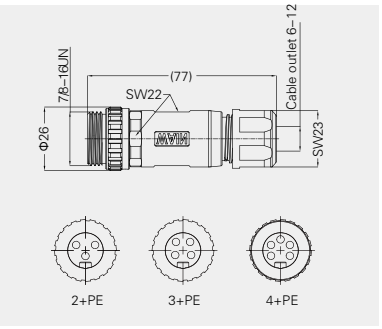
Male cable connector, metal locking system, screw clamp connection

Recommended use





Contacts	Cable outlet	Designation	Order No.
3 (2+PE)	6–8 mm	7/8–M03–T–D8	168 003 411 3001
	8–10 mm	7/8–M03–T–D10	168 003 411 3002
	10–12mm	7/8–M03–T–D12	168 003 411 3003
4 (3+PE)	6–8 mm	7/8–M04–T–D8	168 004 411 3002
	8–10 mm	7/8–M04–T–D10	168 004 411 3001
	10–12mm	7/8–M04–T–D12	168 004 411 3003
5 (4+PE)	6–8 mm	7/8–M05–T–D8	168 005 411 3001
	8–10 mm	7/8–M05–T–D10	168 005 411 3003
	10–12mm	7/8–M05–T–D12	168 005 411 3002



7/8 Circular Connector

300V 12/9A

Technical characteristics

Number of contacts	3 (2+PE)	4 (3+PE)	5 (4+PE)
Rated current (40℃)	12A	9A	9A
Rated voltage	300V	300V	300V
Rated impulse voltage	4000V	4000V	4000V
Pollution degree	3	3	3
Overvoltage categorie	III	III	III
Contact resistance	≤3 mΩ	≤3 mΩ	≤3 mΩ
Connector locking system	screw 7/8–16UN	screw 7/8–16UN	screw 7/8–16UN
Termination	screw	screw	screw
Wire gauge	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)
Cable outlet	6–8,8–10,10–12mm	6–8,8–10,10–12mm	6–8,8–10,10–12mm
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	III	III	III
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	PA	PA	PA

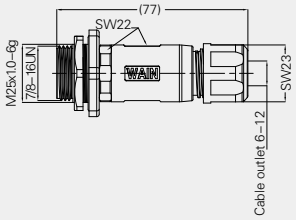
Flange base cable connector

Male cable connector, metal locking system, screw clamp connection

Recommended use



Contacts	Cable outlet	Designation	Order No.
3 (2+PE)	6–8 mm	7/8–M03–CCT/R–T–D8	168 003 711 3001
	8–10 mm	7/8–M03–CCT/R–T–D10	168 003 711 3002
	10–12mm	7/8–M03–CCT/R–T–D12	168 003 711 3003
4 (3+PE)	6–8 mm	7/8–M04–CCT/R–T–D8	168 004 711 3001
	8–10 mm	7/8–M04–CCT/R–T–D10	168 004 711 3002
	10–12mm	7/8–M04–CCT/R–T–D12	168 004 711 3003
5 (4+PE)	6–8 mm	7/8–M05–CCT/R–T–D8	168 005 711 3001
	8–10 mm	7/8–M05–CCT/R–T–D10	168 005 711 3002
	10–12mm	7/8–M05–CCT/R–T–D12	168 005 711 3003



7/8 Circular Connector

300V 12/9A

Technical characteristics

Number of contacts	3 (2+PE)	4 (3+PE)	5 (4+PE)
Rated current (40℃)	12A	9A	9A
Rated voltage	300V	300V	300V
Rated impulse voltage	4000V	4000V	4000V
Pollution degree	3	3	3
Overvoltage categorie	III	III	III
Contact resistance	≤3 mΩ	≤3 mΩ	≤3 mΩ
Connector locking system	screw 7/8–16UN	screw 7/8–16UN	screw 7/8–16UN
Termination	screw	screw	screw
Wire gauge	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)
Cable outlet	6–8,8–10,10–12mm	6–8,8–10,10–12mm	6–8,8–10,10–12mm
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	III	III	III
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	PA	PA	PA

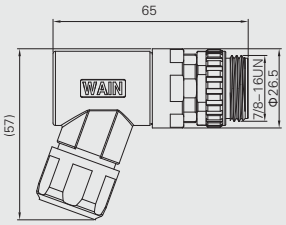
Angled cable connectors

Male cable connector, metal locking system, screw clamp connection

Recommended use



Contacts	Cable outlet	Designation	Order No.
3 (2+PE)	6–8 mm	7/8-M03-S-D8	168 003 511 3001
	8–10 mm	7/8-M03-S-D10	168 003 511 3002
	10–12mm	7/8-M03-S-D12	168 003 511 3003
4 (3+PE)	6–8 mm	7/8-M04-S-D8	168 004 511 3001
	8–10 mm	7/8-M04-S-D10	168 004 511 3002
	10–12mm	7/8-M04-S-D12	168 004 511 3003
5 (4+PE)	6–8 mm	7/8-M05-S-D8	168 005 511 3001
	8–10 mm	7/8-M05-S-D10	168 005 511 3002
	10–12mm	7/8-M05-S-D12	168 005 511 3003



7/8 Circular Connector

300V 12/9A

Technical characteristics

Number of contacts	3 (2+PE)	4 (3+PE)	5 (4+PE)
Rated current (40℃)	12A	9A	9A
Rated voltage	300V	300V	300V
Rated impulse voltage	4000V	4000V	4000V
Pollution degree	3	3	3
Overvoltage categorie	III	III	III
Contact resistance	⩽3 mΩ	⩽3 mΩ	⩽3 mΩ
Connector locking system	screw 7/8–16UN	screw 7/8–16UN	screw 7/8–16UN
Termination	screw	screw	screw
Wire gauge	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)
Cable outlet	6–8,8–10,10–12mm	6–8,8–10,10–12mm	6–8,8–10,10–12mm
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	III	III	III
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	PA	PA	PA

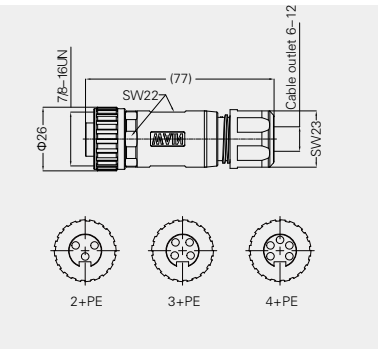
Straight cable connectors

Female cable connector, metal locking system, screw clamp connection

Recommended use



Contacts	Cable outlet	Designation	Order No.
3 (2+PE)	6–8 mm	7/8–F03–T–D8	168 003 421 3001
	8–10 mm	7/8–F03–T–D10	168 003 421 3002
	10–12mm	7/8–F03–T–D12	168 003 421 3003
4 (3+PE)	6–8 mm	7/8–F04–T–D8	168 004 421 3002
	8–10 mm	7/8–F04–T–D10	168 004 421 3001
	10–12mm	7/8–F04–T–D12	168 004 421 3003
5 (4+PE)	6–8 mm	7/8–F05–T–D8	168 005 421 3003
	8–10 mm	7/8–F05–T–D10	168 005 421 3001
	10–12mm	7/8–F05–T–D12	168 005 421 3002



7/8 Circular Connector

300V 12/9A

Technical characteristics

Number of contacts	3 (2+PE)	4 (3+PE)	5 (4+PE)
Rated current (40℃)	12A	9A	9A
Rated voltage	300V	300V	300V
Rated impulse voltage	4000V	4000V	4000V
Pollution degree	3	3	3
Overvoltage categorie	III	III	III
Contact resistance	≤3 mΩ	≤3 mΩ	≤3 mΩ
Connector locking system	screw 7/8–16UN	screw 7/8–16UN	screw 7/8–16UN
Termination	screw	screw	screw
Wire gauge	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)
Cable outlet	6–8,8–10,10–12mm	6–8,8–10,10–12mm	6–8,8–10,10–12mm
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	III	III	III
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	PA	PA	PA

Flange base cable connector

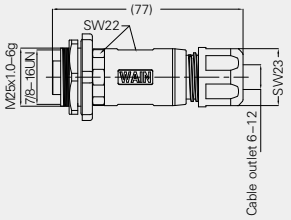
Female cable connector, metal locking system, screw clamp connection

Recommended use





Contacts	Cable outlet	Designation	Order No.
3 (2+PE)	6–8 mm	7/8–F03–CCT/R–T–D8	168 003 721 3001
	8–10 mm	7/8–F03–CCT/R–T–D10	168 003 721 3002
	10–12mm	7/8–F03–CCT/R–T–D12	168 003 721 3003
4 (3+PE)	6–8 mm	7/8–F04–CCT/R–T–D8	168 004 721 3001
	8–10 mm	7/8–F04–CCT/R–T–D10	168 004 721 3002
	10–12mm	7/8–F04–CCT/R–T–D12	168 004 721 3003
5 (4+PE)	6–8 mm	7/8–F05–CCT/R–T–D8	168 005 721 3001
	8–10 mm	7/8–F05–CCT/R–T–D10	168 005 721 3002
	10–12mm	7/8–F05–CCT/R–T–D12	168 005 721 3003



7/8 Circular Connector

300V 12/9A

Technical characteristics

Number of contacts	3 (2+PE)	4 (3+PE)	5 (4+PE)
Rated current (40℃)	12A	9A	9A
Rated voltage	300V	300V	300V
Rated impulse voltage	4000V	4000V	4000V
Pollution degree	3	3	3
Overvoltage categorie	III	III	III
Contact resistance	≤3 mΩ	≤3 mΩ	≤3 mΩ
Connector locking system	screw 7/8–16UN	screw 7/8–16UN	screw 7/8–16UN
Termination	screw	screw	screw
Wire gauge	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)
Cable outlet	6–8,8–10,10–12mm	6–8,8–10,10–12mm	6–8,8–10,10–12mm
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	III	III	III
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	PA	PA	PA

Angled cable connector

Female cable connector, metal locking system, screw clamp connection

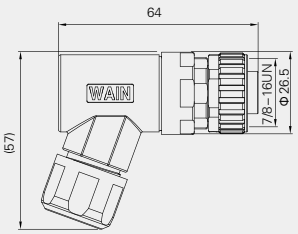
Recommended use





2+PE 3+PE 4+PE

Contacts	Cable outlet	Designation	Order No.
3 (2+PE)	6–8 mm	7/8–F03–CCT/R–T–D8	168 003 721 3001
	8–10 mm	7/8–F03–CCT/R–T–D10	168 003 721 3002
	10–12mm	7/8–F03–CCT/R–T–D12	168 003 721 3003
4 (3+PE)	6–8 mm	7/8–F04–CCT/R–T–D8	168 004 721 3001
	8–10 mm	7/8–F04–CCT/R–T–D10	168 004 721 3002
	10–12mm	7/8–F04–CCT/R–T–D12	168 004 721 3003
5 (4+PE)	6–8 mm	7/8–F05–CCT/R–T–D8	168 005 721 3001
	8–10 mm	7/8–F05–CCT/R–T–D10	168 005 721 3002
	10–12mm	7/8–F05–CCT/R–T–D12	168 005 721 3003



7/8 Circular Connector

300V 12/9A

Technical characteristics

Number of contacts	3 (2+PE)	4 (3+PE)	5 (4+PE)
Rated current (40℃)	12A	9A	9A
Rated voltage	300V	300V	300V
Rated impulse voltage	4000V	4000V	4000V
Pollution degree	3	3	3
Overvoltage categorie	III	III	III
Contact resistance	≤3 mΩ	≤3 mΩ	≤3 mΩ
Connector locking system	screw 7/8–16UN	screw 7/8–16UN	screw 7/8–16UN
Termination	screw	screw	screw
Wire gauge	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	III	III	III
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	TPE	TPE	TPE

Straight cable connectors,cable

Male connector moulded,screw

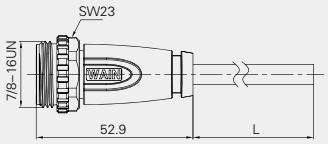
NEW

Recommended use





Contacts	Cable	Cable length	Designation	Order No.
3	5x1.5PVC	1.5 m	7/8–M03–T–1.5–PVC	168 003 401 4001
		5.0 m	7/8–M03–T–5.0–PVC	168 003 401 4002
	5x1.5PUR	1.5 m	7/8–M03–T–1.5–PUR	168 003 401 4003
		5.0 m	7/8–M03–T–5.0–PUR	168 003 401 4004
4	5x1.5PVC	1.5 m	7/8–M04–T–1.5–PVC	168 004 401 4002
		5.0 m	7/8–M04–T–5.0–PVC	168 004 401 4003
	5x1.5PUR	1.5 m	7/8–M04–T–1.5–PUR	168 004 401 4004
		5.0 m	7/8–M04–T–5.0–PUR	168 004 401 4005
5	5x1.5PVC	1.5 m	7/8–M05–T–1.5–PVC	168 005 401 4002
		5.0 m	7/8–M05–T–5.0–PVC	168 005 401 4003
	5x1.5PUR	1.5 m	7/8–M05–T–1.5–PUR	168 005 401 4004
		5.0 m	7/8–M05–T–5.0–PUR	168 005 401 4005



7/8 Circular Connector

300V 12/9A

Technical characteristics

Number of contacts	3 (2+PE)	4 (3+PE)	5 (4+PE)
Rated current (40℃)	12A	9A	9A
Rated voltage	300V	300V	300V
Rated impulse voltage	4000V	4000V	4000V
Pollution degree	3	3	3
Overvoltage categorie	III	III	III
Contact resistance	≤3 mΩ	≤3 mΩ	≤3 mΩ
Connector locking system	screw 7/8–16UN	screw 7/8–16UN	screw 7/8–16UN
Termination	screw	screw	screw
Wire gauge	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)
Degree of protection	IP67	IP67	IP67
Mechanical operation	> 100	> 100	> 100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	III	III	III
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	TPE	TPE	TPE

Angled cable connectors,cable

Male connector moulded,screw

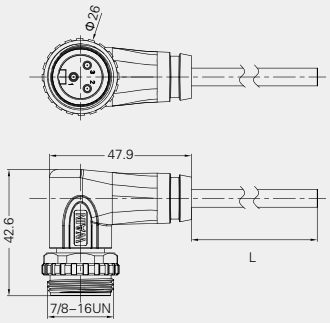
NEW

Recommended use





Contacts	Cable	Cable length	Designation	Order No.
3	5x1.5PVC	1.5 m	7/8–M03–S–1.5–PVC	168 003 501 4001
		5.0 m	7/8–M03–S–5.0–PVC	168 003 501 4002
	5x1.5PUR	1.5 m	7/8–M03–S–1.5–PUR	168 003 501 4003
		5.0 m	7/8–M03–S–5.0–PUR	168 003 501 4004
4	5x1.5PVC	1.5 m	7/8–M04–S–1.5–PVC	168 004 501 4001
		5.0 m	7/8–M04–S–5.0–PVC	168 004 501 4002
	5x1.5PUR	1.5 m	7/8–M04–S–1.5–PUR	168 004 501 4003
		5.0 m	7/8–M04–S–5.0–PUR	168 004 501 4004
5	5x1.5PVC	1.5 m	7/8–M05–S–1.5–PVC	168 005 501 4001
		5.0 m	7/8–M05–S–5.0–PVC	168 005 501 4002
	5x1.5PUR	1.5 m	7/8–M05–S–1.5–PUR	168 005 501 4003
		5.0 m	7/8–M05–S–5.0–PUR	168 005 501 4004



7/8 Circular Connector

300V 12/9A

Technical characteristics

Number of contacts	3 (2+PE)	4 (3+PE)	5 (4+PE)
Rated current (40℃)	12A	9A	9A
Rated voltage	300V	300V	300V
Rated impulse voltage	4000V	4000V	4000V
Pollution degree	3	3	3
Overvoltage categorie	III	III	III
Contact resistance	≤3 mΩ	≤3 mΩ	≤3 mΩ
Connector locking system	screw 7/8–16UN	screw 7/8–16UN	screw 7/8–16UN
Termination	screw	screw	screw
Wire gauge	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)
Degree of protection	IP67	IP67	IP67
Mechanical operation	> 100	> 100	> 100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	III	III	III
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	TPE	TPE	TPE

Straight cable connectors,cable

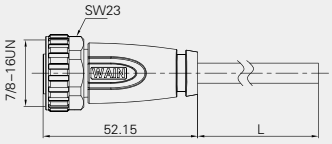
Female connector moulded,screw

Recommended use





Contacts	Cable	Cable length	Designation	Order No.
3	5x1.5PVC	1.5 m	7/8–F03–T–1.5–PVC	168 003 402 4001
		5.0 m	7/8–F03–T–5.0–PVC	168 003 402 4002
	5x1.5PUR	1.5 m	7/8–F03–T–1.5–PUR	168 003 402 4003
		5.0 m	7/8–F03–T–5.0–PUR	168 003 402 4004
4	5x1.5PVC	1.5 m	7/8–F04–T–1.5–PVC	168 004 402 4002
		5.0 m	7/8–F04–T–5.0–PVC	168 004 402 4003
	5x1.5PUR	1.5 m	7/8–F04–T–1.5–PUR	168 004 402 4004
		5.0 m	7/8–F04–T–5.0–PUR	168 004 402 4005
5	5x1.5PVC	1.5 m	7/8–F05–T–1.5–PVC	168 005 402 4002
		5.0 m	7/8–F05–T–5.0–PVC	168 005 402 4003
	5x1.5PUR	1.5 m	7/8–F05–T–1.5–PUR	168 005 402 4004
		5.0 m	7/8–F05–T–5.0–PUR	168 005 402 4005



7/8 Circular Connector

300V 12/9A

Technical characteristics

Number of contacts	3 (2+PE)	4 (3+PE)	5 (4+PE)
Rated current (40℃)	12A	9A	9A
Rated voltage	300V	300V	300V
Rated impulse voltage	4000V	4000V	4000V
Pollution degree	3	3	3
Overvoltage categorie	III	III	III
Contact resistance	≤3 mΩ	≤3 mΩ	≤3 mΩ
Connector locking system	screw 7/8–16UN	screw 7/8–16UN	screw 7/8–16UN
Termination	screw	screw	screw
Wire gauge	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)
Degree of protection	IP67	IP67	IP67
Mechanical operation	> 100	> 100	> 100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	III	III	III
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	PA	PA	PA
Material of housing	TPE	TPE	TPE

Angled cable connectors,cable

Female connector moulded,screw

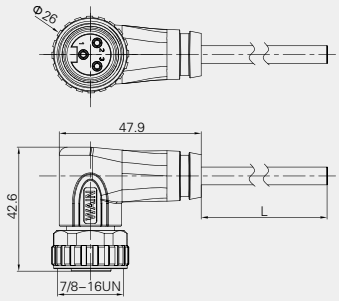
NEW!

Recommended use





Contacts	Cable	Cable length	Designation	Order No.
3	5x1.5PVC	1.5 m	7/8–F03–S–1.5–PVC	168 003 502 4001
		5.0 m	7/8–F03–S–5.0–PVC	168 003 502 4002
	5x1.5PUR	1.5 m	7/8–F03–S–1.5–PUR	168 003 502 4003
		5.0 m	7/8–F03–S–5.0–PUR	168 003 502 4004
4	5x1.5PVC	1.5 m	7/8–F04–S–1.5–PVC	168 004 502 4001
		5.0 m	7/8–F04–S–5.0–PVC	168 004 502 4002
	5x1.5PUR	1.5 m	7/8–F04–S–1.5–PUR	168 004 502 4003
		5.0 m	7/8–F04–S–5.0–PUR	168 004 502 4004
5	5x1.5PVC	1.5 m	7/8–F05–S–1.5–PVC	168 005 502 4001
		5.0 m	7/8–F05–S–5.0–PVC	168 005 502 4002
	5x1.5PUR	1.5 m	7/8–F05–S–1.5–PUR	168 005 502 4003
		5.0 m	7/8–F05–S–5.0–PUR	168 005 502 4004



7/8 Circular Connector

300V 10/8A

Technical characteristics

Number of contacts	3 (2+PE)	4 (3+PE)	5 (4+PE)
Rated current (40℃)	10A	8A	8A
Rated voltage	300V	300V	300V
Rated impulse voltage	2500V	2500V	2500V
Pollution degree	3	3	3
Overvoltage categorie	III	III	III
Contact resistance	≤3 mΩ	≤3 mΩ	≤3 mΩ
Connector locking system	screw 7/8–16UN	screw 7/8–16UN	screw 7/8–16UN
Termination	single–strand wires	single–strand wires	single–strand wires
Wire gauge	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)
Cable outlet	–	–	–
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	TPU	TPU	TPU
Material of housing	brass nickel plated	brass nickel plated	brass nickel plated

Socket

Male panel mount connector

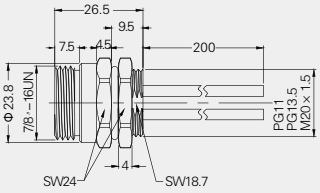
with single wires,
0.82mm², MAX.1.5mm²
length 0.2m
font fastened,





Contacts	Thread	Designation	Order No.
3(2+PE)	PG11	7/8–M03–BK–PG11–W0.82	168 003 301 4001
	PG13.5	7/8–M03–BK–PG13.5–W0.82	168 003 301 4002
	M20×1.5	7/8–M03–BK–M20–W0.82	168 003 301 4003
4(3+PE)	PG11	7/8–M04–BK–PG11–W0.82	168 004 301 4001
	PG13.5	7/8–M04–BK–PG13.5–W0.82	168 004 301 4002
	M20×1.5	7/8–M04–BK–M20–W0.82	168 004 301 4003
5(4+PE)	PG11	7/8–M05–BK–PG11–W0.82	168 005 301 4001
	PG13.5	7/8–M05–BK–PG13.5–W0.82	168 005 301 4002
	M20×1.5	7/8–M05–BK–M20–W0.82	168 005 301 4003

Customized cable length upon request



7/8 Circular Connector

300V 10/8A

Technical characteristics

Number of contacts	3 (2+PE)	4 (3+PE)	5 (4+PE)
Rated current (40℃)	10A	8A	8A
Rated voltage	300V	300V	300V
Rated impulse voltage	2500V	2500V	2500V
Pollution degree	3	3	3
Overvoltage categorie	III	III	III
Contact resistance	⩽3 mΩ	⩽3 mΩ	⩽3 mΩ
Connector locking system	screw 7/8–16UN	screw 7/8–16UN	screw 7/8–16UN
Termination	single–strand wires	single–strand wires	single–strand wires
Wire gauge	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)
Cable outlet	–	–	–
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	TPU	TPU	TPU
Material of housing	brass nickel plated	brass nickel plated	brass nickel plated

Socket

Female panel mount connector

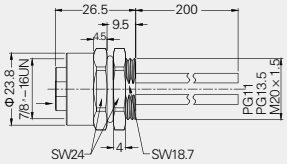
with single wires,
0.82mm², MAX.1.5mm²
length 0.2m
font fastened,





Contacts	Thread	Designation	Order No.
3(2+PE)	7/8–16UN	7/8–F03–BK–7/8–W0.82	168 003 302 4004
	PG11	7/8–F03–BK–PG11–W0.82	168 003 302 4001
	PG13.5	7/8–F03–BK–PG13.5–W0.82	168 003 302 4002
	M20×1.5	7/8–F03–BK–M20–W0.82	168 003 302 4003
4(3+PE)	7/8–16UN	7/8–F04–BK–7/8–W0.82	168 004 302 4005
	PG11	7/8–F04–BK–PG11–W0.82	168 004 302 4001
	PG13.5	7/8–F04–BK–PG13.5–W0.82	168 004 302 4002
	M20×1.5	7/8–F04–BK–M20–W0.82	168 004 302 4003
5(4+PE)	7/8–16UN	7/8–F05–BK–7/8–W0.82	168 005 302 4005
	PG11	7/8–F05–BK–PG11–W0.82	168 005 302 4001
	PG13.5	7/8–F05–BK–PG13.5–W0.82	168 005 302 4002
	M20×1.5	7/8–F05–BK–M20–W0.82	168 005 302 4003

Customized cable length upon request



7/8 Circular Connector

300V 10/8A

Technical characteristics

Number of contacts	3 (2+PE)	4 (3+PE)	5 (4+PE)
Rated current (40℃)	10A	8A	8A
Rated voltage	300V	300V	300V
Rated impulse voltage	2500V	2500V	2500V
Pollution degree	3	3	3
Overvoltage categorie	III	III	III
Contact resistance	≤3 mΩ	≤3 mΩ	≤3 mΩ
Connector locking system	screw 7/8–16UN	screw 7/8–16UN	screw 7/8–16UN
Termination	single–strand wires	single–strand wires	single–strand wires
Wire gauge	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)
Cable outlet	–	–	–
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	TPU	TPU	TPU
Material of housing	brass nickel plated	brass nickel plated	brass nickel plated

Socket

Male panel mount connector

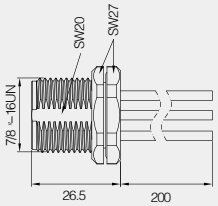
with single wires,
0.82mm², MAX.1.5mm²
length 0.2m
font fastened,





Contacts	Thread	Designation	Order No.
3(2+PE)	7/8–16UN	7/8–M03–BKR–7/8–W0.82	168 003 301 4004
4（3+PE）	7/8–16UN	7/8–M04–BKR–7/8–W0.82	168 004 301 4004
5(4+PE)	7/8–16UN	7/8–M05–BKR–7/8–W0.82	168 005 301 4004

Customized cable length upon request



7/8 Circular Connector

300V 10/8A

Technical characteristics

Number of contacts	3 (2+PE)	4 (3+PE)	5 (4+PE)
Rated current (40℃)	10A	8A	8A
Rated voltage	300V	300V	300V
Rated impulse voltage	2500V	2500V	2500V
Pollution degree	3	3	3
Overvoltage categorie	III	III	III
Contact resistance	⩽3 mΩ	⩽3 mΩ	⩽3 mΩ
Connector locking system	screw 7/8–16UN	screw 7/8–16UN	screw 7/8–16UN
Termination	single–strand wires	single–strand wires	single–strand wires
Wire gauge	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)	max.1.5mm²(max.AWG16)
Cable outlet	–	–	–
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	TPU	TPU	TPU
Material of housing	brass nickel plated	brass nickel plated	brass nickel plated

Socket

Female panel mount connector

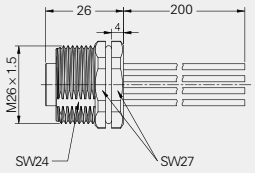
with single wires,
0.82mm², MAX.1.5mm²
length 0.2m
font fastened,





Contacts	Thread	Designation	Order No.
3(2+PE)	M26	7/8–F03–BKR–M26–W0.82	168 003 302 4005
4 (3+PE)	M26	7/8–F04–BKR–M26–W0.82	168 004 302 4006
5(4+PE)	M26	7/8–F05–BKR–M26–W0.82	168 005 302 4006

Customized cable length upon request



Female panel mount connector

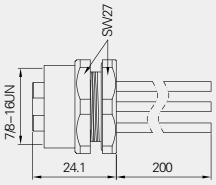
with single wires,
0.82mm², MAX.1.5mm²
length 0.2m
font fastened,





Contacts	Thread	Designation	Order No.
3(2+PE)	7/8–16UN	7/8–F03–BKR–7/8–W0.82	168 003 302 4006
4 (3+PE)	7/8–16UN	7/8–F04–BKR–7/8–W0.82	168 003 302 4007
5(4+PE)	7/8–16UN	7/8–F05–BKR–7/8–W0.82	168 003 302 4008

Customized cable length upon request



7/8 Circular Connector

300V 10/8A

Technical characteristics

Number of contacts	3 (2+PE)	4 (3+PE)	5 (4+PE)
Rated current (40℃)	10A	8A	8A
Rated voltage	300V	300V	300V
Rated impulse voltage	2500V	2500V	2500V
Pollution degree	3	3	3
Overvoltage categorie	II	II	II
Contact resistance	≤3 mΩ	≤3 mΩ	≤3 mΩ
Connector locking system	screw 7/8–16UN	screw 7/8–16UN	screw 7/8–16UN
Termination	–	–	–
Wire gauge	–	–	–
Cable outlet	–	–	–
Degree of protection	IP67	IP67	IP67
Mechanical operation	＞100	＞100	＞100
Limiting temperature	–25℃...+85℃	–25℃...+85℃	–25℃...+85℃
Material group	II	II	II
Material of contact	copper alloy	copper alloy	copper alloy
Contact plating	Au	Au	Au
Insulating material	TPU	TPU	TPU
Material of housing	brass nickel plated	brass nickel plated	brass nickel plated

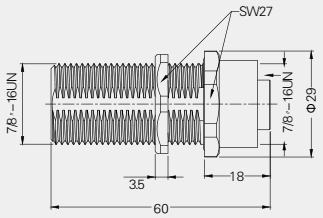
Socket

Male integrate with female

direct tighten



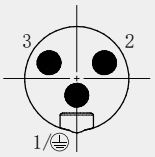
Contacts	Thread	Designation	Order No.
3(2+PE)	7/8–16UN	7/8–M03–BK–F03–7/8	168 003 300 1001
4(3+PE)	7/8–16UN	7/8–M04–BK–F04–7/8	168 003 300 1002
5(4+PE)	7/8–16UN	7/8–M05–BK–F05–7/8	168 003 300 1003



Contact arrangements

Male insert (mating side)

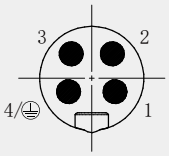
3 (2+PE) contacts



	X	Y
1/⏚	0.00	−2.36
2	3.94	2.26
3	−3.94	2.26

1 green/yellow
2 brown
3 blue

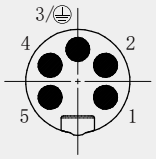
4 (3+PE) contacts



	X	Y
1	3.30	−1.90
2	2.92	3.48
3	−2.92	3.48
4/⏚	−3.30	−1.90

1 black
2 blue
3 brown
4 white

5 (4+PE) contacts

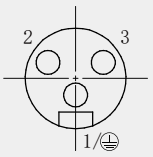


	X	Y
1	3.94	−2.28
2	3.94	2.28
3/⏚	0.00	4.54
4	−3.94	2.28
5	−3.94	−2.28

1 black
2 blue
3 green/yellow
4 brown
5 white

Female insert (mating side)

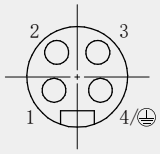
3 (2+PE) contacts



	X	Y
1/⏚	0.00	−2.36
2	−3.94	2.26
3	3.94	2.26

1 green/yellow
2 brown
3 blue

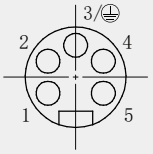
4 (3+PE) contacts



	X	Y
1	−3.30	−1.90
2	−2.92	3.48
3	2.92	3.48
4/⏚	3.30	−1.90

1 black
2 blue
3 brown
4 white

5 (4+PE) contacts

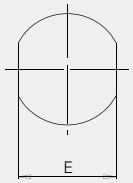


	X	Y
1	−3.94	−2.28
2	−3.94	2.28
3/⏚	0.00	4.54
4	3.94	2.28
5	3.94	−2.28

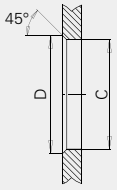
1 black
2 blue
3 green/yellow
4 brown
5 white

Panel cut out

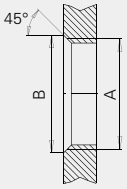
Front panel mounting, back panel tighten



Through−hole mounting



Screw mounting



	A	B	C	D	E
PG11	PG11	20.2	18.7	20.2	17.0
PG13.5	PG13.5	22.2	20.5	22.2	18.8
M20 × 1.5	M20 × 1.5	21.6	20.1	21.6	17.8

Accessories

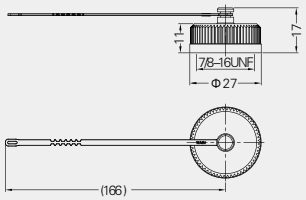
Protection cover IP67

Protection cover

for male cable connector



Description	Designation	Order No.
Without cord	7/8–MCV	168 000 001 9003
With cord	7/8–MCV/1	168 000 001 9001

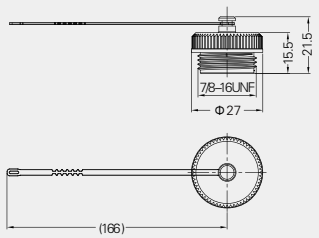


Protection cover

for female cable connector



Description	Designation	Order No.
Without cord	7/8–FCV	168 000 002 9003
With cord	7/8–FCV/1	168 000 002 9001



M17 SERIES



M17 Circular connector

630V– 14A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

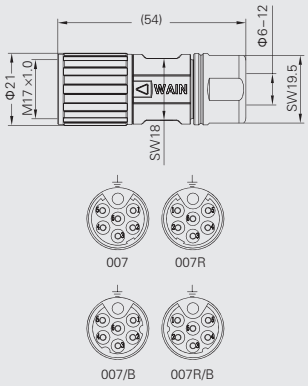
Electrical data		Mechanical date	
Number of contacts	7(6+PE)	Housing material	Copper alloy,zinc alloy
Rated current	14A	Housing surface	Nickel–plated
mm²/ AWG	(0.03–1.5 mm² / AWG 32–16)	Contact resistance	≤5 mΩ
Rated current	630 V	Insulating bodies	PBT
Test voltage Urms	6kV	Contact material	Copper alloy
Pollution degree	3	Contact surface	Hard–gold plated
Flammability acc. to UL 94	V0 (UL94)	Mechanical working life	>500
Surge voltage category	III	degree of protection	IP67
		Temperature range	–40℃...+130℃

Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
7	6–9mm	M17–007–T–D9.5–SH	165 007 400 2007
	9–12mm	M17–007–T–D12–SH	165 007 400 2008
	6–9mm	M17–007R–T–D9.5–SH	165 007 400 2009
	9–12mm	M17–007R–T–D12–SH	165 007 400 2002
	6–9mm	M17–007/B–T–D9.5–SH	165 007 400 2005
	9–12mm	M17–007/B–T–D12–SH	165 007 400 2006
	6–9mm	M17–007R/B–T–D9.5–SH	165 007 400 2001
	9–12mm	M17–007R/B–T–D12–SH	165 007 400 2004



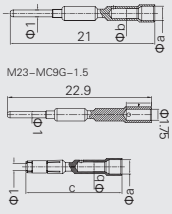
Crimp contacts

Crimp contacts 9A

9A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801
③	0.5–1.5	M23–MC9G–1.5	101 031 210 0901
NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801
③	0.5–1.5	M23–FC9G–1.5	101 031 220 0901



NO.	Φa	Φb	Stripping Length
①	1.7	0.9	4mm
②	2.1	1.45	4mm

NO.	Φa	Φb	c	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm
③	1.75	–	16.7	4.9mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

M17 Circular connector

32V– 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data	
Number of contacts	12
Rated current	7A
mm²/ AWG	(0.03–1.0 mm² / AWG 32–18)
Rated current	32 V
Test voltage Urms	1.5kV
Pollution degree	3
Flammability acc. to UL 94	V0 (UL94)
Surge voltage category	III

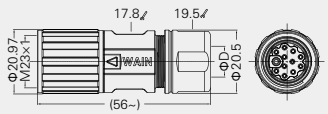
Mechanical date	
Housing material	Copper alloy,zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
12	6-9mm	M17–012R–T–D9.5–SH	165 012 400 2003
	9-12mm	M17–012R–T–D12–SH	165 012 400 2001



Crimp contacts

Crimp contacts 9A

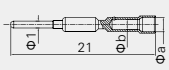
9A



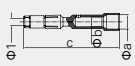


NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801

NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801



NO.	Φa	Φb	Stripping Length
①	1.7	0.9	4mm
②	2.1	1.45	4mm



NO.	Φa	Φb	c	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

M17 Circular connector

63V– 3.6A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data	
Number of contacts	17
Rated current	3.6A
mm²/ AWG	(0.14–0.5 mm² / AWG 26–20)
Rated current	63 V
Test voltage Urms	1.5kV
Pollution degree	3
Flammability acc. to UL 94	V0 (UL94)
Surge voltage category	III

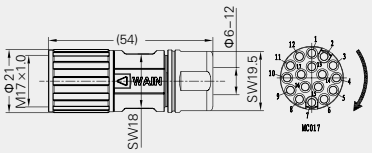
Mechanical date	
Housing material	Copper alloy,zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Male, Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
17	6-9mm	M17–MC017–T–D9.5–SH	165 017 410 2001
	9-12mm	M17–MC017–T–D12–SH	165 017 410 2002

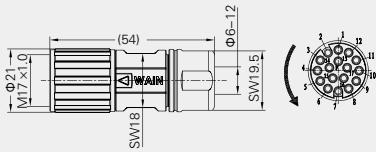


Female, Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
17	6-9mm	M17–FC017–T–D9.5–SH	165 017 420 2002
	9-12mm	M17–FC017–T–D12–SH	165 017 420 2001



Crimp contacts

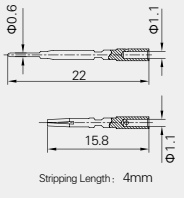
Crimp contacts 3.6A

3.6A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.14–0.5	M17–MC3.6G–0.5	101 039 210 0401

NO.	Wire gauge(mm²)	Female	Order No.
①	0.14–0.5	M17–FC3.6G–0.5	101 039 220 0401



Tools

Crimping tool



Wire gauge	Designation	Order No.
0.09–0.82 mm²	TL03	198 001 001 0002

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

M17 Circular connector

630V– 14A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data	
Number of contacts	7(6+PE)
Rated current	14A
mm²/ AWG	(0.03–1.5 mm² / AWG 32–16)
Rated current	630 V
Test voltage Urms	6kV
Pollution degree	3
Flammability acc. to UL 94	V0 (UL94)
Surge voltage category	III

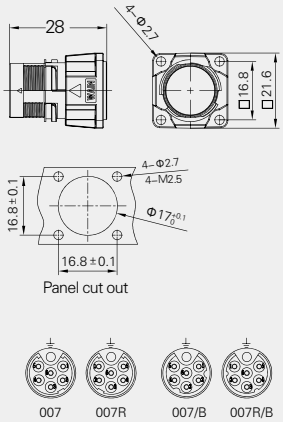
Mechanical date	
Housing material	Copper alloy,zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
7	M17–007–BK21.6–OD2.7	165 007 300 4003
	M17–007R–BK21.6–OD2.7	165 007 300 4015
	M17–007/B–BK21.6–OD2.7	165 007 300 4016
	M17–007R/B–BK21.6–OD2.7	165 007 300 4017



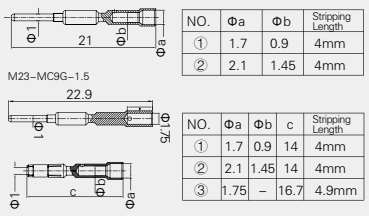
Crimp contacts

Crimp contacts 9A

9A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801
③	0.5–1.5	M23–MC9G–1.5	101 031 210 0901
NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801
③	0.5–1.5	M23–FC9G–1.5	101 031 220 0901



NO.	Φa	Φb	Stripping Length
①	1.7	0.9	4mm
②	2.1	1.45	4mm

NO.	Φa	Φb	c	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm
③	1.75	–	16.7	4.9mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

M17 Circular connector

32V– 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data	
Number of contacts	12
Rated current	7A
mm²/ AWG	(0.03–1.0 mm² / AWG 32–18)
Rated current	32 V
Test voltage Urms	1.5kV
Pollution degree	3
Flammability acc. to UL 94	V0 (UL94)
Surge voltage category	III

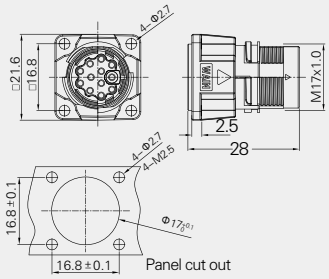
Mechanical date	
Housing material	Copper alloy,zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
12	M17–012–BK21.6–OD2.7	165 012 300 4002



Crimp contacts

Crimp contacts 9A

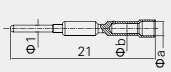
9A



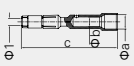


NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801

NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801



NO.	Φa	Φb	Stripping Length
①	1.7	0.9	4mm
②	2.1	1.45	4mm



NO.	Φa	Φb	c	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

M17 Circular connector

63V– 3.6A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data	
Number of contacts	17
Rated current	3.6A
mm²/ AWG	(0.14–0.5 mm² / AWG 26–20)
Rated current	63 V
Test voltage Urms	1.5kV
Pollution degree	3
Flammability acc. to UL 94	V0 (UL94)
Surge voltage category	III

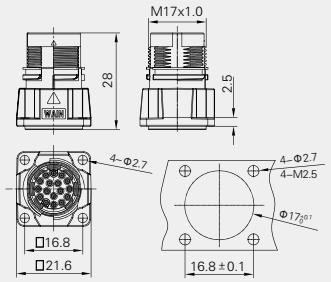
Mechanical date	
Housing material	Copper alloy,zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Male, Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
17	M17–MC017–BK21.6–OD2.7	165 017 310 4002

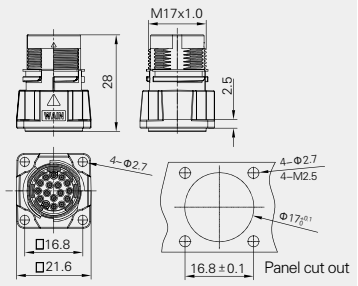


Female, Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
17	M17–FC017–BK21.6–OD2.7	165 017 320 1001



Crimp contacts

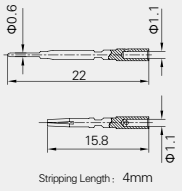
Crimp contacts 3.6A

3.6A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.14–0.5	M17–MC3.6G–0.5	101 039 210 0401

NO.	Wire gauge(mm²)	Female	Order No.
①	0.14–0.5	M17–FC3.6G–0.5	101 039 220 0401



Tools

Crimping tool



Wire gauge	Designation	Order No.
0.09–0.82 mm²	TL03	198 001 001 0002

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

WAIN
21S-07

M17 Circular connector

630V– 14A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data	
Number of contacts	7(6+PE)
Rated current	14A
mm²/ AWG	(0.03–1.5 mm² / AWG 32–16)
Rated current	630 V
Test voltage Urms	6kV
Pollution degree	3
Flammability acc. to UL 94	V0 (UL94)
Surge voltage category	III

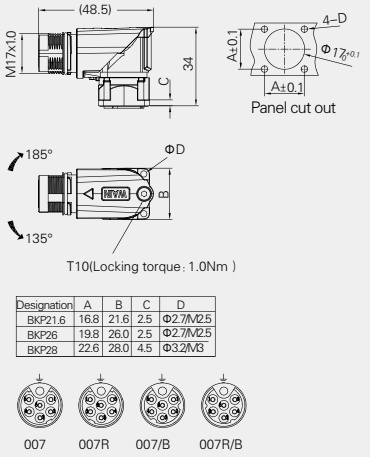
Mechanical date	
Housing material	Copper alloy,zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
7	M17–007–BKP21.6–SE–OD2.7	165 007 300 4001
	M17–007–BKP26–SE–OD2.7	165 007 300 4007
	M17–007–BKP28–SE–OD3.2	165 007 300 4011
	M17–007R–BKP21.6–SE–OD2.7	165 007 300 4006
	M17–007R–BKP26–SE–OD2.7	165 007 300 4008
	M17–007R–BKP28–SE–OD3.2	165 007 300 4012
	M17–007/B–BKP21.6–SE–OD2.7	165 007 300 4004
	M17–007/B–BKP26–SE–OD2.7	165 007 300 4009
	M17–007/B–BKP28–SE–OD3.2	165 007 300 4013
	M17–007R/B–BKP21.6–SE–OD2.7	165 007 300 4005
	M17–007R/B–BKP26–SE–OD2.7	165 007 300 4010
	M17–007R/B–BKP28–SE–OD3.2	165 007 300 4014



Designation	A	B	C	D
BKP21.6	16.8	21.6	2.5	Φ2.7/M2.5
BKP26	19.8	26.0	2.5	Φ2.7/M2.5
BKP28	22.6	28.0	4.5	Φ3.2/M3

Crimp contacts

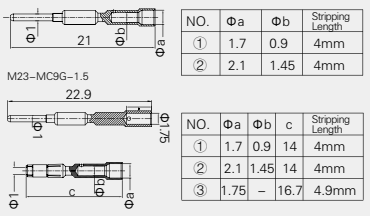
Crimp contacts 9A

9A





NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801
③	0.5–1.5	M23–MC9G–1.5	101 031 210 0901
NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801
③	0.5–1.5	M23–FC9G–1.5	101 031 220 0901



NO.	Φa	Φb	Stripping Length
①	1.7	0.9	4mm
②	2.1	1.45	4mm

NO.	Φa	Φb	c	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm
③	1.75	–	16.7	4.9mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

M17 Circular connector

32V– 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data	
Number of contacts	12
Rated current	7A
mm²/ AWG	(0.03–1.5 mm² / AWG 32–16)
Rated current	32 V
Test voltage Urms	1.5kV
Pollution degree	3
Flammability acc. to UL 94	V0 (UL94)
Surge voltage category	III

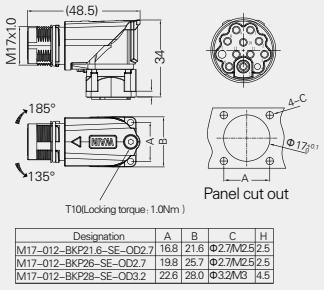
Mechanical date	
Housing material	Copper alloy,zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
12	M17–012–BKP21.6–SE–OD2.7	165 012 300 4001
	M17–012–BKP26–SE–OD2.7	165 012 300 2001
	M17–012–BKP28–SE–OD3.2	165 012 300 2002



Designation	A	B	C	H
M17–012–BKP21.6–SE–OD2.7	16.8	21.6	Φ2.7/M2.5	2.5
M17–012–BKP26–SE–OD2.7	19.8	25.7	Φ2.7/M2.5	2.5
M17–012–BKP28–SE–OD3.2	22.6	28.0	Φ3.2/M3	4.5

Crimp contacts

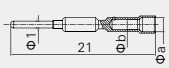
Crimp contacts 9A

9A

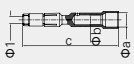


NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801

NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801



NO.	Φa	Φb	Stripping Length
①	1.7	0.9	4mm
②	2.1	1.45	4mm



NO.	Φa	Φb	c	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

M17 Circular connector

63V– 3.6A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data	
Number of contacts	17
Rated current	3.6A
mm²/ AWG	(0.14–0.5 mm² / AWG 26–20)
Rated current	63 V
Test voltage Urms	1.5kV
Pollution degree	3
Flammability acc. to UL 94	V0 (UL94)
Surge voltage category	III

Mechanical date	
Housing material	Copper alloy,zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Male, Crimp terminal

order crimp contacts separately



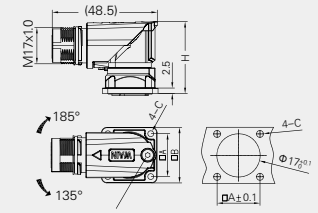
Contacts	Designation	Order No.
17	M17–MC017–BKP21.6–SE–OD2.7	165 017 310 4001
	M17–MC017–BKP26–SE–OD2.7	165 017 310 1001
	M17–MC017–BKP28–SE–OD3.2	165 017 310 1002

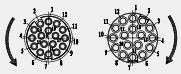
Female, Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
17	M17–FC017–BKP21.6–SE–OD2.7	165 017 320 1002
	M17–FC017–BKP26–SE–OD2.7	165 017 320 1003
	M17–FC017–BKP28–SE–OD3.2	165 017 320 1004





Designation	A	B	C	H
M17–MC017–BKP21.6–SE–OD2.7	16.8	21.6	Φ2.7/M2.5	2.5
M17–MC017–BKP26–SE–OD2.7	16.8	21.6	Φ2.7/M2.5	2.5
M17–MC017–BKP28–SE–OD3.2	19.8	25.7	Φ2.7/M2.5	2.5
M17–FC017–BKP21.6–SE–OD2.7	19.8	25.7	Φ2.7/M2.5	2.5
M17–FC017–BKP26–SE–OD2.7	22.6	28.0	Φ3.2/M3	4.5
M17–FC017–BKP28–SE–OD3.2	22.6	28.0	Φ3.2/M3	4.5

Crimp contacts

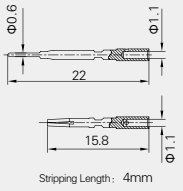
Crimp contacts 3.6A

3.6A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.14–0.5	M17–MC3.6G–0.5	101 039 210 0401

NO.	Wire gauge(mm²)	Female	Order No.
①	0.14–0.5	M17–FC3.6G–0.5	101 039 220 0401



Tools

Crimping tool



Wire gauge	Designation	Order No.
0.09–0.82 mm²	TL03	198 001 001 0002

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HR23 SERIES

M23 Circular connector-Signal Connection



HR23 Circular connector



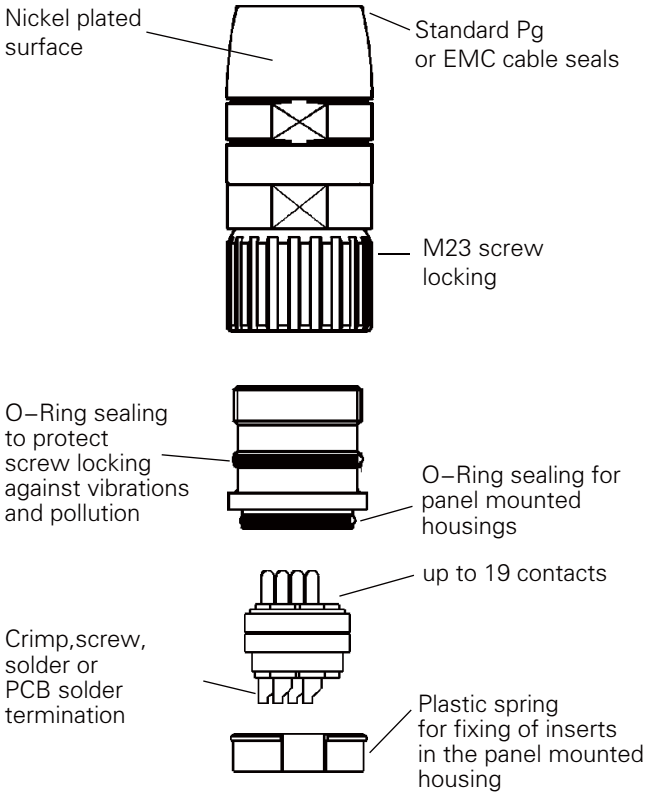
• Features

- Size R 23
- Outer diameter 26 mm
- High contact density
- Very robust hoods and housings
- Corrosion resistant
- Excellent EMC properties

  (with continuous shielding)
- Quick and easy assembly
- Vibration resistant screw locking system
- Up to 19 contacts, 25 V~ / 60 V–
- Ideal for applications such as measurement

  and automatic control

• Description



HR23-006 Circular inserts

25V~/60V⎓ 15A

Inserts

Hoods/Housings：size HR23 ,detail please find the page22-09~22-11.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Inserts		Contacts	
Number of contacts	6	Material	Copper alloy
Electrical data acc. to EN 61 984		Surface	Gold plated
Rated current		Contact resistance	≤5 mΩ
– power contact	15A	Screw termination	
Rated voltage	25 V~/60 V⎓	– power contact	0.14–1.0 mm² / AWG 26–16
of pollution	3	Solder termination	
Test voltage Urms	1.5 kV	– power contact	0.14–2.5 mm² / AWG 26–14
Insulation resistance	⩾10^{12} Ω	PCB solder termination	
Material	PBT	– power contact	Φ1.5 mm
Temperature range	–40℃...+130℃	–reference to bulkhead mounted housing	3.5 mm
Flammability acc. to UL 94	V0		

Screw terminal



Inserts	Designation	Order No.
Male	HR23–006–M	181 006 011 0001
Female	HR23–006–F	181 006 021 0001
	Reverse coding	
	HR23–006R–M	181 006 011 0101
	HR23–006R–F	181 006 021 0101

Solder terminal



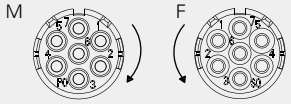
Inserts	Designation	Order No.
Male	HR23–006–MST	181 006 013 0001
Female	HR23–006–FST	181 006 023 0001
	Reverse coding	
	HR23–006R–MST	181 006 013 0101
	HR23–006R–FST	181 006 023 0101

PCB solder termination [2)]

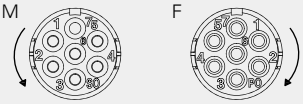


Inserts	Designation	Order No.
Male	HR23–006–MTHT [2)]	181 006 014 0001
Female	HR23–006–FTHT [2)]	181 006 024 0001
	Reverse coding	
	HR23–006R–MTHT [2)]	181 006 014 0101
	HR23–006R–FTHT [2)]	181 006 024 0101

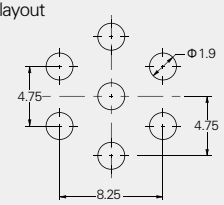
Contact arrangement: mating side



Reverse coding



PCB layout



2) Suitable only for bulkhead mounted housings:HR23–BK–D2.7,HR23–BK/R–OD2.7 and HR23–BK/R–OM2.5

HR23-006 Circular inserts

25V~/60V⎓ 15A

Inserts

Hoods/Housings：size HR23 ,detail please find the page22-09~22-11.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Inserts	
Number of contacts	7
Electrical data acc. to EN 61 984	
Rated current	
– power contact	15A
Rated voltage	25 V~/60 V⎓
of pollution	3
Test voltage Urms	1.5 kV
Insulation resistance	⩾10^{12} Ω
Material	PBT
Temperature range	–40℃...+130℃
Flammability acc. to UL 94	V0

Contacts	
Material	Copper alloy
Surface	Gold plated
Contact resistance	⩽5 mΩ
Screw termination	
– power contact	0.14–1.0 mm^2 / AWG 26–16
Solder termination	
– power contact	0.14–2.5 mm^2 / AWG 26–14

Screw terminal



Inserts	Designation	Order No.
Male	HR23–007–M	181 007 011 0001
Female	HR23–007–F	181 007 021 0001
	Reverse coding	
Male	HR23–007R–M	181 007 011 0101
Female	HR23–007R–F	181 007 021 0101

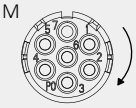
Solder terminal



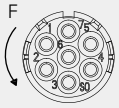
Inserts	Designation	Order No.
Male	HR23–007–MST	181 007 013 0001
Female	HR23–007–FST	181 007 023 0001
	Reverse coding	
Male	HR23–007R–MST	181 007 013 0101
Female	HR23–007R–FST	181 007 023 0101

Contact arrangement: mating side

M

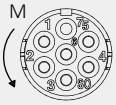


F

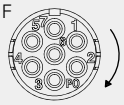


Reverse coding

M



F



HR23-009 Circular inserts

25V~/60V– 15/7A

Inserts

Hoods/Housings：size HR23 ,detail please find the page22-09~22-11.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Inserts	
Number of contacts	9
Electrical data acc. to EN 61 984	
Rated current	
– power contact	1x15A
– signal contact	8x7A
Rated voltage	25 V~/60 V–
of pollution	3
Test voltage Urms	1.5 kV
Insulation resistance	⩾10^{12} Ω
Material	PBT
Temperature range	–40℃...+130℃
Flammability acc. to UL 94	V0

Contacts	
Material	Copper alloy
Surface	Gold plated
Contact resistance	⩽5 mΩ
Screw termination	
– power contact	0.14–1.0 mm² / AWG 26–16
– signal contact	0.14–0.75 mm² / AWG 26–18
Solder termination	
– power contact	0.14–2.5 mm² / AWG 26–14
– signal contact	0.14–1.0 mm² / AWG 26–16

Screw terminal



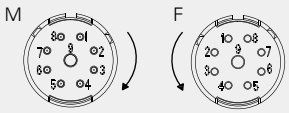
Inserts	Designation	Order No.
Male	HR23–009–M	181 009 011 0001
Female	HR23–009–F	181 009 021 0001

Solder terminal



Inserts	Designation	Order No.
Male	HR23–009–MST	181 009 013 0001
Female	HR23–009–FST	181 009 023 0001
	Reverse coding	
Male	HR23–009R–MST	181 009 013 0101
Female	HR23–009R–FST	181 009 023 0101

Contact arrangement: mating side



Reverse coding



HR23-012 Circular inserts

25V~/60V– 7A

Inserts

Hoods/Housings：size HR23 ,detail please find the page22-09~22-11.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Inserts	
Number of contacts	12
Electrical data acc. to EN 61 984	
Rated current	
– signal contact	7A
Rated voltage	25 V~/60 V–
of pollution	3
Test voltage Urms	1.5 kV
Insulation resistance	⩾10^{12} Ω
Material	PBT
Temperature range	–40℃...+130℃
Flammability acc. to UL 94	V0

Contacts	
Material	Copper alloy
Surface	Gold plated
Contact resistance	⩽5 mΩ
Crimp termination	
– D–Sub contact	0.09–0.82 mm²/ AWG 28–18
Solder termination	
– signal contact	0.14–1.0 mm² / AWG 26–16
PCB solder termination	
– signal contact	Φ0.6 mm
– reference to bulkheadmounted housing	3.5 mm



Crimp terminal for D-Sub contacts



Inserts	Designation	Order No.
Male	HR23–012–MC	181 012 010 0001
Female	HR23–012–FC	181 012 020 0001

Solder terminal



Inserts	Designation	Order No.
Male	HR23–012–MST	181 012 013 0001
Female	HR23–012–FST	181 012 023 0001
	Reverse coding	
Male	HR23–012R–MST	181 012 013 0101
Female	HR23–012R–FST	181 012 023 0101

PCB solder termination 2)

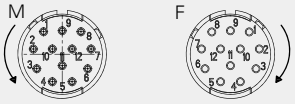


Inserts	Designation	Order No.
Male	HR23–012–MTHT 2)	181 012 014 0001
Female	HR23–012–FTHT 2)	181 012 024 0001
	Reverse coding	
Male	HR23–012R–MTHT 2)	181 012 014 0101
Female	HR23–012R–FTHT 2)	181 012 024 0101

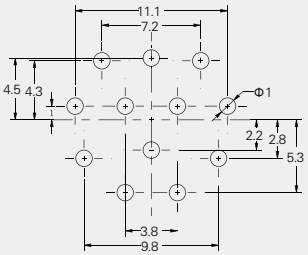
Contact arrangement: mating side



Reverse coding



PCB layout



2) Suitable only for bulkhead mounted housings:HR23–BK–D2.7,HR23–BK/R–OD2.7 and HR23–BK/R–OM2.5

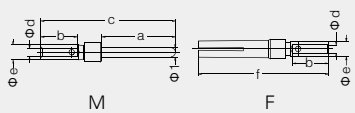
Accessories

Crimp contacts 5A

Contact resistance⩽3mΩ
gold plated



Wire gauge	Male	Order No.	Female	Order No.
0.09–0.25	CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
0.13–0.33	CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
0.33–0.52	CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501
0.33–0.82	CSGM–0.82	101 014 210 0701	CSGF–0.82	101 014 220 0701



Please find the details of crimp contacts on P13–02 to P13–07.

*Please find the details of crimp contact tools on page 29-02~29-05.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HR23-017 Circular inserts

25V~/60V– 7A

Inserts

Hoods/Housings：size HR23 ,detail please find the page 22-09~22-11.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	

Inserts		Contacts	
Number of contacts	17	Material	Copper alloy
Electrical data acc. to EN 61 984		Surface	Gold plated
Rated current		Contact resistance	⩽5 mΩ
– signal contact	7A	Crimp termination	
Rated voltage	25 V~/60 V–	– D–Sub contact	0.09–0.82 mm²/ AWG 28–18
of pollution	3	Solder termination	
Test voltage Urms	1.5 kV	– signal contact	0.14–1.0 mm² / AWG 26–16
Insulation resistance	⩾10^{12} Ω	PCB solder termination	
Material	PBT	– signal contact	Φ0.6 mm
Temperature range	–40℃...+115℃	– reference to bulkheadmounted housing	3.5 mm
Flammability acc. to UL 94	V0		



Crimp terminal for D-Sub contacts



Inserts	Designation	Order No.
Male	HR23–017–MC	181 017 010 0001
Female	HR23–017–FC	181 017 020 0001

Solder terminal



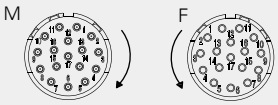
Inserts	Designation	Order No.
Male	HR23–017–MST	181 017 013 0001
Female	HR23–017–FST	181 017 023 0001
	Reverse coding	
Male	HR23–017R–MST	181 017 013 0101
Female	HR23–017R–FST	181 017 023 0101

PCB solder termination 2)

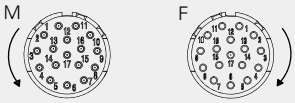


Inserts	Designation	Order No.
Male	HR23–017–MTHT 2)	181 017 014 0001
Female	HR23–017–FTHT 2)	181 017 024 0001
	Reverse coding	
Male	HR23–017R–MTHT 2)	181 017 014 0101
Female	HR23–017R–FTHT 2)	181 017 024 0101

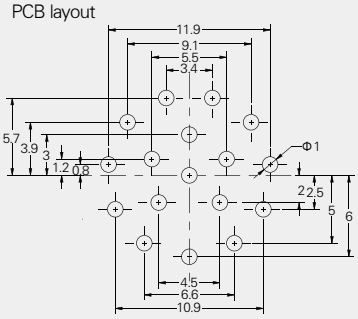
Contact arrangement: mating side



Reverse coding



PCB layout



2) Suitable only for bulkhead mounted housings:HR23–BK–D2.7,HR23–BK/R–OD2.7 and HR23–BK/R–OM2.5

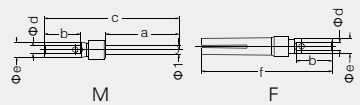
Accessories

Crimp contacts 5A

Contact resistance⩽3mΩ
gold plated



Wire gauge	Male	Order No.	Female	Order No.
0.09–0.25	CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
0.13–0.33	CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
0.33–0.52	CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501
0.33–0.82	CSGM–0.82	101 014 210 0701	CSGF–0.82	101 014 220 0701



Please find the details of crimp contacts on P13–02 to P13–07.

*Please find the details of crimp contact tools on page 29-02~29-05.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

25V~/60V– 10/7A

Inserts

Hoods/Housings：size HR23 ,detail please find the page 22-09~22-11.

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Inserts	
Number of contacts	19
Electrical data acc. to EN 61 984	
Rated current	
– power contact	3x10A
– signal contact	16x7A
Rated voltage	25 V~/60 V–
of pollution	3
Test voltage Urms	1.5 kV
Insulation resistance	⩾10^{12} Ω
Material	PBT
Temperature range	–40℃...+115℃
Flammability acc. to UL 94	V0

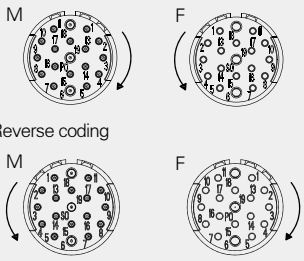
Contacts	
Material	Copper alloy
Surface	Gold plated
Contact resistance	⩽5 mΩ
Solder termination	
– power contact	0.14–2.5 mm^2 / AWG 26–14
– signal contact	0.14–1.0 mm^2 / AWG 26–16

Solder terminal



Inserts	Designation	Order No.
Male	HR23–019–MST	181 019 013 0001
Female	HR23–019–FST	181 019 023 0001
	Reverse coding	
Male	HR23–019R–MST	181 019 013 0101
Female	HR23–019R–FST	181 019 023 0101

Contact arrangement: mating side



HR23 Hoods/Housings

Hoods/Housings	
Material	Copper zinc alloy
Surface	Nickel plated
sealing	FPM
Temperature range	–40℃...+130℃
Protection degree in locked position	IP 67

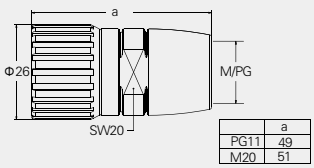
Hoods, top-entry

FInstall or remove this kind of produt need to use the HR23–TL02/N tools.



Thread	Designation	Order No.
PG11	HR23–TE–PG11	181 000 410 1002
M20	HR23–TE–M20	181 000 410 1001

Mounted with cable gland to achieve EMC function.

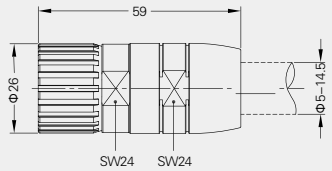


	a
PG11	49
M20	51

Hoods, top-entry, EMC version



Thread	Designation	Order No.
---	HR23–TE–EMC	181 000 410 2003

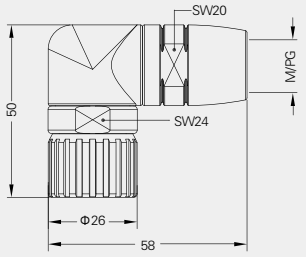


Hood, entry 90°



Thread	Designation	Order No.
PG11	HR23–SE–PG11	181 000 510 1002
M20	HR23–SE–M20	181 000 510 1001

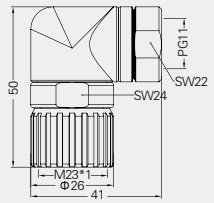
Mounted with cable gland to achieve EMC function.



Hood, entry 90°



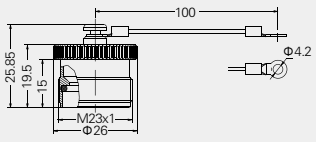
Thread	Designation	Order No.
PG11	HR23–SES–PG11	181 000 510 1102



Screw cover , for hoods with rope



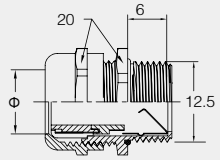
Thread	Designation	Order No.
---	HR23–MCV–M2	181 000 010 9001



Cable gland



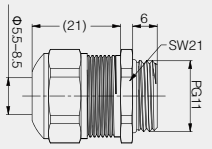
Thread	Designation	Order No.
PG11	WNAC–PG11(D5–10)	102 117 003 1001
M20	WNAC–M20(D6–12)	102 117 015 1001



Cable gland



Thread	Designation	Order No.
PG11	WNACP–PG11(D5.5–8.5)	102 117 018 1503
M20	WNACP–M20(D5.5–8.5)	102 117 018 1505



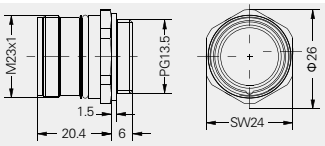
Degree of protection： IP67

Housings, bulkhead mounting

front wall assembly
with central locking
PG13.5



Thread	Designation	Order No.
PG13.5	HR23–BK–PG13.5	181 000 310 1004

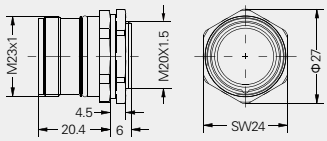


Housings, bulkhead mounting

front wall assembly,with central locking M20



Thread	Designation	Order No.
M20	HR23–BK–M20	181 000 310 1003

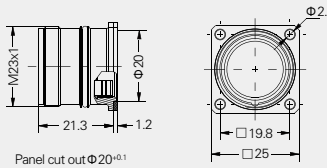


Housings, bulkhead mounting

front wall assembly,with flat sealing
and 4 Φ2.7 holes



Thread	Designation	Order No.
---	HR23–BK–D2.7	181 000 310 1001

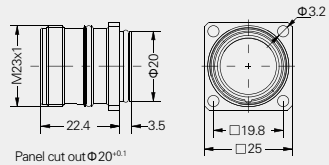


Housings, bulkhead mounting

front wall assembly,with O–ring sealing
and 4 Φ3.2 holes



Thread	Designation	Order No.
---	HR23–BK–OD3.2	181 000 310 1002

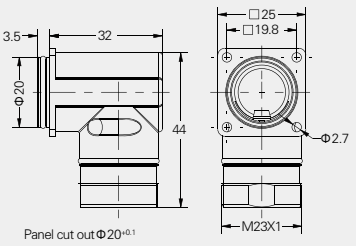


Housings, bulkhead mounting

front wall assembly,with O–ring sealing
and 4 Φ2.7 holes
HR23–TL03 tools are needed for installation and removal



Thread	Designation	Order No.
---	HR23–BK–SE–OD2.7	181 000 610 1001

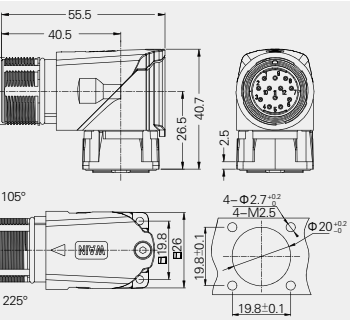


Housings, bulkhead mounting

front wall assembly,with O–ring sealing
and 4 Φ2.7 holes. suitable for positioning rotation,can match HR23 series inserts, (except PCB Solder series)



Thread	Designation	Order No.
---	HR23–BKP–SE–OD2.7	181 000 610 1101

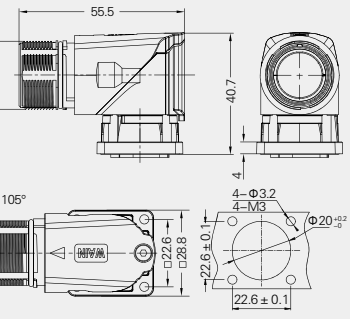


Housings, bulkhead mounting

front wall assembly,with O–ring sealing
and 4 Φ3.2 holes. suitable for positioning rotation,can match HR23 series inserts, (except PCB Solder series)



Thread	Designation	Order No.
---	HR23–BKP28.8–SE–OD3.2	181 000 610 1102



HR23 Hood&Housing

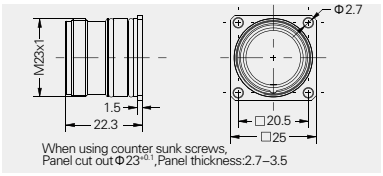
Degree of protection： IP67

Housings, bulkhead mounting

back wall assembly,with O–ring sealing and 4 Φ2.7 holes



Thread	Designation	Order No.
---	HR23–BK/R–OD2.7	181 000 310 1101

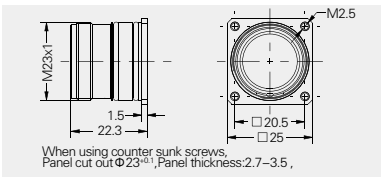


Housings, bulkhead mounting

back wall assembly,with O–ring sealing and 4 M2.5 holes



Thread	Designation	Order No.
---	HR23–BK/R–OM2.5	181 000 310 1102

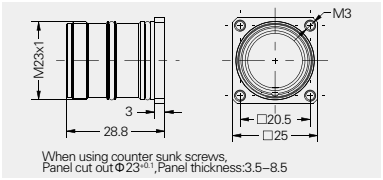


Housings, bulkhead mounting

back wall assembly,with O–ring sealing and 4 M3.0 holes



Thread	Designation	Order No.
---	HR23–BK/R–OM3.0	181 000 310 1103

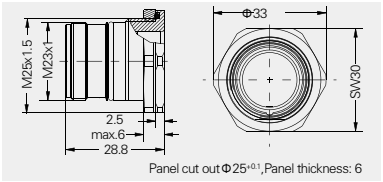


Housings, bulkhead mounting

back wall assembly,with central locking M25



Thread	Designation	Order No.
M25	HR23–BK/R–OM25	181 000 310 1104

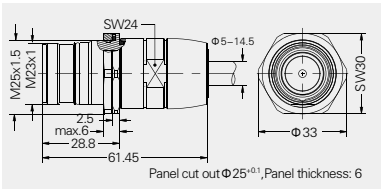


EMC Housings, cable to cable

back wall assembly,with central locking M25



Thread	Designation	Order No.
M25	HR23–CCT/R–OM25	181 000 710 1004

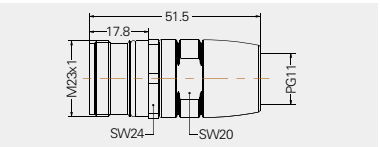


Housings, cable to cable, top entry



Thread	Designation	Order No.
M20	HR23–CCT–M20	181 000 710 1001
PG11	HR23–CCT–PG11	181 000 710 1002

It should be used with cable gland， up to EMC function.



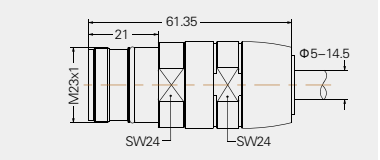
Housings, cable to cable, top entry

EMC version



Thread	Designation	Order No.
---	HR23–CCT–EMC	181 000 710 2003

FInstall or remove this kind of produt need to use the HR23–TL01 tools.



Screw cover

for bulkhead mounted and cable to cable housings

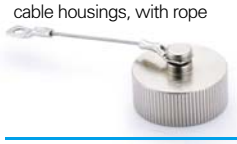


Thread	Designation	Order No.
---	HR23–MCV–F	181 000 010 9003

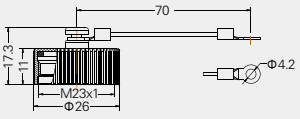


Screw cover

for bulkhead mounted and cable to cable housings, with rope

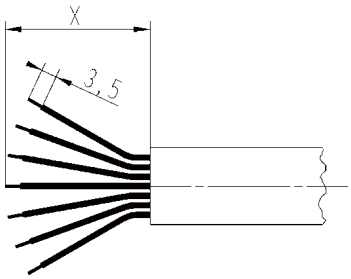


Thread	Designation	Order No.
---	HR23–MCV–F2	181 000 010 9002

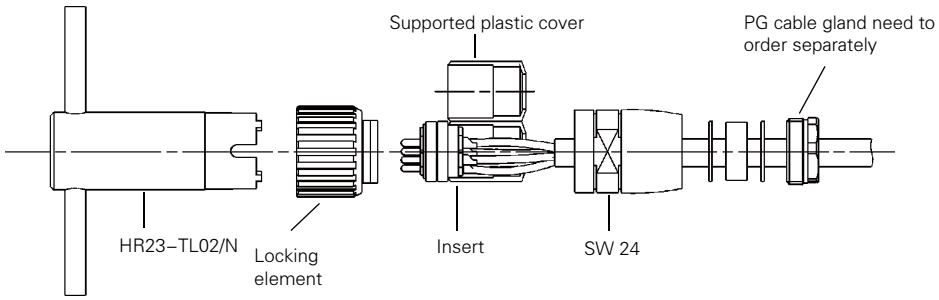


HR23 Assembly manuals

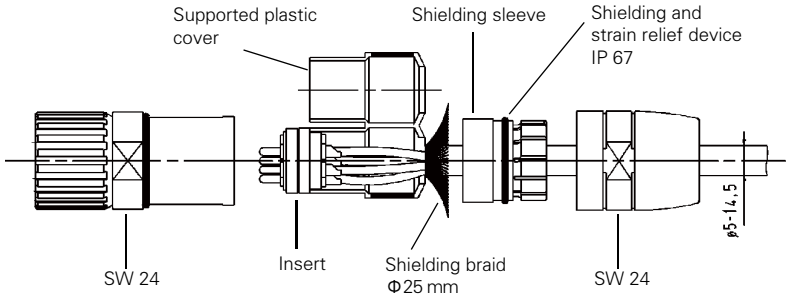
Hood and Housing	Cable stripping length x
HR23–CCT/R–OM25	26 mm
HR23–TE–PG11	20 mm
HR23–TE–EMC	26 mm
HR23–SE–PG11	30 mm
HR23–CCT–PG11	20 mm
HR23–CCT–EMC	26 mm
HR23–BK–SE–OD2.7	30 mm



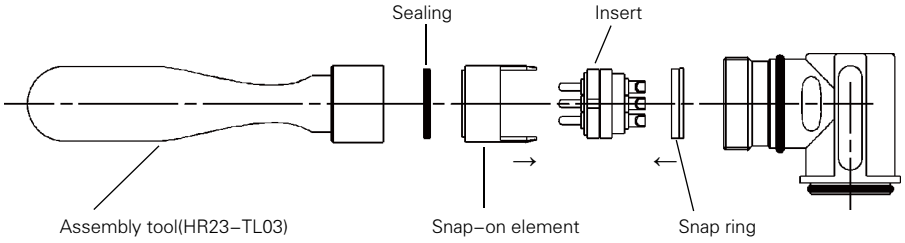
Standard hood and housing



EMC hoods

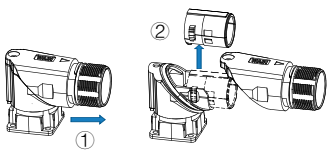


Right angled bulkhead mounted housing

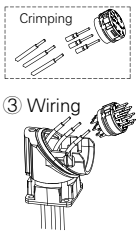


Right angled bulkhead mounted housing:HR23-BKP-SE-OD2.7

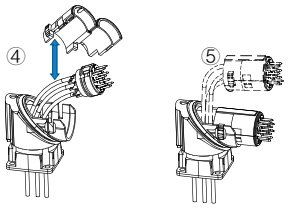
1：Pull out the upper cover horizontally, and then take out the inner insert fixed part.



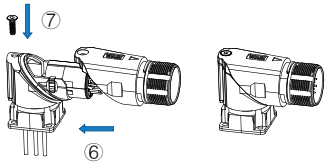
2：insert wiring
a、The cable passes through the fixed base.
b、Strip the wire insulation husk, and then weld it to the pins of the insert.



3：install the insert fixed part
a、Fasten the open fixed part with the insert; the location gap of the insert should align with the location salient point of the fixed part.
b、Insert the fixed part which installed the insert to the slot of the base.



4：Lock the upper cover, and the installation is completed.



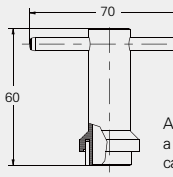
HR23 Tools

Dimensions in mm

Assembly tool



Application	Designation	Order No.
for bulkhead mounted and cable to cable housings and hoods: HR23–CCT–EMC	HR23–TL01/N	198 001 003 0004

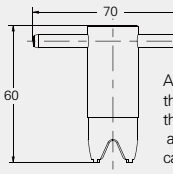


As an alternative a screw driver can be used.

Assembly tool



Application	Designation	Order No.
for hoods: HR23–TE–PG11 HR23–TE–M20	HR23–TL02/N	198 001 003 0005

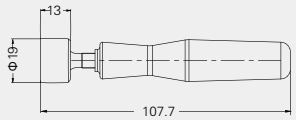


Alternatively for the assembly of the EMC version a screw driver can be used.

Assembly tool



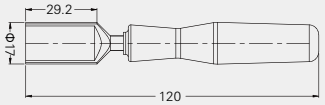
Application	Designation	Order No.
for angled bulkhead mounted housings: HR23–BK–SE–OD2.7	HR23–TL03	198 001 003 0006



Assembly tool



Application	Designation	Order No.
for housings: (except angled bulkhead mounted and EMC housings)	HR23–TL04	198 001 003 0014



MR23 Circular power connectors





MR23 Circular connector

300V– 20A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data		
Number of contacts	6	7
Rated current	20A	20A
mm²/ AWG	(0.35–2.5 mm² / AWG 22–14)	
Rated current	300 V	300 V
Test voltage Urms	2.5 kV	2.5 kV
Pollution degree	3	3
Flammability acc. to UL 94	V0 (UL94)	V0 (UL94)
Surge voltage category	III	III

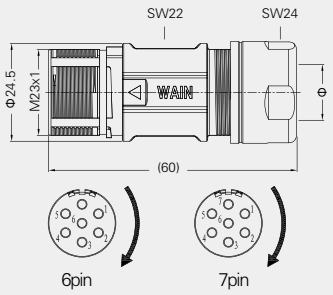
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
6	4.5–8mm	MR23–006–CCT–D8–SH	181 006 700 2001
	6–10mm	MR23–006–CCT–D10–SH	181 006 700 2002
	9–14.5mm	MR23–006–CCT–D14.5–SH	181 006 700 2003
7	4.5–8mm	MR23–007–CCT–D8–SH	181 007 700 2001
	6–10mm	MR23–007–CCT–D10–SH	181 007 700 2002
	9–14.5mm	MR23–007–CCT–D14.5–SH	181 007 700 2003

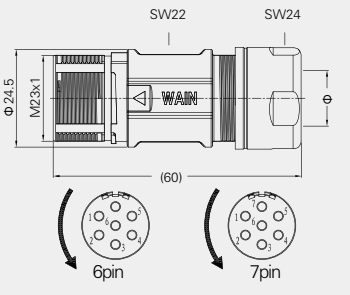


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
6	4.5–8mm	MR23–006R–CCT–D8–SH	181 006 700 2004
	6–10mm	MR23–006R–CCT–D10–SH	181 006 700 2005
	9–14.5mm	MR23–006R–CCT–D14.5–SH	181 006 700 2006
7	4.5–8mm	MR23–007R–CCT–D8–SH	181 007 700 2004
	6–10mm	MR23–007R–CCT–D10–SH	181 007 700 2005
	9–14.5mm	MR23–007R–CCT–D14.5–SH	181 007 700 2006



Crimp contacts

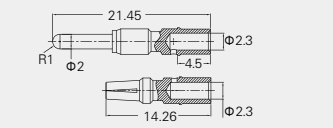
Crimp contacts 20A

20A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.35-2.5	MR23–MC20G–2.5	101 020 210 1001

NO.	Wire gauge(mm²)	Female	Order No.
①	0.35-2.5	MR23–FC20G–2.5	101 020 220 1001



Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

300V– 20A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data		
Number of contacts	6	7
Rated current	20A	20A
mm²/ AWG	(0.35–2.5 mm² / AWG 22–14)	
Rated current	300 V	300 V
Test voltage Urms	2.5 kV	2.5 kV
Pollution degree	3	3
Flammability acc. to UL 94	V0 (UL94)	V0 (UL94)
Surge voltage category	III	III

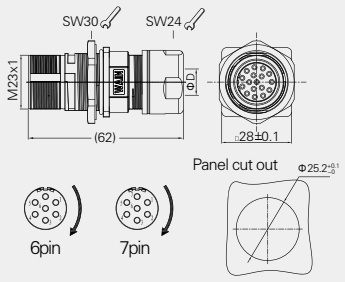
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
6	4.5–8mm	MR23–006–CCT/R–D8–SH	181 006 700 2007
	6–10mm	MR23–006–CCT/R–D10–SH	181 006 700 2008
	9–14.5mm	MR23–006–CCT/R–D14.5–SH	181 006 700 2009
7	4.5–8mm	MR23–007–CCT/R–D8–SH	181 007 700 2007
	6–10mm	MR23–007–CCT/R–D10–SH	181 007 700 2008
	9–14.5mm	MR23–007–CCT/R–D14.5–SH	181 007 700 2009

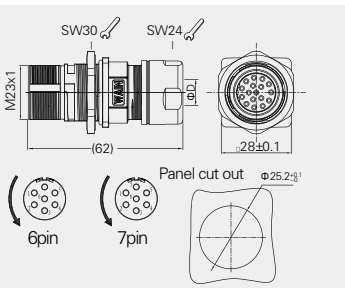


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
6	4.5–8mm	MR23–006R–CCT/R–D8–SH	181 006 700 2010
	6–10mm	MR23–006R–CCT/R–D10–SH	181 006 700 2011
	9–14.5mm	MR23–006R–CCT/R–D14.5–SH	181 006 700 2012
7	4.5–8mm	MR23–007R–CCT/R–D8–SH	181 007 700 2010
	6–10mm	MR23–007R–CCT/R–D10–SH	181 007 700 2011
	9–14.5mm	MR23–007R–CCT/R–D14.5–SH	181 007 700 2012



Crimp contacts

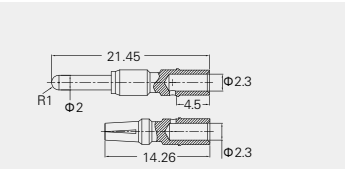
Crimp contacts 20A

20A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.35-2.5	MR23–MC20G–2.5	101 020 210 1001

NO.	Wire gauge(mm²)	Female	Order No.
①	0.35-2.5	MR23–FC20G–2.5	101 020 220 1001



Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

300V– 20A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data		
Number of contacts	6	7
Rated current	20A	20A
mm²/ AWG	(0.35–2.5 mm² / AWG 22–14)	
Rated current	300 V	300 V
Test voltage Urms	2.5 kV	2.5 kV
Pollution degree	3	3
Flammability acc. to UL 94	V0 (UL94)	V0 (UL94)
Surge voltage category	III	III

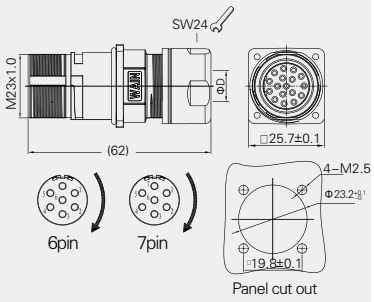
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	⩽5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
6	4.5–8mm	MR23–006–CCT/R26–D8–SH	181 006 700 2013
	6–10mm	MR23–006–CCT/R26–D10–SH	181 006 700 2014
	9–14.5mm	MR23–006–CCT/R26–D14.5–SH	181 006 700 2015
7	4.5–8mm	MR23–007–CCT/R26–D8–SH	181 007 700 2013
	6–10mm	MR23–007–CCT/R26–D10–SH	181 007 700 2014
	9–14.5mm	MR23–007–CCT/R26–D14.5–SH	181 007 700 2015

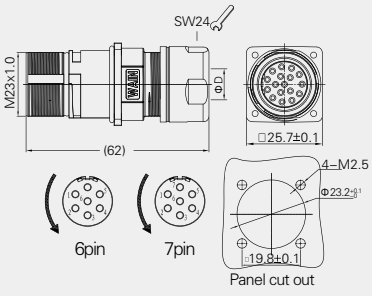


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
6	4.5–8mm	MR23–006R–CCT/R26–D8–SH	181 006 700 2016
	6–10mm	MR23–006R–CCT/R26–D10–SH	181 006 700 2017
	9–14.5mm	MR23–006R–CCT/R26–D14.5–SH	181 006 700 2018
7	4.5–8mm	MR23–007R–CCT/R26–D8–SH	181 007 700 2016
	6–10mm	MR23–007R–CCT/R26–D10–SH	181 007 700 2017
	9–14.5mm	MR23–007R–CCT/R26–D14.5–SH	181 007 700 2018



Crimp contacts

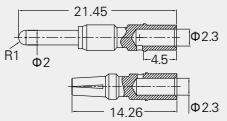
Crimp contacts 20A

20A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.35-2.5	MR23–MC20G–2.5	101 020 210 1001

NO.	Wire gauge(mm²)	Female	Order No.
①	0.35-2.5	MR23–FC20G–2.5	101 020 220 1001



Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

300V– 20A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data		
Number of contacts	6	7
Rated current	20A	20A
mm²/ AWG	(0.35–2.5 mm² / AWG 22–14)	
Rated current	300 V	300 V
Test voltage Urms	2.5 kV	2.5 kV
Pollution degree	3	3
Flammability acc. to UL 94	V0 (UL94)	V0 (UL94)
Surge voltage category	III	III

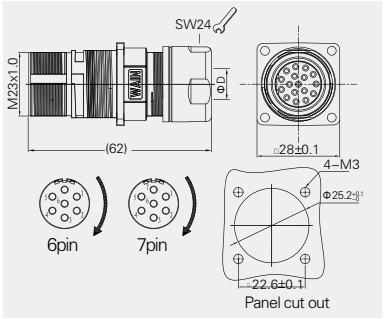
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
6	4.5–8mm	MR23–006–CCT/R28–D8–SH	181 006 700 2019
	6–10mm	MR23–006–CCT/R28–D10–SH	181 006 700 2020
	9–14.5mm	MR23–006–CCT/R28–D14.5–SH	181 006 700 2021
7	4.5–8mm	MR23–007–CCT/R28–D8–SH	181 007 700 2019
	6–10mm	MR23–007–CCT/R28–D10–SH	181 007 700 2020
	9–14.5mm	MR23–007–CCT/R28–D14.5–SH	181 007 700 2021

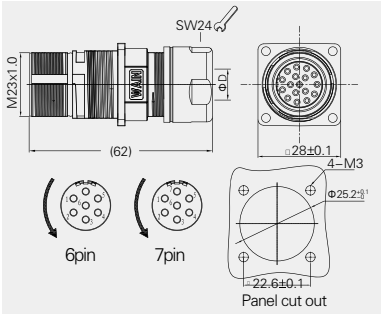


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
6	4.5–8mm	MR23–006R–CCT/R28–D8–SH	181 006 700 2022
	6–10mm	MR23–006R–CCT/R28–D10–SH	181 006 700 2023
	9–14.5mm	MR23–006R–CCT/R28–D14.5–SH	181 006 700 2024
7	4.5–8mm	MR23–007R–CCT/R28–D8–SH	181 007 700 2022
	6–10mm	MR23–007R–CCT/R28–D10–SH	181 007 700 2023
	9–14.5mm	MR23–007R–CCT/R28–D14.5–SH	181 007 700 2024



Crimp contacts

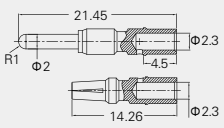
Crimp contacts 20A

20A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.35-2.5	MR23–MC20G–2.5	101 020 210 1001

NO.	Wire gauge(mm²)	Female	Order No.
①	0.35-2.5	MR23–FC20G–2.5	101 020 220 1001



Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

160V/125V~ 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data		
Number of contacts	12	17
Rated current	7A	7A
mm²/ AWG	(0.03–1.0 mm² / AWG 32–18)	
Rated current	160 V	125 V
Test voltage Urms	2.5 kV	2.0 kV
Pollution degree	3	3
Flammability acc. to UL 94	V0 (UL94)	V0 (UL94)
Surge voltage category	III	III

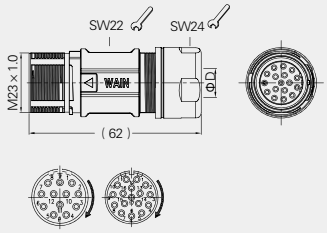
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
12	4.5–8mm	MR23–012–CCT–D8–SH	181 012 700 4004
	6–10mm	MR23–012–CCT–D10–SH	181 012 700 4005
	9–14.5mm	MR23–012–CCT–D14.5–SH	181 012 700 4007
17	4.5–8mm	MR23–017–CCT–D8–SH	181 017 700 2011
	6–10mm	MR23–017–CCT–D10–SH	181 017 400 2011
	9–14.5mm	MR23–017–CCT–D14.5–SH	181 017 421 2011

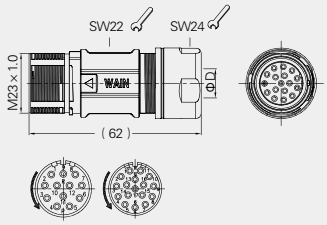


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
12	4.5–8mm	MR23–012R–CCT–D8–SH	181 012 700 4008
	6–10mm	MR23–012R–CCT–D10–SH	181 012 421 2010
	9–14.5mm	MR23–012R–CCT–D14.5–SH	181 012 700 4009
17	4.5–8mm	MR23–017R–CCT–D8–SH	181 017 700 4004
	6–10mm	MR23–017R–CCT–D10–SH	181 017 700 2009
	9–14.5mm	MR23–017R–CCT–D14.5–SH	181 017 700 2010



Crimp contacts

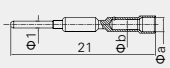
Crimp contacts 9A

9A

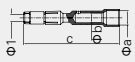


NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801

NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801



NO.	Φa	Φb	Stripping Length
①	1.7	0.9	4mm
②	2.1	1.45	4mm



NO.	Φa	Φb	c	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

160V/125V– 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data		
Number of contacts	12	17
Rated current	7A	7A
mm²/ AWG	(0.03–1.0 mm² / AWG 32–18)	
Rated current	160 V	125 V
Test voltage Urms	2.5 kV	2.0 kV
Pollution degree	3	3
Flammability acc. to UL 94	V0 (UL94)	V0 (UL94)
Surge voltage category	III	III

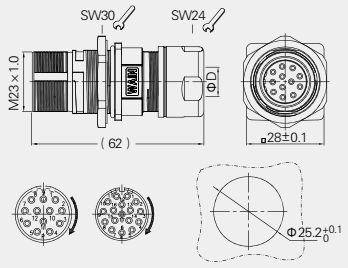
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
12	4.5–8mm	MR23–012–CCT/R–D8–SH	181 012 700 2008
	6–10mm	MR23–012–CCT/R–D10–SH	181 012 700 2007
	9–14.5mm	MR23–012–CCT/R–D14.5–SH	181 012 700 4011
17	4.5–8mm	MR23–017–CCT/R–D8–SH	181 017 700 2008
	6–10mm	MR23–017–CCT/R–D10–SH	181 017 400 2014
	9–14.5mm	MR23–017–CCT/R–D14.5–SH	181 017 700 2007

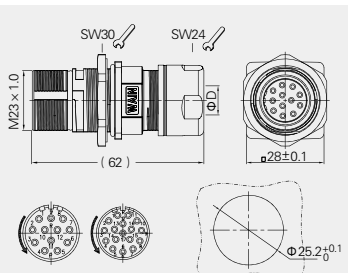


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
12	4.5–8mm	MR23–012R–CCT/R–D8–SH	181 012 700 2014
	6–10mm	MR23–012R–CCT/R–D10–SH	181 012 700 2012
	9–14.5mm	MR23–012R–CCT/R–D14.5–SH	181 012 700 2013
17	4.5–8mm	MR23–017R–CCT/R–D8–SH	181 017 700 2021
	6–10mm	MR23–017R–CCT/R–D10–SH	181 017 700 2019
	9–14.5mm	MR23–017R–CCT/R–D14.5–SH	181 017 700 2020



Crimp contacts

Crimp contacts 9A

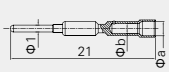
9A



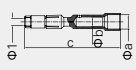


NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801

NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801



NO.	Φa	Φb	Stripping Length
①	1.7	0.9	4mm
②	2.1	1.45	4mm



NO.	Φa	Φb	c	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

160V/125V– 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data		
Number of contacts	12	17
Rated current	7A	7A
mm²/ AWG	(0.03–1.0 mm² / AWG 32–18)	
Rated current	160 V	125 V
Test voltage Urms	2.5 kV	2.0 kV
Pollution degree	3	3
Flammability acc. to UL 94	V0 (UL94)	V0 (UL94)
Surge voltage category	III	III

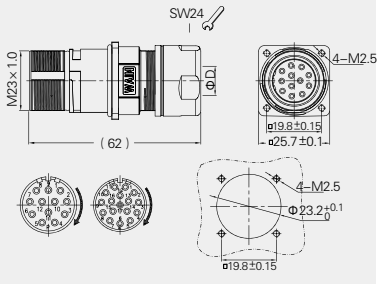
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
12	4.5–8mm	MR23–012–CCT/R26–D8–SH	181 012 700 2003
	6–10mm	MR23–012–CCT/R26–D10–SH	181 012 700 2001
	9–14.5mm	MR23–012–CCT/R26–D14.5–SH	181 012 700 2002
17	4.5–8mm	MR23–017–CCT/R26–D8–SH	181 017 700 2003
	6–10mm	MR23–017–CCT/R26–D10–SH	181 017 700 2001
	9–14.5mm	MR23–017–CCT/R26–D14.5–SH	181 017 700 2002

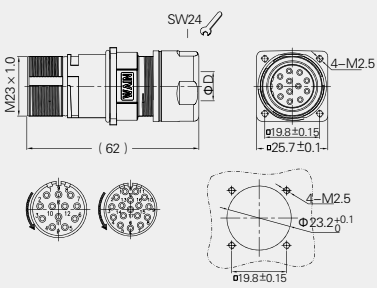


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
12	4.5–8mm	MR23–012R–CCT/R26–D8–SH	181 012 700 2011
	6–10mm	MR23–012R–CCT/R26–D10–SH	181 012 700 2009
	9–14.5mm	MR23–012R–CCT/R26–D14.5–SH	181 012 700 2010
17	4.5–8mm	MR23–017R–CCT/R26–D8–SH	181 017 700 2015
	6–10mm	MR23–017R–CCT/R26–D10–SH	181 017 700 2013
	9–14.5mm	MR23–017R–CCT/R26–D14.5–SH	181 017 700 2014



Crimp contacts

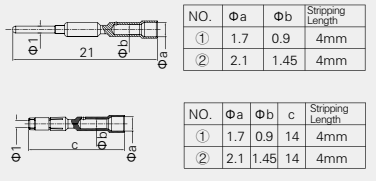
Crimp contacts 9A

9A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801

NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801



NO.	Φa	Φb	Stripping Length
①	1.7	0.9	4mm
②	2.1	1.45	4mm

NO.	Φa	Φb	c	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

160V/125V~ 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data		
Number of contacts	12	17
Rated current	7A	7A
mm²/ AWG	(0.03–1.0 mm² / AWG 32–18)	
Rated current	160 V	125 V
Test voltage Urms	2.5 kV	2.0 kV
Pollution degree	3	3
Flammability acc. to UL 94	V0 (UL94)	V0 (UL94)
Surge voltage category	III	III

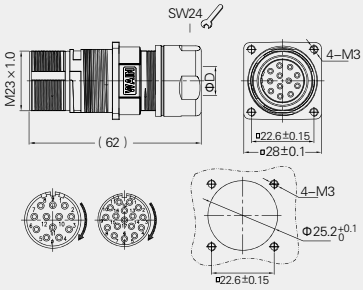
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
12	4.5–8mm	MR23–012–CCT/R28–D8–SH	181 012 700 2006
	6–10mm	MR23–012–CCT/R28–D10–SH	181 012 700 2004
	9–14.5mm	MR23–012–CCT/R28–D14.5–SH	181 012 700 2005
17	4.5–8mm	MR23–017–CCT/R28–D8–SH	181 017 700 2006
	6–10mm	MR23–017–CCT/R28–D10–SH	181 017 700 2004
	9–14.5mm	MR23–017–CCT/R28–D14.5–SH	181 017 700 2005

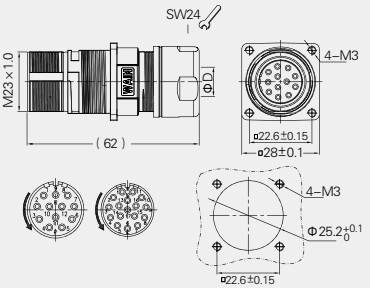


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
12	4.5–8mm	MR23–012R–CCT/R28–D8–SH	181 012 799 2010
	6–10mm	MR23–012R–CCT/R28–D10–SH	181 012 799 2011
	9–14.5mm	MR23–012R–CCT/R28–D14.5–SH	181 012 799 2012
17	4.5–8mm	MR23–017R–CCT/R28–D8–SH	181 017 700 2018
	6–10mm	MR23–017R–CCT/R28–D10–SH	181 017 700 2016
	9–14.5mm	MR23–017R–CCT/R28–D14.5–SH	181 017 700 2017



Crimp contacts

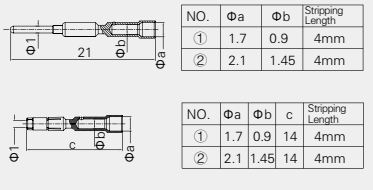
Crimp contacts 9A

9A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801

NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801



NO.	Φa	Φb	Stripping Length
①	1.7	0.9	4mm
②	2.1	1.45	4mm

NO.	Φa	Φb	c	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

63V– 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data	
Number of contacts	19(16+3)
signal	0.03–1.0 mm² / AWG 32–18
power	0.14–1.5 mm² / AWG 20–16
Rated current	7A
Rated voltage	63 V
Test voltage Urms	1.5 kV
Pollution degree	3
Flammability acc. to UL 94	V0 (UL94)
Surge voltage category	III

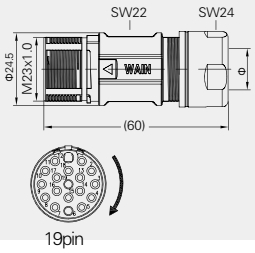
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
19	4.5–8mm	MR23–019–CCT–D8–SH	181 019 700 2001
	6–10mm	MR23–019–CCT–D10–SH	181 019 700 2002
	9–14.5mm	MR23–019–CCT–D14.5–SH	181 019 700 2003

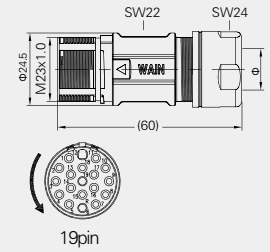


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
19	4.5–8mm	MR23–019R–CCT–D8–SH	181 019 700 2004
	6–10mm	MR23–019R–CCT–D10–SH	181 019 700 2005
	9–14.5mm	MR23–019R–CCT–D14.5–SH	181 019 700 2006



Crimp contacts

Crimp contacts 9A/7A

9A



7A



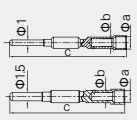
9A



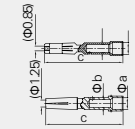
7A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801
③	0.14–1.4	MR23–MC7G–1.0	101 015 210 0801
④	0.5–1.5	MR23–MC7G–1.5	101 015 210 0901
NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801
③	0.14–1.4	MR23–FC7G–1.0	101 015 220 0801
④	0.5–1.5	MR23–FC7G–1.5	101 015 220 0901



NO.	Φa	Φb	C	Stripping Length
①	1.7	0.9	21	4mm
②	2.1	1.45	21	4mm
③	2.1	1.45	20.65	6mm
④	2.1	1.75	20.65	6mm



NO.	Φa	Φb	C	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm
③	2.1	1.45	13.9	6mm
④	2.1	1.75	13.9	6mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

63V– 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data	
Number of contacts	19(16+3)
signal	0.03–1.0 mm² / AWG 32–18
power	0.14–1.5 mm² / AWG 20–16
Rated current	7A
Rated voltage	63 V
Test voltage Urms	1.5 kV
Pollution degree	3
Flammability acc. to UL 94	V0 (UL94)
Surge voltage category	III

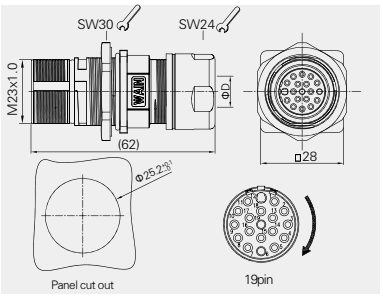
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
19	4.5–8mm	MR23–019–CCT/R–D8–SH	181 019 700 2007
	6–10mm	MR23–019–CCT/R–D10–SH	181 019 700 2008
	9–14.5mm	MR23–019–CCT/R–D14.5–SH	181 019 700 2009

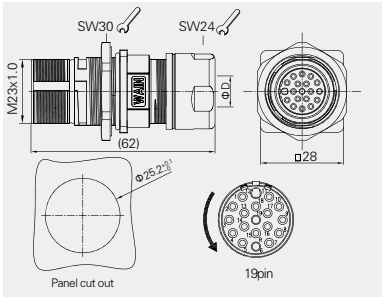


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
19	4.5–8mm	MR23–019R–CCT/R–D8–SH	181 019 700 2010
	6–10mm	MR23–019R–CCT/R–D10–SH	181 019 700 2011
	9–14.5mm	MR23–019R–CCT/R–D14.5–SH	181 019 700 2012



Crimp contacts

Crimp contacts 9A/7A

9A



7A



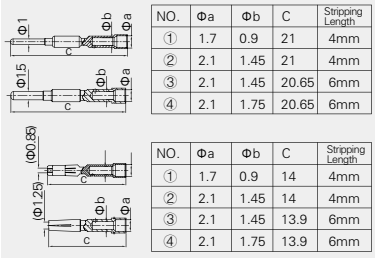
9A



7A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801
③	0.14–1.4	MR23–MC7G–1.0	101 015 210 0801
④	0.5–1.5	MR23–MC7G–1.5	101 015 210 0901
NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801
③	0.14–1.4	MR23–FC7G–1.0	101 015 220 0801
④	0.5–1.5	MR23–FC7G–1.5	101 015 220 0901



NO.	Φa	Φb	C	Stripping Length
①	1.7	0.9	21	4mm
②	2.1	1.45	21	4mm
③	2.1	1.45	20.65	6mm
④	2.1	1.75	20.65	6mm

NO.	Φa	Φb	C	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm
③	2.1	1.45	13.9	6mm
④	2.1	1.75	13.9	6mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

63V– 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data	
Number of contacts	19(16+3)
signal	0.03–1.0 mm² / AWG 32–18
power	0.14–1.5 mm² / AWG 20–16
Rated current	7A
Rated voltage	63 V
Test voltage Urms	1.5 kV
Pollution degree	3
Flammability acc. to UL 94	V0 (UL94)
Surge voltage category	III

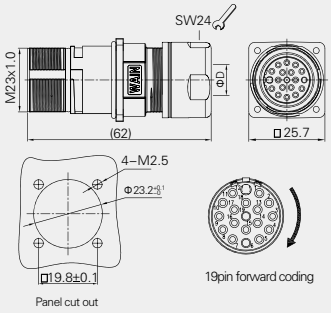
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
19	4.5–8mm	MR23–019–CCT/R26–D8–SH	181 019 700 2013
	6–10mm	MR23–019–CCT/R26–D10–SH	181 019 700 2014
	9–14.5mm	MR23–019–CCT/R26–D14.5–SH	181 019 700 2015

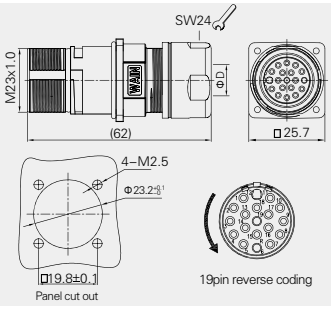


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
19	4.5–8mm	MR23–019R–CCT/R26–D8–SH	181 019 700 2016
	6–10mm	MR23–019R–CCT/R26–D10–SH	181 019 700 2017
	9–14.5mm	MR23–019R–CCT/R26–D14.5–SH	181 019 700 2018



Crimp contacts

Crimp contacts 9A/7A

9A



7A



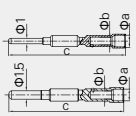
9A



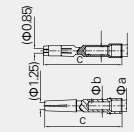
7A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801
③	0.14–1.4	MR23–MC7G–1.0	101 015 210 0801
④	0.5–1.5	MR23–MC7G–1.5	101 015 210 0901
NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801
③	0.14–1.4	MR23–FC7G–1.0	101 015 220 0801
④	0.5–1.5	MR23–FC7G–1.5	101 015 220 0901



NO.	Φa	Φb	C	Stripping Length
①	1.7	0.9	21	4mm
②	2.1	1.45	21	4mm
③	2.1	1.45	20.65	6mm
④	2.1	1.75	20.65	6mm



NO.	Φa	Φb	C	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm
③	2.1	1.45	13.9	6mm
④	2.1	1.75	13.9	6mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

63V– 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data	
Number of contacts	19(16+3)
signal	0.03–1.0 mm² / AWG 32–18
power	0.14–1.5 mm² / AWG 20–16
Rated current	7A
Rated voltage	63 V
Test voltage Urms	1.5 kV
Pollution degree	3
Flammability acc. to UL 94	V0 (UL94)
Surge voltage category	III

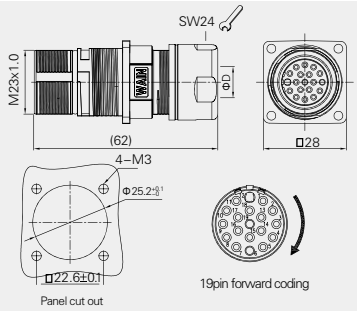
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
19	4.5–8mm	MR23–019–CCT/R28–D8–SH	181 019 700 2019
	6–10mm	MR23–019–CCT/R28–D10–SH	181 019 700 2020
	9–14.5mm	MR23–019–CCT/R28–D14.5–SH	181 019 700 2021

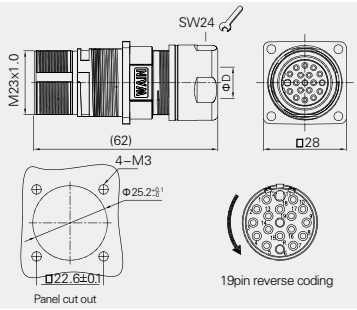


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
19	4.5–8mm	MR23–019R–CCT/R28–D8–SH	181 019 700 2022
	6–10mm	MR23–019R–CCT/R28–D10–SH	181 019 700 2023
	9–14.5mm	MR23–019R–CCT/R28–D14.5–SH	181 019 700 2024



Crimp contacts

Crimp contacts 9A/7A

9A



7A



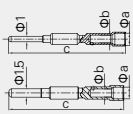
9A



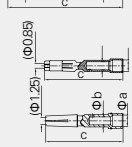
7A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801
③	0.14–1.4	MR23–MC7G–1.0	101 015 210 0801
④	0.5–1.5	MR23–MC7G–1.5	101 015 210 0901
NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801
③	0.14–1.4	MR23–FC7G–1.0	101 015 220 0801
④	0.5–1.5	MR23–FC7G–1.5	101 015 220 0901



NO.	Φa	Φb	C	Stripping Length
①	1.7	0.9	21	4mm
②	2.1	1.45	21	4mm
③	2.1	1.45	20.65	6mm
④	2.1	1.75	20.65	6mm



NO.	Φa	Φb	C	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm
③	2.1	1.45	13.9	6mm
④	2.1	1.75	13.9	6mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

300V– 20A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data		
Number of contacts	6	7
Rated current	20A	20A
mm²/ AWG	(0.35–2.5 mm² / AWG 22–14)	
Rated current	300 V	300 V
Test voltage Urms	2.5 kV	2.5 kV
Pollution degree	3	3
Flammability acc. to UL 94	V0 (UL94)	V0 (UL94)
Surge voltage category	III	III

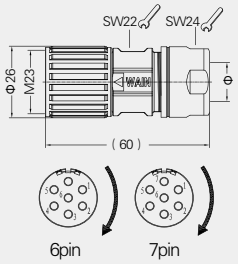
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	⩽5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
6	4.5–8mm	MR23–006–T–D8–SH	181 006 400 2001
	6–10mm	MR23–006–T–D10–SH	181 006 400 2002
	9–14.5mm	MR23–006–T–D14.5–SH	181 006 400 2003
7	4.5–8mm	MR23–007–T–D8–SH	181 007 400 2001
	6–10mm	MR23–007–T–D10–SH	181 007 400 2002
	9–14.5mm	MR23–007–T–D14.5–SH	181 007 400 2003

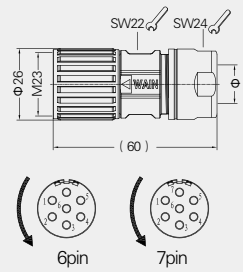


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
6	4.5–8mm	MR23–006R–T–D8–SH	181 006 400 2004
	6–10mm	MR23–006R–T–D10–SH	181 006 400 2005
	9–14.5mm	MR23–006R–T–D14.5–SH	181 006 400 2006
7	4.5–8mm	MR23–007R–T–D8–SH	181 007 400 2004
	6–10mm	MR23–007R–T–D10–SH	181 007 400 2005
	9–14.5mm	MR23–007R–T–D14.5–SH	181 007 400 2006



Crimp contacts

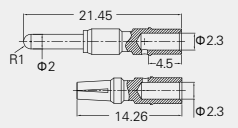
Crimp contacts 20A

20A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.35–2.5	MR23–MC20G–2.5	101 020 210 1001

NO.	Wire gauge(mm²)	Female	Order No.
①	0.35–2.5	MR23–FC20G–2.5	101 020 220 1001



Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

160V– 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data		
Number of contacts	12	17
Rated current	7A	7A
mm²/ AWG	(0.03–1.0 mm² / AWG 32–18)	
Rated current	160 V	125V
Test voltage Urms	2.5 kV	2.0 kV
Pollution degree	3	3
Flammability acc. to UL 94	V0 (UL94)	V0 (UL94)
Surge voltage category	III	III

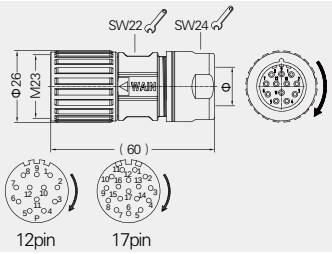
Mechanical date	
Housing material	Copper alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
12	4.5–8mm	MR23–012–T–D8–SH	181 012 421 3001
	6–10mm	MR23–012–T–D10–SH	181 012 421 3002
	9–14.5mm	MR23–012–T–D14.5–SH	181 012 421 3003
17	4.5–8mm	MR23–017–T–D8–SH	181 017 400 2001
	6–10mm	MR23–017–T–D10–SH	181 017 400 2002
	9–14.5mm	MR23–017–T–D14.5–SH	181 017 400 2003

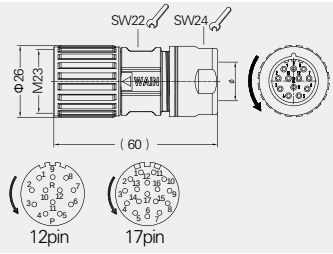


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
12	4.5–8mm	MR23–012R–T–D8–SH	181 012 421 3004
	6–10mm	MR23–012R–T–D10–SH	181 012 421 3005
	9–14.5mm	MR23–012R–T–D14.5–SH	181 012 421 3006
17	4.5–8mm	MR23–017R–T–D8–SH	181 017 400 2004
	6–10mm	MR23–017R–T–D10–SH	181 017 400 3005
	9–14.5mm	MR23–017R–T–D14.5–SH	181 017 400 2005



Crimp contacts

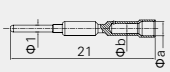
Crimp contacts 9A

9A

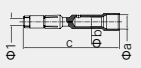


NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801

NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801



NO.	Φa	Φb	Stripping Length
①	1.7	0.9	4mm
②	2.1	1.45	4mm



NO.	Φa	Φb	c	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

63V– 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data	
Number of contacts	19(16+3)
signal	0.03–1.0 mm² / AWG 32–18
power	0.14–1.5 mm² / AWG 20–16
Rated current	7A
Rated voltage	63 V
Test voltage Urms	1.5 kV
Pollution degree	3
Flammability acc. to UL 94	V0 (UL94)
Surge voltage category	III

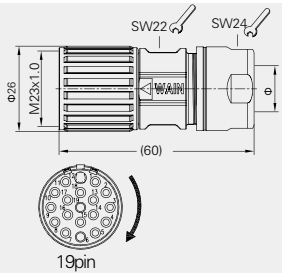
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
19	4.5–8mm	MR23–019–T–D8–SH	181 019 400 2001
	6–10mm	MR23–019–T–D10–SH	181 019 400 2002
	9–14.5mm	MR23–019–T–D14.5–SH	181 019 400 2003

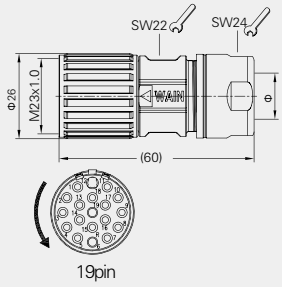


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
19	4.5–8mm	MR23–019R–T–D8–SH	181 019 400 2004
	6–10mm	MR23–019R–T–D10–SH	181 019 400 2005
	9–14.5mm	MR23–019R–T–D14.5–SH	181 019 400 2006



Crimp contacts

Crimp contacts 9A/7A

9A



7A



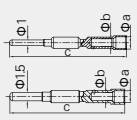
9A



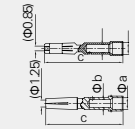
7A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801
③	0.14–1.4	MR23–MC7G–1.0	101 015 210 0801
④	0.5–1.5	MR23–MC7G–1.5	101 015 210 0901
NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801
③	0.14–1.4	MR23–FC7G–1.0	101 015 220 0801
④	0.5–1.5	MR23–FC7G–1.5	101 015 220 0901



NO.	Φa	Φb	C	Stripping Length
①	1.7	0.9	21	4mm
②	2.1	1.45	21	4mm
③	2.1	1.45	20.65	6mm
④	2.1	1.75	20.65	6mm



NO.	Φa	Φb	C	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm
③	2.1	1.45	13.9	6mm
④	2.1	1.75	13.9	6mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

300V– 20A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data		
Number of contacts	6	7
Rated current	20A	20A
mm²/ AWG	(0.35–2.5 mm² / AWG 22–14)	
Rated current	300 V	300 V
Test voltage Urms	2.5 kV	2.5 kV
Pollution degree	3	3
Flammability acc. to UL 94	V0 (UL94)	V0 (UL94)
Surge voltage category	III	III

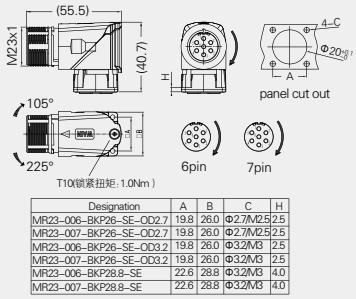
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
06	MR23–006–BKP26–SE–OD2.7	181 006 600 3001
07	MR23–007–BKP26–SE–OD2.7	181 007 600 3001
06	MR23–006–BKP26–SE–OD3.2	181 006 600 3002
07	MR23–007–BKP26–SE–OD3.2	181 007 600 3002
06	MR23–006–BKP28.8–SE	181 006 600 3003
07	MR23–007–BKP28.8–SE	181 007 600 3003



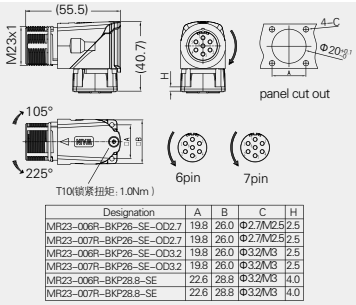
Designation	A	B	C	H
MR23–006–BKP26–SE–OD2.7	19.8	26.0	Φ2.7/M2.5	2.5
MR23–007–BKP26–SE–OD2.7	19.8	26.0	Φ2.7/M2.5	2.5
MR23–006–BKP26–SE–OD3.2	19.8	26.0	Φ3.2/M3	2.5
MR23–007–BKP26–SE–OD3.2	19.8	26.0	Φ3.2/M3	2.5
MR23–006–BKP28.8–SE	22.6	28.8	Φ3.2/M3	4.0
MR23–007–BKP28.8–SE	22.6	28.8	Φ3.2/M3	4.0

Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
06	MR23–006R–BKP26–SE–OD2.7	181 006 600 3004
07	MR23–007R–BKP26–SE–OD2.7	181 007 600 3004
06	MR23–006R–BKP26–SE–OD3.2	181 006 600 3005
07	MR23–007R–BKP26–SE–OD3.2	181 007 600 3005
06	MR23–006R–BKP28.8–SE	181 006 600 3006
07	MR23–007R–BKP28.8–SE	181 007 600 3006



Designation	A	B	C	H
MR23–006R–BKP26–SE–OD2.7	19.8	26.0	Φ2.7/M2.5	2.5
MR23–007R–BKP26–SE–OD2.7	19.8	26.0	Φ2.7/M2.5	2.5
MR23–006R–BKP26–SE–OD3.2	19.8	26.0	Φ3.2/M3	2.5
MR23–007R–BKP26–SE–OD3.2	19.8	26.0	Φ3.2/M3	2.5
MR23–006R–BKP28.8–SE	22.6	28.8	Φ3.2/M3	4.0
MR23–007R–BKP28.8–SE	22.6	28.8	Φ3.2/M3	4.0

Crimp contacts

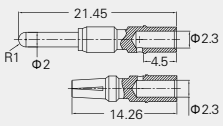
Crimp contacts 20A

20A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.35–2.5	MR23–MC20G–2.5	101 020 210 1001

NO.	Wire gauge(mm²)	Female	Order No.
①	0.35–2.5	MR23–FC20G–2.5	101 020 220 1001



Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

160V– 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data		
Number of contacts	12	17
Rated current	7A	7A
mm²/ AWG	(0.03–1.0 mm² / AWG 32–18)	
Rated current	160 V	160 V
Test voltage Urms	2.5 kV	2.0 kV
Pollution degree	3	3
Flammability acc. to UL 94	V0 (UL94)	V0 (UL94)
Surge voltage category	III	III

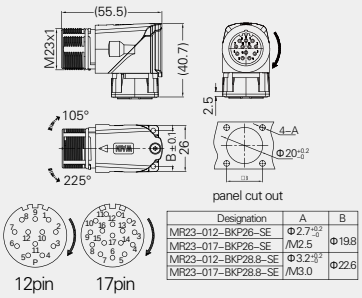
Mechanical date	
Housing material	Copper alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
12	MR23–012–BKP26–SE	181 012 600 3001
17	MR23–017–BKP26–SE	181 017 600 2003
12	MR23–012–BKP28.8–SE	181 012 600 2001
17	MR23–017–BKP28.8–SE	181 017 600 2001



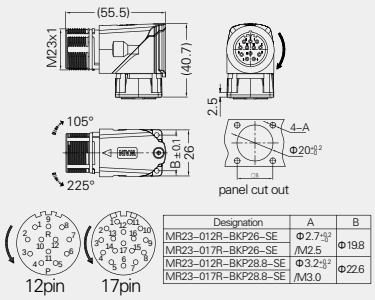
Designation	A	B
MR23–012–BKP26–SE	Φ2.7 +0.2 −0	Φ19.8
MR23–017–BKP26–SE	/M2.5	
MR23–012–BKP28.8–SE	Φ3.2 +0.2 −0	Φ22.6
MR23–017–BKP28.8–SE	/M3.0	

Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
12	MR23–012R–BKP26–SE	181 012 600 3002
17	MR23–017R–BKP26–SE	181 017 600 2004
12	MR23–012R–BKP28.8–SE	181 012 600 2002
17	MR23–017R–BKP28.8–SE	181 017 600 2002



Designation	A	B
MR23–012R–BKP26–SE	Φ2.7 +0.2 −0	Φ19.8
MR23–017R–BKP26–SE	/M2.5	
MR23–012R–BKP28.8–SE	Φ3.2 +0.2 −0	Φ22.6
MR23–017R–BKP28.8–SE	/M3.0	

Crimp contacts

Crimp contacts 9A

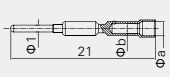
9A



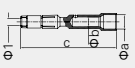


NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801

NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801



NO.	Φa	Φb	Stripping Length
①	1.7	0.9	4mm
②	2.1	1.45	4mm



NO.	Φa	Φb	c	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

63V– 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data	
Number of contacts	19(16+3)
signal	0.03–1.0 mm² / AWG 32–18
power	0.14–1.5 mm² / AWG 20–16
Rated current	7A
Rated voltage	63 V
Test voltage Urms	1.5 kV
Pollution degree	3
Flammability acc. to UL 94	V0 (UL94)
Surge voltage category	III

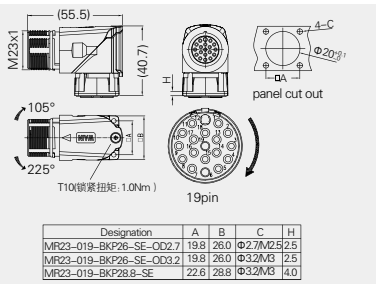
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
19	MR23–019–BKP26–SE–OD2.7	181 019 300 1001
	MR23–019–BKP26–SE–OD3.2	181 019 300 1002
	MR23–019–BKP28.8–SE	181 019 300 1003



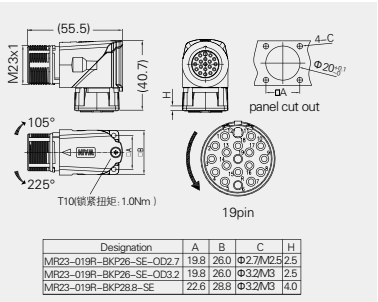
Designation	A	B	C	H
MR23–019–BKP26–SE–OD2.7	19.8	26.0	Φ2.7/M2.5	2.5
MR23–019–BKP26–SE–OD3.2	19.8	26.0	Φ3.2/M3	2.5
MR23–019–BKP28.8–SE	22.6	28.8	Φ3.2/M3	4.0

Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
19	MR23–019R–BKP26–SE–OD2.7	181 019 300 1004
	MR23–019R–BKP26–SE–OD3.2	181 019 300 1005
	MR23–019R–BKP28.8–SE	181 019 300 1006



Designation	A	B	C	H
MR23–019R–BKP26–SE–OD2.7	19.8	26.0	Φ2.7/M2.5	2.5
MR23–019R–BKP26–SE–OD3.2	19.8	26.0	Φ3.2/M3	2.5
MR23–019R–BKP28.8–SE	22.6	28.8	Φ3.2/M3	4.0

Crimp contacts

Crimp contacts 9A/7A

9A



7A



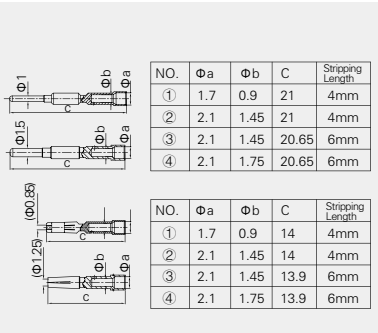
9A



7A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801
③	0.14–1.4	MR23–MC7G–1.0	101 015 210 0801
④	0.5–1.5	MR23–MC7G–1.5	101 015 210 0901
NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801
③	0.14–1.4	MR23–FC7G–1.0	101 015 220 0801
④	0.5–1.5	MR23–FC7G–1.5	101 015 220 0901



NO.	Φa	Φb	C	Stripping Length
①	1.7	0.9	21	4mm
②	2.1	1.45	21	4mm
③	2.1	1.45	20.65	6mm
④	2.1	1.75	20.65	6mm

NO.	Φa	Φb	C	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm
③	2.1	1.45	13.9	6mm
④	2.1	1.75	13.9	6mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

300V– 20A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data		
Number of contacts	6	7
Rated current	20A	20A
mm²/ AWG	(0.35–2.5 mm² / AWG 22–14)	
Rated current	300 V	300 V
Test voltage Urms	2.5 kV	2.5 kV
Pollution degree	3	3
Flammability acc. to UL 94	V0 (UL94)	V0 (UL94)
Surge voltage category	III	III

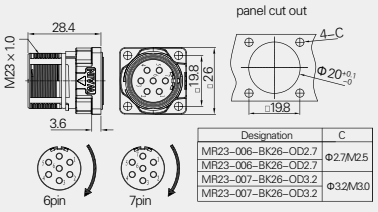
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	⩽5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
6	MR23–006–BK26–OD2.7	181 006 300 3001
7	MR23–007–BK26–OD2.7	181 007 300 3001
6	MR23–006–BK26–OD3.2	181 006 300 3002
7	MR23–007–BK26–OD3.2	181 007 300 3002

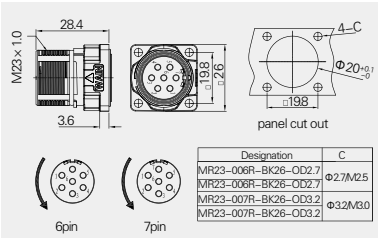


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
6	MR23–006R–BK26–OD2.7	181 006 300 3003
7	MR23–007R–BK26–OD2.7	181 007 300 3003
6	MR23–006R–BK26–OD3.2	181 006 300 3004
7	MR23–007R–BK26–OD3.2	181 007 300 3004



Crimp contacts

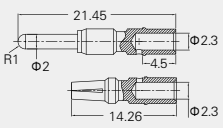
Crimp contacts 20A

20A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.35–2.5	MR23–MC20G–2.5	101 020 210 1001

NO.	Wire gauge(mm²)	Female	Order No.
①	0.35–2.5	MR23–FC20G–2.5	101 020 220 1001



Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

160V– 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data		
Number of contacts	12	17
Rated current	7A	7A
mm²/ AWG	(0.03–1.0 mm² / AWG 32–18)	
Rated current	160 V	160 V
Test voltage Urms	2.5 kV	2.0 kV
Pollution degree	3	3
Flammability acc. to UL 94	V0 (UL94)	V0 (UL94)
Surge voltage category	III	III

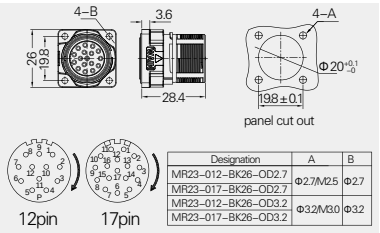
Mechanical date	
Housing material	Copper alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
12	MR23–012–BK26–OD2.7	181 012 300 2001
17	MR23–017–BK26–OD2.7	181 017 300 2001
12	MR23–012–BK26–OD3.2	181 012 300 3001
17	MR23–017–BK26–OD3.2	181 017 300 3001

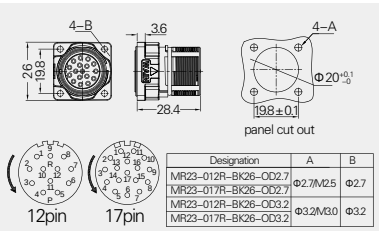


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
12	MR23–012R–BK26–OD2.7	181 012 300 2002
17	MR23–017R–BK26–OD2.7	181 017 300 2002
12	MR23–012R–BK26–OD3.2	181 012 300 3002
17	MR23–017R–BK26–OD3.2	181 017 300 2003



Crimp contacts

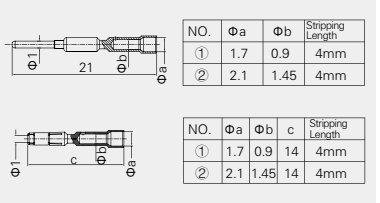
Crimp contacts 9A

9A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801

NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801



NO.	Φa	Φb	Stripping Length
①	1.7	0.9	4mm
②	2.1	1.45	4mm

NO.	Φa	Φb	c	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

63V– 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data	
Number of contacts	19(16+3)
signal	0.03–1.0 mm² / AWG 32–18
power	0.14–1.5 mm² / AWG 20–16
Rated current	7A
Rated voltage	63 V
Test voltage Urms	1.5 kV
Pollution degree	3
Flammability acc. to UL 94	V0 (UL94)
Surge voltage category	III

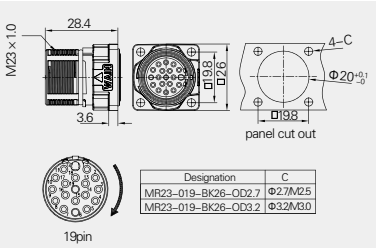
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
19	MR23–019–BK26–OD2.7	181 019 300 1007
	MR23–019–BK26–OD3.2	181 019 300 1008

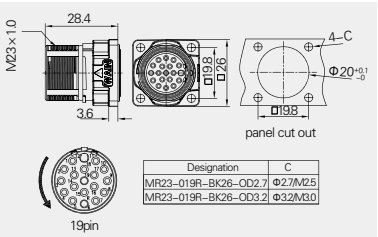


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
19	MR23–019R–BK26–OD2.7	181 019 300 1009
	MR23–019R–BK26–OD3.2	181 019 300 1010



Crimp contacts

Crimp contacts 9A/7A

9A



7A



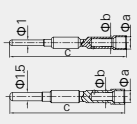
9A



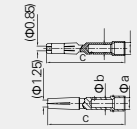
7A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801
③	0.14–1.4	MR23–MC7G–1.0	101 015 210 0801
④	0.5–1.5	MR23–MC7G–1.5	101 015 210 0901
NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801
③	0.14–1.4	MR23–FC7G–1.0	101 015 220 0801
④	0.5–1.5	MR23–FC7G–1.5	101 015 220 0901



NO.	Φa	Φb	C	Stripping Length
①	1.7	0.9	21	4mm
②	2.1	1.45	21	4mm
③	2.1	1.45	20.65	6mm
④	2.1	1.75	20.65	6mm



NO.	Φa	Φb	C	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm
③	2.1	1.45	13.9	6mm
④	2.1	1.75	13.9	6mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

300V– 20A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data		
Number of contacts	6	7
Rated current	20A	20A
mm²/ AWG	(0.35–2.5 mm² / AWG 22–14)	
Rated current	300 V	300 V
Test voltage Urms	2.5 kV	2.5 kV
Pollution degree	3	3
Flammability acc. to UL 94	V0 (UL94)	V0 (UL94)
Surge voltage category	III	III

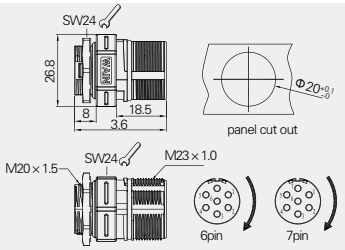
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
6	MR23–006–BK–M20	181 006 300 3005
7	MR23–007–BK–M20	181 007 300 3005

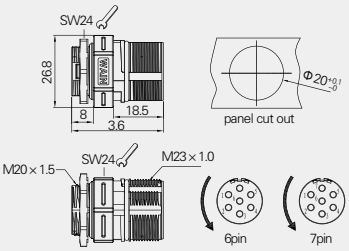


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
6	MR23–006R–BK–M20	181 006 300 3006
7	MR23–007R–BK–M20	181 007 300 3006



Crimp contacts

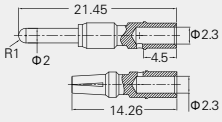
Crimp contacts 20A

20A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.35–2.5	MR23–MC20G–2.5	101 020 210 1001

NO.	Wire gauge(mm²)	Female	Order No.
①	0.35–2.5	MR23–FC20G–2.5	101 020 220 1001



Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

160V– 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data		
Number of contacts	12	17
Rated current	7A	7A
mm²/ AWG	(0.03–1.0 mm² / AWG 32–18)	
Rated current	160 V	125 V
Test voltage Urms	2.5 kV	2.0 kV
Pollution degree	3	3
Flammability acc. to UL 94	V0 (UL94)	V0 (UL94)
Surge voltage category	III	III

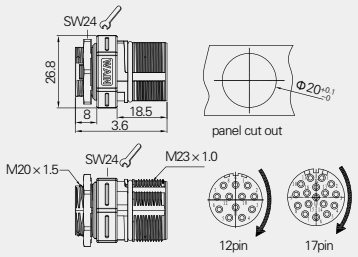
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	≤5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately

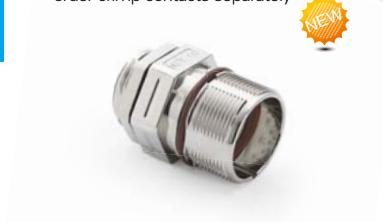


Contacts	Designation	Order No.
12	MR23–012–BK–M20	181 012 300 3003
17	MR23–017–BK–M20	181 017 300 3002

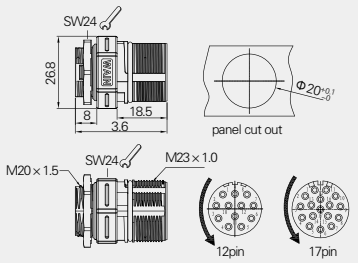


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
12	MR23–012R–BK–M20	181 012 300 3004
17	MR23–017R–BK–M20	181 017 300 3003



Crimp contacts

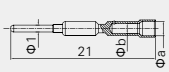
Crimp contacts 9A

9A

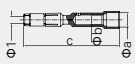


NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801

NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801



NO.	Φa	Φb	Stripping Length
①	1.7	0.9	4mm
②	2.1	1.45	4mm



NO.	Φa	Φb	c	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

MR23 Circular connector

63V– 7A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data	
Number of contacts	19(16+3)
signal	0.03–1.0 mm² / AWG 32–18
power	0.14–1.5 mm² / AWG 20–16
Rated current	7A
Rated voltage	63 V
Test voltage Urms	1.5 kV
Pollution degree	3
Flammability acc. to UL 94	V0 (UL94)
Surge voltage category	III

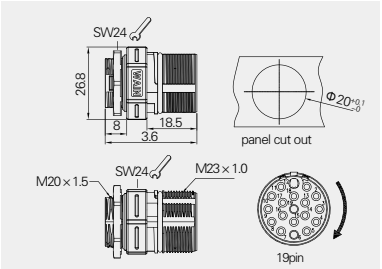
Mechanical date	
Housing material	Copper alloy, Zinc alloy
Housing surface	Nickel–plated
Contact resistance	⩽5 mΩ
Insulating bodies	PBT
Contact material	Copper alloy
Contact surface	Hard–gold plated
Mechanical working life	>500
degree of protection	IP67
Temperature range	–40℃...+130℃

Forward coding,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
19	MR23–019–BK–M20	181 019 300 1011

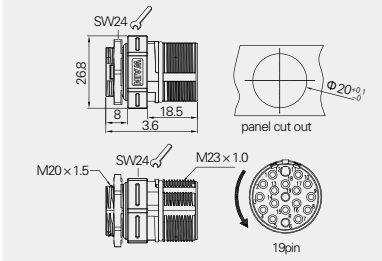


Reverse coding,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
19	MR23–019R–BK–M20	181 019 300 1012

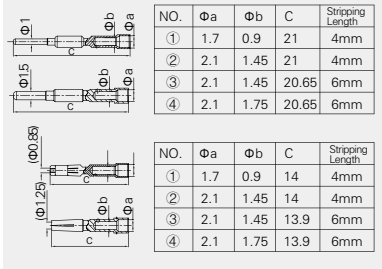


Crimp contacts

Crimp contacts 9A/7A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801
③	0.14–1.4	MR23–MC7G–1.0	101 015 210 0801
④	0.5–1.5	MR23–MC7G–1.5	101 015 210 0901
NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801
③	0.14–1.4	MR23–FC7G–1.0	101 015 220 0801
④	0.5–1.5	MR23–FC7G–1.5	101 015 220 0901



NO.	Φa	Φb	C	Stripping Length
①	1.7	0.9	21	4mm
②	2.1	1.45	21	4mm
③	2.1	1.45	20.65	6mm
④	2.1	1.75	20.65	6mm

NO.	Φa	Φb	C	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm
③	2.1	1.45	13.9	6mm
④	2.1	1.75	13.9	6mm

Tools

Crimping tool



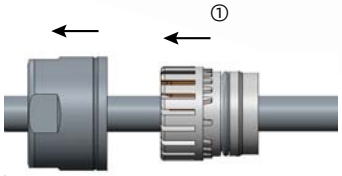
Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

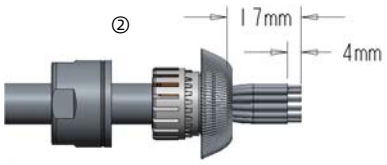
Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

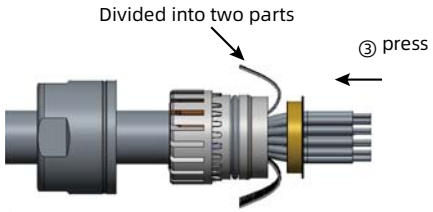
Operating Instruction(MR23-0XX-T-DXX-SH)

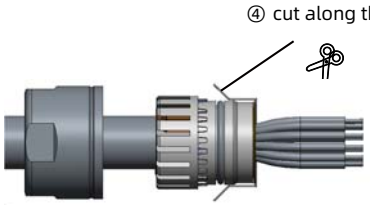
Installation Step

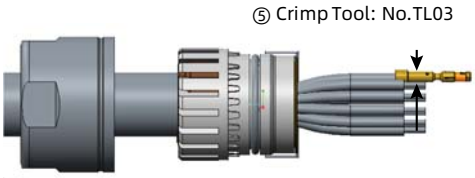


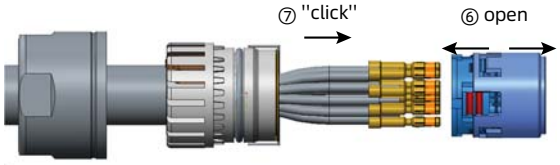


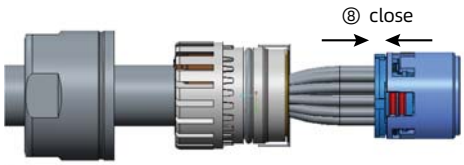


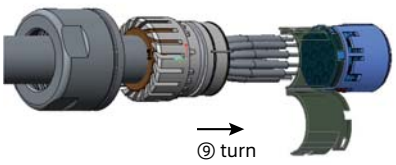


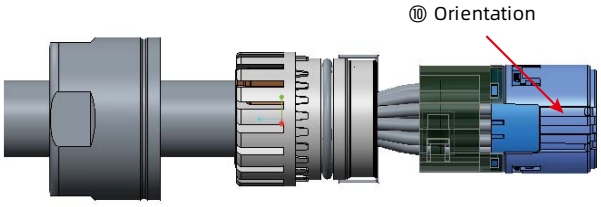


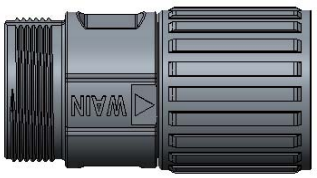


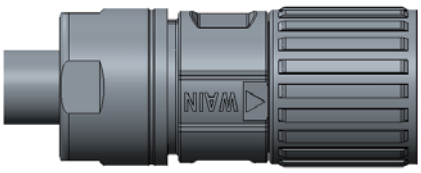








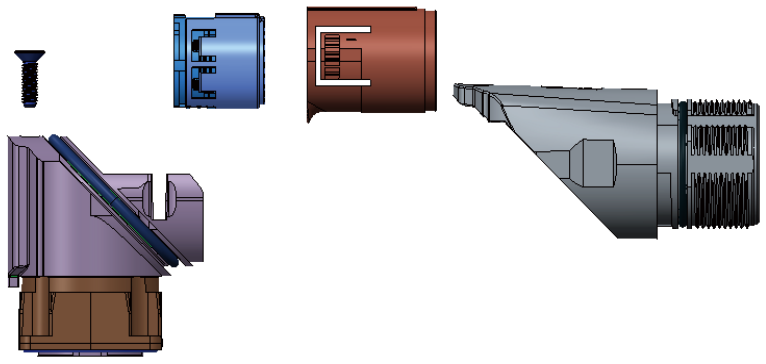


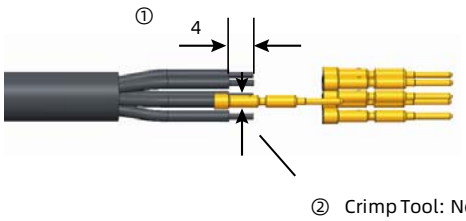


⑪ Installation complete

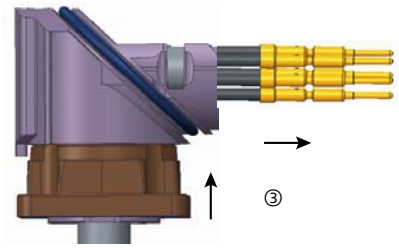
Operating Instruction(MR23-0XX-BKP26-SE)

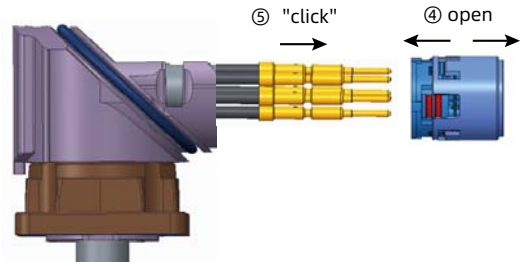
Installation Step

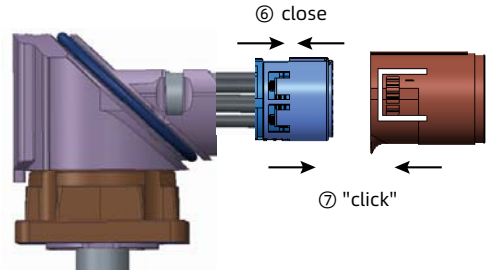


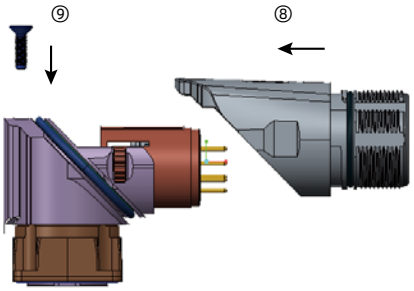


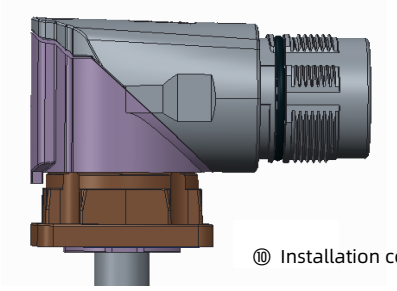
② Crimp Tool: No.TL03







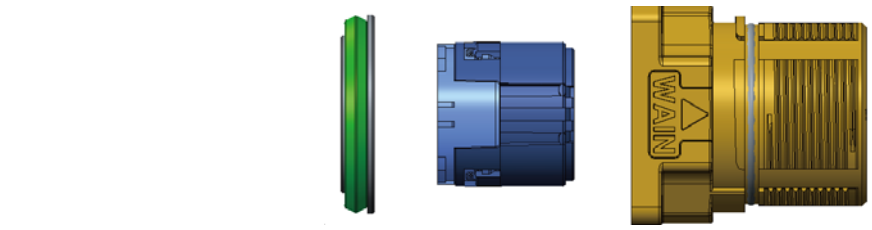


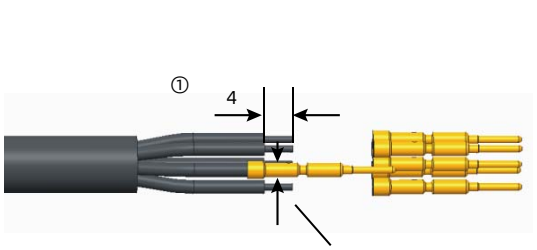


⑩ Installation complete

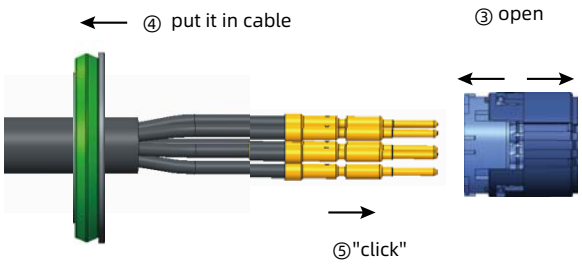
Operating Instruction(MR23-0XX-BK26-OD3.2/2.7)

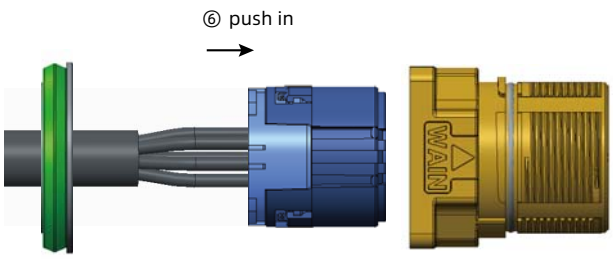
Installation Step





② Crimp Tool: No.TL03







⑦ Installation complete



M23 Circular power connectors



Circular Connector M23

630/250V 30/9A

Technical characteristics

Specifications DIN EN 60 664
DIN EN 61 984

Electrical data			
Number of contacts	6(5+PE)	8(4+3+PE)	
Contacts	5+PE	4	3+PE
Contacts Φ(mm)	2	1	2
mm²/AWG	0.35...4.0/22–12	0.14...1.5/26–16	0.35...4.0/22–12
Rated current(25℃)	30	9	30
Rated voltage	630	250	630
Test voltage Urms (AC)	6kV	4kV	6kV
Surge voltage category	III		III
Pollution degree	3		3

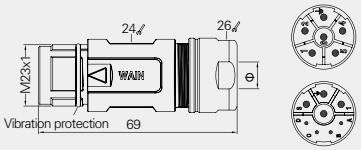
Mechanical date	
Housing material	CuZn,Zinc(GD–Zn)
Housing surface	Nickel–plated
Insulating bodies	Polyamide
Contact material	Copper alloy
Contact surface	Hard–gold plated
Terminal	Crimp version
Gasket and O ring	Fluorine rubber
Ambient temperature	–40℃...+130℃
Conductor entry	7.5–17mm shielded
locking type	M23 screw locking
Mechanical working life	> 500
degree of protection	IP67

Male,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
6(5+PE)	4.2–6.6mm	M23–MC06–TH–D6.6–SH	166 006 110 2007
	7.5–12mm	M23–MC06–TH–D12–SH	166 006 110 2001
	9.5–14.5mm	M23–MC06–TH–D14.5–SH	166 006 110 2002
	14–17mm	M23–MC06–TH–D17–SH	166 006 110 2003
8(4+3+PE)	4.2–6.6mm	M23–MC04/4–TH–D6.6–SH	166 008 110 2007
	7.5–12mm	M23–MC04/4–TH–D12–SH	166 008 110 2001
	9.5–14.5mm	M23–MC04/4–TH–D14.5–SH	166 008 110 2002
	14–17mm	M23–MC04/4–TH–D17–SH	166 008 110 2003



Crimp contacts

Crimp contacts 9A/30A

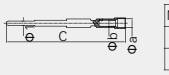
9A



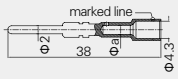
30A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.14–1.0	M23–MCL9G–1.0	101 031 210 0802
②	0.5–1.5	M23–MCL9G–1.5	101 031 210 0902
③	0.35–2.5	M23–MCL30G–2.5	101 031 210 1002
④	2.5–4.0	M23–MCL30G–4.0	101 031 210 1202



NO.	Φa	c	Φb	Stripping Length
①	2.1	28.3	1.45	4mm
②	1.75	30.9	–	4mm



NO.	marked line	Φ	Stripping Length
③	1 marked line	2.25	7.5mm
④	–	2.85	7.5mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Circular Connector M23

630/250V 30/9A

Technical characteristics

Specifications DIN EN 60 664
DIN EN 61 984

Electrical data			
Number of contacts	6(5+PE)	8(4+3+PE)	
Contacts	5+PE	4	3+PE
Contacts Φ(mm)	2	1	2
mm²/AWG	0.35...4.0/22–12	0.03...1.5/32–16	0.35...4.0/22–12
Rated current(25℃)	30	9	30
Rated voltage	630	250	630
Test voltage Urms (AC)	6kV	4kV	6kV
Surge voltage category	III		III
Pollution degree	3		3

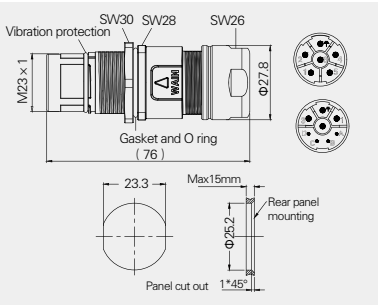
Mechanical date	
Housing material	CuZn,Zinc(GD–Zn)
Housing surface	Nickel–plated
Insulating bodies	Polyamide
Contact material	Copper alloy
Contact surface	Hard–gold plated
Terminal	Crimp version
Gasket and O ring	Fluorine rubber
Ambient temperature	–40℃...+130℃
Conductor entry	4.2–17mm shielded
locking type	M23 screw locking
Mechanical working life	> 500
degree of protection	IP67

Male,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
6(5+PE)	4.2–6.6mm	M23–MC06–CCT/R–D6.6–SH	166 006 110 2008
	7.5–12mm	M23–MC06–CCT/R–D12–SH	166 006 710 2005
	9.5–14.5mm	M23–MC06–CCT/R–D14.5–SH	166 006 710 2006
8(4+3+PE)	14–17mm	M23–MC06–CCT/R–D17–SH	166 006 710 2002
	4.2–6.6mm	M23–MC04/4–CCT/R–D6.6–SH	166 008 110 2008
	7.5–12mm	M23–MC04/4–CCT/R–D12–SH	166 008 710 2005
	9.5–14.5mm	M23–MC04/4–CCT/R–D14.5–SH	166 008 710 2006
	14–17mm	M23–MC04/4–CCT/R–D17–SH	166 008 710 2004

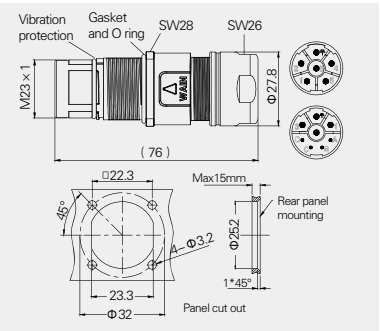


Male,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
6(5+PE)	4.2–6.6mm	M23–MC06–CCT/R28–D6.6–SH	166 006 110 2009
	7.5–12mm	M23–MC06–CCT/R28–D12–SH	166 006 710 2007
	9.5–14.5mm	M23–MC06–CCT/R28–D14.5–SH	166006 710 2008
8(4+3+PE)	14–17mm	M23–MC06–CCT/R28–D17–SH	166 006 710 2001
	4.2–6.6mm	M23–MC04/4–CCT/R28–D6.6–SH	166 008 110 2009
	7.5–12mm	M23–MC04/4–CCT/R28–D12–SH	166 008 710 2007
	9.5–14.5mm	M23–MC04/4–CCT/R28–D14.5–SH	166 008 710 2008
	14–17mm	M23–MC04/4–CCT/R28–D17–SH	166 008 710 2002



Crimp contacts

Crimp contacts 9A/30A

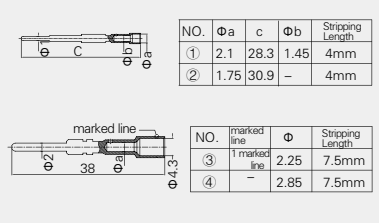
9A



30A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.14–1.0	M23–MCL9G–1.0	101 031 210 0802
②	0.5–1.5	M23–MCL9G–1.5	101 031 210 0902
③	0.35–2.5	M23–MCL30G–2.5	101 031 210 1002
④	2.5–4.0	M23–MCL30G–4.0	101 031 210 1202



NO.	Φa	c	Φb	Stripping Length
①	2.1	28.3	1.45	4mm
②	1.75	30.9	–	4mm

NO.	marked line	Φ	Stripping Length
③	1 marked line	2.25	7.5mm
④	–	2.85	7.5mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Circular Connector M23

630/250V 30/9A

Technical characteristics

Specifications: DIN EN 60 664
DIN EN 61 984

Electrical data			
Number of contacts	6(5+PE)	8(4+3+PE)	
Contacts	5+PE	4	3+PE
Contacts Φ(mm)	2	1	2
mm²/AWG	0.35...4.0/22–12	0.03...1.5/32–16	0.35...4.0/22–12
Rated current(25℃)	30	9	30
Rated voltage	630	250	630
Test voltage Urms (AC)	6kV	4kV	6kV
Surge voltage category	III		III
Pollution degree	3		3

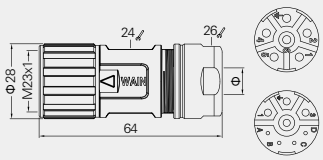
Mechanical date	
Housing material	CuZn,Zinc(GD–Zn)
Housing surface	Nickel–plated
Insulating bodies	Polyamide
Contact material	Copper alloy
Contact surface	Hard–gold plated
Terminal	Crimp version
Gasket and O ring	Fluorine rubber
Ambient temperature	–40℃...+130℃
Conductor entry	4.2–17mm shielded
locking type	M23 screw locking
Mechanical working life	>500
degree of protection	IP67

Female,Crimp terminal

order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
6(5+PE)	4.2–6.6mm	M23–FC06–T–D6.6–SH	166 006 420 2007
	7.5–12mm	M23–FC06–T–D12–SH	166 006 420 2001
	9.5–14.5mm	M23–FC06–T–D14.5–SH	166 006 420 2002
8(4+3+PE)	14–17mm	M23–FC06–T–D17–SH	166 006 420 2003
	4.2–6.6mm	M23–FC04/4–T–D6.6–SH	166 008 120 2004
	7.5–12mm	M23–FC04/4–T–D12–SH	166 008 420 2001
	9.5–14.5mm	M23–FC04/4–T–D14.5–SH	166 008 420 2002
	14–17mm	M23–FC04/4–T–D17–SH	166 008 420 2003

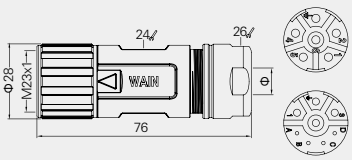


Crimp terminal

order crimp contacts separately
Recommended use



Contacts	Cable outlet	Designation	Order No.
6(5+PE)	4.2–6.6mm	M23–FC06–TH–D6.6–SH	166 006 420 2008
	7.5–12mm	M23–FC06–TH–D12–SH	166 006 120 2001
	9.5–14.5mm	M23–FC06–TH–D14.5–SH	166 006 120 2002
8(4+3+PE)	14–17mm	M23–FC06–TH–D17–SH	166 006 120 2003
	4.2–6.6mm	M23–FC04/4–TH–D6.6–SH	166 008 120 2005
	7.5–12mm	M23–FC04/4–TH–D12–SH	166 008 120 2001
	9.5–14.5mm	M23–FC04/4–TH–D14.5–SH	166 008 120 2002
	14–17mm	M23–FC04/4–TH–D17–SH	166 008 120 2003



Crimp contacts

Crimp contacts 9A/30A

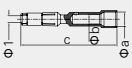
9A



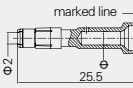
30A



NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801
③	0.5–1.5	M23–FC9G–1.5	101 031 220 0901
④	0.35–2.5	M23–FC30G–2.5	101 032 220 1001
⑤	2.5–4.0	M23–FC30G–4.0	101 032 220 1201



NO.	Φa	Φb	c	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm
③	1.75	–	16.7	4.9mm



NO.	marked line	Φ	Stripping Length
④	1 marked line	2.25	7.5mm
⑤	无	2.85	7.5mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability.
Please select the tools recognized by our company.

Circular Connector M23

630/250V 30/9A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data			
Number of contacts	6(5+PE)	8(4+3+PE)	
Contacts	5+PE	4	3+PE
Contacts Φ(mm)	2	1	2
mm²/AWG	0.1...4.0/28–12	0.03...1.0/32–18	0.1...4.0/28–12
Rated current(25℃)	30	9	30
Rated voltage	630	250	630
Test voltage Urms (AC)	6kV	4kV	6kV
Surge voltage category	III		III
Pollution degree	3		3

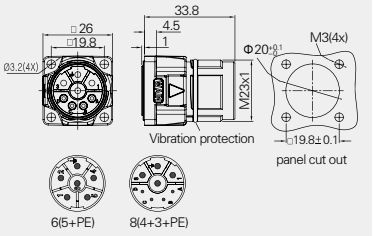
Mechanical date	
Housing material	CuZn,Zinc(GD–Zn)
Housing surface	Nickel–plated
Insulating bodies	Polyamide
Contact material	Copper alloy
Contact surface	Hard–gold plated
Terminal	Crimp version
Gasket and O ring	Fluorine rubber
Ambient temperature	–40℃...+130℃
locking type	M23 screw locking
Mechanical working life	> 500
degree of protection	IP67

Male,Crimp terminal

order crimp contacts separately
Recommended use



Contacts	Designation	Order No.
6(5+PE)	M23–MC06–BK26	166 006 310 1001
8(4+3+PE)	M23–MC04/4–BK26	166 008 310 1001

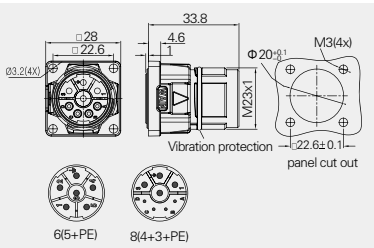


Male,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
6(5+PE)	M23–MC06–BK28	166 006 310 1002
8(4+3+PE)	M23–MC04/4–BK28	166 008 310 1002



Crimp contacts

Crimp contacts 9A/30A

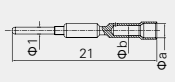
9A



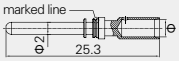
30A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801
③	0.1–0.5	M23–MC30G–0.5	101 032 210 0401
④	0.35–2.5	M23–MC30G–2.5	101 032 210 1001
⑤	2.5–4.0	M23–MC30G–4.0	101 032 210 1201



NO.	Φa	Φb	Stripping Length
①	1.7	0.9	4mm
②	2.1	1.45	4mm



NO.	marked line	Φ	Stripping Length
③	–	1.15	7mm
④	marked line	2.25	6mm
⑤	–	2.85	6mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Circular Connector M23

630/250V 30/9A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data			
Number of contacts	6(5+PE)	8(4+3+PE)	
Contacts	5+PE	4	3+PE
Contacts Φ(mm)	2	1	2
mm²/AWG	0.1...4.0/28–12	0.03...1.0/32–18	0.1...4.0/28–12
Rated current(25℃)	30	9	30
Rated voltage	630	250	630
Test voltage Urms (AC)	6kV	4kV	6kV
Surge voltage category	III		III
Pollution degree	3		3

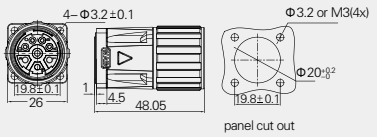
Mechanical date	
Housing material	CuZn,Zinc(GD–Zn)
Housing surface	Nickel–plated
Insulating bodies	Polyamide
Contact material	Copper alloy
Contact surface	Hard–gold plated
Terminal	Crimp version
Gasket and O ring	Fluorine rubber
Ambient temperature	–40℃...+130℃
locking type	M23 screw locking
Mechanical working life	> 500
degree of protection	IP67

Female,Crimp terminal

order crimp contacts separately
Recommended use



Contacts	Designation	Order No.
6(5+PE)	M23–FC06–BK26	166 006 320 1001
8(4+3+PE)	M23–FC04/4–BK26	166 008 020 1001

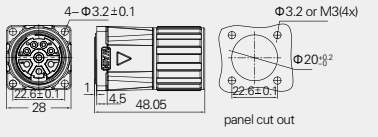


Female,Crimp terminal

order crimp contacts separately



Contacts	Designation	Order No.
6(5+PE)	M23–FC06–BK28	166 006 320 1002
8(4+3+PE)	M23–FC04/4–BK28	166 008 020 1002



Crimp contacts

Crimp contacts 9A/30A

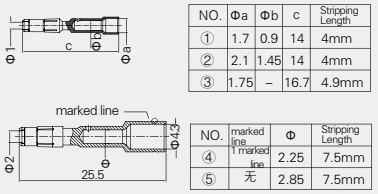
9A



30A



NO.	Wire gauge(mm²)	Female	Order No.
①	0.03–0.34	M23–FC9G–0.34	101 031 220 2501
②	0.14–1.0	M23–FC9G–1.0	101 031 220 0801
③	0.5–1.5	M23–FC9G–1.5	101 031 220 0901
④	0.35–2.5	M23–FC30G–2.5	101 032 220 1001
⑤	2.5–4.0	M23–FC30G–4.0	101 032 220 1201



NO.	Φa	Φb	c	Stripping Length
①	1.7	0.9	14	4mm
②	2.1	1.45	14	4mm
③	1.75	–	16.7	4.9mm

NO.	marked line	Φ	Stripping Length
④	1 marked line	2.25	7.5mm
⑤	无	2.85	7.5mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Circular Connector M23

630/250V 30/9A

Technical characteristics

Specifications DIN EN 60 664
DIN EN 61 984

Electrical data			
Number of contacts	6(5+PE)	8(4+3+PE)	
Contacts	5+PE	4	3+PE
Contacts Φ(mm)	2	1	2
mm²/AWG	0.1...4.0/28–12	0.03...1.0/32–18	0.1...4.0/28–12
Rated current(25℃)	30	9	30
Rated voltage	630	250	630
Test voltage Urms (AC)	6kV	4kV	6kV
Surge voltage category	III		III
Pollution degree	3		3

Mechanical date	
Housing material	CuZn,Zinc(GD–Zn)
Housing surface	Nickel–plated
Insulating bodies	Polyamide
Contact material	Copper alloy
Contact surface	Hard–gold plated
Terminal	Crimp version
Gasket and O ring	Fluorine rubber
Ambient temperature	–40℃...+130℃
locking type	M23 screw locking
Mechanical working life	> 500
degree of protection	IP67

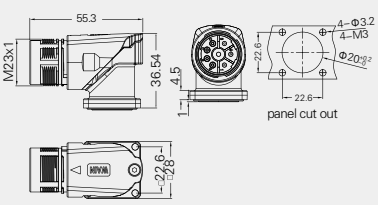
Male,Crimp terminal

order crimp contacts separately

Elbow without rotated function
Recommended use



Contacts	Designation	Order No.
6(5+PE)	M23–MC06–BK28–SE	166 006 610 1002
8(4+3+PE)	M23–MC04/4–BK28–SE	166 008 610 1002



Crimp contacts

Crimp contacts 9A/30A

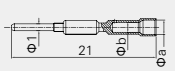
9A



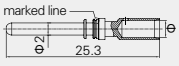
30A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801
③	0.1–0.5	M23–MC30G–0.5	101 032 210 0401
④	0.35–2.5	M23–MC30G–2.5	101 032 210 1001
⑤	2.5–4.0	M23–MC30G–4.0	101 032 210 1201



NO.	Φa	Φb	Stripping Length
①	1.7	0.9	4mm
②	2.1	1.45	4mm



NO.	marked line	Φ	Stripping Length
③	–	1.15	7mm
④	1 marked line	2.25	6mm
⑤	–	2.85	6mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Circular Connector M23

630/250V 30/9A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Electrical data			
Number of contacts	6(5+PE)	8(4+3+PE)	
Contacts	5+PE	4	3+PE
Contacts Φ(mm)	2	1	2
mm²/AWG	0.1...4.0/28–12	0.03...1.0/32–18	0.1...4.0/28–12
Rated current(25℃)	30	9	30
Rated voltage	630	250	630
Test voltage Urms (AC)	6kV	4kV	6kV
Surge voltage category	III		III
Pollution degree	3		3

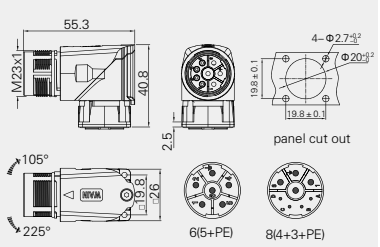
Mechanical date	
Housing material	CuZn,Zinc(GD–Zn)
Housing surface	Nickel–plated
Insulating bodies	Polyamide
Contact material	Copper alloy
Contact surface	Hard–gold plated
Terminal	Crimp version
Gasket and O ring	Fluorine rubber
Ambient temperature	–40℃...+130℃
locking type	M23 screw locking
Mechanical working life	> 500
degree of protection	IP67

Male,Crimp terminal

order crimp contacts separately
Elbow with rotated function



Contacts	Designation	Order No.
6(5+PE)	M23–MC06–BKP26–SE	166 006 610 1003
8(4+3+PE)	M23–MC04/4–BKP26–SE	166 008 610 1011

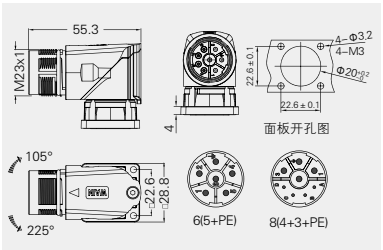


Male,Crimp terminal

order crimp contacts separately
Elbow with rotated function



Contacts	Designation	Order No.
6(5+PE)	M23–MC06–BKP28.8–SE	166 006 310 1003
8(4+3+PE)	M23–MC04/4–BKP28.8–SE	166 008 310 1003



Crimp contacts

Crimp contacts 9A/30A

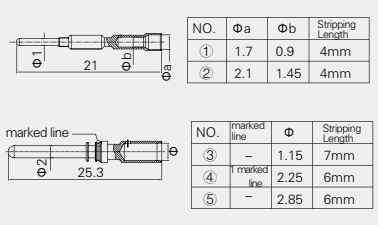
9A



30A



NO.	Wire gauge(mm²)	Male	Order No.
①	0.03–0.34	M23–MC9G–0.34	101 031 210 2501
②	0.14–1.0	M23–MC9G–1.0	101 031 210 0801
③	0.1–0.5	M23–MC30G–0.5	101 032 210 0401
④	0.35–2.5	M23–MC30G–2.5	101 032 210 1001
⑤	2.5–4.0	M23–MC30G–4.0	101 032 210 1201



NO.	Φa	Φb	Stripping Length
①	1.7	0.9	4mm
②	2.1	1.45	4mm

NO.	marked line	Φ	Stripping Length
③	–	1.15	7mm
④	1 marked line	2.25	6mm
⑤	–	2.85	6mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Accessories

Protection covers IP67

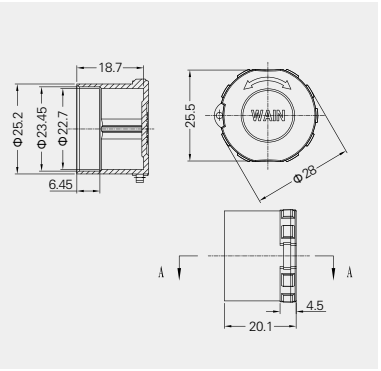
Protection covers

for male cable connector





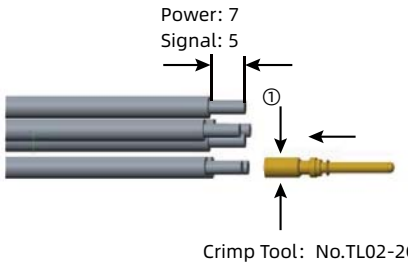
Description	Designation	Order No.
Black	M23–CV–F	266 000 000 9001
transparent	M23–CV–F3	166 000 000 9001

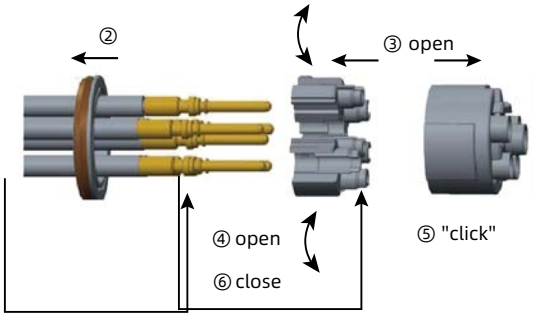


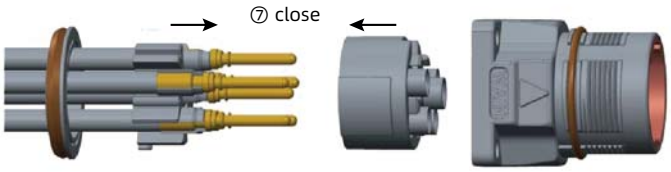
Operating Instruction (Serie M23 Socket male)

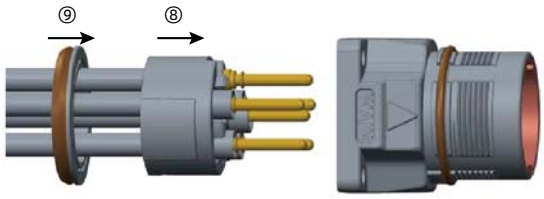
Installation Step









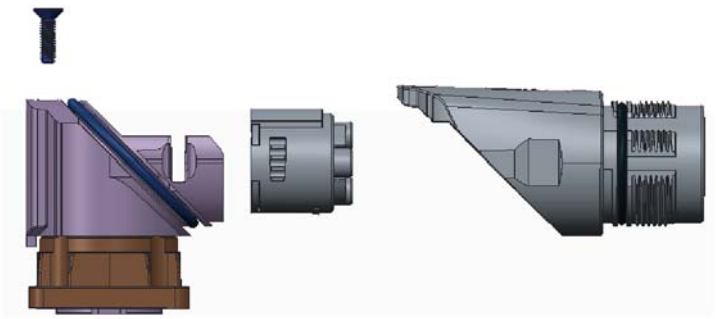


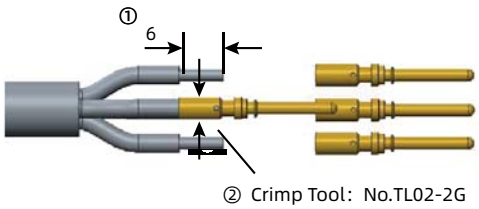
⑩ Installation complete

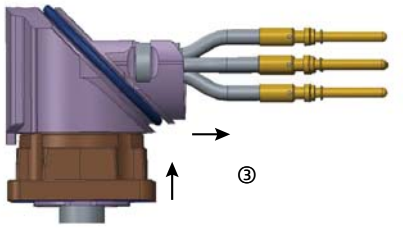


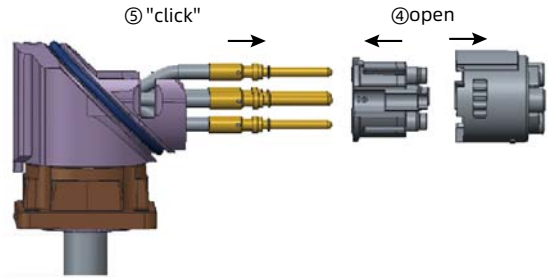
Operating Instruction(Power Motor connector)

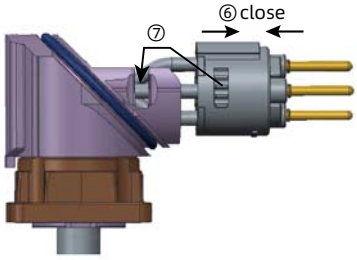
Installation Step

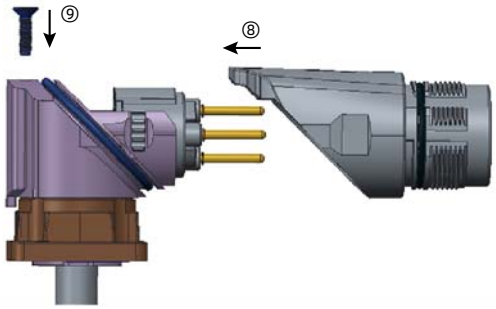


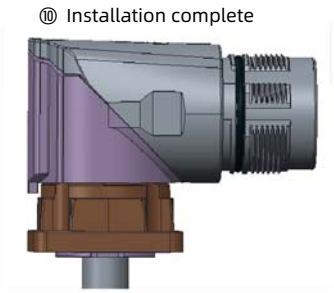








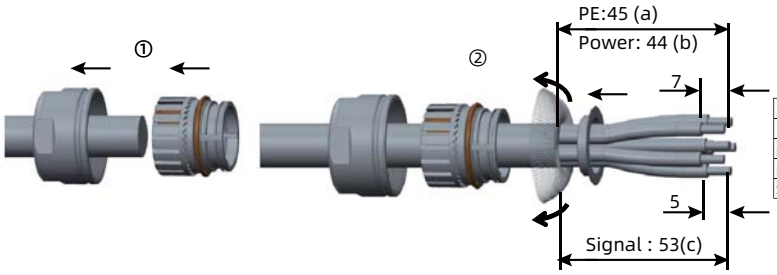




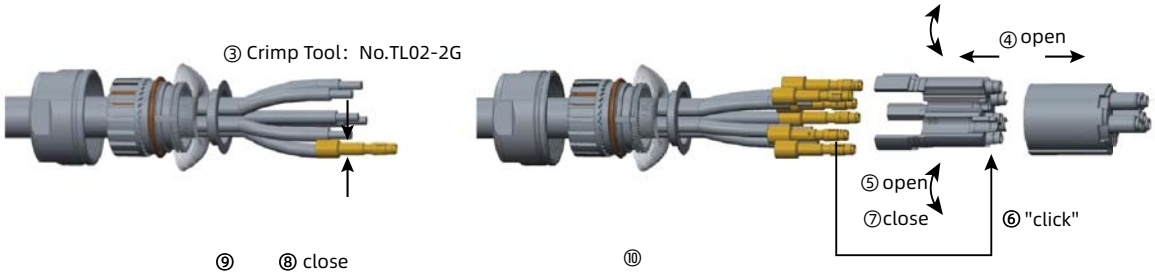
Operating Instruction (Serie M23 Plug female)

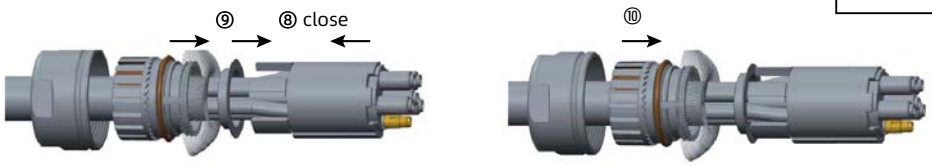
Installation Step

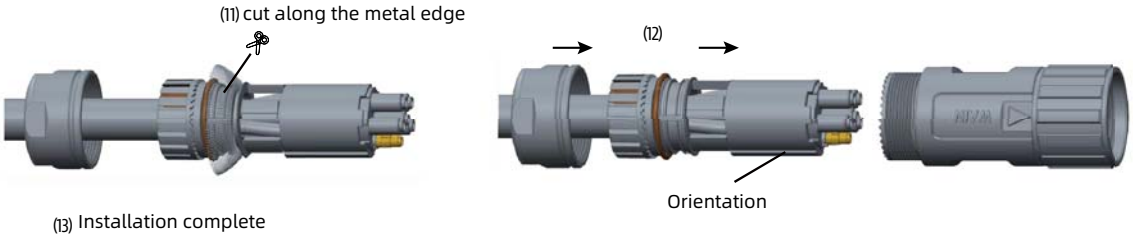




	Short	Long
	M23-FCXX-T-DXX-SH	M23-FCXX-TH-DXX-SH
PE(a)	45mm	45mm
Power(b)	44mm	44mm
Signal(c)	53mm	53mm







(13) Installation complete



M40 Circular power connectors



Circular Connector M40

250/630V 30/75A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

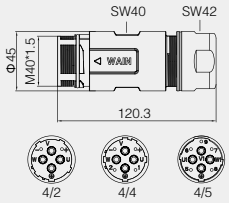
Number of contacts	4/2、4/4、4/5
Electrical properties	
–Rated current	75A (power)
	30A (signal)
–Rated voltage	630V (power)
	250V (signal)
–Rated impulse voltage	6000V (power)
	4000V (signal)
–Contact resistance	ϕ3.6(power): ≤1 mΩ
	ϕ2 (signal): ≤3 mΩ
Material and finish	
–Hoods/Housings	The copper alloy/zinc alloy plating nickel
–contact	gold–planted copper alloy
–Insulating material	PA
–Sealing element	FKM

Machanical properties	
–Mechanical working life	⩾500
–Lock mode	M40×1.5
–Cable and outlet diameter	ϕ7–ϕ25
Environmental performance	
–Working temperature	–20℃...+130℃
–Degree of Protection	IP67
–Pollution Degree	3

Crimp terminal Order crimp contacts separately



Insert	Cable outlet	Designation	Order No.
Male	7–9mm	M40–MC04/2–T–D9–SH	170 006 410 2002
	9–16mm	M40–MC04/2–T–D16–SH	170 006 410 2001
	16.5–25mm	M40–MC04/2–T–D25–SH	170 006 410 2003
	7–9mm	M40–MC04/4–T–D9–SH	170 008 410 2001
	9–16mm	M40–MC04/4–T–D16–SH	170 008 430 2001
	16.5–25mm	M40–MC04/4–T–D25–SH	170 008 410 2003
	7–9mm	M40–MC04/5–T–D9–SH	170 009 410 2001
	9–16mm	M40–MC04/5–T–D16–SH	170 009 410 2002
	16.5–25mm	M40–MC04/5–T–D25–SH	170 009 410 2003



Accessories

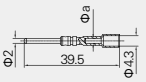
Crimp contacts

Signal

Power



NO.	Wire gauge(mm²)	Male	Order No.
①	0.35–2.5	M40–MCL30G–2.5	101 032 210 1012
②	2.5–4.0	M40–MCL30G–4.0	101 032 210 1202
③	1.5–4/6–10	M40–MCL75G–10	101 034 210 1401
④	6–10/10–16	M40–MCL75G–16	101 034 210 1501



NO.	Φa	Stripping length
①	Φ2.25	7 mm
②	Φ2.85	7 mm

Tools

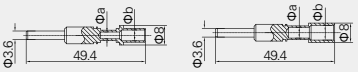
Crimping tool



Wire gauge	Designation	Order No.
4/6/10 mm²	TL02–3G	198 002 000 0013



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014



NO.	Φa	Φb	Stripping length
③	Φ2.85	Φ4.5	9 mm
④	Φ4.5	Φ6.1	9 mm

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Circular Connector M40

250/630V 30/75A

Technical characteristics

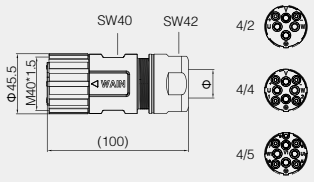
Specifications	DIN EN 60 664 DIN EN 61 984

Number of contacts	4/2、4/4、4/5	Machanical properties	
Electrical properties		–Mechanical working life	⩾500
–Rated current	75A (power)	–Lock mode	M40×1.5
	30A (signal)	–Cable and outlet diameter	ϕ7–ϕ25
–Rated voltage	630V (power)	Environmental performance	
	250V (signal)	–Working temperature	–40℃...+130℃
–Rated impulse voltage	6000V (power)		
	4000V (signal)	–Degree of Protection	IP67
–Contact resistance	ϕ3.6(power): ⩽1 mΩ	–Pollution Degree	3
	ϕ2 (signal): ⩽3 mΩ		
Material and finish			
–Hoods/Housings	The copper alloy/zinc alloy plating nickel		
–contact	gold–planted copper alloy		
–Insulating material	PA		
–Sealing element	FKM		

Crimp terminal Order crimp contacts separately



Insert	Cable outlet	Designation	Order No.
Female	7–9mm	M40–FC04/2–T–D9–SH	170 004 420 2005
	9–16mm	M40–FC04/2–T–D16–SH	170 004 420 2001
	16.5–25mm	M40–FC04/2–T–D25–SH	170 004 420 2004
	7–9mm	M40–FC04/4–T–D9–SH	170 008 420 2010
	9–16mm	M40–FC04/4–T–D16–SH	170 008 420 2004
	16.5–25mm	M40–FC04/4–T–D25–SH	170 008 420 2005
	7–9mm	M40–FC04/5–T–D9–SH	170 009 420 2007
	9–16mm	M40–FC04/5–T–D16–SH	170 009 420 2001
	16.5–25mm	M40–FC04/5–T–D25–SH	170 009 420 2006



Accessories

Crimp contacts

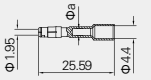
Signal



Power



NO.	Wire gauge(mm²)	Female	Order No.
①	0.35–2.5	M23–FC30G–2.5	101 032 220 1001
②	2.5–4.0	M23–FC30G–4.0	101 032 220 1201
③	1.5–4/6–10	M40–FC75G–10	101 034 220 1401
④	6–10/10–16	M40–FC75G–16	101 024 220 1501



NO.	Φa	Stripping length
①	Φ2.25	7 mm
②	Φ2.85	7 mm

Tools

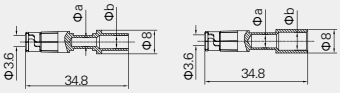
Crimping tool





Wire gauge	Designation	Order No.
4/6/10 mm²	TL02–3G	198 002 000 0013

Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014



NO.	Φa	Φb	Stripping length
③	Φ2.85	Φ4.5	9 mm
④	Φ4.5	Φ6.1	9 mm

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Circular Connector M40

250/630V 30/65A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Number of contacts	4/2、4/4、4/5
Electrical properties	
–Rated current	65A (power)
	30A (signal)
–Rated voltage	630V (power)
	250V (signal)
–Rated impulse voltage	6000V (power)
	4000V (signal)
–Contact resistance	ϕ3.6(power): ⩽1 mΩ
	ϕ2 (signal): ⩽3 mΩ
Material and finish	
–Hoods/Housings	The copper alloy/zinc alloy plating nickel
–contact	gold–planted copper alloy
–Insulating material	PA
–Sealing element	FKM

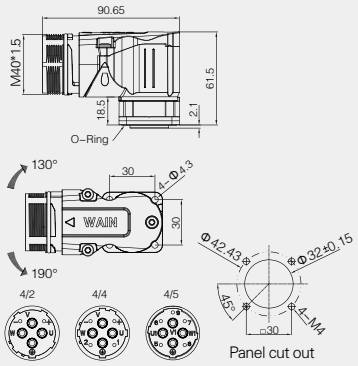
Machanical properties	
–Mechanical working life	⩾500
–Lock mode	M40×1.5
–Cable and outlet diameter	ϕ22
Environmental performance	
–Working temperature	–40℃...+130℃
–Degree of Protection	IP67
–Pollution Degree	3

Crimp terminal Order crimp contacts separately

Rotation type
After fixing, the angle can be rotated up to 320°



Insert	Cable outlet	Designation	Order No.
Male	Φ22	M40–MC04/2–BKP40–SE	170 006 410 1006
	Φ22	M40–MC04/4–BKP40–SE	170 008 610 1002
	Φ22	M40–MC04/5–BKP40–SE	170 009 610 3001



Accessories

Crimp contacts

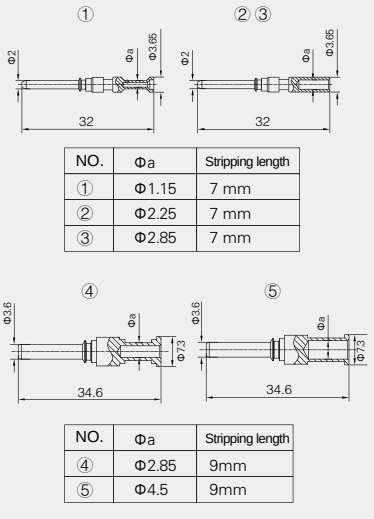
Signal



Power



NO.	Wire gauge(mm²)	Male	Order No.
①	0.1–0.5	M40–MC30G–0.5	101 032 210 0402
②	0.35–2.5	M40–MC30G–2.5	101 032 210 1013
③	2.5–4.0	M40–MC30G–4.0	101 032 210 1203
④	1.5–4.0	M40–MC75G–4.0	101 034 210 1201
⑤	6–10	M40–MC75G–10	101 034 210 1402



NO.	Φa	Stripping length
①	Φ1.15	7 mm
②	Φ2.25	7 mm
③	Φ2.85	7 mm

NO.	Φa	Stripping length
④	Φ2.85	9mm
⑤	Φ4.5	9mm

Tools

Crimping tool



Wire gauge	Designation	Order No.
4/6/10 mm²	TL02–3G	198 002 000 0013



Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Circular Connector M40

250/630V 30/65A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Number of contacts	4/2、4/4、4/5
Electrical properties	
–Rated current	65A (power)
	30A (signal)
–Rated voltage	630V (power)
	250V (signal)
–Rated impulse voltage	6000V (power)
	4000V (signal)
–Contact resistance	ϕ3.6(power): ⩽1 mΩ
	ϕ2 (signal): ⩽3 mΩ
Material and finish	
–Hoods/Housings	The copper alloy/zinc alloy plating nickel
–contact	gold–planted copper alloy
–Insulating material	PA
–Sealing element	FKM

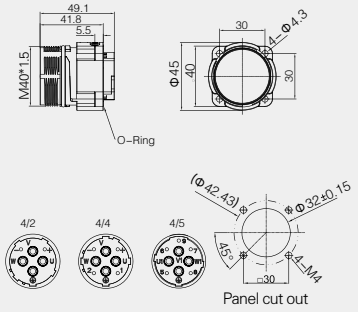
Machanical properties	
–Mechanical working life	⩾500
–Lock mode	M40×1.5
Environmental performance	
–Working temperature	–40℃...+130℃
–Degree of Protection	IP67
–Pollution Degree	3

Crimp terminal Order crimp contacts separately

Stationary type,Elbow without rotated function



Insert	Cable outlet	Designation	Order No.
Male	–	M40–MC04/2–BK40	170 006 310 1001
	–	M40–MC04/4–BK40	170 008 310 3001
	–	M40–MC04/5–BK40	170 009 310 3001



Accessories

Crimp contacts

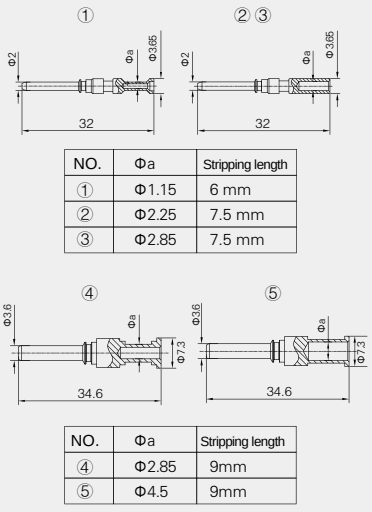
Signal



Power



NO.	Wire gauge(mm²)	Male	Order No.
①	0.1–0.5	M40–MC30G–0.5	101 032 210 0402
②	0.35–2.5	M40–MC30G–2.5	101 032 210 1013
③	2.5–4.0	M40–MC30G–4.0	101 032 210 1203
④	1.5–4.0	M40–MC75G–4.0	101 034 210 1201
⑤	6–10	M40–MC75G–10	101 034 210 1402



NO.	Φa	Stripping length
①	Φ1.15	6 mm
②	Φ2.25	7.5 mm
③	Φ2.85	7.5 mm

NO.	Φa	Stripping length
④	Φ2.85	9mm
⑤	Φ4.5	9mm

Tools

Crimping tool





Wire gauge	Designation	Order No.
4/6/10 mm²	TL02–3G	198 002 000 0013

Wire gauge	Designation	Order No.
0.14–6 mm²	TL02–2G	198 001 001 0014

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Circular Connector M40

250/630V 20/63A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

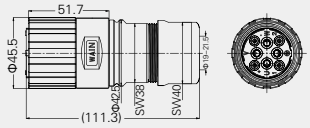
Number of contacts	4/4
Electrical properties	
–Rated current	63A (power)
	20A (signal)
–Rated voltage	630V (power)
	250V (signal)
–Rated impulse voltage	6000V (power)
	4000V (signal)
–Contact resistance	ϕ3.6(power): ⩽1 mΩ
	ϕ2 (signal): ⩽3 mΩ
Material and finish	
–Hoods/Housings	The copper alloy/zinc alloy plating nickel
–contact	gold–planted copper alloy
–Insulating material	PA
–Sealing element	FKM

Machanical properties	
–Mechanical working life	⩾500
–Lock mode	Thread locking
–Cable and outlet diameter	ϕ19–21.5
Environmental performance	
–Working temperature	–20℃...+130℃
–Degree of Protection	IP67
–Pollution Degree	3

Crimp terminal Order crimp contacts separately



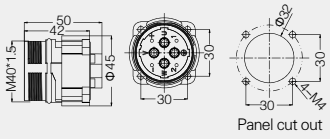
Insert	Designation	Order No.
Female	M40–FC04/4–T–D21.5–SH	170 008 420 2001



Crimp terminal Order crimp contacts separately



Insert	Designation	Order No.
Male	M40–MC04/4–BK	170 008 310 1001



Accessories

Crimp contacts

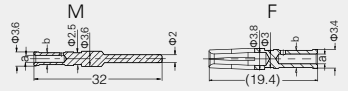
Signal



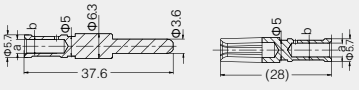
Power



NO.	Male	Order No.	Female	Order No.
①	M40–AMC30G–1.0	101 032 210 0811	M40–AFC30G–1.0	101 032 220 0811
②	M40–AMC30G–1.5	101 032 210 0911	M40–AFC30G–1.5	101 032 220 0911
③	M40–AMC30G–2.5	101 032 210 1011	M40–AFC30G–2.5	101 032 220 1011
④	M40–AMC75G–4	101 024 210 1201	M40–AFC75G–4	101 024 220 1201
⑤	M40–AMC75G–6	101 024 210 1301	M40–AFC75G–6	101 024 220 1301
⑥	M40–AMC75G–10	101 024 210 1401	M40–AFC75G–10	101 024 220 1401



NO.	wire gauge	Stripping length	a	b
①	1 mm²	7 mm	Φ1.45	Φ2.6
②	1.5 mm²	7 mm	Φ1.75	Φ3/Φ3.1
③	2.5 mm²	7 mm	Φ2.25	Φ3.4



NO.	wire gauge	Stripping length	a	b
④	4 mm²	10 mm	Φ2.85	Φ3..9
⑤	6 mm²	10 mm	Φ3.5	Φ5
⑥	10 mm²	10 mm	Φ4.5	Φ5.7

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
4/6/10 mm²	TL02–3G	198 002 000 0013
0.14–4 mm²	TL02G	198 001 001 0011

Application	Designation	Order No.
for crimp contacts 75A	M40–TL01	198 001 000 0027
for crimp contacts 30A	M40–TL02	198 001 000 0028

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Circular Connector M40

250/630V 20/63A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

Number of contacts	4/4
Electrical properties	
–Rated current	63A (power)
	20A (signal)
–Rated voltage	630V (power)
	250V (signal)
–Rated impulse voltage	6000V (power)
	4000V (signal)
–Contact resistance	ϕ3.6(power): ⩽1 mΩ
	ϕ2 (signal): ⩽3 mΩ
Material and finish	
–Hoods/Housings	The copper alloy/zinc alloy plating nickel
–contact	gold–planted copper alloy
–Insulating material	PA
–Sealing element	FKM

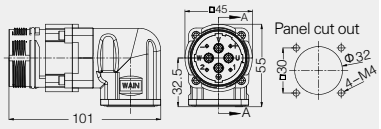
Machanical properties	
–Mechanical working life	⩾500
–Lock mode	Thread locking
–Cable and outlet diameter	ϕ19–21.5
Environmental performance	
–Working temperature	–20℃...+130℃
	96 h
–Degree of Protection	IP67
–Pollution Degree	3

Crimp terminal Order crimp contacts separately

Stationary type,Elbow without rotated function



Insert	Designation	Order No.
Male	M40–MC04/4–BK–SE	170 008 610 1001

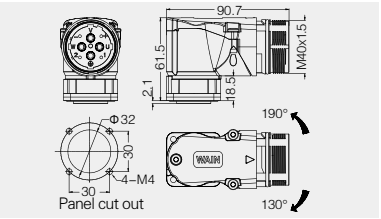


Crimp terminal Order crimp contacts separately

Rotation type
After fixing, the angle can be rotated up to 320° .



Insert	Designation	Order No.
Male	M40–MC04/4–BKP–SE	170 008 610 1011



Accessories

Crimp contacts

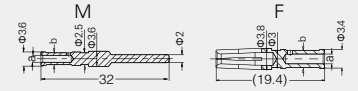
Signal



Power



NO.	Male	Order No.
①	M40–AMC30G–1.0	101 032 210 0811
②	M40–AMC30G–1.5	101 032 210 0911
③	M40–AMC30G–2.5	101 032 210 1011
④	M40–AMC75G–4	101 024 210 1201
⑤	M40–AMC75G–6	101 024 210 1301
⑥	M40–AMC75G–10	101 024 210 1401



NO.	wire gauge	Stripping length	a	b
①	1 mm²	7 mm	Φ1.45	Φ2.6
②	1.5 mm²	7 mm	Φ1.75	Φ3/Φ3.1
③	2.5 mm²	7 mm	Φ2.25	Φ3.4

Tools

Crimping tool

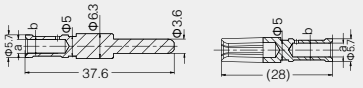


Contact removal tool



Wire gauge	Designation	Order No.
4/6/10 mm²	TL02–3G	198 002 000 0013
0.14–4 mm²	TL02G	198 001 001 0011

Application	Designation	Order No.
for crimp contacts 75A	M40–TL01	198 001 000 0027
for crimp contacts 30A	M40–TL02	198 001 000 0028

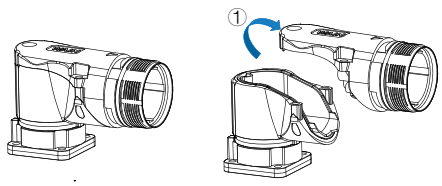


NO.	wire gauge	Stripping length	a	b
④	4 mm²	10 mm	Φ2.85	Φ3..9
⑤	6 mm²	10 mm	Φ3.5	Φ5
⑥	10 mm²	10 mm	Φ4.5	Φ5.7

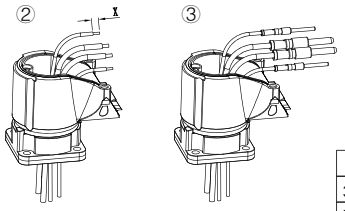
Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

M40-MC04/4-BKP-SE Power connector

1：Open the upper cover horizontally

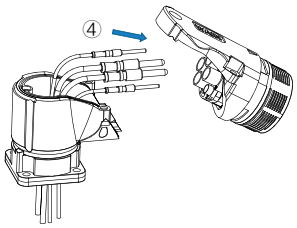


2：pin wiring
a、The cable passes through the fixed base.
b、Strip the wire insulation husk, and then weld pin to the wire.

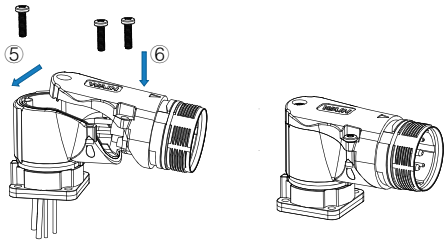


	Stripping length(X)
30A	7 mm
75A	10 mm

3：Insert the pins to the corresponding insert holes in order.



4：Lock the upper cover, and fasten the screws. The installation is completed.



Power connector(National grid standard)



Power connector

250V 40A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

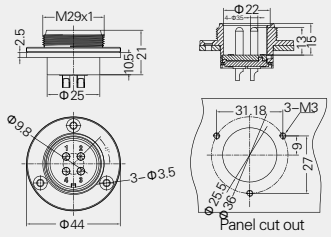
Number of contacts	4
Electrical properties	
–Rated current	40A
–Rated voltage	250V（AC）
–Rated impulse voltage	2kV（AC）
–Insulation resistance	⩾2000MΩ (normal temperature)
–Welding wire specifications	plugs 2.0mm²~3.3mm²(Φ2.2mm) socket 2.0mm²~4mm²(Φ2.7mm)
–Contact resistance	⩽0.75mΩ
Material and finish	
–Hoods/Housings	The copper alloy plating nickel
–contact	Gold–plated copper alloy
–Insulating material	Thermosets
–Sealing element	Rubber

Machanical properties	
–Vibration	frequency10~2000Hz,accelerated speed147m/s², instant break⩽1us
–Shock	accelerated speed 490m/s², instant break⩽1us
–Mechanical working life	⩾500
–Lock mode	Thread locking
–Cable and outlet diameter	10.5mm
Environmental performance	
–Relative humidity	90%~95%（40℃±2℃）
–Working temperature	–40℃—+105℃
–Salt mist test requirements	5% NaCl neutral steady salt mist 96 h
–Degree of Protection	IP65

Solder terminal



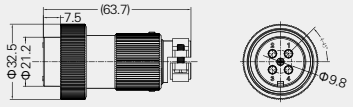
Insert	Designation	Order No.
Male	HY–Z2504–S01E0–GM	169 004 313 1001



Solder terminal



Insert	Designation	Order No.
Female	HY–T2504–S01E1–GF	169 004 423 1001

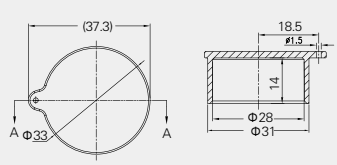


Accessory

Protection cover



Description	Designation	Order No.
for male	HY–Z25–CV	269 000 000 9001



Power connector

250V 20A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

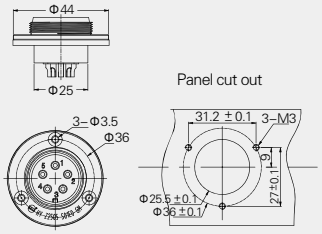
Number of contacts	5
Electrical properties	
–Rated current	20A
–Rated voltage	250V（AC）
–Rated impulse voltage	2.0kV(normal temperature)
	1.0kV(muggy)
–Insulation resistance	⩾2000 MΩ(normal temperature)
	⩾50 MΩ(muggy)
–Contact resistance	⩽2 mΩ
–Welding wire specifications	Diameter ϕ1.8mm
Material and finish	
–Hoods/Housings	The copper alloy plating nickel
–contact	Gold–plated copper alloy
–Insulating material	Thermosets

Machanical properties	
–Vibration	frequency10~2000Hz,accelerated speed147m/s², instant break⩽1us
–Shock	accelerated speed 490m/s², instant break⩽1us
–Mechanical working life	⩾500
–Lock mode	Thread locking
–Cable and outlet diameter	10.5mm
Environmental performance	
–Relative humidity	90%~95%（40℃±2℃）
–Working temperature	–40℃—+105℃
–Salt mist test requirements	5% NaCl neutral steady salt mist 96 h
–Degree of Protection	IP65

Solder terminal



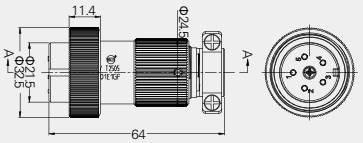
Insert	Designation	Order No.
Male	HY–Z2505–S01E0–GM	169 005 313 1001



Solder terminal



Insert	Designation	Order No.
Female	HY–T2505–S01E1–GF	169 005 423 1001

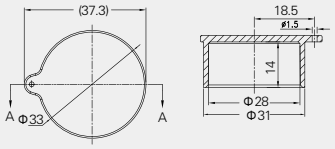


Accessory

Protection cover



Description	Designation	Order No.
for male	HY–Z25–CV	269 000 000 9001



Power connector

250V 25A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

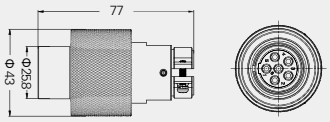
Number of contacts	6
Electrical properties	
–Rated current	25A
–Rated voltage	250V（AC）
–Rated impulse voltage	2kV（AC）
–Insulation resistance	≥2000MΩ (normal temperature)
–Contact resistance	≤1mΩ
Material and finish	
–Hoods/Housings	Copper alloy
–contact	Gold–plated copper alloy
–Insulating material	Thermosets
–Sealing element	Rubber

Machanical properties	
–Vibration	frequency10~2000Hz,accelerated
	speed147m/s², instant break≤1us
–Shock	accelerated speed 490m/s²,
	instant break≤1us
–Mechanical working life	≥500
–Lock mode	Thread locking
–Cable and outlet diameter	Φ12.5mm
Environmental performance	
–Relative humidity	90%~95%（40℃±2℃）
–Working temperature	–40℃—+105℃
–Salt mist test requirements	5% NaCl neutral steady salt mist
	96 h
–Degree of Protection	IP65

Crimp terminal Order crimp contacts separately



Insert	Designation	Order No.
Male	HY–T3006–S01E1–GMC	169 006 410 1001

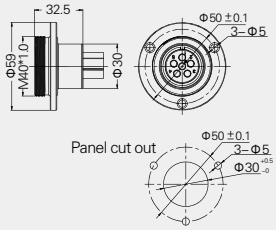


Crimp terminal Order crimp contacts separately,

Can match the Protection cover:HY–Z30–CV



Insert	Designation	Order No.
Female	HY–Z3006–S01E0–GFC	169 006 320 1001



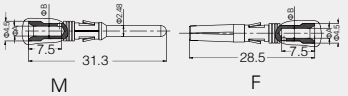
Accessories

Crimp contacts 25A

Contact resistance≤ 1 mΩ
gold plated



NO.	Male	Order No.	Female	Order No.
①	CYGM25–0.5	101 021 210 0401	CYGF25–0.5	101 021 220 0401
②	CYGM25–0.75	101 021 210 0601	CYGF25–0.75	101 021 220 0601
③	CYGM25–1.0	101 021 210 0801	CYGF25–1.0	101 021 220 0801
④	CYGM25–1.5	101 021 210 0901	CYGF25–1.5	101 021 220 0901
⑤	CYGM25–2.5	101 021 210 1001	CYGF25–2.5	101 021 220 1001
⑥	CYGM25–3.0	101 021 210 1101	CYGF25–3.0	101 021 220 1101



NO.	Identification	ΦA/mm	ΦB/mm	Wire gauge	
①	no groove	1.15	2.60	0.5 mm²	AWG20
②	1 groove	1.30	2.60	0.75 mm²	AWG18
③	1 groove	1.45	2.60	1.0mm²	AWG18
④	2 groove	1.75	3.00	1.5 mm²	AWG16
⑤	3 groove	2.25	3.50	2.5 mm²	AWG14
⑥	2 groove	2.55	3.75	3.0mm²	AWG12

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 002 000 0011

Application	Designation	Order No.
for crimp contacts 25A	HY–TL01	198 001 000 0020

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

Power connector-The open circuit

250V 40A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

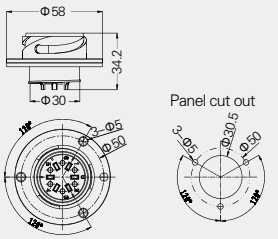
Number of contacts	6(The open circuit)
Electrical properties	
–Rated current	40A
–Rated voltage	250V（AC）
–Rated impulse voltage	2kV
–Insulation resistance	⩾2000MΩ(normal temperature)
–Contact resistance	⩽1mΩ
Material and finish	
–Hoods/Housings	The copper alloy plating nickel
–contact	Gold–plated copper alloy
–Insulating material	PA
–Sealing element	Silicone rubber、FKM

Machanical properties	
–Vibration	frequency10~2000Hz,accelerated speed147m/s², instant break⩽1us
–Shock	accelerated speed 490m/s², instant break⩽1us
–Mechanical working life	⩾500
–Lock mode	Bayonet locking
–Cable and outlet diameter	Φ13mm
Environmental performance	
–Relative humidity	90%~95%（40℃±2℃）
–Working temperature	–40℃—+105℃
–Salt mist test requirements	5% NaCl neutral steady salt mist 96 h
–Degree of Protection	IP65

Solder terminal



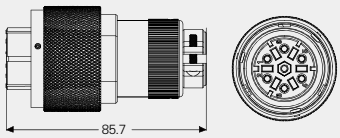
Insert	Designation	Order No.
Male	HY–PZ3006–S01E0–GM	169 006 313 1001



Solder terminal



Insert	Designation	Order No.
Female	HY–PT3006–S01E1–GF	169 006 423 1001

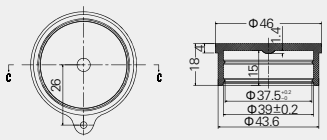


Accessory

Protection cover



Description	Designation	Order No.
for male	HY–Z30–CV	269 000 000 9002



power

Power connector

250V 13/20A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

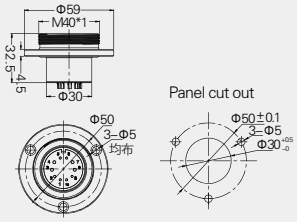
Number of contacts	10(4+6)
Electrical properties	
–Rated current	6X ϕ 1.59： 13A
	4X ϕ 2： 20A
–Rated voltage	250V（AC）
–Rated impulse voltage	2kV
–Insulation resistance	≥2000MΩ (normal temperature)
–Contact resistance	ϕ 1.59： ≤3 mΩ
	ϕ 2： ≤2 mΩ
–Welding wire specifications	Diameter ϕ 1.8mm
Material and finish	
–Hoods/Housings	The copper alloy plating nickel
–contact	Gold–plated copper alloy
–Insulating material	Thermosets

Machanical properties	
–Vibration	frequency10~2000Hz,accelerated speed147m/s², instant break≤1us
–Shock	accelerated speed 490m/s², instant break≤1us
–Mechanical working life	≥500
–Lock mode	Thread locking
–Cable and outlet diameter	Φ13mm
Environmental performance	
–Relative humidity	90%~95%（40℃±2℃）
–Working temperature	–40℃—+105℃
–Salt mist test requirements	5% NaCl neutral steady salt mist 96 h
–Degree of Protection	IP65

Solder terminal



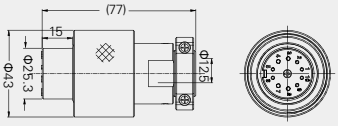
Insert	Designation	Order No.
Male	HY–Z3010–S01E0–GM	169 010 313 1001



Solder terminal



Insert	Designation	Order No.
Female	HY–T3010–S01E1–GF	169 010 423 1001

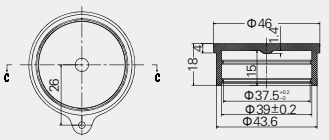


Accessory

Protection cover



Description	Designation	Order No.
for male	HY–Z30–CV	269 000 000 9002



Power connector

250V 20A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

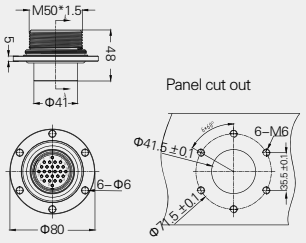
Number of contacts	26
Electrical properties	
–Rated current	20A
–Rated voltage	250V（AC）
–Rated impulse voltage	2kV
–Insulation resistance	⩾2000MΩ (normal temperature)
–Contact resistance	⩽2mΩ
–Welding wire specifications	Diameter ϕ1.8mm
Material and finish	
–Hoods/Housings	The copper alloy plating nickel
–contact	Gold–plated copper alloy
–Insulating material	Thermosets
–Sealing element	Silicone rubber、FKM

Machanical properties	
–Vibration	1frequency10~2000Hz,accelerated speed147m/s², instant break⩽1us
–Shock	accelerated speed 490m/s², instant break⩽1us
–Mechanical working life	⩾500
–Lock mode	Thread locking
–Cable and outlet diameter	Cable duo2*12mm
Environmental performance	
–Relative humidity	90%~95%（40℃±2℃）
–Working temperature	–40℃—+105℃
–Salt mist test requirements	5% NaCl neutral steady salt mist 96 h
–Degree of Protection	IP65

Solder terminal



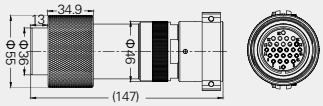
Insert	Designation	Order No.
Male	HY–Z4126–S01E0–GM	169 026 313 1001



Solder terminal



Insert	Designation	Order No.
Female	HY–T4126–S01E2/12–GF	169 026 423 1001



Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

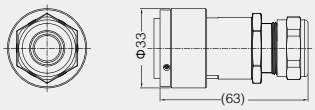
Number of contacts	Two sides RJ-45/3 pins
Electrical properties	
-Rated current	-/1A
-Rated voltage	-/220V(AC)
-Rated impulse voltage	500V(AC)/1500V(AC)
-Insulation resistance	≥500MΩ (normal temperature)
-Contact resistance	≤20mΩ/≤7.5mΩ
-Wire splice	Power line: 1 mm^2
specification	Reticle: 24 AWG
Material and finish	
-Hoods/Housings	The copper alloy plating chromium
-contact	Gold-plated copper alloy
-Insulating material	Thermosets

Machanical properties	
-Vibration	1frequency10~2000Hz,accelerated
	speed147m/s^2, instant break≤1us
-Shock	accelerated speed 490m/s^2,
	instant break≤1us
-Mechanical working life	≥500
-Lock mode	Bayonet locking
-Cable and outlet diameter	Φ11.5 mm
Environmental performance	
-Relative humidity	90%~95% (40℃±2℃)
-Working temperature	-40℃~+105℃
-Salt mist test requirements	5% NaCl neutral steady salt mist
	96h
-Degree of Protection	IP65

Crimp terminal



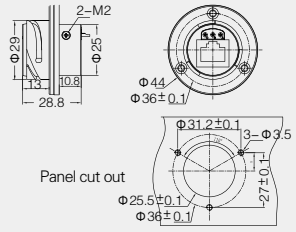
Insert	Designation	Order No.
Male	HY-ET2511-S02E1-GM	169 011 410 1001



Crimp terminal



Insert	Designation	Order No.
Female	HY-EZ2511-S02E0-GF	169 011 323 1001

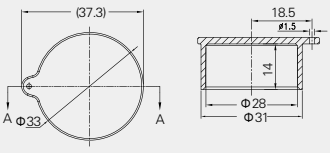


Accessory

Protection cover



Description	Designation	Order No.
for male	HY-Z25-CV	269 000 000 9001



Heavy-current cable butting connector



Advantages:

•The male plug is provided with a quick–connect nut anti–rotation device to play the role of nut anti–rotation.

•Increase the assembly clearance of pin to prevent damage of connector caused by thermal expansion and cold contraction.

•Add a variety of coding to the insertion of male and female plugs to avoid wrong insertion.

•Color codes distinguish three – phase cables.

•Double crown spring is adopted to increase the contact area of male and female pins.

•Protection against electric shock.

•Add the wire size mark to the pin.

Heavy-current cable butting connector

1000V 800A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

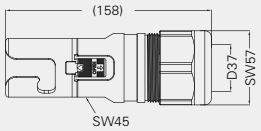
Number of contacts	1
Electrical parameters：	
Rated current	800A
Rated voltage	1000V
Test voltage Urms (AC)	12kV
Wire gauge	240mm²
Surge voltage category	III
Pollution degree	3

Mechanical date	
Housing material	PA
Contact material	Copper alloy
surface	Hard-gold plated
Terminal	Crimp version
Gasket and O ring	FPM
Ambient temperature	-40℃...+125℃
Locking type	Quick lock
Mechanical working life	> 100
Degree of protection	IP65
Cable diameter	32-37mm

Male,Crimp terminal



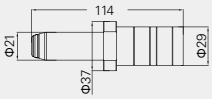
Insert	Designation	Order No.
Male	HW-MC01-T-D37	182 000 410 3001



Male,Crimp contacts



Wire gauge(mm²)	Designation	Order No.
240	HW-MC800S-240	101 035 110 2401



Heavy-current cable butting connector

1000V 800A

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984

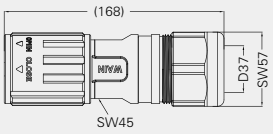
Number of contacts	1
Electrical parameters：	
Rated current	800A
Rated voltage	1000V
Test voltage Urms (AC)	12kV
Wire gauge	240mm²
Surge voltage category	III
Pollution degree	3

Mechanical date	
Housing material	PA
Contact material	Copper alloy
surface	Hard-gold plated
Terminal	Crimp version
Gasket and O ring	FPM
Ambient temperature	-40℃...+125℃
Locking type	Quick lock
Mechanical working life	> 100
Degree of protection	IP65
Cable diameter	32-37mm

Female,Crimp terminal



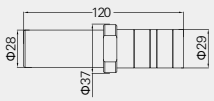
Insert	Designation	Order No.
Female	HW-FC01-T-D37	182 000 420 3001



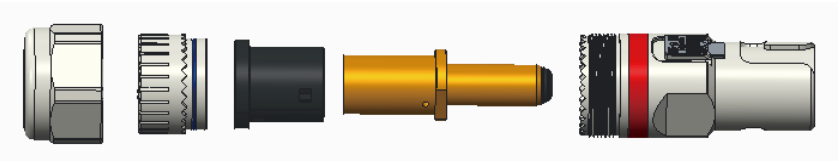
Female,Crimp contacts



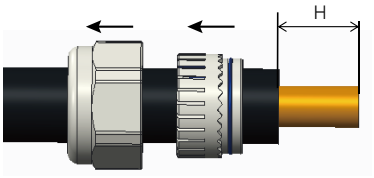
Wire gauge(mm²)	Designation	Order No.
240	HW-FC800S-240	101 035 120 2401



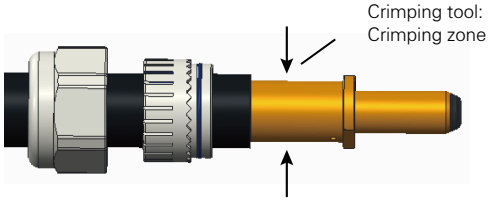
Installation steps



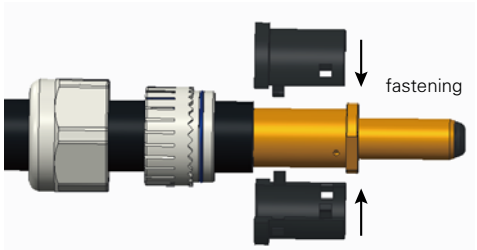
Step 1



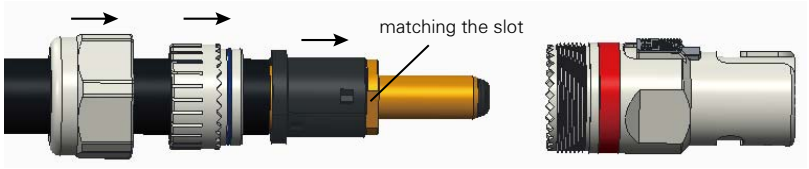
Step 2：Crimping



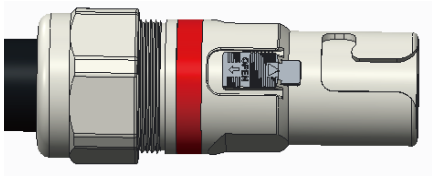
Step 3：fastening



Step 4：matching the slot



Step 5：installation complete



MI mini connector

MI mini connector



MI mini connector

400/30V 6/1A

Technical characteristics

Number of contacts	6+6(5+PE)
Rated current (40℃)	6A(power), 1A(signal)
Rated voltage	400V(power), 30V(signal)
Rated impulse voltage	4000V(power), 500V(signal)
Pollution degree	3
Contact resistance	⩽5 mΩ
Termination	crimp terminal
Wire gauge	MAX0.75mm²
Degree of protection	IP67(Acc. to EN60529 for coupled connector)
Limiting temperature	–40℃...+130℃
Flammability acc. to UL 94	V0
Contact plating	Au

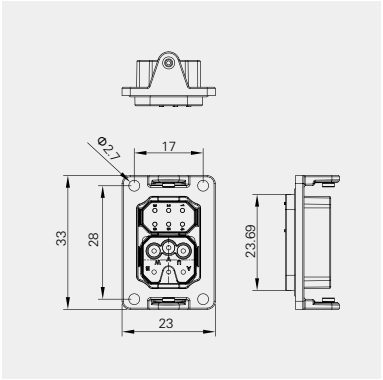
Angeled double zone double cable shieled connector

Male, Shielded, Crimp terminal

Order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
6+6(5+PE)	7.5mm	MI–MC06/6–BK–OD2.7	173 012 310 4001

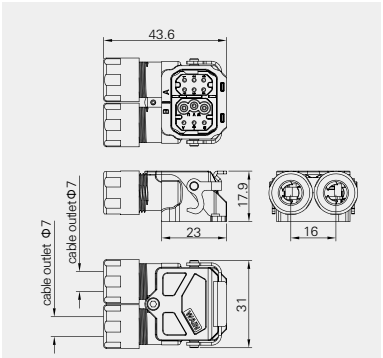


Female, Shielded, Crimp terminal

Order crimp contacts separately



Contacts	Cable outlet	Designation	Order No.
6+6(5+PE)	7.5mm	MI–FC06/6–SE–2D7.5–SH	173 012 520 2001



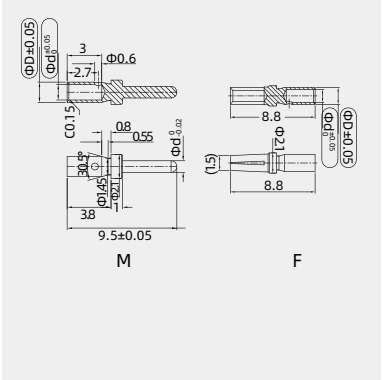
Crimp contacts

Crimp contacts

Contact resistance⩽3mΩ
gold plated



Wire gauge	Male	Order No.
0.09–0.25	MI–MC6G2–0.25	101 040 210 0101
0.13–0.52	MI–MC6G–0.38	101 040 210 3801
0.52–0.75	MI–MC6G–0.75	101 040 210 0601
Wire gauge	Female	Order No.
0.09–0.25	MI–FC6G2–0.25	101 040 220 0101
0.13–0.52	MI–FC6G–0.38	101 040 220 3801
0.52–0.75	MI–FC6G–0.75	101 040 220 0601



Tools

Crimping tool



Wire gauge	Designation	Order No.
0.09–0.82mm²	TL03	198 001 001 0002

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

HCC SERIES

Single row connector



HCC single row inserts



Technical characteristics

Specifications	DIN EN 60 664/DIN EN 61 984
Approvals	EAC

Inserts

Rated current	30A
Rated voltage	500V
Rated impulse voltage	6kV
Pollution degree	3
Limiting temperatures	–40℃...+125℃
Flammability	V0
Mechanical working life(mating cycles)	⩾500

Contacts

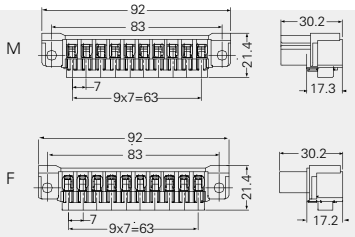
Number of contacts	10
Terminal	screw terminal
Wire gauge	0.32~4mm²
Material	copper alloy
Surface	silver plated

Inserts

Screw terminal



Insert	Designation	Order No.
Male	HCC–010–M	133 010 011 0001
Female	HCC–010–F	133 010 021 0001



HV SERIES

Single row connector



HV single row inserts



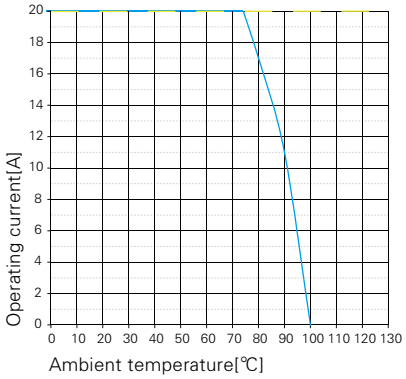
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Inserts	
Number of contacts	8 +PE
Rated current	20A
Rated voltage	400V
Rated impulse voltage	6kV
Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Material	PA
Limiting temperatures	–40℃...+100℃
Contacts	
Material	copper alloy
Surface	tin plating
Contact resistance	⩽1mΩ
Terminal	
–Screw terminal	
–Wire gauge	0.2—4.0mm²
–Tightening torque	0.5~0.6Nm
–Stripping length	7.0mm
Hoods/Housings	
Material	Zine–alloy
Surface	nickel plating
Locking element	Screw locking
Sealing element	NBR
Limiting temperatures	–40℃~+125℃
Degree of protection	IP67

Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512–5



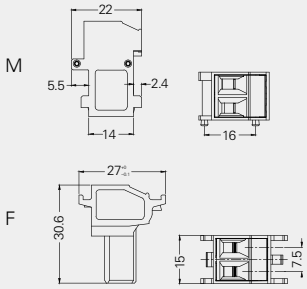
HV single row inserts

400V 20A 8+⏚

Inserts

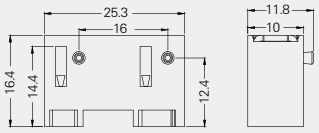


Insert	Designation	Order No.
Male	HV–S02–M	232 002 011 0002
Female	HV–S02–F	232 002 021 0002





Description	Designation	Order No.
Panel ground	HV–A–PEA	132 000 000 0001

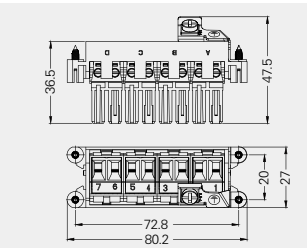


External member 1

with female inserts and frame



Description	Designation	Order No.
hoods/housings frame external member	HV–HF3/4M–PEA–S2222	132 008 021 0001

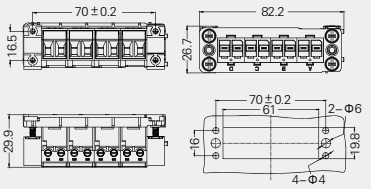


External member 2

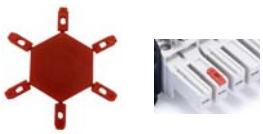
with male inserts and frame



Description	Designation	Order No.
Panel frame external member	HV–AF3/4M–PEA–S2222	132 008 011 0001



Plug piece



Description	Designation	Order No.
Preventing interpolation	CODE–V	198 002 005 0012

HV single row inserts

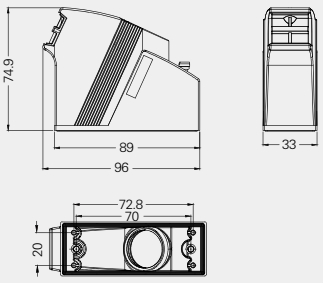
400V 20A 8+⏚

Inserts

Hoods/Housings, nickel plating



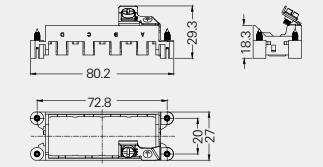
Thread	Designation	Order No.
M25	EMC.HV–PM–H3/C–M25	132 604 420 1003



Frame



Description	Designation	Order No.
with 4 module hoods/housings frame	HV–HF3/4M–PEA	132 004 000 0002



The State Grid Anti–Open Connector

32 pin DTU anti-open circuit connector



The State Grid Anti–Open Connector



Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Inserts	
Number of contacts	24+8(anti–open circuit)+1(grounding)
Rated current	10A
Rated voltage	250V
Rated impulse voltage	4kV
Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Material	PC
Limiting temperatures	–40℃...+125℃
Contacts	
Material	copper alloy
Surface	silver plated
Contact resistance	⩽5mΩ
Terminal	crimp terminal / Screw terminal / solde terminal
–crimp terminal	0.14–2.5mm² (26–14AWG)
–Screw terminal	0.75–2.5mm² (18–14AWG)
–solde terminal	Φ1.6/Φ2.4(grounding) Welding pin
Hoods/Housings	
Material	PC
Sealing element	NBR
Flammability acc. to UL 94	V0
Limiting temperatures	–40℃~+125℃
Degree of protection	IP65

32 pin DTU anti-open circuit connector

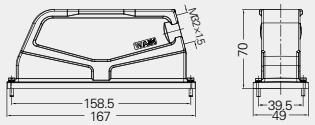
250V 10A 24+8 (anti–open circuit) +1 ⏚

Inserts

Hoods/Housings



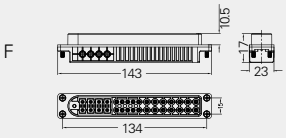
Thread	Designation	Order No.
M25	HDC.P–DTU–SE–4S–M32	119 000 520 1001



Inserts



Insert	Designation	Order No.
Female	HDC–DTU–008/10/14–FC	125 032 020 0001



Crimp contacts

Crimp contacts 10A

Contact resistance≤3mΩ
silver plated

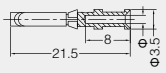


gold plated



More crimp contacts 10A
see P13–02,P13–03.

Female(silver plated)	Designation	Female(gold plated)	Designation
CDSF–0.25	101 017 120 0101	CDGF–0.25	101 017 220 0101
CDSF–0.37	101 017 120 0301	CDGF–0.37	101 017 220 0301
CDSF–0.50	101 017 120 0401	CDGF–0.50	101 017 220 0401
CDSF–0.75	101 017 120 0601	CDGF–0.75	101 017 220 0601
CDSF–1.0	101 017 120 0801	CDGF–1.0	101 017 220 0801
CDSF–1.5	101 017 120 0901	CDGF–1.5	101 017 220 0901
CDSF–2.5	101 017 120 1001	CDGF–2.5	101 017 220 1001



F

Wire gauge		Φ	Stripping length
0.14–0.37 mm²	AWG 26–22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Application	Designation	Order No.
for crimp contacts 10A	TL00	198 001 000 0001

More tools detail please find the page32–03~32–06.

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

32 pin DTU anti-open circuit connector

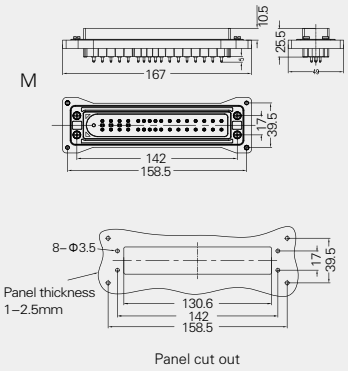
250V 10A 24+8 (anti–open circuit) +1 ⏚

Inserts

Inserts



Insert	Designation	Order No.
Male	HDC–DTU–008/10/14–MC–4H	125 032 010 0001



Panel cut out

The State Grid Anti–Open Connector

56 pin TTU anti-open circuit connector



The State Grid Anti–Open Connector



Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Inserts	
Number of contacts	8+8(anti–open circuit)+40
Rated current	10A
Rated voltage	250V
Rated impulse voltage	4kV
Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Material	PC
Limiting temperatures	–40℃...+125℃
Contacts	
Material	copper alloy
Surface	silver plated/gold plated
Contact resistance	⩽3mΩ
Anti open circuit contact：	
–Terminal	Screw terminal
–Wire gauge	0.75–2.5mm² (18–14AWG)
voltage wire contact：	
–Terminal	Crimp terminal
–Wire gauge	0.14–2.5mm² (26–14AWG)
signal contact：	
–Terminal	Crimp terminal
–Wire gauge	0.09–0.52mm² (28–20AWG)
Hoods/Housings	
Material	PC
Sealing element	NBR
Flammability acc. to UL 94	V0
Limiting temperatures	–40℃~+125℃
Degree of protection	IP65

56 pin TTU anti-open circuit connector

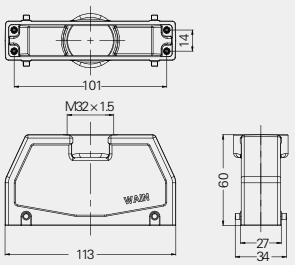
250V 10A 8+8（anti–open circuit）+40

Inserts

Hoods, side entry



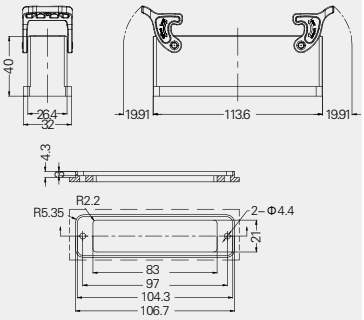
Thread	Designation	Order No.
M25	HDC.P–TEH–4B–M32	119 000 430 5001



Housings, bulkhead mounting



Insert	Designation	Order No.
Female	HDC.P–BKH–2L	119 000 349 5001



Panel cut out

32 pin TTU anti-open circuit connector

250V 10A 8+8 (anti–open circuit) +40

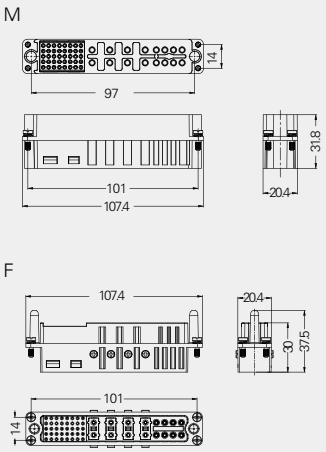
Inserts

Screw terminal/Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HDC–008/8/40–MC	125 056 010 0001
Female	HDC–008/8/40–FC	125 056 020 0001



Crimp contacts

Crimp contacts 5A

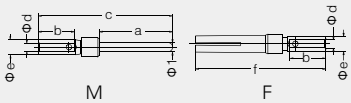
Contact resistance≤3mΩ
silver plated



gold plated



Male	Order No.	Female	Order No.
CSSM–0.25	101 014 110 0101	CSSF–0.25	101 014 120 0101
CSSM–0.33	101 014 110 0201	CSSF–0.33	101 014 120 0201
CSSM–0.52	101 014 110 0501	CSSF–0.52	101 014 120 0501
CSGM–0.25	101 014 210 0101	CSGF–0.25	101 014 220 0101
CSGM–0.33	101 014 210 0201	CSGF–0.33	101 014 220 0201
CSGM–0.52	101 014 210 0501	CSGF–0.52	101 014 220 0501



a	b	c	d	e	f
8.10	4.0	14.8	0.64	1.66	14.4
8.10	4.0	14.8	0.90	1.66	14.4
8.10	4.0	14.8	1.12	1.66	14.4

Wire gauge		Stripping length
0.09–0.25 mm²	AWG 28–24	5 mm
0.13–0.33 mm²	AWG 26–22	5 mm
0.33–0.52 mm²	AWG 22–20	5 mm

Crimp contacts 10A

contact resistance≤3mΩ
silver plated

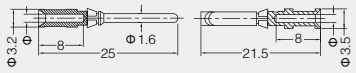


gold plated



More crimp contacts10A
see P13–02,P13–03.

Male	Designation	Female	Designation
CDSM–0.25	101 017 110 0101	CDSF–0.25	101 017 120 0101
CDSM–0.37	101 017 110 0301	CDSF–0.37	101 017 120 0301
CDSM–0.50	101 017 110 0401	CDSF–0.50	101 017 120 0401
CDSM–0.75	101 017 110 0601	CDSF–0.75	101 017 120 0601
CDSM–1.0	101 017 110 0801	CDSF–1.0	101 017 120 0801
CDSM–1.5	101 017 110 0901	CDSF–1.5	101 017 120 0901
CDSM–2.5	101 017 110 1001	CDSF–2.5	101 017 120 1001
CDGM–0.25	101 017 210 0101	CDGF–0.25	101 017 220 0101
CDGM–0.37	101 017 210 0301	CDGF–0.37	101 017 220 0301
CDGM–0.50	101 017 210 0401	CDGF–0.50	101 017 220 0401
CDGM–0.75	101 017 210 0601	CDGF–0.75	101 017 220 0601
CDGM–1.0	101 017 210 0801	CDGF–1.0	101 017 220 0801
CDGM–1.5	101 017 210 0901	CDGF–1.5	101 017 220 0901
CDGM–2.5	101 017 210 1001	CDGF–2.5	101 017 220 1001



Wire gauge		Φ	Stripping length
0.09-0.25 mm²	AWG 28-24	0.65	5 mm
0.14-0.37 mm²	AWG 26-22	0.9	8 mm
0.5 mm²	AWG 20	1.1	8 mm
0.75 mm²	AWG 18	1.3	8 mm
1 mm²	AWG 18	1.45	8 mm
1.5 mm²	AWG 16	1.75	8 mm
2.5 mm²	AWG 14	2.25	6 mm

When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.09–0.82mm²	TL03	198 001 001 0002

Contact removal tool



Application	Designation	Order No.
for 5A crimp contact	TL08	198 001 000 0006

Tools

More tools detail please find the page32–03~32–06.

Crimping tool



Wire gauge	Designation	Order No.
0.14–4mm²	TL02G	198 001 001 0011

Contact removal tool



Application	Designation	Order No.
for 10A crimp contact	TL00	198 001 000 0001

Notes: The tools for crimp terminal may influence the product quality and stability. Please select the tools recognized by our company.

The State Grid Anti–Open Connector

6 pins Anti-Open Connector

Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Number of contacts	6+PE
Three Groups of Preventive Opening	1–2，3–4，5–6
Rated current	40A
Rated voltage	500V
Rated impulse voltage	6kV
Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Material	polycardonate
Colour	RAL 7032(light grey)
Temperature range	–40℃...+125℃
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Contacts	
Terminal	screw terminal
Material	copper alloy
Surface	silver plated/gold plated
Contact resistance	≤ 5mΩ
Wire	
–gauge	1.5–6mm^2
–AWG	(16–10)
Tightening torque	0.8N.m
Stripping length	10mm

The State Grid Anti–Open Connector

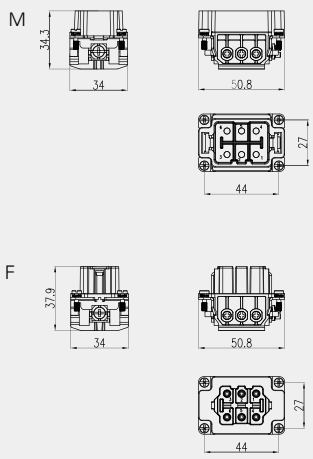
500V 40A 6+PE

Inserts

Screw terminal



Insert	Designation	Order No.
Male	HSC–006–M	127 006 011 0511
Female	HSC–006–F	127 006 021 0512



D–Sub–044 SERIES

D-Sub-044



D–Sub–044 series



Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Inserts	
Number of contacts	44
Rated current	3A
Rated voltage	40V
Rated impulse voltage	0.5kV
Pollution degree	3
Insulation resistance	⩾10^{10}Ω
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾500
Material	PBT+copper alloy
Limiting temperatures	–40℃...+105℃
Contacts	
Material	copper alloy
Surface	Nickel plated floating gold
Contact resistance	⩽3mΩ
Rated current	3A
Wire gauge	0.09–0.25mm^2 (28–24 AWG)
Mechanical working life(mating cycles)	⩾500
Hoods/Housings	
Material	Zinc die–cast
Surface	nickel plating
Locking element	
Locking element	1 lever
Material	Stainless steel
Sealing element	NBR
Flammability acc. to UL 94	V0
Limiting temperatures	–40℃~+125℃
Degree of protection	IP65

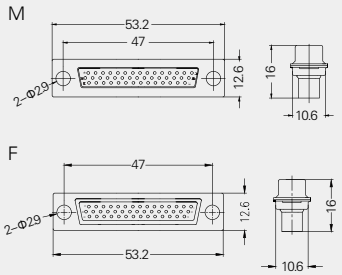
D-Sub-044

Inserts

Inserts



Insert	Designation	Order No.
Male	DB–A044MC	998 002 099 0007
Female	DB–A044FC	998 002 099 0008

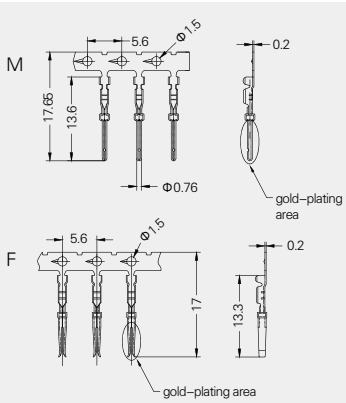


contacts



Description	Designation	Order No.
Male	CSNM/DB–0.25P	998 002 099 0009
Female	CSNF/DB–0.25P	998 002 099 0010

Note: pin roll material 15000pcs / roll

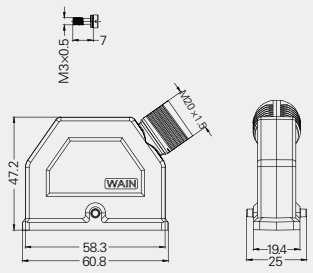


Hoods/Housings

Hoods/Housings，nickel plating



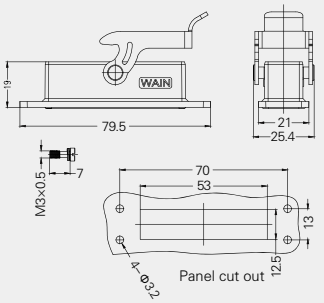
Thread	Designation	Order No.
OM20	EMC.DS–044–SE–2B–OM20	112 300 510 1001



Bulkhead mounted housings

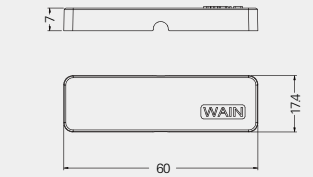


Thread	Designation	Order No.
–––	EMC.DS–044–BK–1L	112 300 320 1001



Protection covers, plastic(IP54)

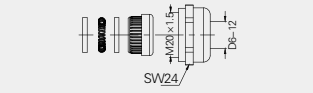
Description	Designation	Order No.
for housings	DS–044–CV/C	137 500 000 9001



Cable gland



Description	Designation	Order No.
	EMC.WNAMC–M20(D6–12)	102 118 015 1001



Charging socket



Charging socket



Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984 CHAdeMO/IEC 62196–3
Inserts	
Number of contacts	8/2
Rated current	
–Power area	150A
–Signal area	2A
Rated voltage	
–Power area	500V
–Signal area	12V
Rated impulse voltage	
–Power area	6kV
–Signal area	2kV
Pollution degree	3
Insulation resistance	$\geqslant 10^{10}\,\Omega$
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	⩾10000
Material	polyamide
Limiting temperatures	–40℃...+60℃
Contacts	
Material	copper alloy
Surface	silver plated
Crimp terminal	
–Power area	$\leqslant 1\,m\Omega$
–Signal area	$\leqslant 3\,m\Omega$
Wire gauge	
–Power area	40mm² (1 AWG)
–Signal area	0.75mm² (18 AWG)

Charging socket

12V/500V 2A/150A 8/2

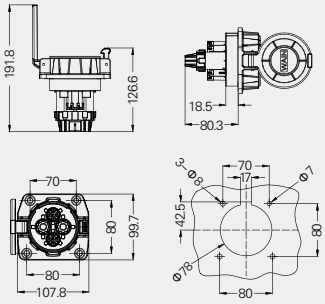
Inserts



Insert	Designation	Order No.
–––	CHADM–S	103 010 220 0001
–––	CHADM–S–S1.0[1)]	103 010 220 1001

Other cable lengths can be customized.

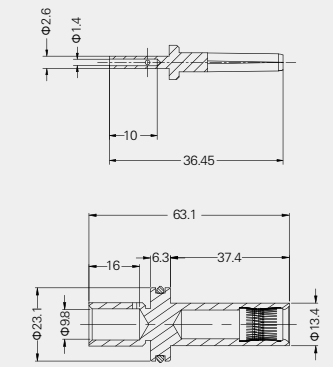
1)Products with wire harness (1 meter length).



Panel cut out



Description	Designation	Order No.
	CWSFH–0.75	101 012 120 0401
	CHWSFH–40G	101 036 120 3501



Designation	Wire gauge	Stripping length
CWSFH–0.75	0.75mm² (AWG 18)	8mm
CHWSFH–40G	40mm² (AWG 1)	16mm

TL–DZ Contact retention test tool

Contact retention test tool

Includes 1 handle +3 standard contact tester



Description	Designation	Order No.
Detect whether the turning contacts be assembled in place.	TL–DZ	198 001 003 0022

16A female contact tester (optional)



Description	Designation	Order No.
Detect whether the turning contacts be assembled in place.	TL–DZ–FT/16A	298 001 003 0015

Instruction Manual for Contact Retention Test Tool (TL–DZ)

TL-DZ is a tool used to detect the contact retention force. It solves the problem that the detection result is not intuitive by using the function of LED indicator. Compact structure, easy operation, chrome plated surface, beautiful appearance, service life ≥ 100,000 times, a variety of contact tester can be freely replaced, compatible with a variety of contact detection, and the detection force value can be customized by customers.

Function: Check whether the contacts be assembled in place.
Principle: The ejection force is controlled by the spring compression inside the handle, force range is 20-30N. If the indicator light is on and contacts do not exit, it indicates that the contacts have been assembled in place. If the contacts exit, it indicates that it has not been assembled in place.

Components: handle (1pc) +standard contact tester (3pcs) +optional contact tester (1pc) (tighten the contact tester on the handle during using)



Usage and Precautions:

1. According to the testing requirements, select the corresponding contact tester.
2. Hold the test tool by hand (Avoid obscuring the top red lampshade), align contact tester with the head of the contact, and push it forward to see that the indicator light is on (when the indicator light is on, do not force the contact tester again), and ensure that the test tool is perpendicular to the contacts;
3. Please check whether the contacts is bent or deformed after the contact tester detection. If the contact tester is not in the vertical state, the contact may be bent or deformed;
4. As the contact tester for 5A female contacts is thin, it is easy to break during operation. If it breaks, be sure to remove the broken tip from the pin hole; If the test tool is not used, please remove the tips and keep it well to avoid breakage;
5. The test tool shall regularly detect if the spring compression force in 20-30N,if the LED light works normally, if the battery power is insufficient, etc. (Note: if any above point is not satisfied, it shall be submitted for inspection);
6. The battery can be replaced independently when the battery power is insufficient. When replacing, unscrew the back cover of handle, pay attention to the installation direction of the positive and negative poles of the battery. (battery P/N: CR 1220; voltage 3V);
7. Do not use other unverified test tools to avoid damage to the contacts and connectors due to improper operations.

Metallic outlet boxes

Technical specirication

Specifications	DIN EN 60 664、DIN EN 61 984
Approvals	

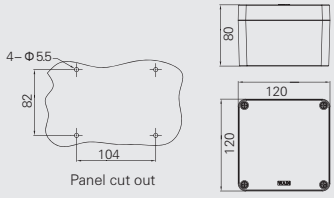
Metallic outlet boxes

Material	aluminium die–cast
Surface	powder–coated
Colour	RAL 7037（grey）
Temperature range	–40℃...+125℃
Degree of protection	IP65
Hoods/Housings sealing	NBR

Metallic outlet boxes



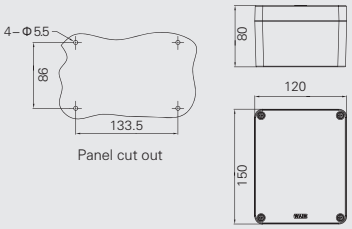
Designation	Order No.
MTB–120x120x80	139 500 000 9001

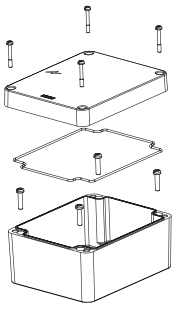


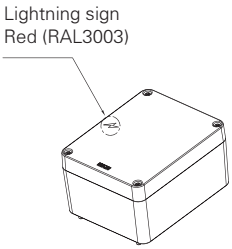
Metallic outlet boxes

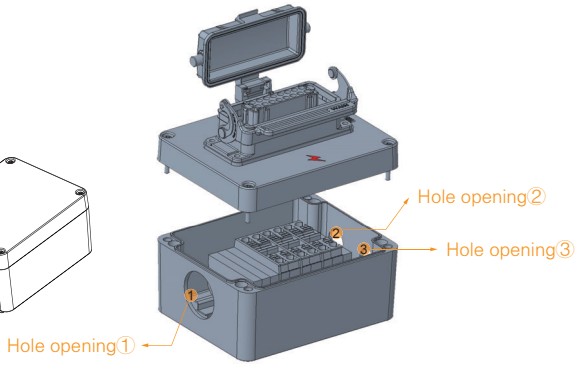


Designation	Order No.
MTB–150x120x80	139 500 000 9002









Designation
MTB–120x120x80
MTB–150x120x80

Note: Hole opening can be customized according to requirements.

Wiring Harness

Wiring harness customization

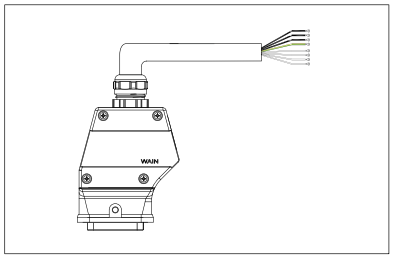


Overview of wiring harness

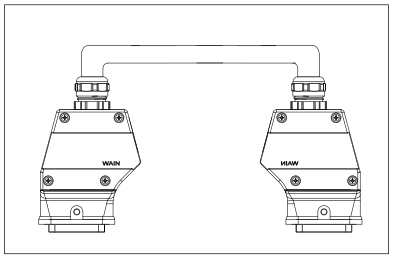
Wiring harness which is composed of insulating sheath, terminal blocks, wires and insulating banding materials is a connecting part linking all electrical appliances within the same circuit.
WAIN customized wiring harness: Process and assemble the shells, cores, pins, cable glands, wire rods and otherrelated parts of our company to manufacture customized wiring harness meeting the clients' requirements.

I 、 Classification of wiring harness

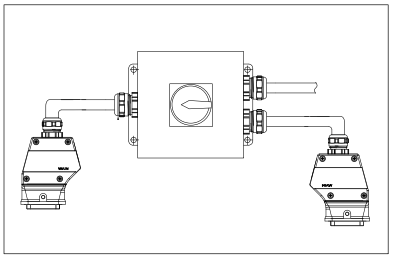
According to the quantity of connectors linking with the wiring harness, customized wiring harness can be classified into three categories, namely, single–ended wiring harness, double–ended wiring harness and multi–ended wiring harness.



【drawing–1】



【drawing–2】



【drawing–3】

Single-ended wiring harness: One end of the wiring harness is equipped with connector of our Company, while the tail end can be crimped with terminals, equipped with cable marker or handled by the clients on their own.【drawing–1】
Double-ended wiring harness: Both ends of the wiring harness are equipped with connectors of our Company.【drawing–2】
Multi-ended wiring harness: Divide the wiring harness into multiple ends via junction box or add wire outlets at the shell, and equip the wiring harness with more than two connectors.【drawing–3】

II. Wire rods of wiring harness

According to the different operating environment, wire rods of wiring harness can be divided into the following types in accordance with the requirements of clients.:
1、Standard electric wire: Applicable to clients who have no special requirements on the wire rods of wiring harness;
2、Electric installation cable: Applicable to dry or humid indoor environment, especially for various kinds of electrical installation in industrial environment. Such cable with a cross section of 0.5mm2 or above can be used as control and connecting flexible wire, which is especially applicable to machine tool manufacturing, complete equipment installation, power station, heating installation and air conditioner installation. (It can be equipped with signal shielding functions according to clients' requirements.)
3、Fixed installation cable for lift shaft: Applicable to the installation and fixed laying in lift shaft; however, it can not be used as traveling cable of lift.
4、Control cable: Applicable to control, signal, protection and measuring circuits with DC or AC 50–60 Hz and with rated voltage of 600/1000V and below. It is usually used in electrical control system and power distribution unit. (It can be equipped with signal shielding functions according to clients' requirements.)
5、Oil–resistant cable: With oil–resistant feature, it is applicable to dry or humid indoor environment, installation with occasional moving but without slow release of strong stress or forced guiding. It also can be used in industrial environment with occasional bending and moving, such as machine tool, wood–working machine and grinding machine. (It can be equipped with signal shielding functions according to clients' requirements.)
6、Standard power wire: inapplicable to power supply and illuminating system. In general, it can be categorized into rubber power wire and PVC power wire. According to the different using conditions, the power wire must conform to relevant national certification standards. (The power wire shall conform to China Compulsory Certification in China, VDE certification and CE certification in Europe and UL certification in USA, etc.)
7、 Towline cable: With the features of high flexibility and anti–bending ability, the cable is applicable to the installation with frequent bending but without slow release of strong stress or free continuous reciprocating movement which is forcedly guided. In particular, it can be used in industrial environment with frequent bending, such as wood–working machine, machine tool, logistics transport system, crane, etc. (It can be equipped with signal shielding functions according to clients' requirements.)
Traveling control cable of lift: Applicable to traveling control of lift and long–distance hanging.

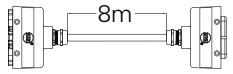
Ordering process for wiring harness products

Design personnel Working process	Selection of parts › Design & sample making › Enquiry & Order › Delivery
Purchasing process	Electrical design drawing Selection of parts Complete the drawing › Order › Delivery

Free selection of wiring harness length

The situation of using products of other suppliers:

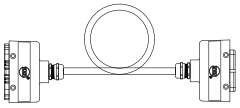
1. The wiring length is 8 meters



2.Only length of 12–meter is available

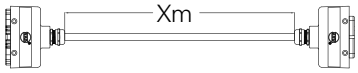


3.The other 4 meters need to be coiled up.



The situation of using WIAN products:

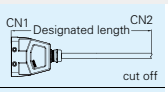
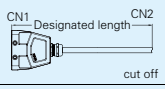
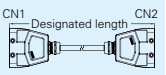
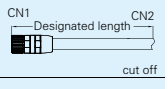
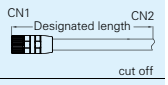
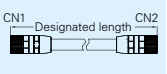
As WAIN products are manufactured according to the clients' requirements, the length can be designated with the unit as 0.1m.



Guide on model selection of wiring harness

Five simple steps for model selection

1. Select insert
2. Select number of contacts
3. Select specification of insert
4. Appearance of wiring harness
5. Select length

Type of inserts	Number of contacts	Type	Diagrammatic drawing	Type of cable	Designated unit
GCHA(HE、HVE、HEE、HD、HK、HM、HQ、HC) Crimp terminal HA、HE... ...Series GLHA(HE、HVE、HSB、HK、HEAV、HM、HQ、HC) Screw terminal HA、HE... ...Series GTHA(HE、HVES、HM) Spring terminal HA、HE... ...Series	2 3 46 ... Select the number of contacts as required. See P00–03	M (male)		CCC	0.2–50m Designated unit0.1m
		F (female)		CE	
		MM (male • male)		UL	
		FF (female • female)		VD	
		MF (male • female)		According to the cable designated by clients!	
YCHR23 Crimp terminal HR23 Circular YLHR23(M8、M12) Screw terminal HR23、M8、M12 Series YHHR23(M8、M12) Spring terminal HR23、M8、M12 Series	2 3 46 ... Select the number of contacts as required. See P00–03	M (male)		CCC	0.2–50m Designated unit0.1m
		F (female)		CE	
		MM (male • male)		UL	
		FF (female • female)		VD	
		MF (male • female)		According to the cable designated by clients!	

Quality assurance

Control on welding process

1,Temperature management
The welding temperature shall be maintained at 350℃ and records shall be kept.





2,The welding operation shall be conducted by professional staff.
People conducting welding operation must pass examination before engaging in such work, and onsite examination shall be carried out.
3, Judgment criterion for welding process.
Key points of inspection for welding process & examples of bad processing.
Key points of inspection：
①.The pin position shall be welded correctly.
②.The welding spot shall be smooth, glossy and without such defects as cold joint, icicle, short circuit and tin peeling.
③.The wire core shall be intact without bare wire or wound caused by burning or pinching.
④.The connector shall not be scalded.
⑤.The butt contact of connector shall not have any displacement.

Control on welding process

1. Crimping tools





2.Judgment criterion

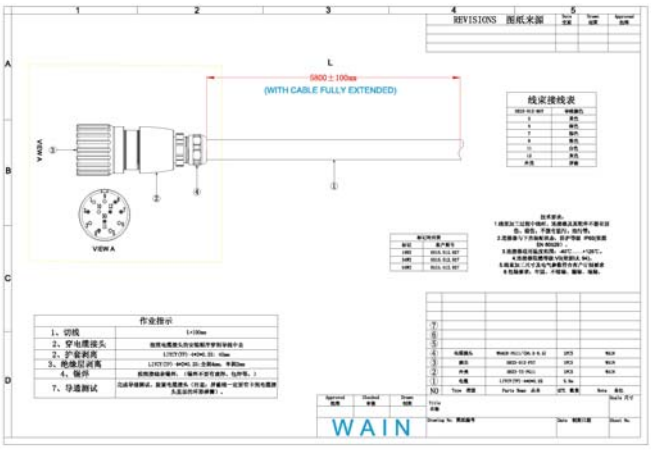
Crimping requirements：
①. Before assembling the shell, check the intermediate crimping between the inspection hole and the terminal through which the wire enters into.
②.The indentation after crimping shall surround the pin with enough depth.

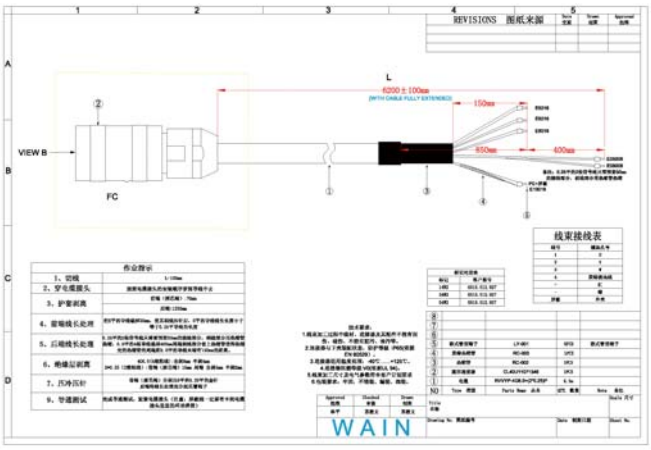
Inspection stations

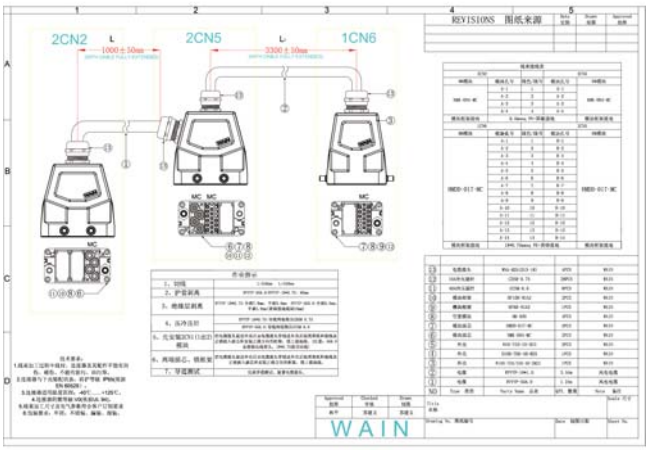
①Inspection before assembling the shell　②. Inspection after assembling the shell　③. Inspection before delivery

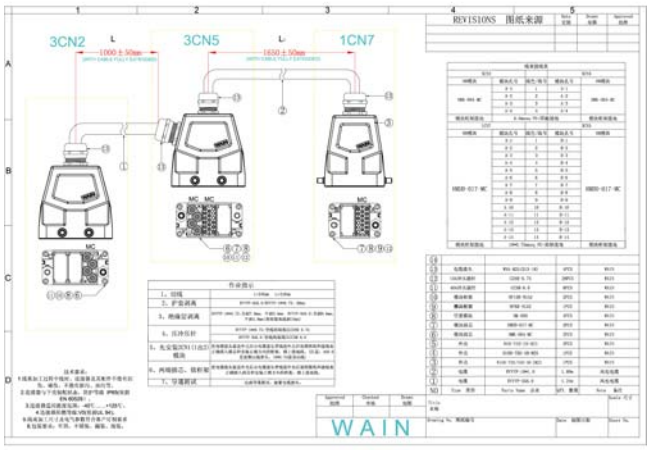
Project Cases

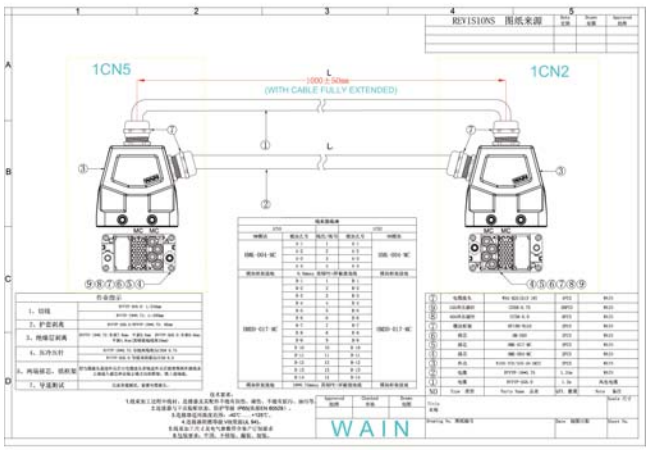
Wind power project

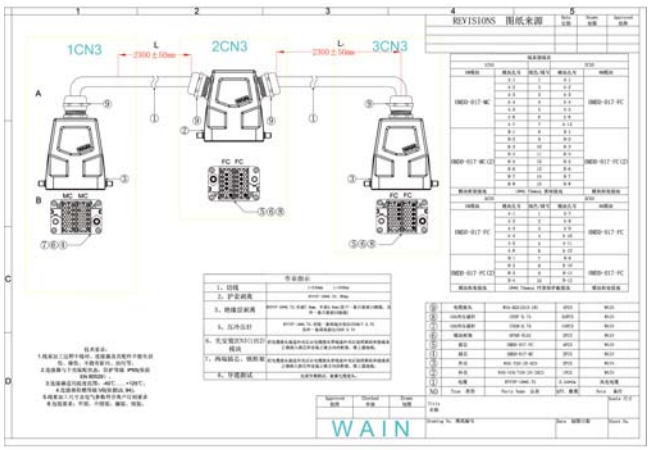






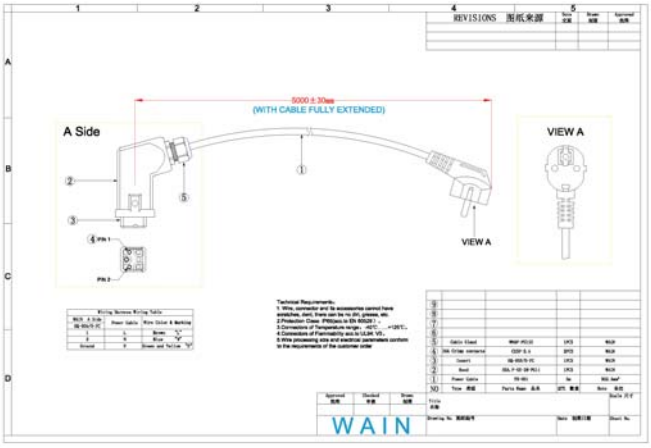


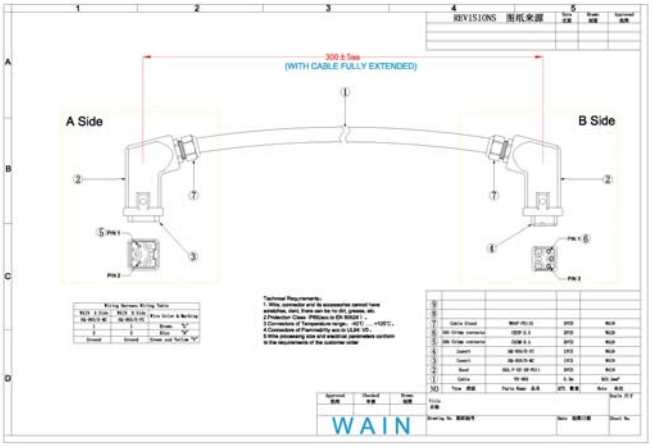


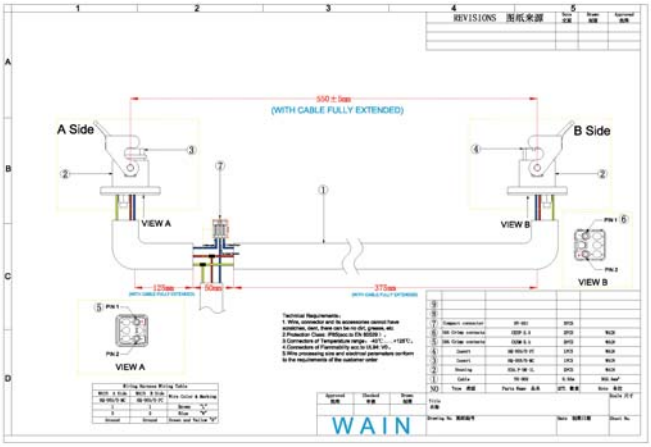


Project Cases

Electrical appliance connecting wire project

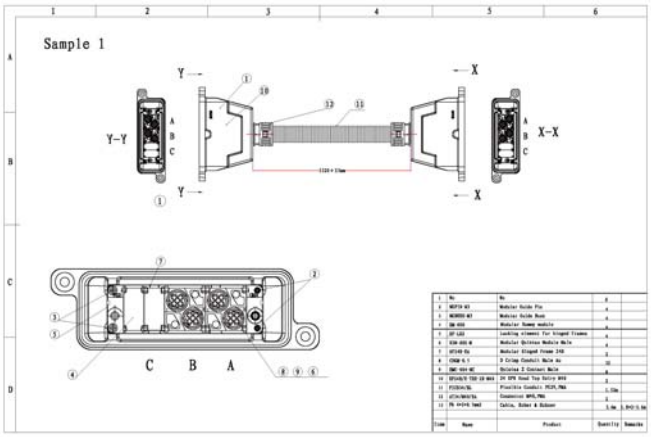






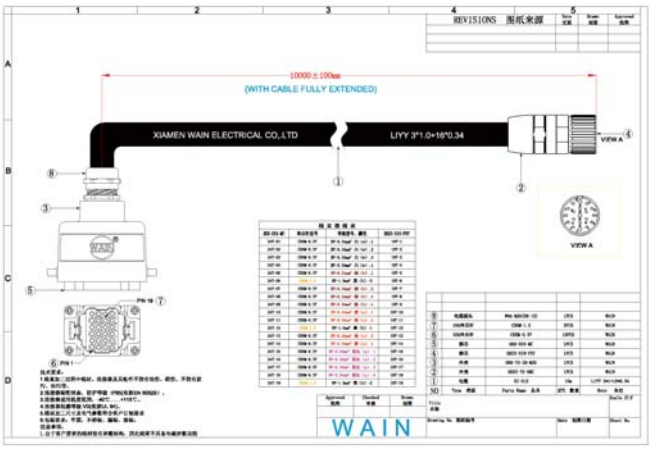
Project Cases

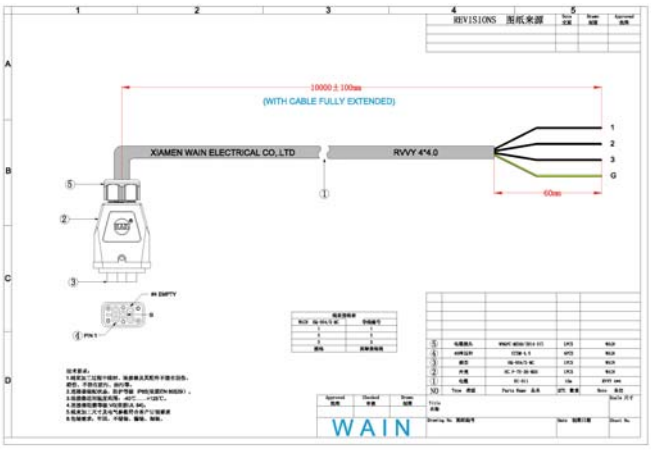
Railway jumper wire project

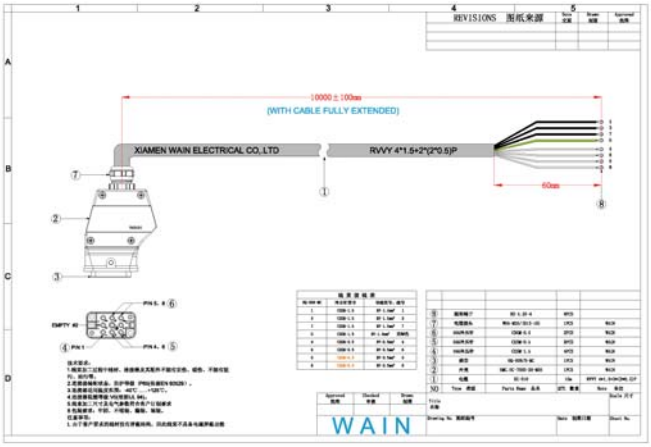


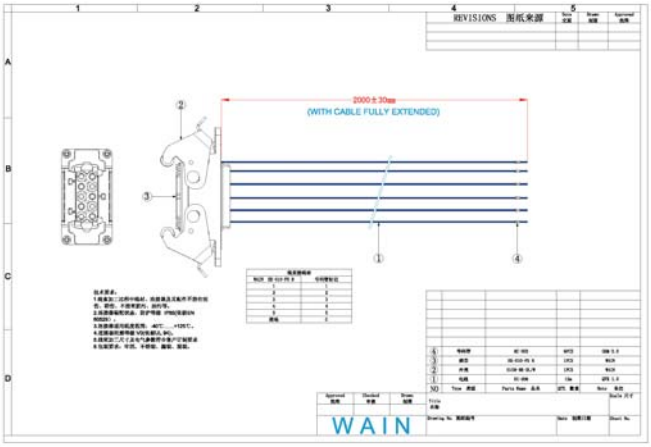
Project Cases

Automobile production line



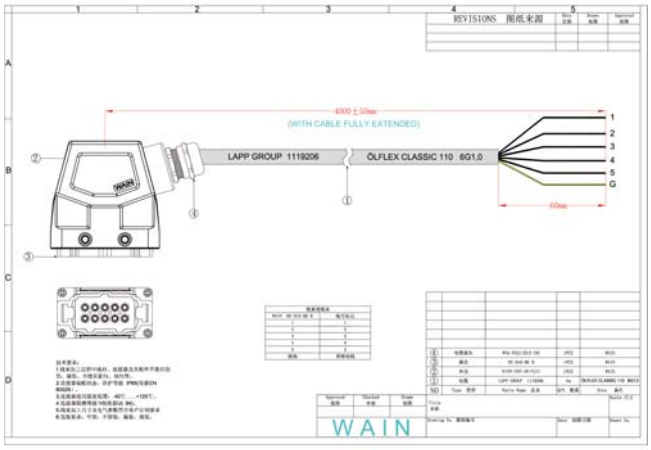


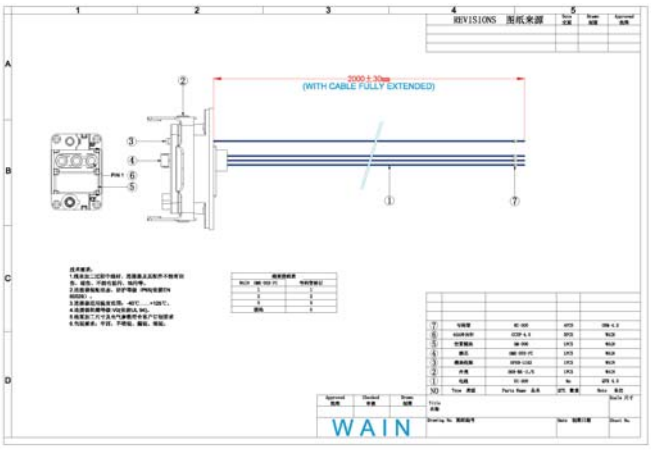




Project Cases

Automobile production line





Rectangular crimping type

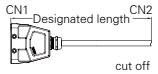
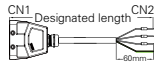
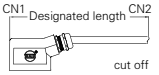
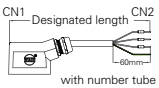
Customized service Crimping Inter–cabinet wire

Free length

Selection of connector: Firstly, select the insert; secondly, select the suitable hood; lastly, select the cable gland.

Identification



Type of connectors	Number of contacts	Diagrammatic drawing	Hoods&Housings[1)]	Type of cable	Designated unit
GCHA Rectangular • crimping HA Series GCHE Rectangular • crimping HE Series GCHVE Rectangular • crimping HVE Series GCHEE Rectangular • crimping HEE Series GCHD Rectangular • crimping HD&HDD Series GCHK Rectangular • crimping HK Series GCHM Rectangular • crimping HM Series GCHQ Rectangular • crimping HQ Series GCHC Rectangular • crimping HC Series	3 4 46 ... Select the number of contacts as required. See P00–01		MC1D male • 1 lever top–entry MC2D male • 2 lever top–entry FC1D female • 1 lever top–entry FC2D female • 2 lever top–entry MCHD male • tight top–entry	CCC CE UL VDE According to the cable designated by clients!	0.2–50m Designated unit0.1m
			MT1D male • 1 lever top–entry MT2D male • 2 lever top–entry FT1D female • 1 lever top–entry FT2D female • 2 lever top–entry MTHD female • tight top–entry		
			MC1C male • 1 lever side–entry MC2C male • 2 lever side–entry FC1C female • 1 lever side–entry FC2C female • 2 lever side–entry MCHC female • tight side–entry		
			MT1C male • 1 lever side–entry MT2C male • 2 lever side–entry FT1C female • 1 lever side–entry FT2C female • 2 lever side–entry MTHC female • tight side–entry Select right shell size and cable gland according to the core!		

1)Double–ended wiring harness: MC1D:male 1 lever top–entry, MMC1D: male • male 1 lever top–entry, MFC1D: male • female 1 lever top–entry; for multi–ended wiring harness or special products, please directly contact the wiring harness department of our company.

Rectangular screwing type

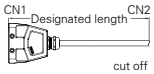
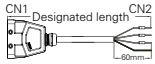
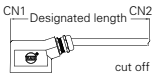
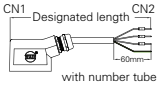
Customized service screwing Inter–cabinet wire

Free length

Selection of connector: Firstly, select the insert; secondly, select the suitable hood; lastly, select the cable gland.

Identification



Number of contacts	Number of contacts	Diagrammatic drawing	Hoods&Housings[1)]	Type of cable	Designated unit
GLHA Rectangular • screwing HA Series GLHE Rectangular • screwing HE Series GLHVE Rectangular • screwing HVE Series GLHSB Rectangular • screwing HSB Series GLHK Rectangular • screwing HK Series GLHEAV Rectangular • screwing HEAV Series GLHM Rectangular • screwing HM Series GLHQ Rectangular • screwing HQ Series GLHC Rectangular • screwing HC Series	3 4 46 … Select the number of contacts as required. See P00–01		MC1D male • 1 lever top–entry MC2D male • 2 lever top–entry FC1D female • 1 lever top–entry FC2D female • 2 lever top–entry MCHD male • tight top–entry	CCC CE UL VDE According to the cable designated by clients!	0.2–50m Designated unit0.1m
			MT1D male • 1 lever top–entry MT2D male • 2 lever top–entry FT1D female • 1 lever top–entry FT2D female • 2 lever top–entry MTHD female • tight top–entry		
			MC1C male • 1 lever side–entry MC2C male • 2 lever side–entry FC1C female • 1 lever side–entry FC2C female • 2 lever side–entry MCHC female • tight side–entry		
			MT1C male • 1 lever side–entry MT2C male • 2 lever side–entry FT1C female • 1 lever side–entry FT2C female • 2 lever side–entry MTHC female • tight side–entry Select right shell size and cable gland according to the core!		

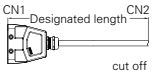
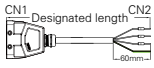
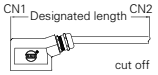
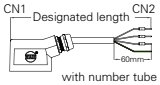
1)Double–ended wiring harness: MC1D:male 1 lever top–entry, MMC1D: male • male 1 lever top–entry, MFC1D: male • female 1 lever top–entry; for multi–ended wiring harness or special products, please directly contact the wiring harness department of our company.

Free length

Selection of connector: Firstly, select the insert; secondly, select the suitable hood; lastly, select the cable gland.

Identification



Type of connectors	Number of contacts	Diagrammatic drawing	Hoods&Housings[1)]	Type of cable	Designated unit
GTHA Rectangular • spring HA Series GTHE Rectangular • spring HE Series GTHVE Rectangular • spring HVE Series GTHVES Rectangular • spring HVES Series GTHM Rectangular • spring HM Series	3 4 46 ... Select the number of contacts as required. See P00–01		MC1D male • 1 lever top–entry MC2D male • 2 lever top–entry FC1D female • 1 lever top–entry FC2D female • 2 lever top–entry MCHD male • tight top–entry	CCC CE UL VDE According to the cable designated by clients!	0.2–50m Designated unit0.1m
			MT1D male • 1 lever top–entry MT2D male • 2 lever top–entry FT1D female • 1 lever top–entry FT2D female • 2 lever top–entry MTHD female • tight top–entry		
			MC1C male • 1 lever side–entry MC2C male • 2 lever side–entry FC1C female • 1 lever side–entry FC2C female • 2 lever side–entry MCHC female • tight side–entry		
			MT1C male • 1 lever side–entry MT2C male • 2 lever side–entry FT1C female • 1 lever side–entry FT2C female • 2 lever side–entry MTHC female • tight side–entry Select right shell size and cable gland according to the core!		

1)Double–ended wiring harness: MC1D:male 1 lever top–entry, MMC1D: male • male 1 lever top–entry, MFC1D: male • female 1 lever top–entry; for multi–ended wiring harness or special products, please directly contact the wiring harness department of our company.

Circular crimping type

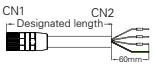
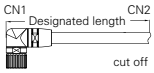
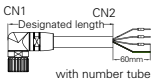
Customized service Crimping Inter-cabinet wire

Free length

Selection of connector: Firstly, select the insert; secondly, select the suitable hood; lastly, select the cable gland.

Identification



Number of contacts	Number of contacts	Diagrammatic drawing	Hoods&Housings[1)]	Type of cable	Designated unit
YCHR23 circular • crimping HR23 Series	12 17		MCD male • top–entry FCD female • top–entry	CCC CE UL VDE According to the cable designated by clients!	0.2–50m Designated unit0.1m
			MTD male • top–entry FTD female • top–entry		
			MCS male • 90℃ entry FCS female • 90℃ entry		
			MTS male • 90℃ entry FTS female • 90℃ entry Select right shell size and cable gland according to the core!		

1)Double–ended wiring harness: MC1D:male 1 lever top–entry, MMC1D: male • male 1 lever top–entry, MFC1D: male • female 1 lever top–entry; for multi–ended wiring harness or special products, please directly contact the wiring harness department of our company.

Circular spring type

Customized service screwing Inter-cabinet wire

Free length

Selection of connector: Firstly, select the insert; secondly, select the suitable hood; lastly, select the cable gland.

Identification



Type of connectors	Number of contacts	Diagrammatic drawing	Hoods&Housings[1)]	Type of cable	Designated unit
YLHR23 Circular • screwing HR23 Series YLM8 Circular • screwing M8 Series YLM12 Circular • screwing M12 Series	3 4 5 ... Select the number of contacts as required. See P00–02	CN1 CN2 Designated length cut off	MCD male • top–entry FCD female • top–entry	CCC CE UL VDE According to the cable designated by clients!	0.2–50m Designated unit0.1m
		CN1 CN2 Designated length 60mm with number tube	MTD male • top–entry FTD female • top–entry		
		CN1 CN2 Designated length cut off	MCS male • 90℃ entry FCS female • 90℃ entry		
		CN1 CN2 Designated length 60mm with number tube	MTS male • 90℃ entry FTS female • 90℃ entry Select right shell size and cable gland according to the core!		

1)Double–ended wiring harness: MC1D:male 1 lever top–entry, MMC1D: male • male 1 lever top–entry, MFC1D: male • female 1 lever top–entry; for multi–ended wiring harness or special products, please directly contact the wiring harness department of our company.

Circular welding type

Customized service welding Inter-cabinet wire

Free length

Selection of connector: Firstly, select the insert; secondly, select the suitable hood; lastly, select the cable gland.

Identification



Number of contacts	Number of contacts	Diagrammatic drawing	Hoods&Housings[1)]	Type of cable	Designated unit
YTHR23 Circular • welding HR23 Series YTM8 Circular • welding M8 Series YTM12 Circular • welding M12 Series	3 4 5 ... Select the number of contacts as required. See P00–02	CN1 Designated length CN2 cut off	MCD male • top–entry FCD female • top–entry	CCC CE UL VDE According to the cable designated by clients!	0.2–50m Designated unit0.1m
		CN1 Designated length CN2 60mm with number tube	MTD male • top–entry FTD female • top–entry		
		CN1 Designated length CN2 cut off	MCS male • 90℃ entry FCS female • 90℃ entry		
		CN1 Designated length CN2 60mm with number tube	MTS male • 90℃ entry FTS female • 90℃ entry Select right shell size and cable gland according to the core!		

1)Double–ended wiring harness: MC1D:male 1 lever top–entry, MMC1D: male • male 1 lever top–entry, MFC1D: male • female 1 lever top–entry; for multi–ended wiring harness or special products, please directly contact the wiring harness department of our company.

Optical fiber SERIES



ODC

Optical fiber connector



Technical characteristics

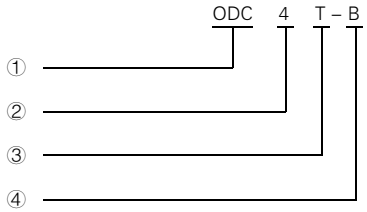
Insertion loss	≤0.70 dB(typical value 0.4dB)
Return loss	40dB
Number of optical fiber cores	4, 8, 12, 24
Mechanical working life(mating cycles)	≥500
Vibrate	10–50HZ,10g
Shock	100g
Limiting temperatures	Normal–20℃...+75℃
	Special–40℃...+85℃
Degree of protection	IP67

Technical characteristics

ODC series of outdoor optical fiber connector has solid structure and reliable connection, and is waterproof and dustproof. It is extensively used in the optical transmission and connection under severe outdoor environment like sensing and power.

1，Screw–threaded locking mechanism guarantees long–term and reliable connection.
2，Guide mechanism enables blind insertion with single hand, making the installation easy and quick.
3，Sealing design makes the connector waterproof, dustproof (IP67) and anti–corrosive.
4，Compact, easy to operate, solid and durable.
5，Applicable to single–mode or multimode optical fiber.

Naming Rule



① (ODC):Name of Series
② (4):Number of pins of optical fiber plug (4, 8, 12, 24)
③ (T): T: Plug, Z: Socket
④ (B): B–Aluminum alloy oxidized into black
N–Chemical nickel–plating of aluminum alloy
K–Passivation of stainless steel

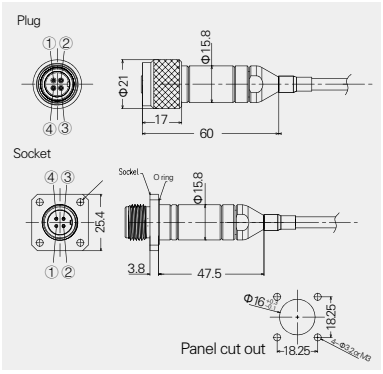
Optical fiber connector

Optical fiber connector

4 pins Optical fiber connector

Multiple kinds of optical fiber plug can be connected at the end,for example, FC, SC, ST, LC, etc. or optical plug or socket.

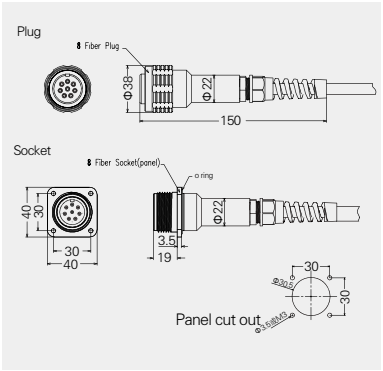
Connector	Description	Designation
Plug	Aluminum alloy oxidized into black	ODC4T–B
	Chemical nickel–plating of aluminum alloy	ODC4T–N
	Passivation of stainless steel	ODC4T–K
Socket	Aluminum alloy oxidized into black	ODC4Z–B
	Chemical nickel–plating of aluminum alloy	ODC4Z–N
	Passivation of stainless steel	ODC4Z–K



8 pins Optical fiber connector

Multiple kinds of optical fiber plug can be connected at the end,for example, FC, SC, ST, LC, etc. or optical plug or socket.

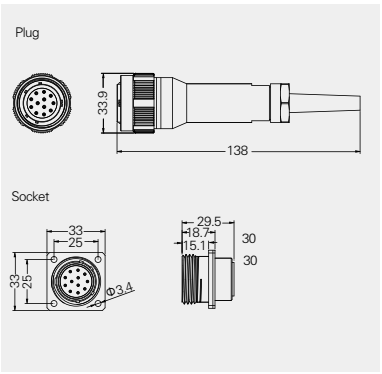
Connector	Description	Designation
Plug	Aluminum alloy oxidized into black	ODC8T–B
	Chemical nickel–plating of aluminum alloy	ODC8T–N
	Passivation of stainless steel	ODC8T–K
Socket	Aluminum alloy oxidized into black	ODC8Z–B
	Chemical nickel–plating of aluminum alloy	ODC8Z–N
	Passivation of stainless steel	ODC8Z–K



12 pins Optical fiber connector

Multiple kinds of optical fiber plug can be connected at the end,for example, FC, SC, ST, LC, etc. or optical plug or socket.

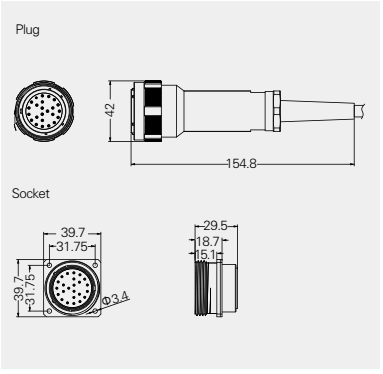
Connector	Description	Designation
Plug	Aluminum alloy oxidized into black	ODC12T–B
	Chemical nickel–plating of aluminum alloy	ODC12T–N
	Passivation of stainless steel	ODC12T–K
Socket	Aluminum alloy oxidized into black	ODC12Z–B
	Chemical nickel–plating of aluminum alloy	ODC12Z–N
	Passivation of stainless steel	ODC12Z–K



24 pins Optical fiber connector

Multiple kinds of optical fiber plug can be connected at the end,for example, FC, SC, ST, LC, etc. or optical plug or socket.

Connector	Description	Designation
Plug	Aluminum alloy oxidized into black	ODC24T–B
	Chemical nickel–plating of aluminum alloy	ODC24T–N
	Passivation of stainless steel	ODC24T–K
Socket	Aluminum alloy oxidized into black	ODC24Z–B
	Chemical nickel–plating of aluminum alloy	ODC24Z–N
	Passivation of stainless steel	ODC24Z–K

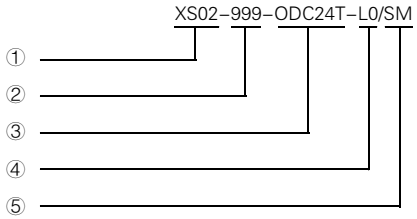


Prefabricated optical cable

Optical fiber connector is generally ordered as the component of prefabricated optical cable.
Our standard configuration is non–metal mouseproof cable (62.5/125) reinforced with glass fiber.
Other customized cables are also available.

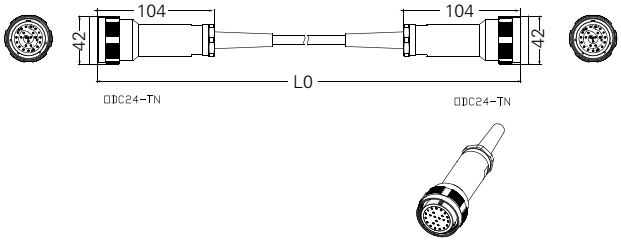


Naming Rule

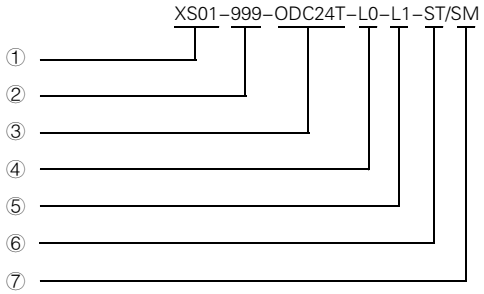


① XS02：Double–end prefabrication
② 999：Feature flow number, with 999 means no special requirement
③ ODC24TN：Model of optical fiber connector
④ L0：Length of prefabricated optical fiber
⑤ SM：Single–mode optical fiber 9/125

Drawing

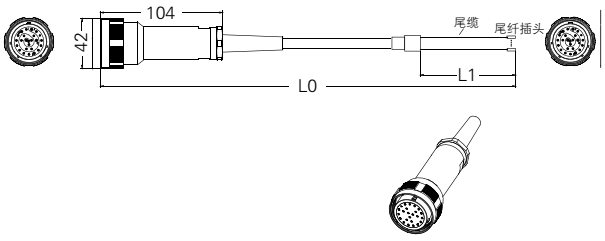


Naming Rule



① XS01：Single–end prefabrication
② 999：Feature flow number, with 999 means no special requirement
③ ODC24TN：Model of optical fiber connector
④ L0：Length of prefabricated optical fiber
⑤ L1：Length of pigtail cable
⑥ ST：means that ST flange base is configured
⑦ SM：Single–mode optical fiber 9/125

Drawing



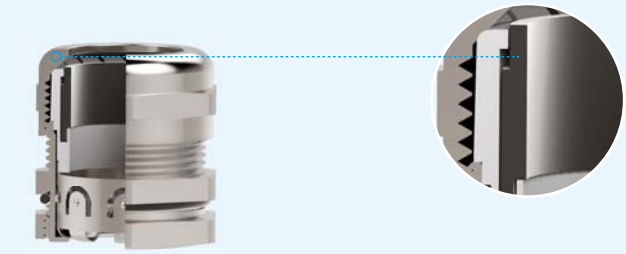


Production Recommendations: Aluminium Alloy Cable Gland



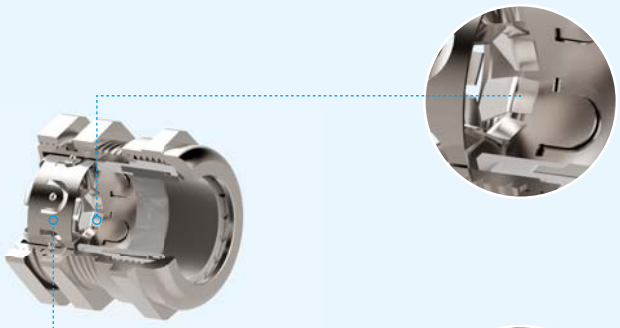
Advantages of Aluminium Alloy Cable Gland:

1. Light weight
2. Low material costs
3. Anti–oxidation and anti–corrosion



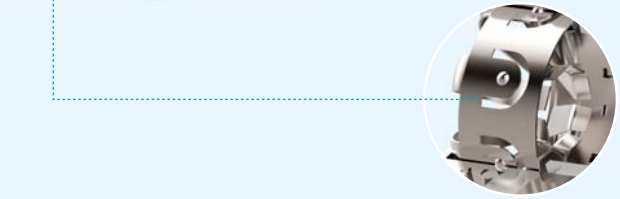
Variable sealing ring

One model of variable sealing ring could cover a wide range of cables with different diameter.



Low contact resistance

The jaw on the spring strip has several contact, larger contact area maximizes the shielded area.



Flexible wiring methods

If 360 degree contact is necessary, the shielding layer should be trimmed before being wrapped with copper foil or aluminium foil , such assembly process could guarantee reliable contact under shielding layer.

More information about aluminium alloy cable gland, please refer to P32–12.

Tools

Contact removal tools

D-sub Contact removal tool



Application	Designation	Order NO.
for 5A crimp contacts	TL08	198 001 000 0006

HD Contact removal tool



Application	Designation	Order NO.
for 10A crimp contacts and 16A male contacts (with spring clip retention)	TL00	198 001 000 0001

HD Contact removal tool

Origin：Germany

Recommend to use



Application	Designation	Order NO.
for 10A crimp contacts and 16A male contacts (with spring clip retention)	TL00G	198 001 000 0016

HEE Contact removal tool



Application	Designation	Order NO.
for 16A crimp contacts	TL01	198 001 000 0002

HEE Contact removal tool

Origin：Germany

Recommend to use



Application	Designation	Order NO.
for 16A crimp contacts	TL01G	198 001 000 0017

HEE Contact removal tool



Application	Designation	Order NO.
16A female contacts (with spring clip retention)	TL09	198 001 000 0015

Contact Insertion Tool

Contact Insertion Tool



Application	Designation	Order NO.
the auxiliary pin assembly tool of 10A/16A	TL15	198 001 000 0026

Contact removal tools

Contact removal tool



Application	Designation	Order NO.
for 10A female contacts	TL13	198 001 000 0025

Contact removal tool

Origin：Germany

Recommend to use



Application	Designation	Order NO.
for 40A crimp contacts	TL06G	198 001 000 0009

Contact removal tool



Application	Designation	Order NO.
H2MK–002 inserts	TL07	198 001 000 0011

Contact removal tool



Application	Designation	Order NO.
HMK–001 inserts	TL11	198 001 000 0018

Contact removal tool

Application	Designation	Order NO.
for locking sleeve, H2MVC–002 inserts , H2ME–002 inserts	TL10	198 001 000 0014

Contact removal tool



Application	Designation	Order NO.
for HK–004/4 inserts	TL12	198 001 000 0024

Contact removal tool



Application	Designation	Order NO.
for HMP–003–V2 Metal Pneumatic Module	TL26	198 001 000 0030

Tools

Crimping tools

5A Crimping tool



Wire gauge	Designation	Order NO.
0.09–0.82mm²	TL03	198 001 001 0002

10A/16A Crimping tool



Wire gauge	Designation	Order NO.
0.14–4mm²	TL02	198 001 001 0001
1.5–6mm²	TL02–0	198 001 001 0006

10A/16A/40A Crimping tool

Origin：Germany



Wire gauge	Designation	Order NO.
0.14–4mm²	TL02G	198 001 001 0011
1.5–6mm²	TL02–0G	198 001 001 0012
4/6/10mm²	TL02–3G	198 001 001 0013

Not suitable for contact with 16A,0.37mm²

10A/16A/40A Crimping tool with digital display

Origin：Germany



Wire gauge	Designation	Order NO.
0.14–6mm²	TL02–2G	198 001 001 0014

100A-650A manual hydraulic clamp



Description	Wire gauge	Designation	Order NO.
Output：automatic pressure release	10–240mm²	TL05	198 001 001 0005
Output：13T			
Weight：6.2kg			

100A-650A High current electro-hydraulic pliers



Description	Wire gauge	Designation	Order NO.
Pressing force 130 kN	10–240mm²	TL05–EA	198 001 001 0020

100A-650A manual hydraulic clamp

Origin：Sweden



Description	Wire gauge	Designation	Order NO.
Pressing force 130 kN	10–240mm²	TL05G	198 001 001 0019

100A-650A High current electro-hydraulic pliers



Origin：Sweden

Description	Wire gauge	Designation	Order NO.
Pressing force 130 kN	10–240mm²	TL05G–EA	198 001 001 0021

Contact removal tools

Semi-automatic crimping machine

origin：Germany



Wire gauge	Designation	Order NO.
0.14–6.0mm²	CM25–3	198 001 002 0002

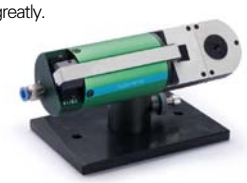
HE B spring open machine



Description	Designation	Order NO.
for all HE B spring inserts	SOM01	198 001 003 0008

5A Pneumatic cold pressing pliers

Suitable for mass pressure welding and improve the efficiency of field wiring greatly.



Wire gauge	Designation	Order NO.
0.25–0.82mm²	TL03–W7Q	198 001 001 0018

10A/16A Pneumatic cold pressing pliers

Suitable for mass pressure welding and improve the efficiency of field wiring greatly.



Wire gauge	Designation	Order NO.
0.37–4.0mm²	TL02–WA27F	198 001 001 0016

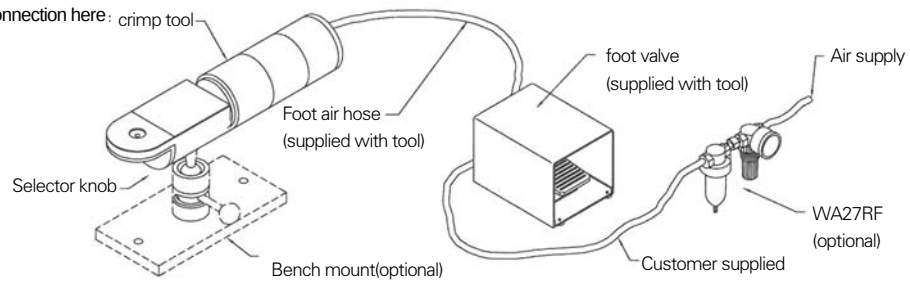
40A Pneumatic cold pressing pliers

Suitable for mass pressure welding and improve the efficiency of field wiring greatly.



Wire gauge	Designation	Order NO.
1.5–10mm²	TL02–W4Q	198 001 001 0017

Install the connection here：

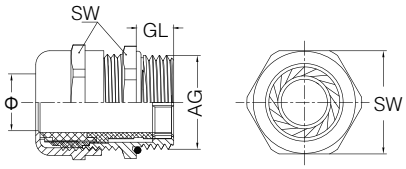


Cable glands

Metal cable gland

Material：	Nickel–plate brass
Sealing：	Nylon and NBR
Degree of protection：	IP68(with O–sealing)
Temperature range：	Stat：–40℃...+100℃
	Dyn：–20℃...+80℃





Unit：mm

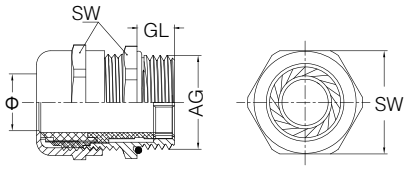
Thread side	Clamping range(Φ)	Thread diameter(AG)	Wrench size(SW)	Thread lengthGL)	Designation	Order NO.
PG Thread						
PG7	3–6.5	12.5	14	6	WNA–PG7(D3–6.5)[1]	102 107 001 1001
PG9	4–8	15.2	17	6.5	WNA–PG9(D4–8)[1]	102 107 002 1001
PG11	5–10	18.6	20	7	WNA–PG11(D4–8)	102 107 018 1504
PG11	5–10	18.6	20	7	WNA–PG11(D5–10)	102 107 003 1001
PG13.5	6–12	20.4	22	7.5	WNA–PG13.5(D6–12)	102 107 004 1001
PG16	8–14	22.5	24	7	WNA–PG16(D8–14)	102 107 005 1001
PG21	13–18	28.3	30	8	WNA–PG21(D13–18)	102 107 006 1001
PG29	18–25	37.0	40	9	WNA–PG29(D18–25)	102 107 007 1001
PG36	22–32	47.0	50	12	WNA–PG36(D22–32)	102 107 008 1001
PG42	31–38	54.0	57	12	WNA–PG42(D31–38)	102 107 009 1001
PG48	37–44	59.3	65	12	WNA–PG48(D37–44)[3]	102 107 010 1001
Metric Thread						
M12x1.5	3–6.5	12	14	6	WNA–M12(D3–6.5)[1]	102 107 011 1001
M14x1.5	3–6.5	14	14	6	WNA–M14(D3–6.5)[1]	102 107 012 1001
M16x1.5	4–8	16	17	6.5	WNA–M16(D4–8)[1]	102 107 013 1001
M16x1.5	5–10	16	20	6	WNA–M16(D5–10)[1]	102 107 013 1002
M18x1.5	5–10	18	20	7	WNA–M18(D5–10)[1]	102 107 014 1001
M20x1.5	4–8	20	22	8	WNA–M20(D4–8)	102 107 018 1503
M20x1.5	6–12	20	22	8	WNA–M20(D6–12)	102 107 015 1001
M20x1.5	8–14	20	24	8	WNA–M20(D8–14)	102 107 015 1002
M22x1.5	8–14	22	24	7.5	WNA–M22(D8–14)	102 107 016 1001
M25x1.5	9–16	25	27	7.5	WNA–M25(D9–16)	102 107 018 1002
M25x1.5	13–18	25	30	7.5	WNA–M25(D13–18)	102 107 018 1001
M32x1.5	15–22	32	35	8.5	WNA–M32(D15–22)	102 107 019 1002
M32x1.5	18–25	32	40	8.0	WNA–M32(D18–25)	102 107 019 1001
M40x1.5	18–25	40	45	12	WNA–M40(D18–25)	102 107 020 1002
M40x1.5	22–32	40	50	12	WNA–M40(D22–32)	102 107 020 1001
M50x1.5	22–32	50	57	12	WNA–M50(D22–32)	102 107 046 1002
M50x1.5	31–38	50	57	12	WNA–M50(D31–38)	102 107 046 1001
M63x1.5	37–44	63	65	12	WNA–M63(D37–44)	102 107 048 1001

1).MOQ 100 pcs. 2).MOQ 200 pcs. 3).MOQ 50 pcs. 4).MOQ 20 pcs.

Metal cable gland-extra length

Material：	Nickel–plate brass
Sealing：	Nylon and NBR
Degree of protection：	IP68(with O–sealing)
Temperature range：	Stat：–40℃...+100℃
	Dyn：–20℃...+80℃





Unit：mm

Thread side	Clamping range(Φ)	Thread diameter(AG)	Wrench size(SW)	Thread lengthGL)	Designation	Order NO.
Metric Thread						
M25x1.5	9–16	25	27	12	WNA–M25L(D9–16)[3]	102 107 018 1102
M25x1.5	13–18	25	30	12	WNA–M25L(D13–18)[3]	102 107 018 1101
M32x1.5	15–22	32	35	12	WNA–M32L(D15–22)[3]	102 107 019 1102
M32x1.5	18–25	32	40	12	WNA–M32L(D18–25)[3]	102 107 019 1101
M40x1.5	22–32	40	50	15	WNA–M40L(D22–32)[3]	102 107 020 1101

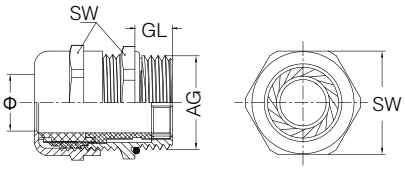
1).MOQ 100 pcs. 2).MOQ 200 pcs. 3).MOQ 50 pcs. 4).MOQ 20 pcs.

Cable glands

Plastic cable gland

Material：	Nylon
Sealing：	NBR
Degree of protection：	IP68(with O–sealing)
Temperature range：	Stat： –40℃...+100℃
	Dyn： –20℃...+80℃





Unit： mm

Thread side	Clamping range(Φ)	Thread diameter(AG)	Wrench size(SW)	Thread length(GL)	Designation (Grey)	Order NO.	Designation (Black)	Order NO.
PG Thread								
PG7	3–6.5	12.5	15	8.5	WNAP–PG7G(D3–6.5)[1]	102 108 001 2001	WNAP–PG7B(D3–6.5)[1]	102 108 001 2002
PG9	4–8	15.2	19	8.0	WNAP–PG9G(D4–8)[1]	102 108 002 2001	WNAP–PG9B(D4–8)[1]	102 108 002 2002
PG11	5–10	18.6	22	8.0	WNAP–PG11G(D5–10)	102 108 003 2001	WNAP–PG11B(D5–10)	102 108 003 2002
PG13.5	6–12	20.4	24	10	WNAP–PG13.5G(D6–12)	102 108 004 2001	WNAP–PG13.5B(D6–12)	102 108 004 2002
PG16	8–14	22.5	27	10	WNAP–PG16G(D8–14)	102 108 005 2001	WNAP–PG16B(D8–14)	102 108 005 2002
PG21	13–18	28.3	33	11	WNAP–PG21G(D13–18)	102 108 006 2001	WNAP–PG21B(D13–18)	102 108 006 2002
PG29	18–25	37.0	42	11	WNAP–PG29G(D18–25)	102 108 007 2001	WNAP–PG29B(D18–25)	102 108 007 2002
PG36	22–32	47.0	52	13	WNAP–PG36G(D22–32)	102 108 008 2001	WNAP–PG36B(D22–32)	102 108 008 2002
PG42	32–38	54.0	60	15	WNAP–PG42G(D32–38)	102 108 009 2001	WNAP–PG42B(D32–38)	102 108 009 2002
PG48	37–44	59.3	65	14.0	WNAP–PG48G(D37–44)[1]	102 108 010 2001	WNAP–PG48B(D37–44)[1]	102 108 010 2002
Metric Thread								
M12x1.5	3–6.5	12	15	8	WNAP–M12G(D3–6.5)[1]	102 108 011 2001	WNAP–M12B(D3–6.5)[1]	102 108 011 2002
M16x1.5	4–8	16	19	8	WNAP–M16G(D4–8)[1]	102 108 013 2001	WNAP–M16B(D4–8)[1]	102 108 013 2002
M20x1.5	5–10	20	24	9	WNAP–M20G(D5–10)	102 108 015 2003	WNAP–M20B(D5–10)	102 108 015 2004
M20x1.5	6–12	20	24	9	WNAP–M20G(D6–12)	102 108 015 2001	WNAP–M20B(D6–12)	102 108 015 2002
M22x1.5	8–14	22	27	10	WNAP–M22G(D8–14)[1]	102 108 016 2001	WNAP–M22B(D8–14)[1]	102 108 016 2002
M25x1.5	13–18	25	33	11	WNAP–M25G(D13–18)	102 108 018 2001	WNAP–M25B(D13–18)	102 108 018 2002
M32x1.5	18–25	32	42	11	WNAP–M32G(D18–25)	102 108 019 2001	WNAP–M32B(D18–25)	102 108 019 2002
M40x1.5	22–32	40	51	13	WNAP–M40G(D22–32)	102 108 020 2001	WNAP–M40B(D22–32)	102 108 020 2002
M50x1.5	31–38	50	60	13	WNAP–M50G(D31–38)	102 108 046 2001	WNAP–M50B(D31–38)	102 108 046 2002
M63x1.5	37–44	63	65	14	WNAP–M63G(D37–44)	102 108 048 2001	WNAP–M63B(D37–44)[1]	102 108 048 2002

1).MOQ 100 pcs. 2).MOQ 200 pcs. 3).MOQ 50 pcs. 4).MOQ 20 pcs.

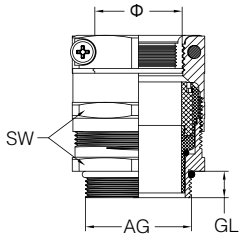
Cable glands

Gland with external strain relief via calmping jaws

Material：Nickel–plate brass,Nylon

Degree of protection：IP68(with O–sealing)





Unit：mm

Thread side	Clamping range(Φ)	Thread diameter(AG)	Wrench size(SW)	Thread length(GL)	Designation	Order NO.
PG Thread						
PG9	4–8	15.2	17	7	WNKS–PG9(4–8)[3]	102 113 002 1001
PG11	5–10	18.6	22	7	WNKS–PG11(5–10)	102 113 003 1001
PG13.5	6–12	20.4	22	8	WNKS–PG13.5(6–12)	102 113 004 1001
PG16	10–14	22.5	24	7.5	WNKS–PG16(10–14)	102 113 005 1001
PG21	13–18	28.3	30	8	WNKS–PG21(13–18)	102 113 006 1001
PG29	18–25	37.0	40	9	WNKS–PG29(18–25)	102 113 007 1001
PG36	22–32	47.0	50	12	WNKS–PG36(22–32)	102 113 008 1001
PG42	30–38	54.0	57	12	WNKS–PG42(30–38)	102 113 009 1001
Metric Thread						
M16x1.5	4–8	16	18	6.5	WNKS–M16(4–8)[3]	102 113 013 1001
M16x1.5	5–10	16	22	6	WNKS–M16(5–10)[3]	102 113 013 1002
M20x1.5	6–12	20	22	7.5	WNKS–M20(6–12)	102 113 015 1001
M25x1.5	10–16	25	27	8	WNKS–M25(10–16)	102 113 018 1002
M25x1.5	13–18	25	30	7.5	WNKS–M25(13–18)	102 113 018 1001
M32x1.5	16–22	32	35	8.5	WNKS–M32(16–22)	102 113 019 1002
M32x1.5	18–25	32	40	8	WNKS–M32(18–25)	102 113 019 1001
M40x1.5	22–30	40	45	12	WNKS–M40(22–30)	102 113 020 1002
M40x1.5	22–32	40	50	12	WNKS–M40(22–32)	102 113 020 1001
M50x1.5	30–38	50	57	12	WNKS–M50(30–38)	102 113 046 1001

*preferable product

1).MOQ 100 pcs. 2).MOQ 200 pcs. 3).MOQ 50 pcs. 4).MOQ 20 pcs.

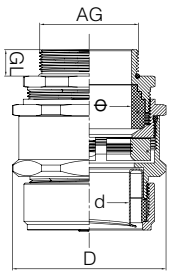
Cable glands

Gland with external strain relief via calmping jaws

Material：Nickel–plate brass,Nylon

Degree of protection：IP68(with O–sealing)





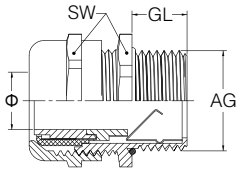
Unit：mm

Thread side	Clamping range(Φ)	Fits to tubing size(d)	Thread length(GL)	External diameter(D)	Designation	Order NO.
Metric Thread						
M25x1.5	13–18	25	8	46	WNKD–M25/D25(13–18)	102 123 018 1001
M40x1.5	22–32	38	10	70	WNKD–M40/D38(22–32)	102 123 020 1001
M45x1.5	30–38	38	10	70	WNKD–M45/D38(30–38)	102 123 041 1001

Aluminum alloy EMC cable gland

Material：Aluminum alloy
Sealing：Nylon 66 and NBR
Degree of protection：IP67 (with O–sealing)
Temperature range：– 40 C... + 100 C





Unit：mm

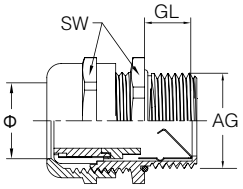
Thread side	Clamping range(Φ)	Thread dimension(AG)	Wrench size (SW)	Thread length(GL)	Designation	Order NO.
Metric Thread						
M20x1.5	7–12	20	22	7	WNACAL–M20(D7–12)	102 117 015 4501
M25x1.5	7–14	25	27	9.5	WNACAL–M25(D7–14)	102 117 018 4001
M32x1.5	14–19	32	36	9.5	WNACAL–M32(D14–19)	102 117 019 4501
M32x1.5	15–22	32	36	9.5	WNACAL–M32(D15–22)	102 117 019 4502

Cable glands

EMC Cable gland

Material： Nickel–plate brass
Sealing： Nylon and NBR
Degree of protection： IP68(with O–sealing)
Temperature range： –40℃...+100℃,short–term120℃





Unit： mm

Thread side	Clamping range(Φ)	Thread diameter(AG)	Wrench size(SW)	Thread length(GL)	Designation	Order NO.
PG Thread						
PG9	4–8	15.2	18	6	WNAC–PG9(D4–8)[3]	102 117 002 1001
PG11	5–10	18.6	20	6	WNAC–PG11(D5–10)	102 117 003 1001
PG13.5	6–12	20.4	24	7	WNAC–PG13.5(D6–12)	102 117 004 1001
PG16	8–14	22.5	24	7	WNAC–PG16(D8–14)	102 117 005 1001
PG21	13–18	28.3	30	8	WNAC–PG21(D13–18)	102 117 006 1001
PG29	18–25	37.0	40	8	WNAC–PG29(D18–25)	102 117 007 1001
PG36	22–32	47.0	50	9	WNAC–PG36(D22–32)	102 117 008 1001
PG42	30–38	54.0	57	9	WNAC–PG42(D30–38)	102 117 009 1001
Metric Thread						
M12x1.5	3–6.5	12	14	5	WNAC–M12(D3–6.5)[3]	102 117 011 1001
M16x1.5	4–8	16	20	6	WNAC–M16(D4–8)[3]	102 117 013 1001
M18x1.5	5–10	18	20	6	WNAC–M18(D5–10)[3]	102 117 014 1001
M20x1.5	6–12	20	24	7	WNAC–M20(D6–12)	102 117 015 1001
M24x1.5	8–14	24	27	7	WNAC–M24(D8–14)[3]	102 117 017 1001
M25x1.5	10–16	25	27	12	WNAC–M25(D10–16)	102 117 018 1002
M25x1.5	13–18	25	30	13	WNAC–M25(D13–18)	102 117 018 1001
M30x1.5	13–18	30	35	8	WNAC–M30(D13–18)[3]	102 117 038 1001
M32x1.5	15–22	32	40	13	WNAC–M32(D15–22)	102 117 019 1002
M32x1.5	18–25	32	40	13	WNAC–M32(D18–25)	102 117 019 1001
M36x2	18–25	36	40	8	WNAC–M36(D18–25)[3]	102 117 040 1001
M40x1.5	21–30	40	45	9	WNAC–M40(D21–30)	102 117 020 1002
M40x1.5	22–32	40	50	9	WNAC–M40(D22–32)	102 117 020 1001
M48x2	22–32	48	50	9	WNAC–M48(D22–32)[3]	102 117 045 1001
M50x1.5	30–38	50	57	9	WNAC–M50(D30–38)[3]	102 117 046 1001
M56x2	30–38	56	57	9	WNAC–M56(D30–38)[3]	102 117 047 1001
M63x1.5	37–44	63	65	10	WNAC–M63(D37–44)	102 117 048 1001

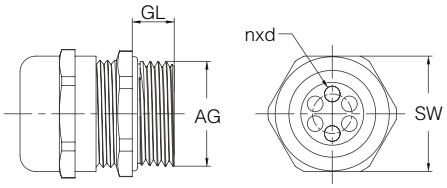
1).MOQ 100 pcs. 2).MOQ 200 pcs. 3).MOQ 50 pcs. 4).MOQ 20 pcs.

Cable glands

Metal cable gland with multi-core

Material： Nickel–plate brass
Sealing： Nylon and NBR
Degree of protection： IP65(with O–sealing)
Temperature range： –40℃...+100℃,short–term120℃





Unit： mm

Thread side	Clamping range(nxd)	Thread diameter(AG)	Wrench size(SW)	Thread length(GL)	Designation	Order NO.
PG Thread						
PG9	2x3	15.2	17	6.7	WNAM–PG9/(2*3)[2)]	102 109 002 1001
PG21	4x6	28.3	30	8	WNAM–PG21/(4*6)	102 109 006 1005
PG21	3x7	28.3	30	8	WNAM–PG21/(3*7)[2)]	102 109 006 1004
PG21	2x6	28.3	30	8	WNAM–PG21/(2*6)	102 109 006 1001
PG21	2x7	28.3	30	8	WNAM–PG21/(2*7)[2)]	102 109 006 1002
PG21	2x8	28.3	30	8	WNAM–PG21/(2*8)	102 109 006 1003
PG29	4x9	37	40	9	WNAM–PG29/(4*9)	102 109 007 1001
PG36	5x9	47	50	12	WNAM–PG36/(5*9)	102 109 008 1001
Metric Thread						
M16x1.5	2x3	16	17	6.5	WNAM–M16/(2*3)[2)]	102 109 013 1001
M20x1.5	6x3	20	22	8	WNAM–M20/(6*3)	102 109 015 1002
M20x1.5	2x5	20	22	8	WNAM–M20/(2*5)	102 109 015 1001
M25x1.5	2x7	25	30	7.5	WNAM–M25/(2*7)	102 109 018 1001
M25x1.5	4x6	25	30	7.5	WNAM–M25/(4*6)	102 109 018 1004
M25x1.5	3x7	25	30	7.5	WNAM–M25/(3*7)[2)]	102 109 018 1003
M25x1.5	2x8	25	30	7.5	WNAM–M25/(2*8)	102 109 018 1002
M32x1.5	4x9	32	40	8	WNAM–M32/(4*9)	102 109 019 1002
M40x1.5	5x9	40	50	12	WNAM–M40/(5*9)	102 109 020 1002
M40x1.5	2x15	40	50	12	WNAM–M40/(2*15)	102 109 020 1001

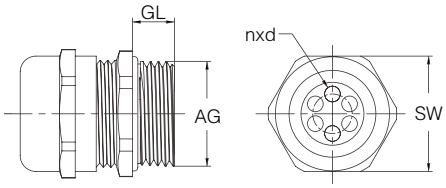
1).MOQ 100 pcs. 2).MOQ 200 pcs. 3).MOQ 50 pcs. 4).MOQ 20 pcs.

Cable glands

Metal cable gland with multi-core - extra length

Material： Nickel–plate brass
Sealing： Nylon and NBR
Degree of protection： IP65(with O–sealing)
Temperature range： –40℃...+100℃,short–term120℃





Unit： mm

Thread side	Clamping range(nxd)	Thread diameter(AG)	Wrench size(SW)	Thread length(GL)	Designation	Order NO.
Metric Thread						
M25x1.5	4x6	25	30	12	WNAM–M25L/(4*6)[2)]	102 109 018 1101
M32x1.5	4x9	32	40	12	WNAM–M32L/(4*9)[2)]	102 109 019 1102
M40x1.5	5x9	40	50	15	WNAM–M40L/(5*9)[2)]	102 109 020 1102
M40x1.5	2x15	40	50	15	WNAM–M40L/(2*15)[2)]	102 109 020 1101

1).MOQ 100 pcs. 2).MOQ 200 pcs. 3).MOQ 50 pcs. 4).MOQ 20 pcs.

Cable glands

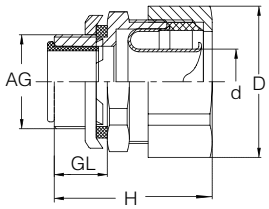
Outer thread tube connector

Material：Zinc alloy,Zinc plated

Specialty：one end is connected to the flexible tube, the other end with thread to the switch chest or the device. The structure is compact and the surface has anti–corrosion function.

Applications：Electromotor, Cable bridge trame, Electric engineering, Electric control etc.





Unit：mm

Thread side	Fits to tubing size(d)	Thread length(GL)	External diameter(D)	Height(H)	Designation	Order NO.
PG Thread						
PG9	10	9	23.3	25	WNC–PG9/D10[4]	102 114 002 5001
PG11	12	10	28.5	25	WNC–PG11/D12	102 114 003 5001
PG13.5	15	11.5	31.8	33	WNC–PG13.5/D15	102 114 004 5001
PG16	15	12	31.8	34	WNC–PG16/D15	102 114 005 5001
PG21	20	13.5	37.5	37	WNC–PG21/D20	102 114 006 5001
PG29	25	15.5	45.8	41	WNC–PG29/D25	102 114 007 5001
PG29	32	14.5	55	44	WNC–PG29/D32	102 114 007 5003
PG36	38	16	61.2	45	WNC–PG36/D38	102 114 008 5001
PG42	38	16	61.2	47	WNC–PG42/D38	102 114 009 5001
PG48	51	16	74	52	WNC–PG48/D51	102 114 010 5001
Metric Thread						
M16x1.5	8	8	24	28	WNC–M16/D8[4]	102 114 013 5001
M16x1.5	10	8	25.5	30	WNC–M16/D10[4]	102 114 013 5003
M20x1.5	12	10	27.5	32	WNC–M20/D12	102 114 015 5001
M24x1.5	15	11.5	32	34	WNC–M24/D15[4]	102 114 017 5001
M25x1.5	20	12	37.5	37	WNC–M25/D20	102 114 018 5001
M30x2.0	20	13	38	37	WNC–M30/D20[4]	102 114 038 5001
M32x1.5	20	12.5	37.5	37	WNC–M32/D20	102 114 019 5005
M32x1.5	25	15	46	41	WNC–M32/D25	102 114 019 5001
M36x2.0	25	13	45	44	WNC–M36/D25[4]	102 114 040 5001
M40x1.5	32	15	55	47	WNC–M40/D3	102 114 020 5001

1).MOQ 100 pcs. 2).MOQ 200 pcs. 3).MOQ 50 pcs. 4).MOQ 20 pcs.

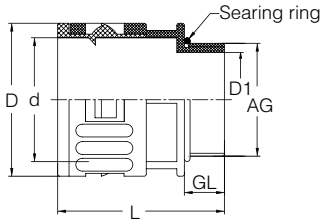
Cable glands

Quick tube connector

Material：Nylon 6

Temperature range：−40℃...+120℃





Unit：mm

Thread side	Fits to tubing size(d)	Thread length(GL)	Bore(D1)	External diameter(D)	Total length(L)	Designation(Black)	Order NO.
PG Thread							
PG7	AD10.0	9.5	7.5	17.0	34.5	WNCP−PG7B/AD10.0[2)]	102 115 001 2002
PG9	AD13.0	9.5	11.5	20.0	34.5	WNCP−PG9B/AD13.0[2)]	102 115 002 2002
PG11	AD15.8	9.5	14.0	23.0	36.0	WNCP−PG11B/AD15.8	102 115 003 2002
PG13.5	AD18.5	11.0	16.0	26.0	39.0	WNCP−PG13.5B/AD18.5	102 115 004 2002
PG16	AD21.2	13.0	18.0	29.5	44.0	WNCP−PG16B/AD21.2	102 115 005 2002
PG21	AD28.5	13.0	23.5	37.0	47.0	WNCP−PG21B/AD28.5	102 115 006 2002
PG29	AD34.5	11.5	30.5	43.5	47.0	WNCP−PG29B/AD34.5	102 115 007 2002
PG36	AD42.5	13.5	40.0	51.0	52.0	WNCP−PG36B/AD42.5	102 115 008 2002
Metric Thread							
M12x1.5	AD10.0	10.0	8.0	17.0	34.5	WNCP−M12B/AD10.0[2)]	102 115 011 2002
M16x1.5	AD13.0	9.5	11.5	20.0	34.5	WNCP−M16B/AD13.0[2)]	102 115 013 2002
M18x1.5	AD15.8	9.5	14.0	23.0	36.0	WNCP−M18B/AD15.8[2)]	102 115 014 2002
M20x1.5	AD18.5	11.0	16.0	26.0	39.0	WNCP−M20B/AD18.5	102 115 015 2002
M20x1.5	AD21.2	13.0	15.0	29.5	44.0	WNCP−M20B/AD21.2	102 115 015 2004
M25x1.5	AD21.2	13.0	18.0	29.5	44.5	WNCP−M25B/AD21.2	102 115 018 2002
M25x1.5	AD28.5	13.0	20.5	37.0	47.0	WNCP−M25B/AD28.5	102 115 018 2004
M32x1.5	AD28.5	13.0	24.0	37.0	47.0	WNCP−M32B/AD28.5	102 115 019 2002
M40x1.5	AD34.5	11.0	30.0	43.5	48.0	WNCP−M40B/AD34.5	102 115 020 2002
M40x1.5	AD42.5	13.5	33.5	51.0	52.0	WNCP−M40B/AD42.5	102 115 020 2004
M50x1.5	AD54.5	13.5	42.5	63.5	53.5	WNCP−M50B/AD54.5	102 115 046 2004
M63x1.5	AD54.5	14.0	55.0	63.5	53.5	WNCP−M63B/AD54.5	102 115 048 2002

1).MOQ 100 pcs. 2).MOQ 200 pcs. 3).MOQ 50 pcs. 4).MOQ 20 pcs.

Cable glands

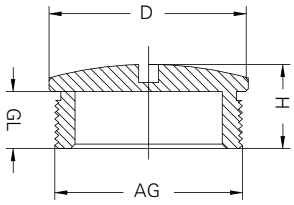
Nylon plug

Material： Nylon 6

Temperature range： −40℃...+120℃

Degree of protection： IP68(with O−sealing)





Unit： mm

Thread side	Thread length(GL)	Height(H)	Thread diameter(AG)	External diameter(D)	Designation(Grey)	Order NO.
PG Thread						
PG7	6.0	10.0	12.5	15.5	WNPP−PG7G/R[1)]	102 102 001 2101
PG9	6.0	10.0	15.2	18.5	WNPP−PG9G/R[1)]	102 102 002 2101
PG11	8.0	11.5	18.6	22.0	WNPP−PG11G/R[1)]	102 102 003 2101
PG13.5	8.0	11.5	20.4	24.0	WNPP−PG13.5G/R	102 102 004 2101
PG16	8.0	12.0	22.5	27.0	WNPP−PG16G/R	102 102 005 2101
PG21	7.5	12.0	28.3	33.0	WNPP−PG21G/R	102 102 006 2101
PG29	8.0	12.0	37.0	43.0	WNPP−PG29G/R	102 102 007 2101
PG36	10.5	14.0	47.0	55.0	WNPP−PG36G/R	102 102 008 2101
PG42	11.0	15.5	54.0	62.0	WNPP−PG42G/R	102 102 009 2101
PG48	13.0	17.0	59.3	68.5	WNPP−PG48G/R	102 102 010 2101
Metric Thread						
M12x1.5	6.0	10.0	12.0	15.0	WNPP−M12G/R[1)]	102 102 011 2101
M16x1.5	5.5	10.0	16.0	18.5	WNPP−M16G/R[1)]	102 102 013 2101
M20x1.5	8.0	11.5	20.0	25.0	WNPP−M20G/R	102 102 015 2101
M25x1.5	7.5	12.5	25.0	29.5	WNPP−M25G/R	102 102 018 2101
M32x1.5	9.0	13.5	32.0	39.0	WNPP−M32G/R	102 102 019 2101
M40x1.5	11.0	15.0	40.0	48.0	WNPP−M40G/R	102 102 020 2101
M50x1.5	12.0	18.0	50.0	61.5	WNPP−M50G/R	102 102 046 2101
M63x1.5	12.5	18.0	63.0	70.5	WNPP−M63G/R	102 102 048 2101

1).MOQ 100 pcs. 2).MOQ 200 pcs. 3).MOQ 50 pcs. 4).MOQ 20 pcs.

Cable glands

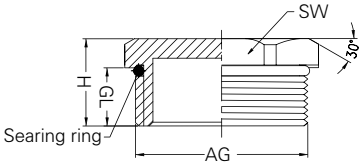
Metal plug

Material：Nickel–plate brass

Temperature range：–40℃...+120℃

Degree of protection：IP68(with O–sealing)





Unit：mm

Thread side	Thread length(GL)	Height(H)	Thread dimension(AG)	Wrench size(SW)	Designation	Order NO.
PG Thread						
PG7	5	8	12.5	14	WNP–PG7[1)]	102 101 001 1001
PG9	6	9	15.2	18	WNP–PG9[1)]	102 101 002 1001
PG11	6	10	18.6	20	WNP–PG11	102 101 003 1001
PG13.5	7	10	20.4	22	WNP–PG13.5	102 101 004 1001
PG16	7	10	22.5	24	WNP–PG16	102 101 005 1001
PG21	7	11	28.3	30	WNP–PG21	102 101 006 1001
PG29	8	13	37.0	40	WNP–PG29	102 101 007 1001
PG36	8	13	47.0	50	WNP–PG36	102 101 008 1001
PG42	9	15	54.0	55	WNP–PG42	102 101 009 1001
PG48	10	17	59.3	65	WNP–PG48	102 101 010 1001
Metric Thread						
M12x1.5	5	8	12	14	WNP–M12[1)]	102 101 011 1001
M16x1.5	6	9	16	18	WNP–M16[1)]	102 101 013 1001
M18x1.5	6	10	18	20	WNP–M18[1)]	102 101 014 1001
M20x1.5	6	9.5	20	22	WNP–M20	102 101 015 1001
M22x1.5	7	10	22	24	WNP–M22[1)]	102 101 016 1001
M24x1.5	7	11	24	27	WNP–M24[1)]	102 101 017 1001
M25x1.5	7	11	25	27	WNP–M25	102 101 018 1001
M32x1.5	7	11	32	35	WNP–M32	102 101 019 1001
M36x1.5	8	12	36	40	WNP–M36	102 101 040 1001
M40x1.5	8	13	40	45	WNP–M40	102 101 020 1001
M48x1.5	9	15	48	50	WNP–M48[3)]	102 101 045 1001
M50x1.5	9	13	50	55	WNP–M50	102 101 046 1001
M63x1.5	10	17	63	70	WNP–M63	102 101 048 1001

1).MOQ 100 pcs. 2).MOQ 200 pcs. 3).MOQ 50 pcs. 4).MOQ 20 pcs.

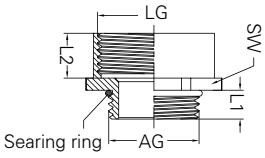
Metal enlargement

Material： Nickel–plate brass

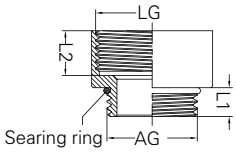
Shape： Round, Hexagonal

Applications： Apply to the situation of the diameter need to be enlarged





Hexagonal metal enlargement



Round metal enlargement

Unit： mm

Outside thread (AG)	Inside thread(LG)	Outside thread length(L1)	Inside thread length(L2)	Wrench size (SW)	Designation (Hexagonal)	Order NO.	Designation (Round)	Order NO.
PG Thread		Round/ Hexagonal	Round/ Hexagonal	Hexagonal				
PG7	PG9	5.0/5.0	8.0/10.0	17	WNSC–PG7PG9[2)]	102 103 001 1002	WNSC–PG7PG9R[2)]	102 103 001 1102
PG9	PG11	6.0/6.0	10.0/12.0	20	WNSC–PG9PG11[2)]	102 103 002 1002	WNSC–PG9PG11R[2)]	102 103 002 1102
PG11	PG13.5	6.0/6.0	10.0/12.0	22	WNSC–PG11PG13.5[2)]	102 103 003 1002	WNSC–PG11PG13.5R[2)]	102 103 003 1102
PG13.5	PG16	6.5/6.5	11.0/13.0	24	WNSC–PG13.5PG16	102 103 004 1002	WNSC–PG13.5PG16R	102 103 004 1102
PG16	PG21	6.5/6.5	12.0/14.0	30	WNSC–PG16PG21	102 103 005 1002	WNSC–PG16PG21R	102 103 005 1102
PG21	PG29	8.0/7.0	13.5/15.0	40	WNSC–PG21PG29	102 103 006 1002	WNSC–PG21PG29R	102 103 006 1102
PG29	PG36	8.0/8.0	15.5/17.0	50	WNSC–PG29PG36	102 103 007 1002	WNSC–PG29PG36R	102 103 007 1102
PG36	PG42	9.0/9.0	14.5/16.0	57	WNSC–PG36PG42	102 103 008 1002	WNSC–PG36PG42R	102 103 008 1102
PG42	PG48	10.0/10.0	14.5/16.0	65	WNSC–PG42PG48	102 103 009 1002	WNSC–PG42PG48R	102 103 009 1102
Metric Thread								
M12x1.5	M16x1.5	5.0/5.0	8.0/10.0	18	WNSC–M12M16[2)]	102 103 011 1002	WNSC–M12M16R[2)]	102 103 011 1102
M16x1.5	M20x1.5	6.0/6.0	10.0/12.0	22	WNSC–M16M20[2)]	102 103 013 1002	WNSC–M16M20R[2)]	102 103 013 1102
M20x1.5	M25x1.5	8.0/6.5	13.5/11.0	27	WNSC–M20M25	102 103 015 1002	WNSC–M20M25R	102 103 015 1102
M25x1.5	M32x1.5	7.5/6.5	13.5/12.0	35	WNSC–M25M32	102 103 018 1002	WNSC–M25M32R	102 103 018 1102
M32x1.5	M40x1.5	10.0/7.0	13.5/15.0	45	WNSC–M32M40	102 103 019 1002	WNSC–M32M40R	102 103 019 1102
M40x1.5	M50x1.5	10.0/9.0	14.5/18.0	55	WNSC–M40M50	102 103 020 1002	WNSC–M40M50R	102 103 020 1102
M50x1.5	M63x1.5	9.0/9.0	14.5/16.0	65	WNSC–M50M63[2)]	102 103 046 1002	WNSC–M50M63R[2)]	102 103 046 1102

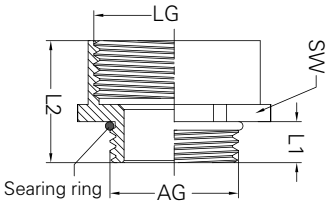
1).MOQ 100 pcs. 2).MOQ 200 pcs. 3).MOQ 50 pcs. 4).MOQ 20 pcs.

Cable glands

Polyamide enlargement

Material：Polyamide
Color：Grey
Temperature range：−40℃...+100℃





Unit：mm

Outside thread (AG)	Inside thread(LG)	Thread length(L1)	Total length(L2)	Wrench size (SW)	Designation	Order NO.
PG Thread						
PG7	PG9	8	20	19	WNSCP−PG7PG9[2)]	102 103 001 2002
PG9	PG11	10	24	22	WNSCP−PG9PG11[2)]	102 103 002 2002
PG11	PG13.5	8	23	24	WNSCP−PG11PG13.5[2)]	102 103 003 2002
PG13.5	PG16	8	25	27	WNSCP−PG13.5PG16	102 103 004 2002
PG16	PG21	10	27	30	WNSCP−PG16PG21	102 103 005 2002
PG21	PG29	11	32	42	WNSCP−PG21PG29	102 103 006 2002
PG29	PG36	11	35	52	WNSCP−PG29PG36	102 103 007 2002
PG36	PG42	13	42	60	WNSCP−PG36PG42	102 103 008 2002
PG42	PG48	15	65	65	WNSCP−PG42PG48	102 103 009 2002
Metric Thread						
M12x1.5	M16x1.5	8	22	20	WNSCP−M12M16[2)]	102 103 011 2002
M16x1.5	M20x1.5	10	27	27	WNSCP−M16M20[2)]	102 103 013 2002
M20x1.5	M25x1.5	8	25	30	WNSCP−M20M25	102 103 015 2002
M25x1.5	M32x1.5	11	30	36	WNSCP−M25M32	102 103 018 2002
M32x1.5	M40x1.5	15	34	45	WNSCP−M32M40	102 103 019 2002
M40x1.5	M50x1.5	13	37	55	WNSCP−M40M50	102 103 020 2002

1).MOQ 100 pcs. 2).MOQ 200 pcs. 3).MOQ 50 pcs. 4).MOQ 20 pcs.

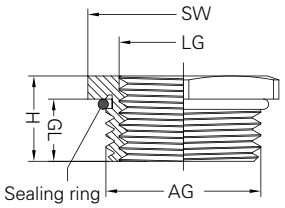
Metal reducer

Material：Nickel–plate brass

Shape：Round, Hexagonal

Applications：Apply to the situation of the diameter need to be reduced





Unit：mm

Outside thread(AG)	Inside thread(LG)	Thread length(GL)	Total length(H)	Wrench size(SW)	Designation(Hexagonal)	Order NO.
PG Thread						
PG9	PG7	6.0	9	17	WNSC–PG9PG7[2)]	102 104 002 1001
PG11	PG9	7.0	11	20	WNSC–PG11PG9[2)]	102 104 003 1001
PG13.5	PG11	7.0	10	22	WNSC–PG13.5PG11[2)]	102 104 004 1001
PG16	PG13.5	7.0	11	24	WNSC–PG16PG13.5	102 104 005 1001
PG21	PG16	7.0	11	30	WNSC–PG21PG16	102 104 006 1001
PG29	PG21	8.0	13	40	WNSC–PG29PG21	102 104 007 1001
PG36	PG29	9.0	13	50	WNSC–PG36PG29	102 104 008 1001
PG42	PG36	9.0	15	57	WNSC–PG42PG36[2)]	102 104 009 1001
PG48	PG42	10.0	15	65	WNSC–PG48PG42[2)]	102 104 010 1001
Metric Thread						
M16x1.5	M12x1.5	6.0	9	17	WNSC–M16M12[2)]	102 104 013 1001
M20x1.5	M16x1.5	7.0	10	22	WNSC–M20M16[2)]	102 104 015 1001
M25x1.5	M20x1.5	7.0	10	27	WNSC–M25M20	102 104 018 1001
M32x1.5	M25x1.5	8.0	11.5	35	WNSC–M32M25	102 104 019 1001
M40x1.5	M32x1.5	9.0	13	42	WNSC–M40M32	102 104 020 1001
M50x1.5	M40x1.5	9.0	14	57	WNSC–M50M40[2)]	102 104 046 1001
M63x1.5	M50x1.5	11.0	14	65	WNSC–M63M50[2)]	102 104 048 1001

1).MOQ 100 pcs. 2).MOQ 200 pcs. 3).MOQ 50 pcs. 4).MOQ 20 pcs.

Cable glands

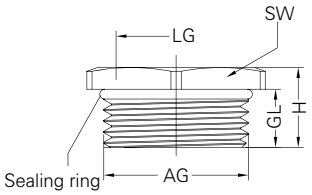
Polyamide reducer

Material： Polyamide

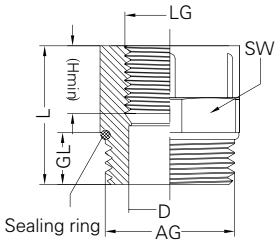
Color： Grey

Temperature range： –40℃...+100℃





Shape A



Shape B

Unit： mm

Outside thread(AG)	Inside thread(LG)	Thread length(GL)	Total length(H)	Wrench size (SW)	Shape	Designation	Order NO.
PG Thread							
PG11	PG9	9	15	24	A	WNSCP–PG11PG9[2)]	102 104 003 2001
PG13.5	PG11	7.5	12	22	B	WNSCP–PG13.5PG11/H[2)]	102 127 004 2001
PG16	PG11	10	13	27	B	WNSCP–PG16PG11/H[2)]	102 127 005 2002
PG16	PG13.5	10.5	15	27	B	WNSCP–PG16PG13.5/H[2)]	102 127 005 2001
PG21	PG16	11	17	39	A	WNSCP–PG21PG16	102 104 006 2001
PG29	PG21	11.5	17	39	A	WNSCP–PG29PG21	102 104 007 2001
Metric Thread							
M20x1.5	M16x1.5	9.5	15	24	A	WNSCP–M20M16[2)]	102 104 015 2001
M25x1.5	M20x1.5	10	17	27	A	WNSCP–M25M20	102 104 018 2001
M32x1.5	M20x1.5	11.5	17	39	A	WNSCP–M32M20	102 104 019 2002
M32x1.5	M25x1.5	11	17	39	A	WNSCP–M32M25	102 104 019 2001

1).MOQ 100 pcs. 2).MOQ 200 pcs. 3).MOQ 50 pcs. 4).MOQ 20 pcs.

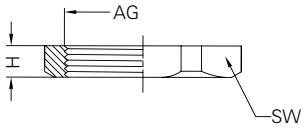
Cable glands

Metal lock nut

Material：Nickel–plate brass

Temperature range：–40℃...+100℃





Unit：mm

Thread dimension(AG)	Wrench size(SW)	Thickness(H)	Designation	Order NO.
PG Thread				
PG7	15	2.8	WNA–PG7/S[1)]	102 105 001 1101
PG9	18	2.8	WNA–PG9/S[1)]	102 105 002 1101
PG11	21	3.0	WNA–PG11/S	102 105 003 1101
PG13.5	22	3.0	WNA–PG13.5/S	102 105 004 1101
PG16	24	3.0	WNA–PG16/S	102 105 005 1101
PG21	30	3.5	WNA–PG21/S	102 105 006 1101
PG29	40	4.0	WNA–PG29/S	102 105 007 1101
PG36	50	4.5	WNA–PG36/S	102 105 008 1101
PG42	57	5.0	WNA–PG42/S	102 105 009 1101
PG48	65	5.5	WNA–PG48/S[3)]	102 105 010 1101
Metric Thread				
M12x1.5	15	2.8	WNA–M12/S[1)]	102 105 011 1101
M16x1.5	18	2.8	WNA–M16/S[1)]	102 105 013 1101
M20x1.5	22	3.0	WNA–M20/S	102 105 015 1101
M25x1.5	27	3.0	WNA–M25/S	102 105 018 1101
M32x1.5	35	3.5	WNA–M32/S	102 105 019 1101
M40x1.5	50	4.5	WNA–M40/S	102 105 020 1101
M50x1.5	57	5.0	WNA–M50/S[3)]	102 105 046 1101
M63x1.5	70	5.5	WNA–M63/S[3)]	102 105 048 1101

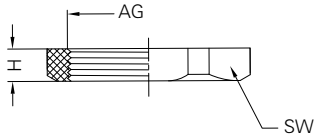
1).MOQ 100 pcs. 2).MOQ 200 pcs. 3).MOQ 50 pcs. 4).MOQ 20 pcs.

Cable glands

Polyamide lock nut

Material：Polyamide
Color：Grey,Black
Temperature range：−40℃...+100℃

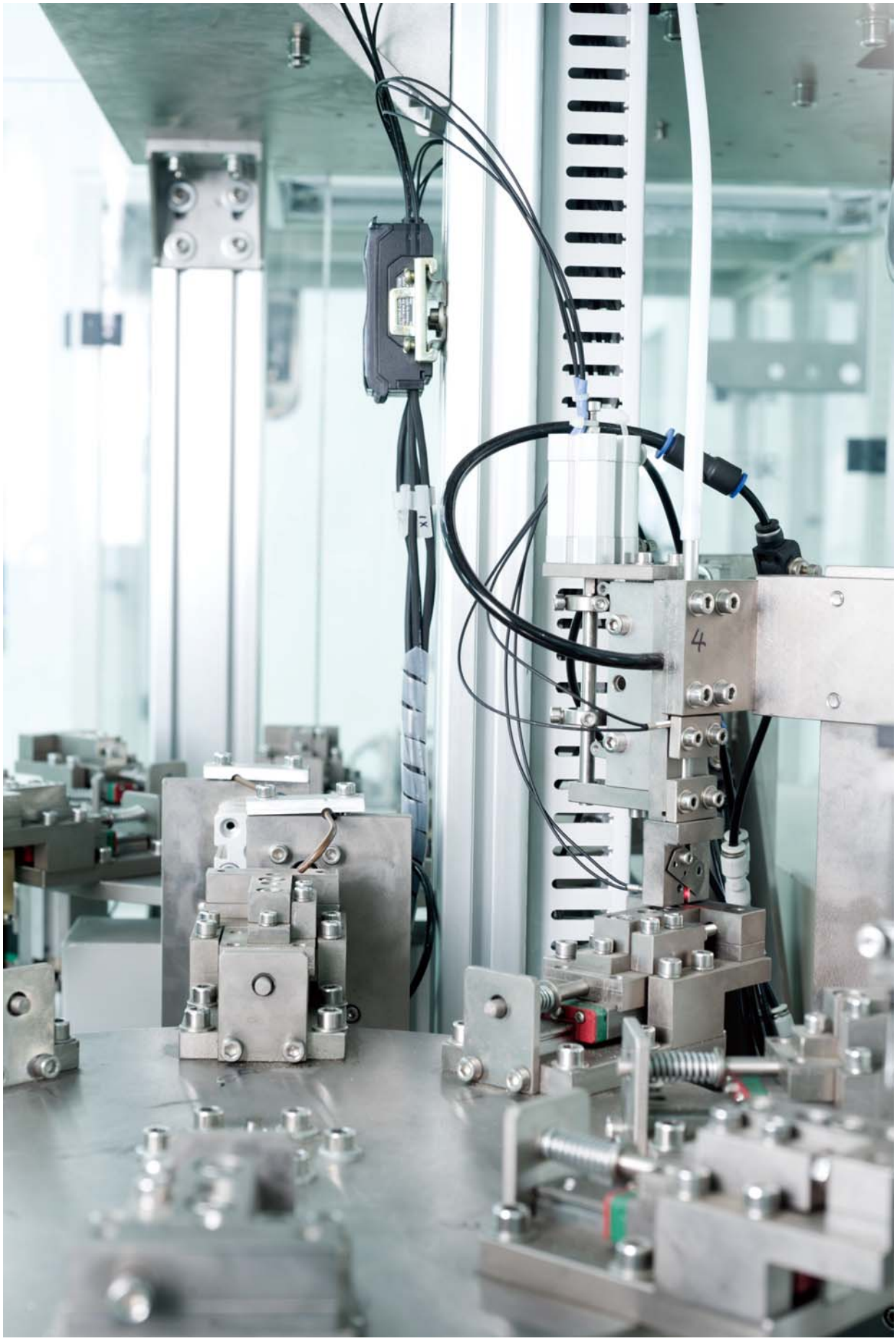




Unit：mm

Thread dimension(AG)	Wrench size(SW)	Thickness(H)	Designation(Grey)	Order NO.	Designation(Black)	Order NO.
PG Thread						
PG7	19	5.0	WNAP−PG7G/S[1)]	102 106 001 2101	WNAP−PG7B/S[1)]	102 106 001 2102
PG9	22	5.0	WNAP−PG9G/S[1)]	102 106 002 2101	WNAP−PG9B/S[1)]	102 106 002 2102
PG11	24	5.0	WNAP−PG11G/S	102 106 003 2101	WNAP−PG11B/S	102 106 003 2102
PG13.5	27	6.0	WNAP−PG13.5G/S	102 106 004 2101	WNAP−PG13.5B/S	102 106 004 2102
PG16	30	6.0	WNAP−PG16G/S	102 106 005 2101	WNAP−PG16B/S	102 106 005 2102
PG21	36	7.0	WNAP−PG21G/S	102 106 006 2101	WNAP−PG21B/S	102 106 006 2102
PG29	45	7.0	WNAP−PG29G/S	102 106 007 2101	WNAP−PG29B/S	102 106 007 2102
PG36	59	8.0	WNAP−PG36G/S	102 106 008 2101	WNAP−PG36B/S	102 106 008 2102
PG42	65	8.0	WNAP−PG42G/S[1)]	102 106 009 2101	WNAP−PG42B/S[1)]	102 106 009 2102
PG48	70	8.0	WNAP−PG48G/S[1)]	102 106 010 2101	WNAP−PG48B/S[1)]	102 106 010 2102
Metric Thread						
M12x1.5	19	5.0	WNAP−M12G/S[1)]	102 106 011 2101	WNAP−M12B/S[1)]	102 106 011 2102
M16x1.5	22	5.0	WNAP−M16G/S[1)]	102 106 013 2101	WNAP−M16B/S[1)]	102 106 013 2102
M18x1.5	24	5.0	WNAP−M18G/S[1)]	102 106 014 2101	WNAP−M18B/S[1)]	102 106 014 2102
M20x1.5	27	6.0	WNAP−M20G/S	102 106 015 2101	WNAP−M20B/S	102 106 015 2102
M22x1.5	30	6.0	WNAP−M22G/S[1)]	102 106 016 2101	WNAP−M22B/S[1)]	102 106 016 2102
M24x1.5	30	6.0	WNAP−M24G/S[1)]	102 106 017 2101	WNAP−M24B/S[1)]	102 106 017 2102
M25x1.5	32	7.0	WNAP−M25G/S	102 106 018 2101	WNAP−M25B/S	102 106 018 2102
M32x1.5	40	7.0	WNAP−M32G/S	102 106 019 2101	WNAP−M32B/S	102 106 019 2102
M40x1.5	49	8.0	WNAP−M40G/S	102 106 020 2101	WNAP−M40B/S	102 106 020 2102
M50x1.5	65	8.0	WNAP−M50G/S[1)]	102 106 046 2101	WNAP−M50B/S[1)]	102 106 046 2102
M63x1.5	74	8.0	WNAP−M63G/S[1)]	102 106 048 2101	WNAP−M63B/S[1)]	102 106 048 2102

1).MOQ 100 pcs. 2).MOQ 200 pcs. 3).MOQ 50 pcs. 4).MOQ 20 pcs.


4

List of designation

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16B-BK/MCV	15-72
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7/8-F03-CCT/R-T-D10	21-03.1
7/8-F03-CCT/R-T-D12	21-03.1
7/8-F03-CCT/R-T-D8	21-03.1
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7/8-F03-T-1.5-PVC	21-03.5
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