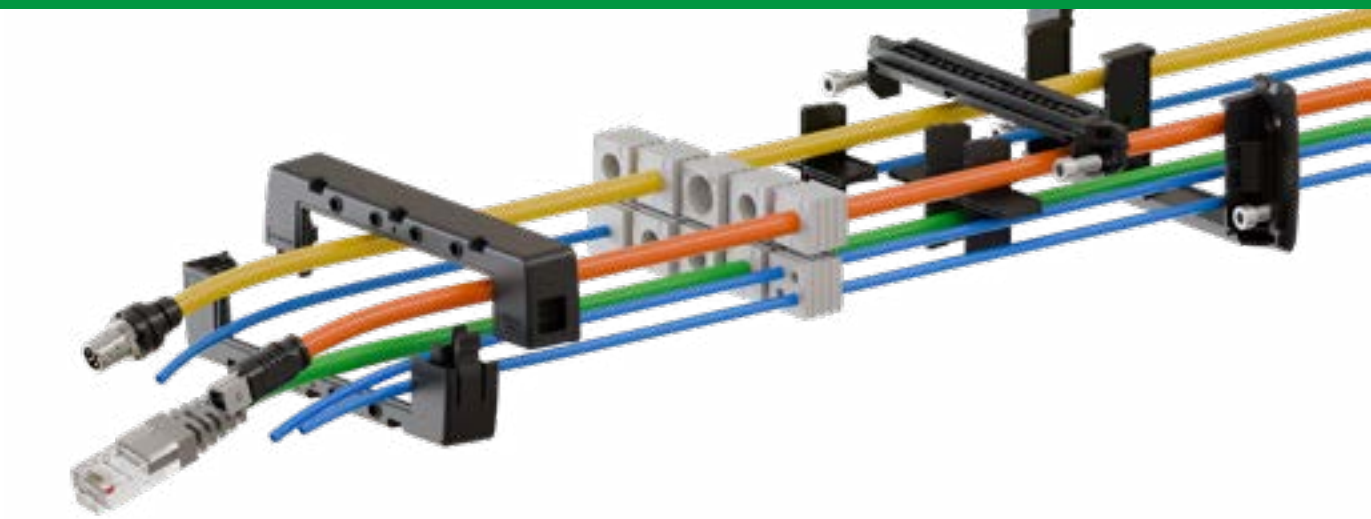
CONTA-CABLE

Intelligent
Cable management systems

KDS Cable entries
KES Cable entries
SAB|SSAB|SABK Shielding solutions



CONTACLIP

Because the future needs intelligent connectivity solutions

Inside the smartest workflows: being at the heart of every smart connection, the driving force for improved workflows and productivity, that is our global commitment. That is why we are developing and manufacturing products for almost all industrial sectors. Whether it's mechanical and facility engineering, traffic and process engineering, clean room technology or renewable energy: in all these industries we are the perfect partner and expert in electrical and electronic connection technology.

In addition to developing and creating new products, we invest in modern, efficient manufacturing processes. Ensuring the highest quality is our top priority. Our top-class products are supported by this interplay between our top-class personnel and machinery. And our services are just as outstanding as our products. Your wishes and requirements are what motivate our customised solutions.

Living sustainably and taking responsibility

At CONTA-CLIP, we focus our thoughts and actions to successfully implement our ecological, economic and social goals.

We promote economic sustainability in the form of healthy growth, together with financial strength and consistent re-investment within the company. Our stable management, low staff turnover and employees involved in decision-making processes all provide a guarantee for social sustainability.

Our actions are also ecologically sustainable throughout the entire value chain. This is reflected in the selection of our materials and our use of energy within the company. We work with materials that contain no hazardous substances and support regenerative heat recovery. This enables us to take responsibility for future generations.

Advantage online:
The CONTA-CLIP Online Catalogue

No matter where you are, as long as you're online you can access our digital catalogue to look at our services and quickly identify suitable solutions for your requirements.

Fast results Use the full-text search, enter an order number or use the convenient "step-by-step" feature search function.

Project planning at a glance: After you've selected the products, all the master data for the materials (sales data, technical data, drawings, connection diagrams, classifications and approvals) are made available as a data sheet or export file.

Detailed inquiries about components can be sent via the shopping cart directly to our headquarters. Upon request, you will receive an e-mailed copy of your inquiry.

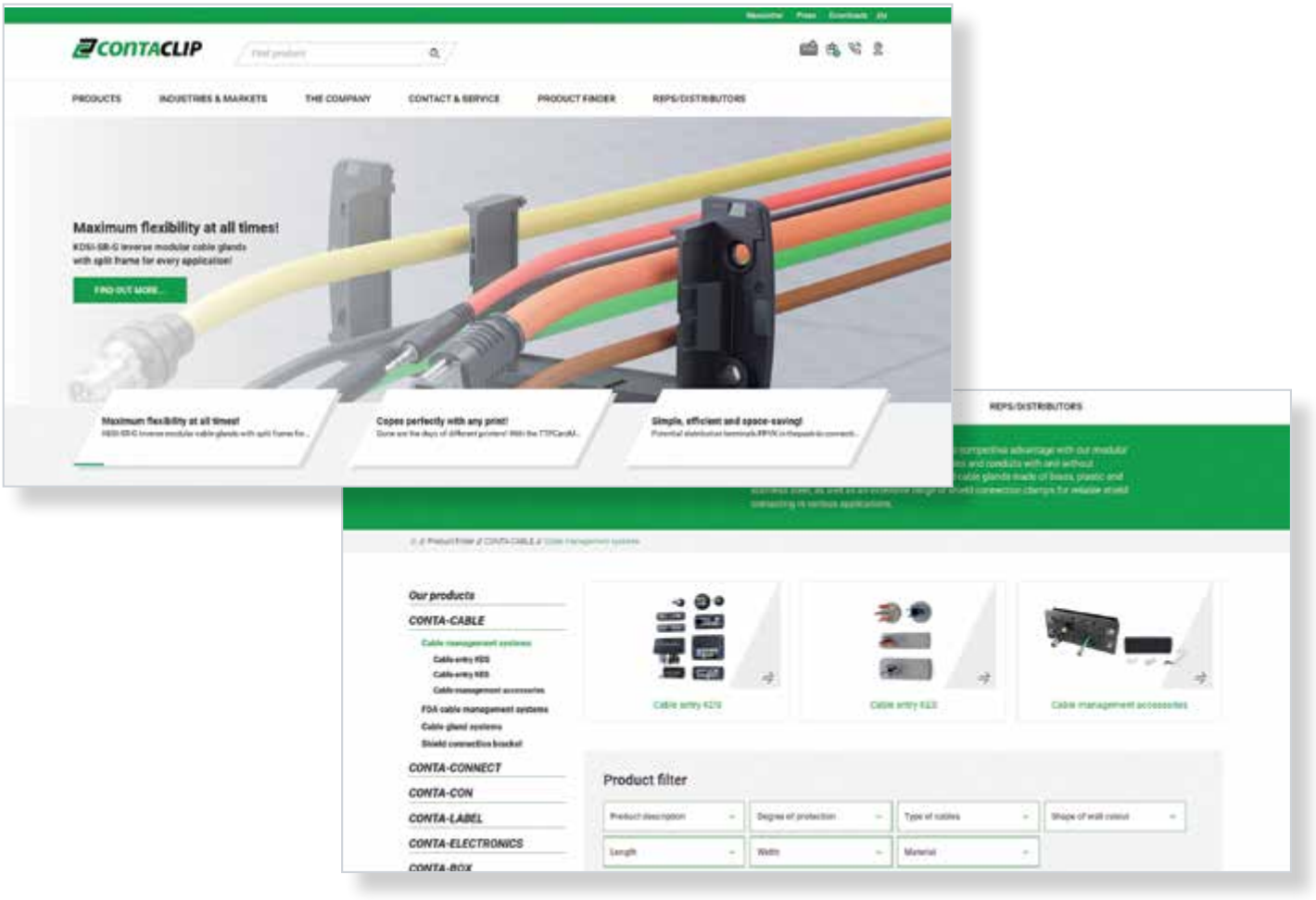
Application films: Complex functions be explained easily and clearly with sounds and images.

Printed catalogue: Would you like an offline overview? Please ask for our free printed catalogues.

Industry-specific: You will find the solutions that are relevant for your industry, according to your expertise.

Newsletter: Do you want to stay up to date? Subscribe to our newsletter! Simply register, confirm our authentication e-mail, and you'll be regularly informed about all CONTA-CLIP news.

Discover how the world of CONTA-CLIP and our website can deliver added value for you and your projects!



Globally available for you

Are you working abroad? No problem. Our worldwide sales and distribution partners help us to be globally networked and provide on-time reliable deliveries. Simply scan the QR code shown and you'll learn on our website about the sales partner responsible for your country.

Our locations in Africa
- Algeria
- Morocco
- South Africa

Our locations in Asia
- Bahrain
- China
- Hong Kong
- India
- Israel
- Japan
- Jordan
- Qatar
- Malaysia
- Oman
- Pakistan
- Saudi Arabia
- Singapore
- South Korea
- Taiwan
- Turkey
- United Arab Emirates

Our locations in Oceania
- Australia
- New Zealand

Our locations in Europe
- Belgium
- Bulgaria
- Denmark
- Germany
- Finland
- France
- Greece
- Great Britain
- Ireland
- Iceland
- Italy
- Croatia
- Latvia
- Netherlands
- Norway
- Austria
- Poland
- Portugal
- Romania
- Sweden
- Switzerland
- Serbia
- Slovakia
- Slovenia
- Spain
- Czech Republic
- Ukraine
- Hungary

Our locations in North America
- Canada
- Mexico
- United States

Our locations in South America
- Bolivia
- Brazil
- Chile
- Ecuador
- Columbia

CONTA-CLIP product overview: Large assortment for your applications

CONTA-CONNECT

Terminal blocks in push-in, screw, tension-spring and stud connection technology | installation materials and accessories

When it comes to precise connections, the extensive range of terminal blocks – available in a variety of connection types – always offers the right solution. The product ranges are rounded off with matching installation materials and accessories.

CONTA-LABEL

Marking components for thermal transfer and ink-based marking systems

Various markers made of PC, PVC or PC/HF materials as well as labels in the card format for the thermal transfer printer TTPCardMAX are available for the professional and permanent labelling of terminals, wires, cables, installations, devices and electrical cabinets.

There are also polyamide markers in the classic Maxicard format MC for self-printing or as ready-to-use customized printed markers in the PMC Pocket-Maxicard format.

CONTA-BOX

The wide variety of housing options

Our wide variety of housings made of polystyrene, polycarbonate, polyester, ABS and aluminium deliver solutions for protecting electronic circuits, integrated devices and terminal blocks. On request, these housings can be custom-processed and assembled with our CONTA-CABLE, CONTA-CONNECT, CONTA-ELECTRONICS and CONTA-CON product lines.

CONTA-CABLE

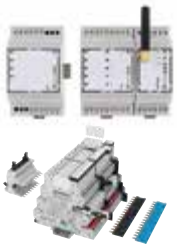
KDS cable entries, KES cable entries, SAB/SSAB/SABK shielding solutions

The KDS and KES cable entries enable tool-free, up to IP66-rated sealing for unassembled and assembled cables and hoses. The feedthrough openings can be adapted at any time to meet your requirements. The SAB shield-connection clips can be used to provide a reliable shield contact with wire diameters from 3 mm to 35 mm.

CONTA-ELECTRONICS

Electrical and electronic cabinet components

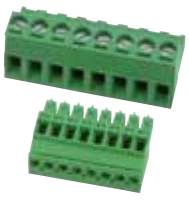
Our CONTA-ELECTRONICS product line offers you a variety of active and passive components for transmitting and converting analogue and digital signals at the coupling level. This product line includes power supplies, multi-function timing relays, coupling relays, digital switching modules, interface modules, opto-couplers, signal converters, GSM communication modules and much more. With over 40 years of experience in electronics development, we are a competent and reliable partner for implementing your customised requirements – from the idea to the finished product.



CONTA-CON

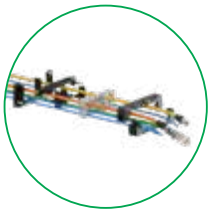
PCB terminals and connectors

In the area of CONTA-CON, CONTA-CLIP offers a wide range of PCB terminals and PCB plug-in connector systems. The modular components can be configured for any required number of poles. They are available in the wire connection types: wire protection, eccentric, clamping yoke, and (for demanding operating conditions) with tension-spring or Push-in wire terminations.



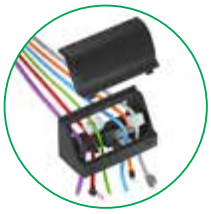
KDS cable entries
for cables with and without connectors

KDS CLICK by CONTA-CLIP

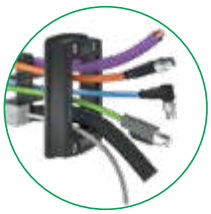


KDSI-SR-G
Inverse, modular cable entry system with split frame
For electrical cabinets and machines, our patented and split **KDSI-SR-G** cable entry system ensures outstanding versatility and time savings. It can be used to securely seal cables with or without connectors.
from Page 14

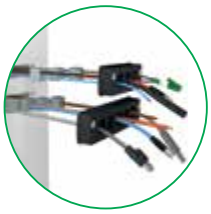
KDSI-SR
Inverted, modular cable entry system
The **KDSI-SR** inverted screw frames allow complete assembly from the outside.
from Page 22



KDS-SR90
Modular cable entry system at a 90° angle
The **KDS-SR90** angled screw frame enables quick and safe 90° angle routing.
from Page 30



KDS-SR
Modular cable entry system
The **KDS-SR** screw frames allow complete assembly from the inside.
from Page 38



KDS-SR Compact
Cable entry system in a compact design
The **KDS-SR Compact** compact frame ensure a quick and secure routing, even in extremely cramped installation conditions.
from Page 46

KDS-FP
Modular flange plates
The **KDS-FP** flange plates are assembled from the inside and offer outstanding versatility and variability.
from Page 52

KDS-BS and KDS-BC
Cable entry system with brush seal
The **KDS-BS and KDS-BC** two-part and snap-on frames ensure protection against dust and drafts.
from Page 60

KDS-SR-FB
Modular cable entry system for ribbon cables
The **KDS-SR-FB** cable entry system for special shaped, flat cables was developed for use in industrial trucks, crane systems and elevator applications.
from Page 68

KDS-R
Modular, round cable entries
The **KDS-R** round cable entries for metric cut-outs ranging from M20 to M63 allow cables with diameters from 1.5 mm to 35 mm to be quickly and securely inserted and sealed with maximum packing density.
from Page 82

KDS-KV
Separable cable glands
The **KDS-KV** round and split cable glands for metric cut-outs ranging from M20 to M63 mm allow cables with diameters from 2 to 35 mm to be quickly and securely inserted and sealed.
from Page 92

KDS-DEG-A/KS-D and KDS-DEG-AI/KS-D
Sealing element adapters
The **KDS-DEG-A/KS-D and KDS-DEG-AI/KS-D** sealing element adapters allow various Keystone modules to be integrated into the KDSClick modular cable entry systems.
from Page 100

KDS-DE and KDS-DEG
Sealing elements for cable entry systems
The **KDS-DE** (small) / **KDS-DEG** (large) sealing elements allow them to be easily pressed in, reliable sealing of the gaps and ensure a static strain relief in accordance with DIN EN 62444.
from Page 104

KDS-DES
Sealing elements for cable entry systems
The **KDS-DES** sealing elements enable you to install non-assembled cables.
from Page 108

KDS-DE-Z2K
Combi-sealing elements for cable entry systems
The **KDS-DE-Z2K** dual-component combi patented sealing elements – consisting of a flexible seal and a robust strain relief – enable flexible cable routing for both pre-assembled and non-pre-assembled cables.
from Page 110

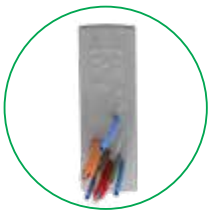
KDS-Inlays
Inlays for cable entry systems
The patented, click-in inlays enable needs-based dimensioning of the frame opening, corresponding to the sealing element being used. An audible "click" confirms a correct installation.
from Page 112

KES cable entries
for cables without connector

KES
Cable entries

The **KES** cable entry systems allow for the easy insertion of cables, lines, and pneumatic hoses of many different diameters while ensuring high packing density and tight sealing. The KES system offers three mounting options: **KES** screw fastening, **KES-R** snap-in mount with latching clips and additional screw fastening using **KES-GB** integrated threaded bushes.

from Page 116



KES-E
Cable entries for snap-on in very confined space

The **KES-E** cable entries allow for the tool-free insertion of multiple cables of different diameters in very confined spaces. Installation is done using a snap-in mount from the outside.

from Page 124

KES-E-R
Round cable entries for snap-on in very confined space

The **KES-E-R** round cable entries allow for the tool-free insertion of multiple cables of different diameters in very confined spaces. Installation is done using a snap-in mount from the outside.

from Page 130

KES-R M
Round cable entries for snap-on and screw connections

The **KES-R M** round cable entries snap into place from the outside in a round cut-out ranging from M25 to M63, but can also be secured from the inside with a locknut.

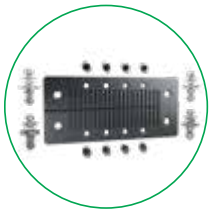
from Page 136

KES-R M Cone
Round cable entries for snap-on and screw connections with conical shape

Speed up your installation by using the variants of the KES cable entry system. The **KES-R M Cone** cable entries, with CONTA-CLIP's dodecagon design, are snapped directly from the outside onto a round cut-out from M25 to M63.

from Page 140

RAIL cable management solutions
for applications in railway technology

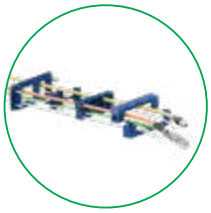


KDS-RAIL fire protection kit
Fire protection kits for cable entry systems in rail technology
KDS-RAIL fire protection kits ensure a safe structural separation at critical junctions in railway technology, such as between the engine room and the passenger area. They reliably prevent flames from spreading through wall cut-outs for a defined period of time. from Page 146

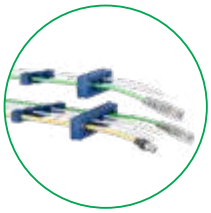
KDS-DE-RAIL and KDS-DEG-RAIL
Sealing elements for cable entry systems in railway technology
The **KDS-DE-RAIL** (small) and **KDS-DEG-RAIL** (large) sealing elements are at the heart of our rail-certified cable entries. Manufactured from a special TPE approved in accordance with **DIN EN 45545-2 (HL3)**, they ensure the highest level of safety, fire protection, and reliability for demanding applications in rail vehicles. from Page 150

Where our expertise excels.

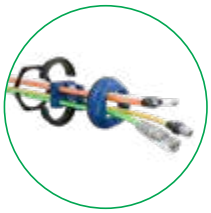
FDA cable management solutions
for the food industry



KDSI-SR-FDA
Inverted, modular cable entry system
The **KDSI-SR-FDA** inverted screw frames allow complete assembly from the outside. from Page 156

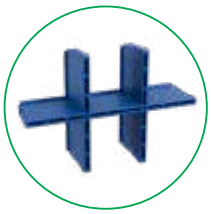


KDS-SR-FDA Compact
Cable entry system in a compact design
The compact frames in the **KDS-SR-FDA Compact** series ensure quick and secure routing, even in cramped installation conditions. from Page 164



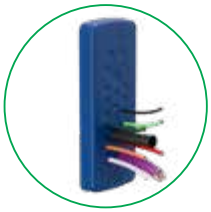
KDS-R-FDA
Round cable entries
The KDS-R-FDA round cable entry systems enable cable management to be used for metric cut-out sizes from M20 to M63. from Page 170

KDS-DE-FDA and KDS-DEG-FDA
Sealing elements for cable entry systems
The conical shape of the sealing elements allows them to be easily pressed in. This also reliably seals the gaps and provides static strain relief. from Page 180



KDS-Inlay FDA
Inlays for cable entry systems
The click-in inlays allow flexible sizing of the frame opening to fit the seal in use. from Page 184

KDS-BP-FDA
Blanking plates for cable entry systems
Blanking plates for closing standard square cut-outs in KDS cable entry systems and KES cable entry systems. from Page 187



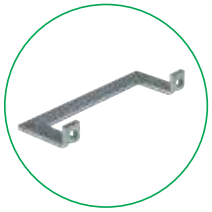
KES-GB-FDA
Cable entry system
The **KES-GB-FDA** cable entry system is suitable for routing cables without connectors, as well as pneumatic and hydraulic hoses. from Page 188

KES-R-FDA M
Round cable entry system
The **KES-R-FDA M** round cable entry system is suitable for inserting cables without connectors as well as pneumatic and hydraulic hoses into metric cut-outs from M25 to M63. from Page 196

SAB|SSAB|SABK
Accessories + shielding solutions

KDS BW 1
Actuating tool
Using the **KDS BW 1** actuating tool, the sealing elements can be conveniently mounted in and dismantled from the frame. The ergonomic grip and the special shape enable simple and precise installations, especially for cabling applications in confined spaces.
from Page 200

KDSClick
Assortment box
The **KDSClick assortment box** is perfect for installation/maintenance work as well as innovative developments. The large selection of seals and inlays makes it easy to configure all the KDSClick systems to meet your needs.
from Page 200

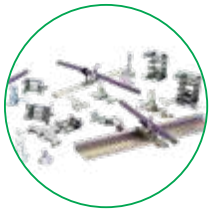


KDS-EMV-SAB
Shield-connection rails
The **KDS-EMV-SAB** shielding terminal rails, when used in combination with various shielding clips, enable simple, fast, and practical shielding of cables routed into enclosures or electrical cabinets via CONTA-CLIP cable entry systems.
from Page 201

KDS-BP
Blanking plates
The **KDS-BP** blanking plates provide a simple method for securely closing existing wall cut-outs for the **KDS** or **KES** system.
from Page 202

Hydraulic hand pump
Punching tool
The **hydraulic hand pump** can be used to punch out cut-outs for various cable entry and cable entry systems.
from Page 204

BL sheet-metal hole punch
Sheet-metal hole punch for cable entry systems
The sheet-metal hole punch for the cable entry systems **KDS-SR, KDSI-SR, KDS-FP, KDS-FB, KDS-R/KDS-KV** and for the cable entry system **KES**. Using the sheet-metal punches, your desired cut-outs can be made in a few minutes without any burrs.
from Page 206



SAB|SSAB|SABK
Shielding solutions
Our shield-connection clip products provide a modular system for direct-, busbar- or DIN-rail mounting.
from Page 208

KDSI-SR-G
Cable entry system for all applications

If you're managing cables for electrical cabinets and machines, our **KDSI-SR-G** patented split cable entry system ensures outstanding versatility and time savings. It can be used to securely seal cables with or without connectors. The system is patented and provides you with an innovative and technically advanced solution.

The two-part screw frames make it possible to carry out a service-friendly and flexible assembly from the outside to the inside. The screwless, horizontally snap-on frame halves interlock using a dovetail solution with a form fit and are equipped with a double, overlapping TPE gasket. This ensures a seal in accordance with protection class IP66.

The cable entry fits standard cut-outs for 4-, 10-, 16- and 24-pole heavy-duty connectors.

SPLITTING FRAME PATENTED

IP66

KDS CLICK by CONTA-CLIP

Your advantages

- Maximum flexibility in the installation sequence
- Installation and assembly from one mounting direction
- Time savings when assembling and dismantling the frame (no screwing of the frame halves together)
- Optimised warehousing thanks to the proven KDS modular system
- Retrofit: Repair, retrofits and servicing possible without dismantling the frame and removing the cables

The basic components of the modular system

Frames. Inlays. Seals. Protective hood. The modular design – with four basic components – provides more versatility, variability and variety.

1. Frame

The two-part frame is quick and easy to assemble. It is made of sturdy, glass-fibre reinforced plastic.
The integrated TPE gasket guarantees an optimal seal with IP66 protection on painted and rough surfaces. The frames also fit the standard cut-outs for 10-, 16- and, 24-pole connectors.

2 Inlays

The click-in inlays allow flexible sizing of the frame opening to fit the seal in use. An audible "click" confirms a correct installation. You can variably configure cable entries to match various requirements (for cables, lines, hoses, pneumatic and hydraulic lines).

3. Sealing elements

The conical shape of the sealing elements allows them to be easily pressed in. This also reliably seals the gaps and provides static strain relief in accordance with DIN EN 62444. The seals are installed by pressing them from the outside inwards into the openings of the previously installed inlays.
Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are numerous different sealing elements that can be used for sealing cables of various diameters and sizes.

4. Protective hood

The two-part protective hood has TPE gaskets at three different levels; this ensures that an IP66 seal is achieved.
The two-part protective hood also guarantees the tight fit of the pressed-in sealing elements to the outside and covers the screws of the two-part frame.

More versatility and safety

The sealing elements can be released by pressing from the inside to the outside. Changes, retrofits, servicing or the readjustment of the cable lengths can be made at any time without dismantling the frame halves.

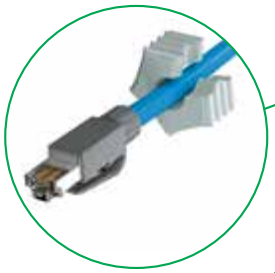
KDSI-SR-G
Cable entry system for all applications

An overview of your advantages

Attaching the frame
The split frame can be easily and quickly attached to the wall.

Fast assembly from outside inwards for easier, friendlier servicing
It is not necessary to disassemble the frame halves when requirements change or during service work.

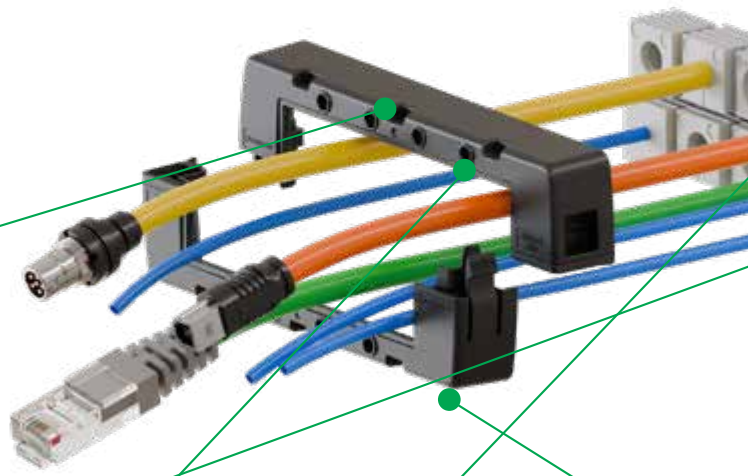
Protective hood
The two-part protective hood has TPE gaskets at three levels and guarantees IP66 protection. A tight fit for the sealing elements, pressed in from the outside, is also guaranteed.

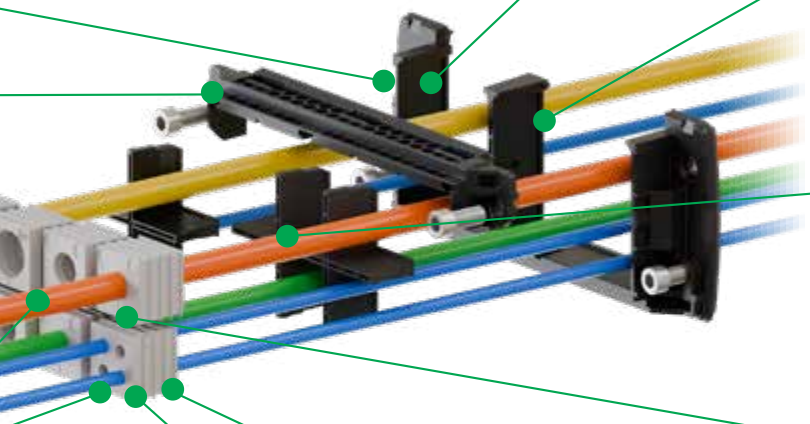


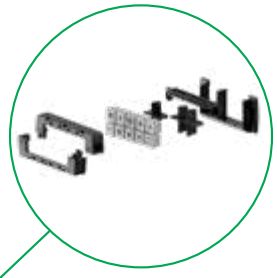
No Warranty Loss with Pre-Assembled Cables
No need to disassemble and reconnect connectors, so manufacturer's warranty is not voided.

Optional external locking mechanism
The optional **KDSI-AVR** external locking mechanism secures the sealing elements so that they cannot be pressed out without tools.

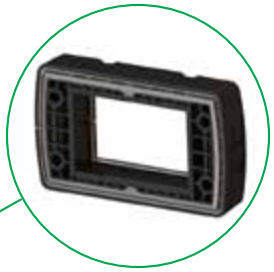
Versatile, high-density assemblies are possible
1-way, 2-way, 3-way and 4-way seals and dummy plugs provide you with excellent versatility for cable management.







Outstanding versatility with optimized frame
The frames, inlays and sealing elements and protective hood can be combined in many ways ensuring you many versatile configuration options.



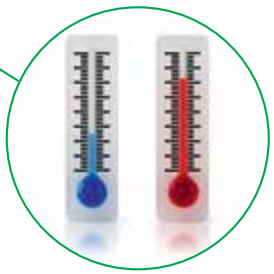
Captive gasket
The integrated frame gasket eliminates the risk of incorrect assembly (forgotten gasket) and speeds up the assembly process.

Safe and quick installation with feedback
An audible "click" confirms that the inlay has been properly installed in the frame.

Integrated strain relief
The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.

Outstanding IP66 seal
Conically tapered sealing elements feature inner and outer sealing gills.

Smart separation of the seals
The wave-cut profile makes them easy to install and ensures a perfect fit around the cables.



Can be used from -40°C to +120°C
Materials contain no halogen or silicone, suitable for many different applications.

IP66 | RoHS compliant | Made in Germany | CAD

KDSI-SR-G

Inverse, modular cable entry system with split frame

Frames and inlays	KDSI-SR-G 1-4 BK	KDSI-SR-G 6/10 BK	KDSI-SR-G 8/16	KDSI-SR-G 10/24
Description	Two-part screw frame with two-part protective hood	Two-part screw frame with two-part protective hood	Two-part screw frame with two-part protective hood	Two-part screw frame with two-part protective hood
Type / colour	**KDSI-SR-G 1-4 BK**	**KDSI-SR-G 6/10 BK**	**KDSI-SR-G 8/16 BK**	**KDSI-SR-G 10/24 BK**
Cat. no. **Qty.**	*29100.4* **1**	*29101.4* **1**	*29102.4* **1**	*29103.4* **1**
Type / Set	**KDSI-SR-G Set 1-4 BK**	**KDSI-SR-G Set 6/10 BK**	**KDSI-SR-G Set 8/16 BK**	**KDSI-SR-G Set 10/24 BK**
Cat. no. **Qty.**	*29105.4* **1**	*29106.4* **1**	*29107.4* **1**	*29108.4* **1**
Description Set consists of:	1 x KDSI-SR-G 1-4 BK 1 x KDS-Inlay 4 BK	1 x KDSI-SR-G 6/10 BK 1 x KDS-Inlay 2 BK 1 x KDS-Inlay 6 BK	1 x KDSI-SR-G 8/16 BK 2 x KDS-Inlay 4 BK	1 x KDSI-SR-G 10/24 BK 1 x KDS-Inlay 2 BK 1 x KDS-Inlay 4 BK 1 x KDS-Inlay 6 BK
Accessories				
Inlay		**KDS-Inlay 2 BK**		**KDS-Inlay 2 BK**
Cat. no. **Qty.**		*28517.4* **5**		*28517.4* **5**
Description		T-shape		T-shape
Inlay	**KDS-Inlay 4 BK**	**KDS-Inlay 4 BK**	**KDS-Inlay 4 BK**	**KDS-Inlay 4 BK**
Cat. no. **Qty.**	*28518.4* **5**	*28518.4* **5**	*28518.4* **5**	*28518.4* **5**
Description	for 4-way divisions	for 4-way divisions	for 4-way divisions	for 4-way divisions
Inlay		**KDS-Inlay 6 BK**		**KDS-Inlay 6 BK**
Cat. no. **Qty.**		*28519.4* **5**		*28519.4* **5**
Description		for 6-way divisions		for 6-way divisions
Replacement protective hood (two-part)	**KDSI-AD 1-4 BK**	**KDSI-AD 6/10 BK**	**KDSI-AD 8/16 BK**	**KDSI-AD 10/24 BK**
Cat. no. **Qty.**	*28885.4* **1**	*28886.4* **1**	*28887.4* **1**	*28888.4* **1**
Description	Spare cover	Spare cover	Spare cover	Spare cover
Outer locking mechanism (optional)	**KDSI-AVR BK**	**KDSI-AVR BK**	**KDSI-AVR BK**	**KDSI-AVR BK**
Cat. no. **Qty.**	*28894.4* **20**	*28894.4* **20**	*28894.4* **20**	*28894.4* **20**
Sheet-metal hole punch	**BL KDS-SR 1-4**	**BL KDS-SR 6/10**	**BL KDS-SR 8/16**	**BL KDS-SR 10/24**
Cat. no. **Qty.**	*28674.0* **1**	*28675.0* **1**	*28676.0* **1**	*28677.0* **1**
Description	For sheet steel up to 2 mm; also for marking drilling hole points	For sheet steel up to 2 mm; also for marking drilling hole points	For sheet steel up to 2 mm; also for marking drilling hole points	For sheet steel up to 2 mm; also for marking drilling hole points
Actuating tool	**KDS BW 1**	**KDS BW 1**	**KDS BW 1**	**KDS BW 1**
Cat. no. **Qty.**	*28622.0* **1**	*28622.0* **1**	*28622.0* **1**	*28622.0* **1**
Seals				
Small and large	**See section KDS-DE and KDS-DEG**	**See section KDS-DE and KDS-DEG**	**See section KDS-DE and KDS-DEG**	**See section KDS-DE and KDS-DEG**

IP66

RoHS compliant

Made in Germany

CAD

Features

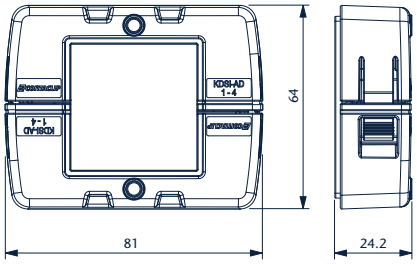
- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40°C to +120°C
- Halogen-free, silicone-free
- Protection: IP66

KDSI-SR-G

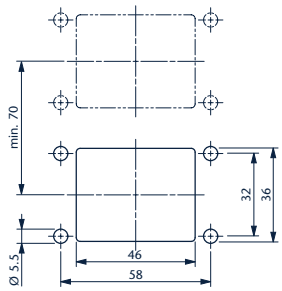
Inverse, modular cable entry system with split frame | Dimensional diagrams / Mounting cut-outs

KDSI-SR-G 1-4

Dimensional diagram



Mounting cut-out



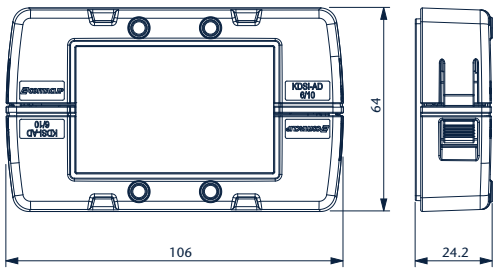
Also suitable for the CONTA-CLIP standard 46 x 46 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

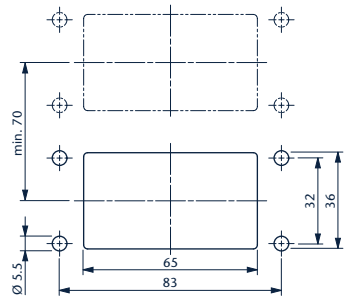
Screw for usage: ISO 4762 / DIN 912

KDSI-SR-G 6/10

Dimensional diagram



Mounting cut-out



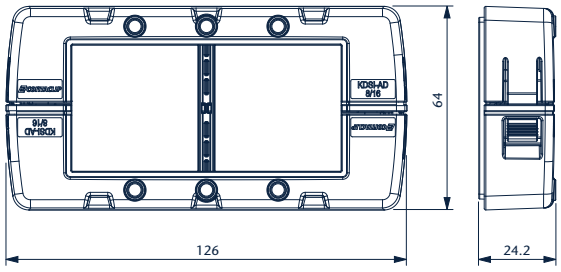
Also suitable for the CONTA-CLIP standard 46 x 68.5 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

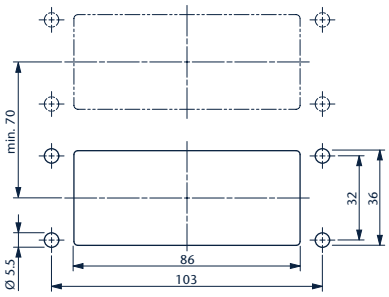
Screw for usage: ISO 4762 / DIN 912

KDSI-SR-G 8/16

Dimensional diagram



Mounting cut-out



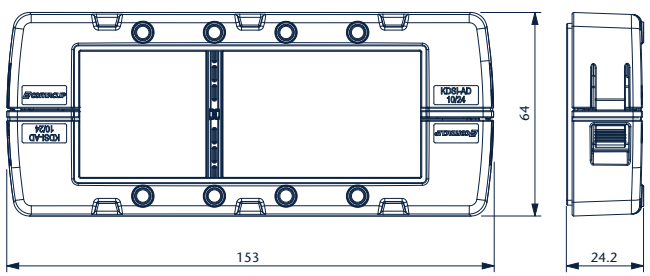
Also suitable for the CONTA-CLIP standard 46 x 91 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

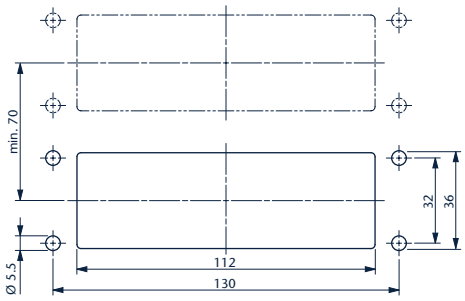
Screw for usage: ISO 4762 / DIN 912

KDSI-SR-G 10/24

Dimensional diagram



Mounting cut-out



Also suitable for the CONTA-CLIP standard 46 x 113.5 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

Screw for usage: ISO 4762 / DIN 912

KDSI-SR-G
Combination examples

KDSI-SR-G 1-4

KDS-Inlay 4 BK
28518.4

KDSI-SR-G 6/10

KDS-Inlay 6 BK
28519.4

KDS-Inlay 2 BK
28517.4

KDSI-SR-G 8/16

KDS-Inlay 4 BK
28518.4

KDS-Inlay 4 BK
28518.4

KDS-Inlay 4 BK
28518.4

KDSI-SR-G 10/24

KDS-Inlay 4 BK
28518.4

KDS-Inlay 6 BK
28519.4

KDS-Inlay 6 BK
28519.4

KDS-Inlay 2 BK
28517.4

More information on KDSI-SR-G can be found here:

Notes

KDSI-SR
Fast, safe, easy

The **KDSI-SR** inverse one-part screw frames allows for complete assembly from the outside and offer flexibility and time savings in terms of cable management for electrical cabinets and machines, as well as secure sealing of cables with and without connectors.

The safe IP66 seal and reliable static strain relief, in accordance with DIN EN 62444, are ensured by the integrated frame gaskets and the conical shape of the sealing elements, which are pressed into the frame openings from the outside.

An additional two-part protective hood ensures the secure fit of the sealing elements to the outside.

As with all **KDS** cable entry systems, the modular click-and-plug principle of the **KDSI-SR** means that individual cable entry openings and seals can be reconfigured at any time as required without any extra installation work.

KDS CLICK
by CONTA-CLIP

Your advantages

- Complete assembly from outside inwards
- Guarantee retained for assembled cables
- Retrofitting and servicing can be done quickly and easily
- High-density assemblies

The basic components of the modular system

Frames. Inlays. Seals. Protective hood. The modular design – with four basic components – provides more versatility, variability and variety.

1. Frame

Made from a single mould, the one-part frame is quick and easy to assemble. It is made of sturdy, glass-fibre reinforced plastic. The integrated TPE gasket guarantees an optimal seal with IP66 protection, even on painted or rough surfaces. The frames also fit the standard cut-outs for 10-, 16- and, 24-pole connectors.

2 Inlays

The click-in inlays allow flexible sizing of the frame opening to fit the seal in use. An audible "click" confirms a correct installation. You can variably configure cable entries to match various requirements (for cables, lines, tubing, pneumatic and hydraulic lines).

3. Seals

The conical shape of the sealing elements allows them to be easily pressed in. This also reliably seals the gaps and provides static strain relief in accordance with DIN EN 62444. The seals are installed by pressing them from the outside inwards into the openings of the previously installed inlays.
Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are numerous different sealing elements that can be used for sealing cables of various diameters and sizes.

4. Protective hood

The two-part protective hood has TPE gaskets at three different levels; this ensures that an IP66 seal is achieved.
The two-part protective hood also guarantees the tight fit of the pressed-in sealing elements to the outside and covers the screws of the one-part frame.

More versatility and safety

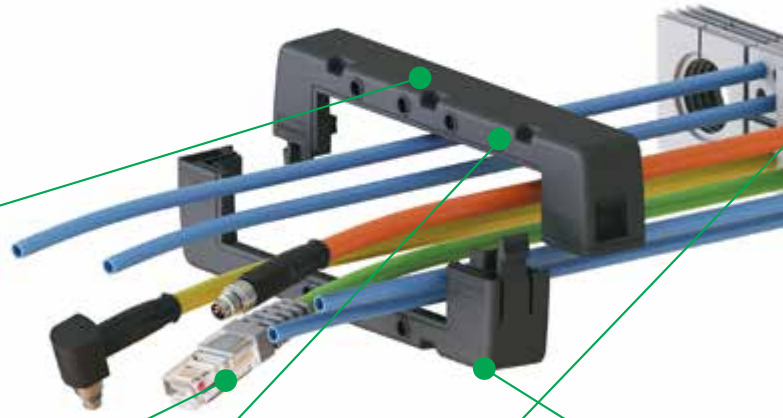
The sealing elements can be released by pressing from the inside to the outside. Changes, retrofits, servicing or the readjustment of the cable lengths can be made at any time without dismantling the frame.

KDSI-SR
Fast, safe, easy

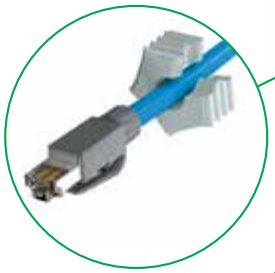
An overview of your advantages

Attaching the frame
The one-part frame can be easily and quickly attached to the wall.

Fast assembly from outside inwards for easier, friendlier servicing
The frame does not need to be disassembled if your requirements change or if you're carrying out service work.



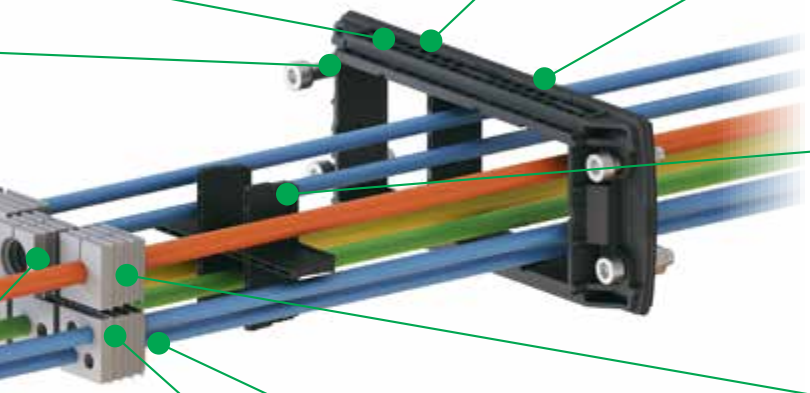
Protective hood
The two-part protective hood has TPE gaskets at three levels and guarantees IP66 protection. A tight fit for the sealing elements, pressed in from the outside, is also guaranteed.

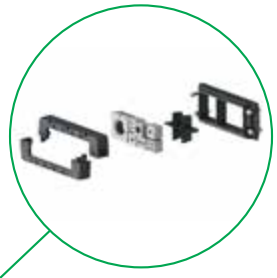


No Warranty Loss with Pre-Assembled Cables
No need to disassemble and reconnect connectors, so manufacturer's warranty is not voided.

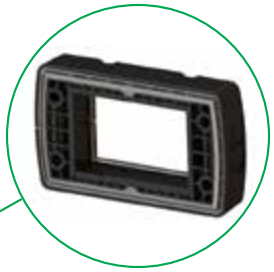
Optional external locking mechanism
The optional **KDSI-AVR** external locking mechanism secures the sealing elements so that they cannot be pressed out without tools.

Versatile, high-density assemblies are possible
1-way, 2-way, 3-way and 4-way seals and dummy plugs provide you with excellent versatility for cable management.





Outstanding versatility with optimized frame
The frames, inlays, seals and protective hoods can be combined in many ways – ensuring you many versatile configuration options.



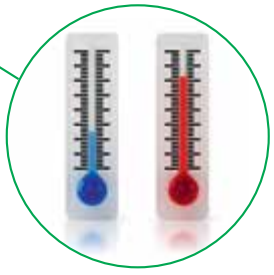
Captive gasket
The integrated frame gasket eliminates the risk of incorrect assembly (forgotten gasket) and speeds up the assembly process.

Safe and quick installation with feedback
An audible "click" confirms that the inlay has been properly installed in the frame.

Integrated strain relief
The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.

Outstanding IP66 seal
Conically tapered sealing elements feature inner and outer sealing gills.

Smart separation of the seals
The wave-cut profile makes them easy to install and ensures a perfect fit around the cables.



Can be used from -40°C to +120°C
Materials contain no halogen or silicone, suitable for many different applications.

UL TYPE Rating 12 | UL TYPE* Rating 4x | EN 61373

IP66 | RoHS compliant | Made in Germany | CAD

* 4x is for indoor use only

KDSI-SR
Fast, safe, easy

Frames and inlays	KDSI-SR 1-4	KDSI-SR 6/10	KDSI-SR 8/16	KDSI-SR 10/24
Description	Screw frame with two-part protective hood	Screw frame with two-part protective hood	Screw frame with two-part protective hood	Screw frame with two-part protective hood
Type / colour	**KDSI-SR 1-4 BK**	**KDSI-SR 6/10 BK**	**KDSI-SR 8/16 BK**	**KDSI-SR 10/24 BK**
Cat. no. **Qty.**	*28880.4* **1**	*28881.4* **1**	*28882.4* **1**	*28883.4* **1**
Type / Set	**KDSI-Set 1-4 BK**	**KDSI-Set 6/10 BK**	**KDSI-Set 8/16 BK**	**KDSI-Set 10/24 BK**
Cat. no. **Qty.**	*28890.4* **1**	*28891.4* **1**	*28892.4* **1**	*28893.4* **1**
Description Set consists of:	1 x KDSI-SR 1-4 BK, 1 x KDS-Inlay 4 BK	1 x KDSI-SR 6/10 BK, 1 x KDS-Inlay 2 BK, 1 x KDS-Inlay 6 BK	1 x KDSI-SR 8/16 BK, 1 x KDS-Inlay 1 BK, 2 x KDS-Inlay 4 BK	1 x KDSI-SR 10/24 BK, 1 x KDS-Inlay 2 BK, 1 x KDS-Inlay 4 BK, 1 x KDS-Inlay 6 BK
Accessories				
Inlay		**KDS-Inlay 2 BK**		**KDS-Inlay 2 BK**
Cat. no. **Qty.**		*28517.4* **5**		*28517.4* **5**
Description		T-shape		T-shape
Inlay	**KDS-Inlay 4 BK**	**KDS-Inlay 4 BK**	**KDS-Inlay 4 BK**	**KDS-Inlay 4 BK**
Cat. no. **Qty.**	*28518.4* **5**	*28518.4* **5**	*28518.4* **5**	*28518.4* **5**
Description	For 4-way divisions	For 4-way divisions	For 4-way divisions	For 4-way divisions
Inlay		**KDS-Inlay 6 BK**		**KDS-Inlay 6 BK**
Cat. no. **Qty.**		*28519.4* **5**		*28519.4* **5**
Description		For 6-way divisions		For 6-way divisions
Replacement protective hood (two-part)	**KDSI-AD 1-4 BK**	**KDSI-AD 6/10 BK**	**KDSI-AD 8/16 BK**	**KDSI-AD 10/24 BK**
Cat. no. **Qty.**	*28885.4* **1**	*28886.4* **1**	*28887.4* **1**	*28888.4* **1**
Description	Spare cover	Spare cover	Spare cover	Spare cover
Outer locking mechanism (optional)	**KDSI-AVR BK**	**KDSI-AVR BK**	**KDSI-AVR BK**	**KDSI-AVR BK**
Cat. no. **Qty.**	*28894.4* **20**	*28894.4* **20**	*28894.4* **20**	*28894.4* **20**
Sheet-metal hole punch	**BL KDS-SR 1-4**	**BL KDS-SR 6/10**	**BL KDS-SR 8/16**	**BL KDS-SR 10/24**
Cat. no. **Qty.**	*28674.0* **1**	*28675.0* **1**	*28676.0* **1**	*28677.0* **1**
Description	For sheet steel up to 2 mm; also for marking drilling hole points	For sheet steel up to 2 mm; also for marking drilling hole points	For sheet steel up to 2 mm; also for marking drilling hole points	For sheet steel up to 2 mm; also for marking drilling hole points
Actuating tool	**KDS BW 1**	**KDS BW 1**	**KDS BW 1**	**KDS BW 1**
Cat. no. **Qty.**	*28622.0* **1**	*28622.0* **1**	*28622.0* **1**	*28622.0* **1**
Seals				
Small and large	**See section KDS-DE and KDS-DEG**	**See section KDS-DE and KDS-DEG**	**See section KDS-DE and KDS-DEG**	**See section KDS-DE and KDS-DEG**

UL TYPE Rating 12 | UL TYPE* Rating 4x | EN 61373 | IP66 | RoHS compliant | Made in Germany | CAD

Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40°C to +120°C
- Halogen-free, silicone-free
- Protection: IP66

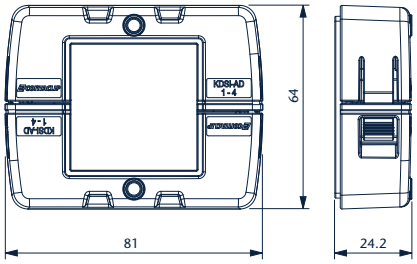
* 4x is for indoor use only

KDSI-SR

Inverted, modular cable entry system
Dimensional diagrams / Mounting cut-outs

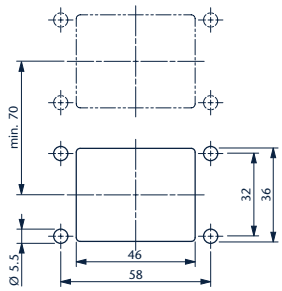
KDSI-SR 1-4

Dimensional diagram



Torque for the frame's mounting screw: 3 Nm

Mounting cut-out

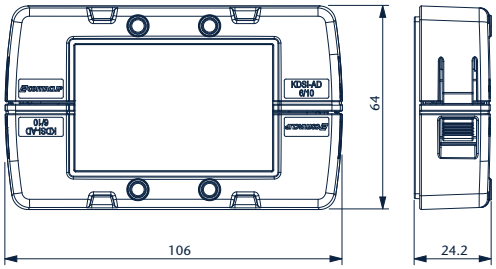


Also suitable for the CONTA-CLIP standard 46 x 46 mm cut-outs

Screw for usage: ISO 4762 / DIN 912

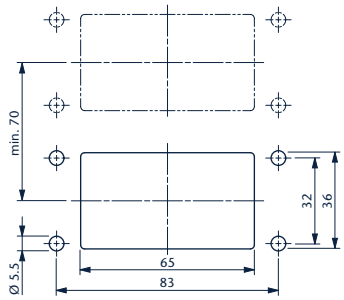
KDSI-SR 6/10

Dimensional diagram



Torque for the frame's mounting screw: 3 Nm

Mounting cut-out

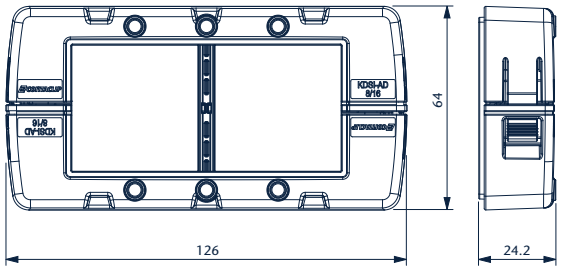


Also suitable for the CONTA-CLIP standard 46 x 68.5 mm cut-outs

Screw for usage: ISO 4762 / DIN 912

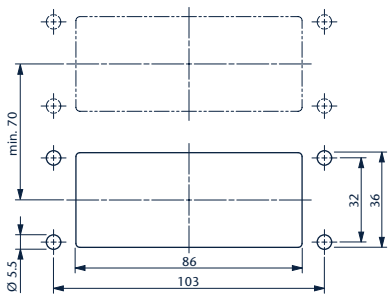
KDSI-SR 8/16

Dimensional diagram



Torque for the frame's mounting screw: 3 Nm

Mounting cut-out

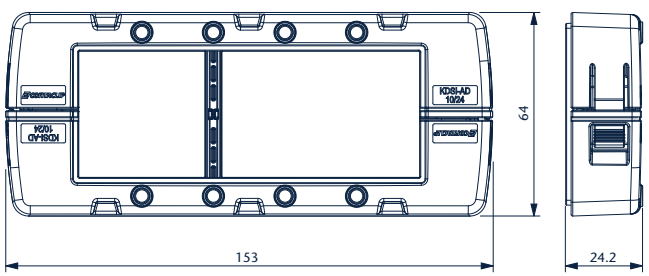


Also suitable for the CONTA-CLIP standard 46 x 91 mm cut-outs

Screw for usage: ISO 4762 / DIN 912

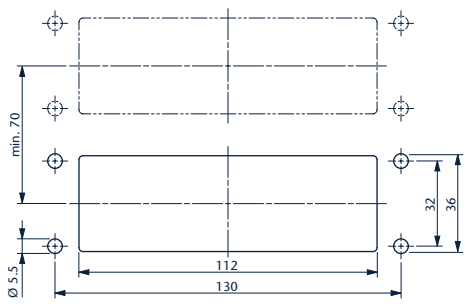
KDSI-SR 10/24

Dimensional diagram



Torque for the frame's mounting screw: 3 Nm

Mounting cut-out



Also suitable for the CONTA-CLIP standard 46 x 113.5 mm cut-outs

Screw for usage: ISO 4762 / DIN 912

KDSI-SR
Combination examples

KDSI-SR 1-4

KDS-Inlay 4 BK
28518.4

KDSI-SR 6/10

KDS-Inlay 6 BK
28519.4

KDS-Inlay 2 BK
28517.4

KDSI-SR 8/16

KDS-Inlay 4 BK
28518.4

KDS-Inlay 4 BK
28518.4

KDS-Inlay 4 BK
28518.4

KDSI-SR 10/24

KDS-Inlay 4 BK
28518.4

KDS-Inlay 6 BK
28519.4

KDS-Inlay 6 BK
28519.4

KDS-Inlay 2 BK
28517.4

More information on KDSI-SR can be found here:

Notes

KDS-SR90
Angled cable entry

Cable entry from a new perspective:
The **KDS-SR90** cable entry system enables fast and secure 90-degree entry of cables and hoses with IP66 protection. The innovative angled screw frame offers protection against dust and deposits and can be easily fitted with pre-fabricated or non-prefabricated cables and hoses.

Assembly is performed using M5 screws; standard KDS-Inlays and sealing elements are used for sealing.
This makes cable management on control cabinets and enclosures very easy and changes can be made at any time without tools - quickly, securely and in just a few simple steps.

KDS CLICK
by CONTA-CLIP

Your advantages

- Quicker installation
- Tool-free, screwless protective hood
- Installation and modifications require no tools
- Outstanding strain relief
- Integrated TPE gaskets in frame and protective hood

The basic components of the modular system

Frames. Inlays. Seals. Protective hood. The modular design – with four basic components – provides more versatility, variability and variety.

1. Frame

Made from a single mould, the one-part frame is quick and easy to assemble. It is made of sturdy, glass-fibre reinforced plastic. The integrated TPE gasket guarantees an optimal seal with IP66 protection, even on painted or rough surfaces.

2 Inlays

The click-in inlays allow flexible sizing of the frame opening to fit the seal in use. An audible "click" confirms a correct installation. You can variably configure cable entries to match various requirements (for cables, lines, tubing, pneumatic and hydraulic lines).

3. Seals

The conical shape of the sealing elements allows them to be easily pressed in. This also reliably seals the gaps and provides static strain relief in accordance with DIN EN 62444. The seals are installed by pressing them from the inside outwards into the openings of the previously installed inlays. Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are numerous different sealing elements that can be used for sealing cables of various diameters and sizes.

4. Protective hood

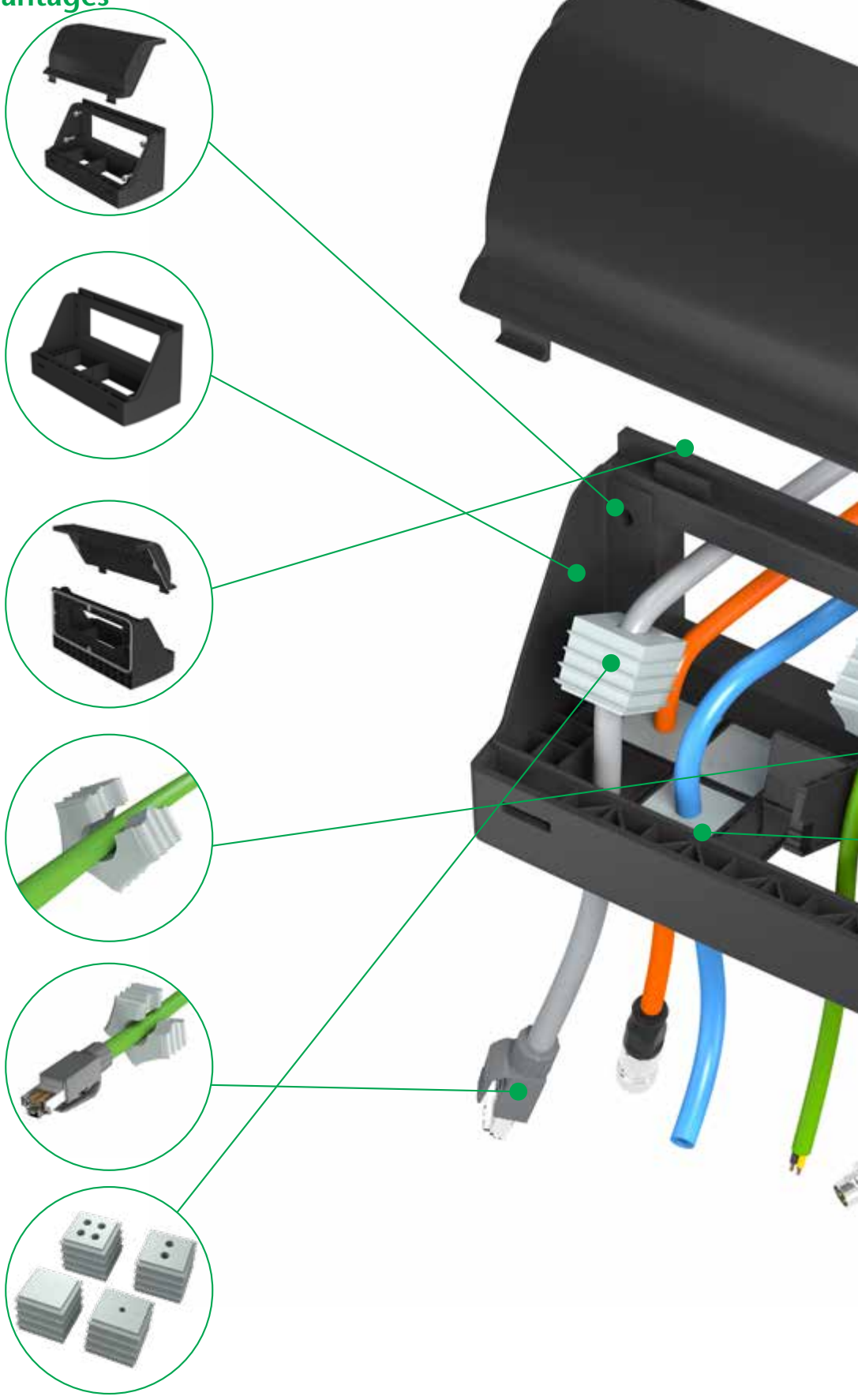
The protective hood has an all-round TPE gasket and ensures that an IP66 seal is achieved. In addition, the snap-on protective hood allows for quick access to the pressed-in sealing elements and covers the screws on the one-part frame.

More versatility and safety

The seals can be removed by pressing from the outside inwards. Changes, retrofits, servicing or the readjustment of the cable lengths can be made at any time without dismantling the frame.

KDS-SR90
Angled cable entry

An overview of your advantages



Attaching the frame
The angled frame can be easily and quickly attached to the wall.

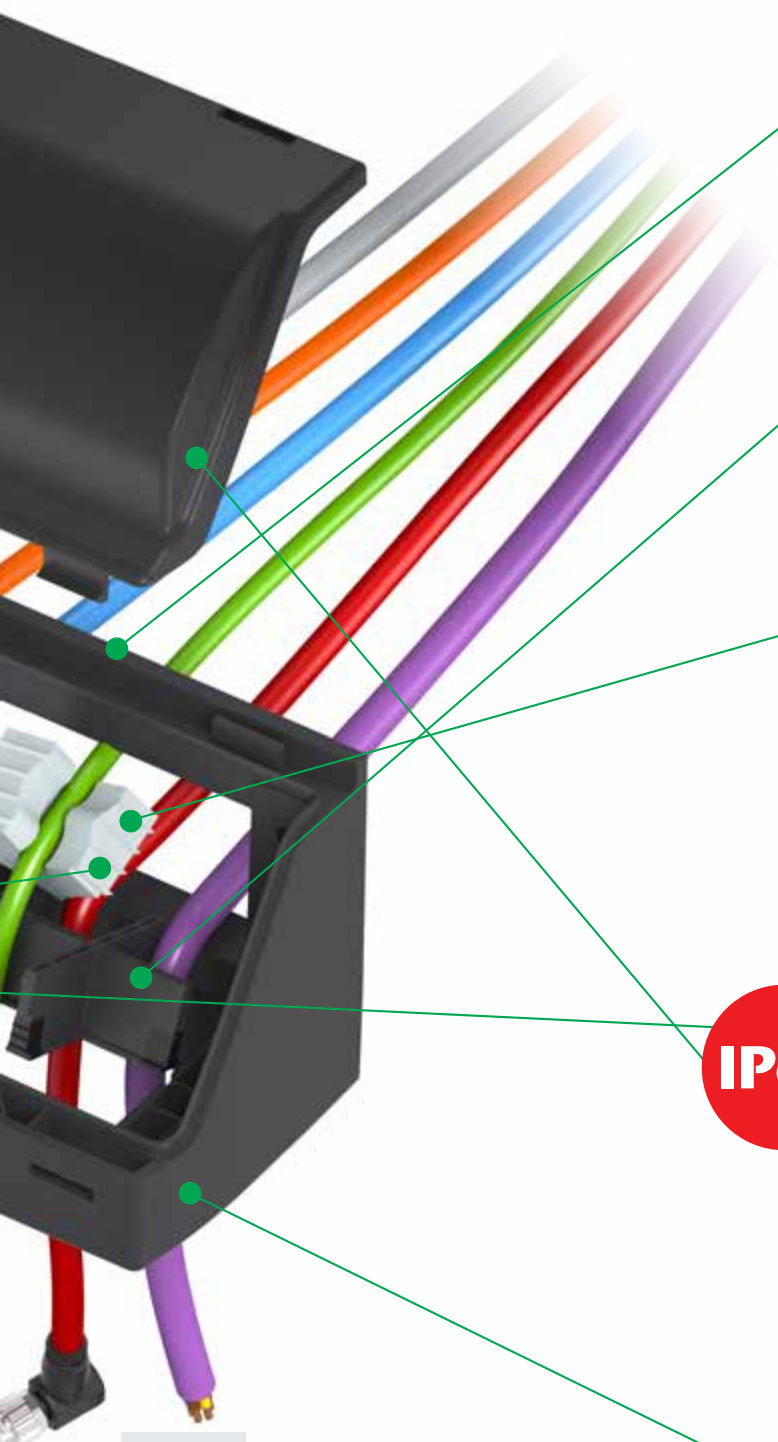
Quick inside-outwards assembly for easier servicing work
The frame does not need to be disassembled if your requirements change or if you're carrying out service work.

Captive gasket
The integrated frame gasket (TPE) eliminates the risk of incorrect assembly (forgotten gasket) and speeds up the assembly process.

Smart separation of the seals
The wave-cut profile makes them easy to install and ensures a perfect fit around the cables.

No Warranty Loss with Pre-Assembled Cables
No need to disassemble and reconnect connectors, so manufacturer's warranty is not voided.

Versatile, high-density assemblies are possible
1-way, 2-way, 3-way and 4-way seals and dummy plugs provide you with excellent versatility for cable management.



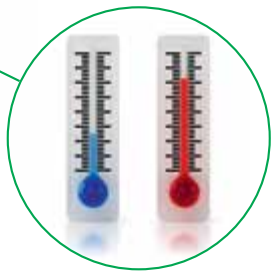
Outstanding versatility with optimized frame
The frames, inlays and seals can be combined in many ways – ensuring you many versatile configuration options.

Safe and quick installation with feedback
An audible "click" confirms that the inlay has been properly installed in the frame.

Integrated strain relief
The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.

Outstanding IP66 seal
Multi-resistant, tapered seals feature inner and outer sealing gills.

Protective hood
Ensures IP66-rated water resistance thanks to an all-round TPE gasket that covers the screws on the one-part frame.



Can be used from -40°C to +120°C
Materials contain no halogen or silicone, suitable for many different applications.

EN 61373

IP66

RoHS compliant

Made in Germany

CAD

KDS-SR90
Angled cable entry

Frames and inlays		KDS-SR90 8/16		KDS-SR90 10/24	
Description		Angled screw frame		Angled screw frame	
Type / colour		**KDS-SR90 8/16 BK**		**KDS-SR90 10/24 BK**	
Cat. no.	**Qty.**	*28952.4*	**1**	*28953.4*	**1**
Accessories					
Inlay		**KDS-Inlay 1 BK**		**KDS-Inlay 1 BK**	
Cat. no.	**Qty.**	*28516.4*	**5**	*28516.4*	**5**
Description		For separating vertically		For separating vertically	
Inlay		**KDS-Inlay 2 BK**		**KDS-Inlay 2 BK**	
Cat. no.	**Qty.**	*28517.4*	**5**	*28517.4*	**5**
Description		T-shape for large/small		T-shape for large/small	
Inlay		**KDS-Inlay 4 BK**		**KDS-Inlay 4 BK**	
Cat. no.	**Qty.**	*28518.4*	**5**	*28518.4*	**5**
Description		For 4-way divisions		For 4-way divisions	
Inlay				**KDS-Inlay 6 BK**	
Cat. no.	**Qty.**			*28519.4*	**5**
Description				for 6-way divisions	
Sheet-metal hole punch		**BL KDS-SR 8/16**		**BL KDS-SR 10/24**	
Cat. no.	**Qty.**	*28676.0*	**1**	*28677.0*	**1**
Description		For sheet steel up to 2 mm; also for marking drilling hole points		For sheet steel up to 2 mm; also for marking drilling hole points	
Actuating tool		**KDS BW 1**		**KDS BW 1**	
Cat. no.	**Qty.**	*28622.0*	**1**	*28622.0*	**1**
Seals					
Small and large		**See section KDS-DE and KDS-DEG**		**See section KDS-DE and KDS-DEG**	
KDS-DES		**See section KDS-DES**		**See section KDS-DES**	

IP66

RoHS compliant

Made in Germany

CAD

EN 61373

Features

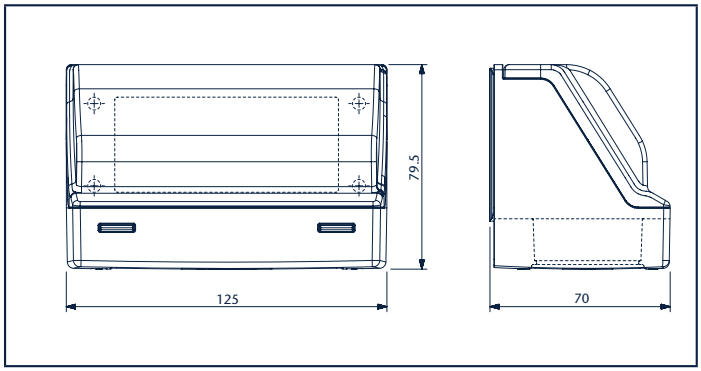
- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40°C to +120°C
- Halogen-free, silicone-free
- Protection: IP66

KDS-SR90

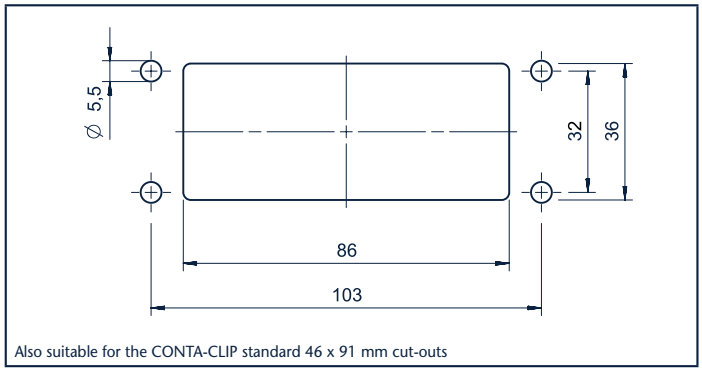
Modular cable entry system at a 90° angle | Dimensional diagrams / Mounting cut-outs

KDS-SR90 8/16

Dimensional diagram



Mounting cut-out



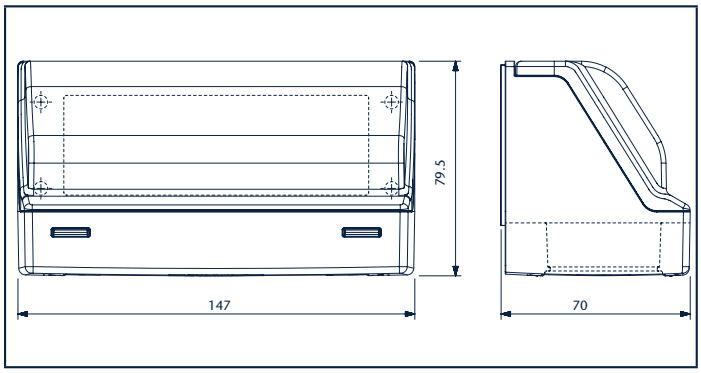
Also suitable for the CONTA-CLIP standard 46 x 91 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

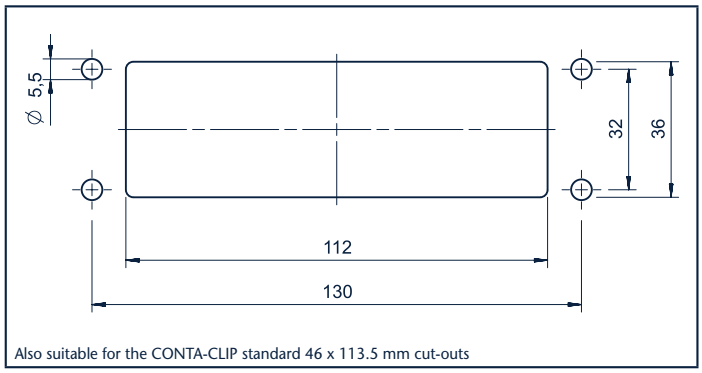
Screw for usage: ISO 4762 / DIN 912

KDS-SR90 10/24

Dimensional diagram



Mounting cut-out



Also suitable for the CONTA-CLIP standard 46 x 113.5 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

Screw for usage: ISO 4762 / DIN 912

KDS-SR90
Combination options

Combination options with KDS-SR90 8/16

KDS-Inlay 4 BK
28518.4

KDS-Inlay 1 BK
28516.4

KDS-Inlay 4 BK
28518.4

KDS-Inlay 1 BK
28516.4

KDS-Inlay 4 BK
28518.4

KDS-Inlay 2 BK
28517.4

KDS-Inlay 1 BK
28516.4

KDS-Inlay 1 BK
28516.4

Combination options with KDS-SR90 10/24

KDS-Inlay 4 BK
28518.4

KDS-Inlay 6 BK
28519.4

KDS-Inlay 6 BK
28519.4

KDS-Inlay 4 BK
28518.4

KDS-Inlay 1 BK
28516.4

KDS-Inlay 2 BK
28517.4

More information on KDS-SR90 can be found here:

Notes

KDS-SR
Easy – through the wall from the inside

Fast. Safe. Turning cables inside out! The **KDS-SR** cable entry system is a cable management solution for electrical cabinets, housings and machines that features secure seals and strain relief for cables – with or without connectors. This saves you time and provides you with maximum versatility.

KDS CLICK by CONTA-CLIP

Your advantages

- Easily assembled from the inside
- Guarantee retained for assembled cables
- Retrofitting and servicing can be done quickly and easily
- Integrated strain relief
- High-density assemblies

The basic components of the modular system

Frames. Inlays. Seals. The modular design – 3 basic components – provides more versatility, variability and variety.

1. Frame

Made from a single mould, the one-part frame is quick and easy to assemble. It is made of sturdy, glass-fibre reinforced plastic. The foamed gasket guarantees an optimal seal with IP66 protection, even on painted or rough surfaces.

2 Inlays

The click-in inlays allow flexible sizing of the frame opening to fit the seal in use. An audible "click" confirms a correct installation. You can variably configure cable entries to match various requirements (for cables, lines, hoses, pneumatic and hydraulic lines).

3. Seals

The conical shape of the sealing elements allows them to be easily pressed in. This also reliably seals the gaps and provides static strain relief in accordance with DIN EN 62444. The seals are installed by pressing them from the inside outwards into the openings of the previously installed inlays. Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are numerous different sealing elements that can be used for sealing cables of various diameters and sizes.

More versatility and safety

The seals can be removed by pressing from the outside inwards. Changes, retrofits, servicing or the readjustment of the cable lengths can be made at any time without dismantling the frame. Unwanted manipulations from the outside can be prevented by using an optional inner locking frame.

KDS-SR
Easy – through the wall from the inside

Gefördert durch:

Bundesministerium
für Wirtschaft
und Energie

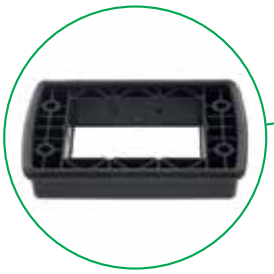
aufgrund eines Beschlusses
des Deutschen Bundestages

An overview of your advantages

Attaching the frame
The one-part frame can be easily and quickly attached to the wall.

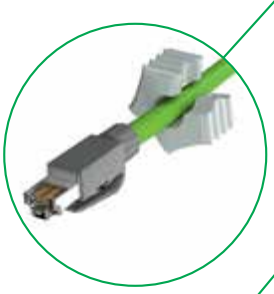
Quick inside-outwards assembly for easier servicing work
The frame does not need to be disassembled if your requirements change or if you're carrying out service work.

Captive gasket
The foamed-in frame gasket eliminates the risk of incorrect assembly (forgotten gasket) and speeds up the assembly process.

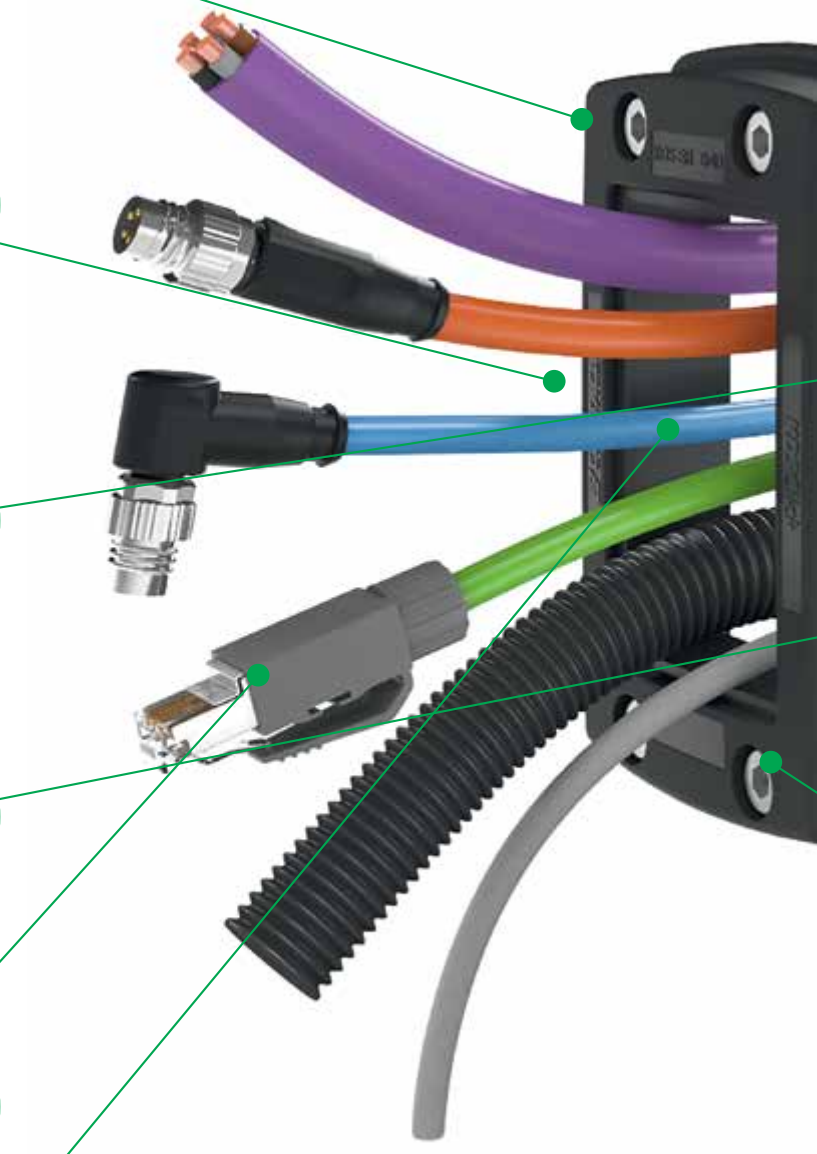


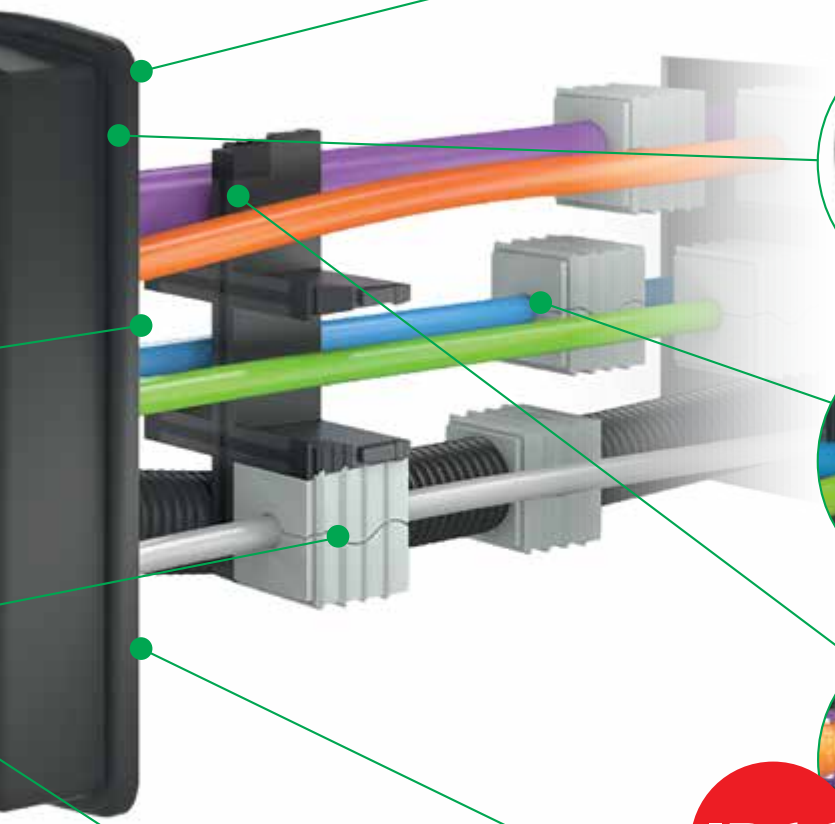
Smart separation of the seals
The wave-cut profile makes them easy to install and ensures a perfect fit around the cables.

No Warranty Loss with Pre-Assembled Cables
No need to disassemble and reconnect connectors, so manufacturer's warranty is not voided.



Versatile, high-density assemblies are possible
1-way, 2-way, 3-way and 4-way sealing elements and dummy plugs provide you with excellent versatility for cable management.



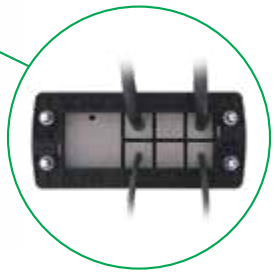


Outstanding versatility with optimized frame
The frames, inlays and seals can be combined in many ways – ensuring you many versatile configuration options.

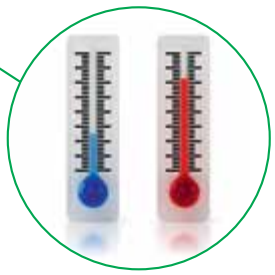
Safe and quick installation with feedback
An audible "click" confirms that the inlay has been properly installed in the frame.

Integrated strain relief
The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.

Outstanding IP66 seal
Multi-resistant, tapered seals feature inner and outer sealing gills.



Inner locking frame
The optional locking frame ensures that the seals cannot be pushed out without using tools.



Can be used from -40°C to +120°C
Materials contain no halogen or silicone, suitable for many different applications.

EN 61373

DNV-GL Approved Products

IP66

UL TYPE Rating 12

UL TYPE* Rating 4x

ECOLAB certified

RoHS compliant

Made in Germany

CAD

* 4x is for indoor use only

KDS-SR

Easy – through the wall from the inside

Frames and inlays	KDS-SR 1-4	KDS-SR 6/10	KDS-SR 8/16	KDS-SR 10/24
Description	Screw frame	Screw frame	Screw frame	Screw frame
Type/colour	**KDS-SR 1-4 BK**	**KDS-SR 6/10 BK**	**KDS-SR 8/16 BK**	**KDS-SR 10/24 BK**
Cat. no. **Qty.**	*28506.4* **1**	*28500.4* **1**	*28502.4* **1**	*28504.4* **1**
Type / Set	**KDS-Set 1-4 BK**	**KDS-Set 6/10 BK**	**KDS-Set 8/16 BK**	**KDS-Set 10/24 BK**
Cat. no. **Qty.**	*28602.4* **1**	*28603.4* **1**	*28604.4* **1**	*28605.4* **1**
Description	Set consists of: 1 x KDS-SR 1-4 BK, 1 x KDS-Inlay 4 BK	Set consists of: 1 x KDS-SR 6/10 BK, 1 x KDS-Inlay 2 BK, 1 x KDS-Inlay 6 BK	Set consists of: 1 x KDS-SR 8/16 BK, 1 x KDS-Inlay 1 BK, 2 x KDS-Inlay 4 BK	Set consists of: 1 x KDS-Inlay 4 BK, 1 x KDS-Inlay 6 BK
Accessories				
Inlay	**KDS-Inlay 1 BK**	**KDS-Inlay 1 BK**	**KDS-Inlay 1 BK**	**KDS-Inlay 1 BK**
Cat. no. **Qty.**	*28516.4* **5**	*28516.4* **5**	*28516.4* **5**	*28516.4* **5**
Description	For separating vertically	For separating vertically	For separating vertically	For separating vertically
Inlay		**KDS-Inlay 2 BK**		**KDS-Inlay 2 BK**
Cat. no. **Qty.**		*28517.4* **5**		*28517.4* **5**
Description		T-shape		T-shape for large/small
Inlay	**KDS-Inlay 4 BK**		**KDS-Inlay 4 BK**	**KDS-Inlay 4 BK**
Cat. no. **Qty.**	*28518.4* **5**		*28518.4* **5**	*28518.4* **5**
Description	For 4-way divisions		For 4-way divisions	For 4-way divisions
Inlay		**KDS-Inlay 6 BK**		**KDS-Inlay 6 BK**
Cat. no. **Qty.**		*28519.4* **5**		*28519.4* **5**
Description		For 6-way divisions		For 6-way divisions
Inner locking frame (optional)	**KDS-IVR 1-4 BK**	**KDS-IVR 6/10 BK**	**KDS-IVR 8/16 BK**	**KDS-IVR 10/24 BK**
Cat. no. **Qty.**	*28507.4* **10**	*28501.4* **10**	*28503.4* **10**	*28505.4* **10**
Sheet-metal hole punch	**BL KDS-SR 1-4**	**BL KDS-SR 6/10**	**BL KDS-SR 8/16**	**BL KDS-SR 10/24**
Cat. no. **Qty.**	*28674.0* **1**	*28675.0* **1**	*28676.0* **1**	*28677.0* **1**
Description	For sheet steel up to 2 mm; also for marking drilling hole points	For sheet steel up to 2 mm; also for marking drilling hole points	For sheet steel up to 2 mm; also for marking drilling hole points	For sheet steel up to 2 mm; also for marking drilling hole points
Actuating tool	**KDS BW 1**	**KDS BW 1**	**KDS BW 1**	**KDS BW 1**
Cat. no. **Qty.**	*28622.0* **1**	*28622.0* **1**	*28622.0* **1**	*28622.0* **1**
Seals				
Small and large	**See section KDS-DE and KDS-DEG**	**See section KDS-DE and KDS-DEG**	**See section KDS-DE and KDS-DEG**	**See section KDS-DE and KDS-DEG**
KDS-DES	**See section KDS-DES**	**See section KDS-DES**	**See section KDS-DES**	**See section KDS-DES**
Seal plugs for mounting screws	**KDS-VS-SR BK**	**KDS-VS-SR BK**	**KDS-VS-SR BK**	**KDS-VS-SR BK**
Cat. no. **Qty.**	*28779.4* **100**	*28779.4* **100**	*28779.4* **100**	*28779.4* **100**

IP66 | UL TYPE Rating 12 | UL TYPE* Rating 4x | EN 61373

ECOLAB certified | RoHS compliant | Made in Germany | CAD | DNV-GL Approved Products

* 4x is for indoor use only

Features

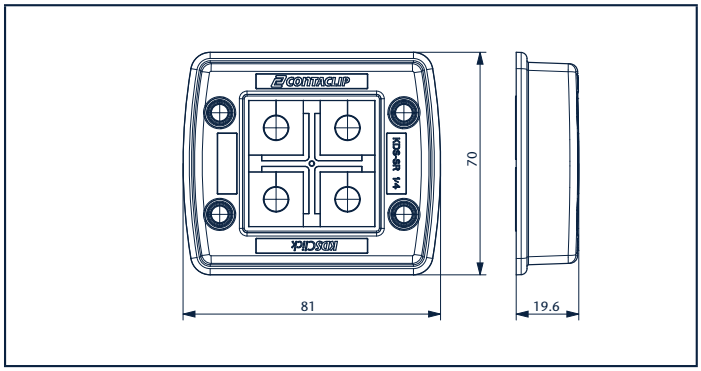
- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40°C to +120°C
- Halogen-free, silicone-free
- Protection: IP66

KDS-SR

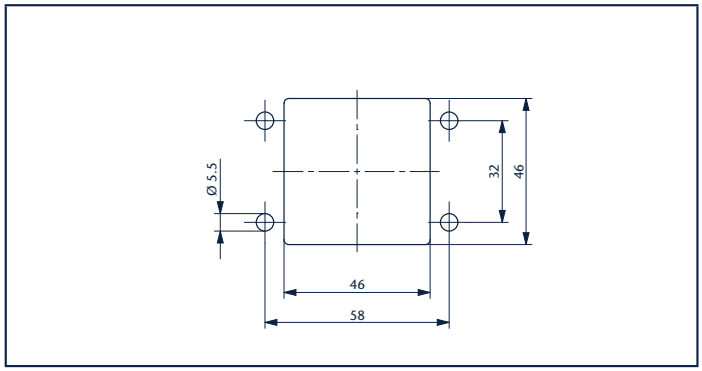
Modular cable entry system | Dimensional diagrams / Mounting cut-outs

KDS-SR 1-4

Dimensional diagram



Mounting cut-out

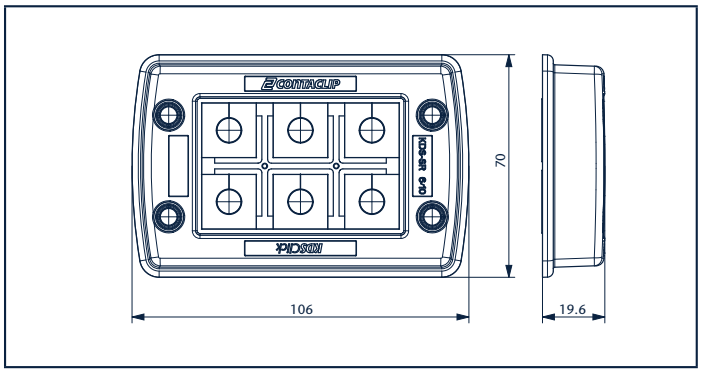


Torque for the frame's mounting screw: 3 Nm

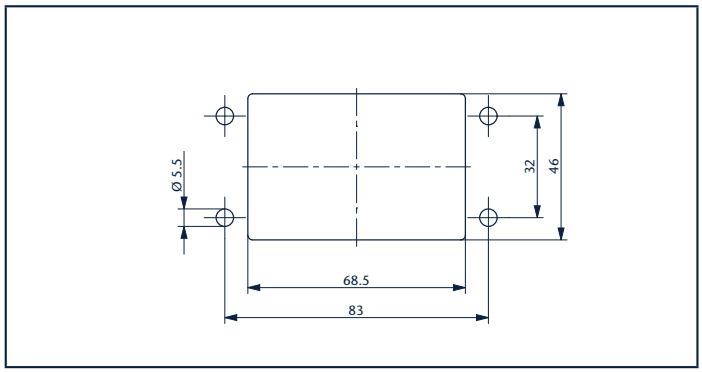
Screw for usage: ISO 4762 / DIN 912

KDS-SR 6/10

Dimensional diagram



Mounting cut-out

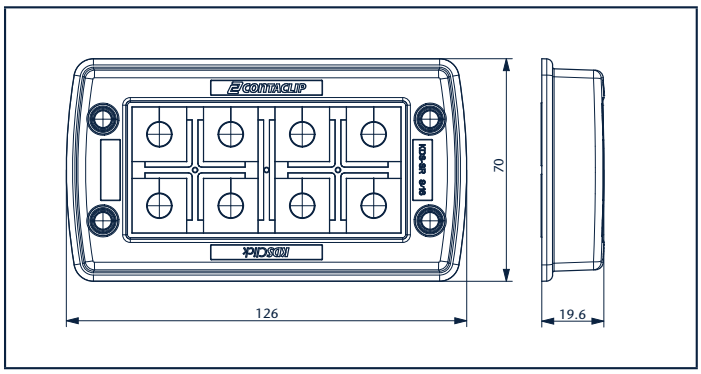


Torque for the frame's mounting screw: 3 Nm

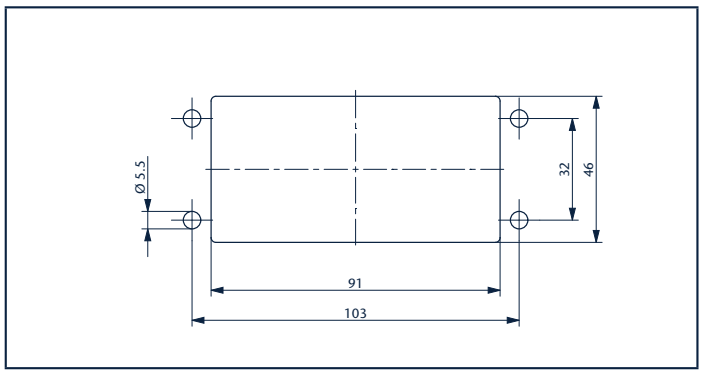
Screw for usage: ISO 4762 / DIN 912

KDS-SR 8/16

Dimensional diagram



Mounting cut-out

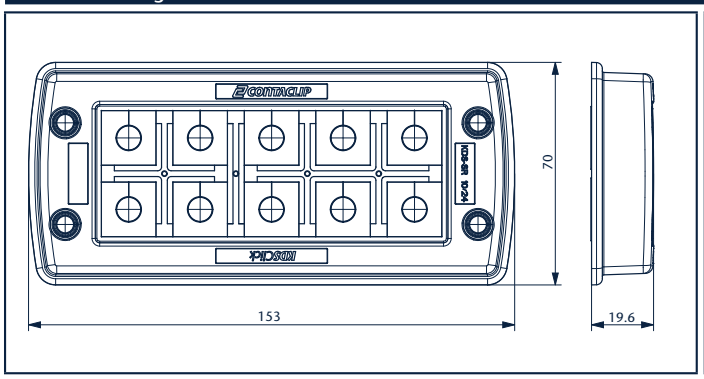


Torque for the frame's mounting screw: 3 Nm

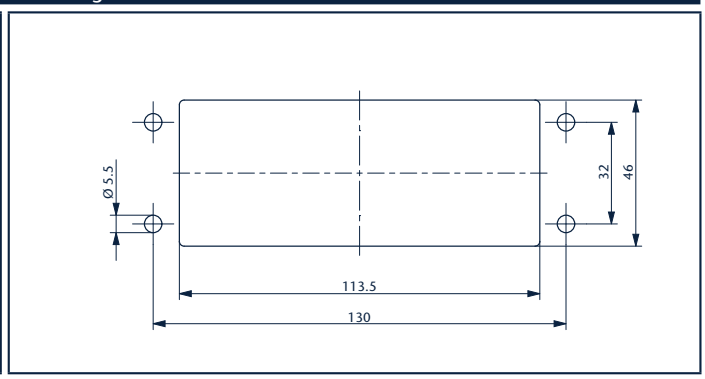
Screw for usage: ISO 4762 / DIN 912

KDS-SR 10/24

Dimensional diagram



Mounting cut-out



Torque for the frame's mounting screw: 3 Nm

Screw for usage: ISO 4762 / DIN 912

KDS-SR
Combination options

Combination options with KDS-SR 1-4

KDS-Inlay 4 BK
28518.4

KDS-Inlay 1 BK
28516.4

Combination options with KDS-SR 6/10

KDS-Inlay 6 BK
28519.4

KDS-Inlay 2 BK
28517.4

KDS-Inlay 1 BK
28516.4

Combination options with KDS-SR 8/16

KDS-Inlay 4 BK
28518.4

KDS-Inlay 1 BK
28516.4

KDS-Inlay 4 BK
28518.4

KDS-Inlay 1 BK
28516.4

KDS-Inlay 4 BK
28518.4

KDS-Inlay 2 BK
28517.4

KDS-Inlay 1 BK
28516.4

KDS-Inlay 1 BK
28516.4

Combination options with KDS-SR 10/24

KDS-Inlay 4 BK
28518.4

KDS-Inlay 6 BK
28519.4

KDS-Inlay 6 BK
28519.4

KDS-Inlay 4 BK
28518.4

KDS-Inlay 1 BK
28516.4

KDS-Inlay 2 BK
28517.4

More information on KDS-SR can be found here:

Notes

KDS-SR Compact
Cable entry system in a compact design

The **KDS-SR Compact** compact cable entry system ensures that cables and hoses can be routed quickly and securely, even in extremely cramped installation conditions, with IP66 protection. The compact screw frame offers protection against dust and deposits and can be easily fitted with cables with and without connector as well as hoses.

The frames can be fitted with the seals from the CONTA-CLIP cable management system. Changes can be made at any time without tools – quickly, securely and in just a few simple steps.

KDS CLICK by CONTA-CLIP

Your advantages

- Completely assembled from the inside outwards
- Guarantee retained for assembled cables
- Retrofit: Modernization, retrofitting, and service work can be carried out quickly and easily without dismantling the frame
- High-density assemblies
- Cable entry for extremely cramped installation conditions

The basic components of the modular system

Frames. Seals. The modular design – with two basic components – provides more versatility, variability and variety.

1. Frame

Made from a single mould, the one-part frame is quick and easy to assemble. It is made of sturdy, glass-fibre reinforced plastic. The integrated TPE gasket guarantees an optimal seal with IP66 protection, even on painted or rough surfaces.

2 Seals

The conical shape of the sealing elements allows them to be easily pressed in. This also reliably seals the gaps and provides static strain relief in accordance with DIN EN 62444. The seals are installed by pressing them from the inside outwards into the openings of the previously installed inlays. Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are numerous different sealing elements that can be used for sealing cables of various diameters and sizes.

Versatility and time saving

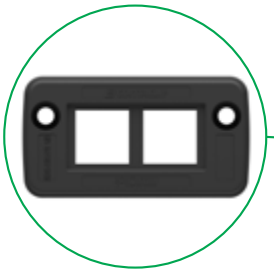
Modifications, retrofits, service work or the readjustment of cable lengths can be made at any time without disassembling the frame, since the sealing elements are released from the outside inwards by simply pressing in.

KDS-SR Compact
Cable entry system in a compact design

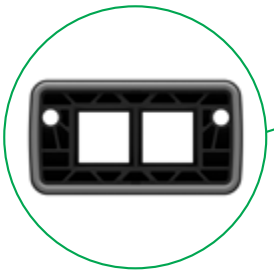
An overview of your advantages

Attaching the frame
The one-part frame can be easily and quickly attached to the wall.

Quick assembly from the inside out for greater serviceability
It is not necessary to disassemble the frame when requirement change or during service work.

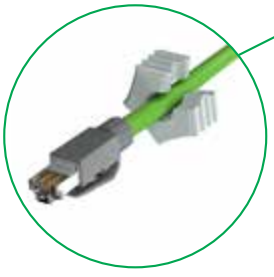


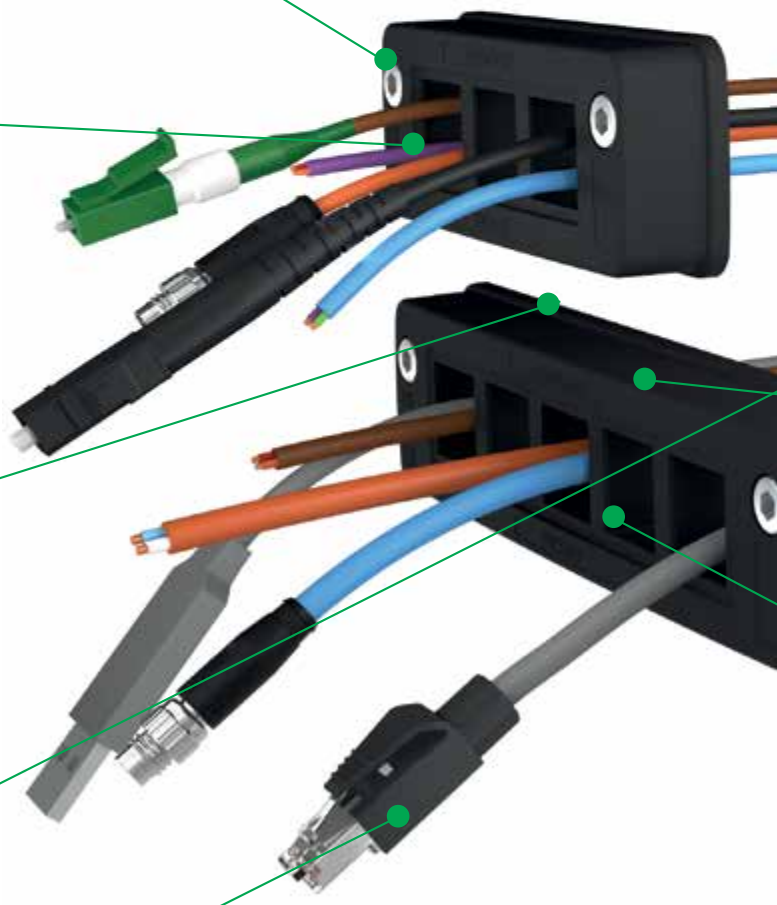
Captive gasket
The moulded-in frame gasket eliminates the risk of incorrect assembly (forgotten gasket) and speeds up the assembly process.

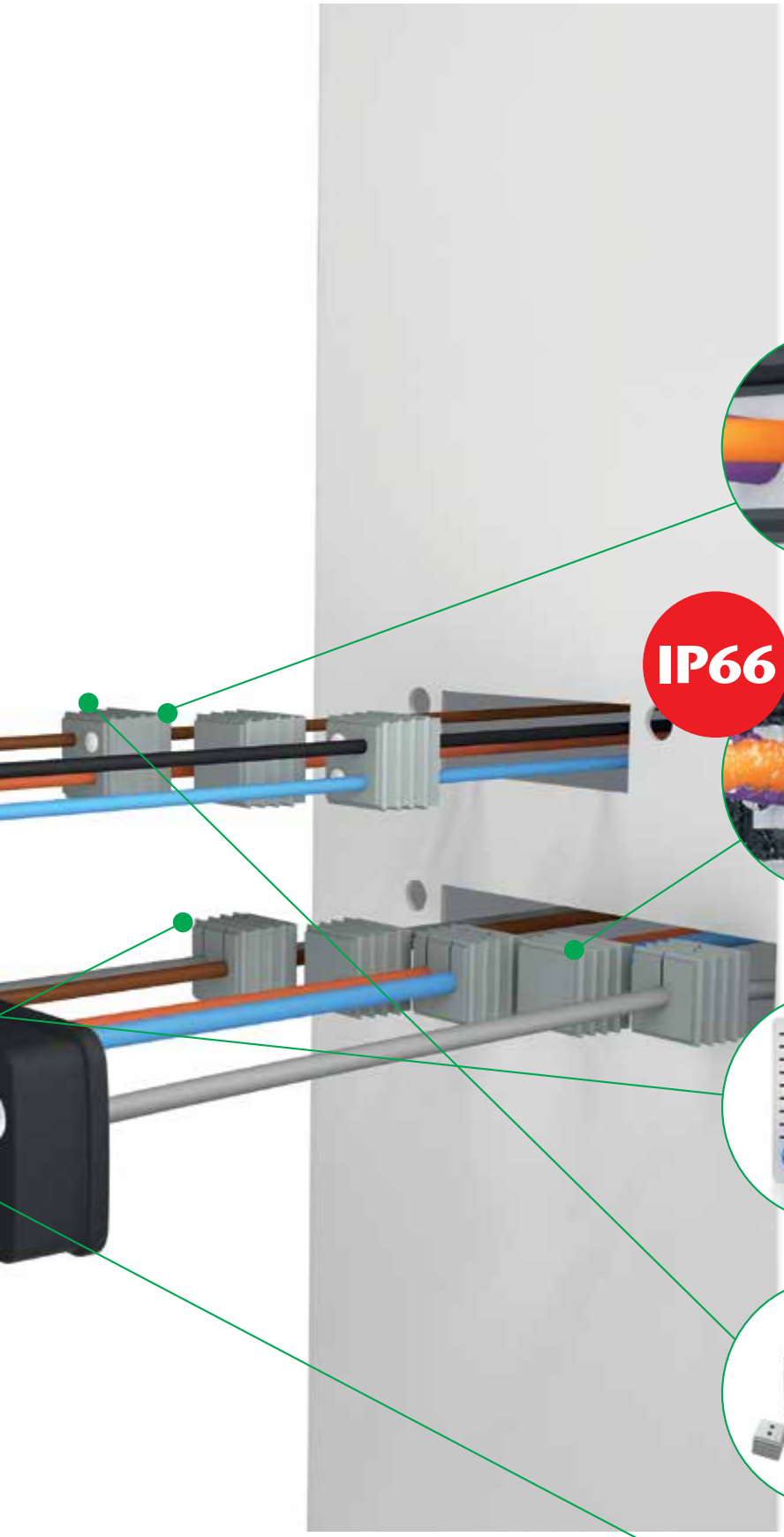


Smart separation of the seals
The wave-cut profile makes them easy to install and ensures a perfect fit around the cables.

No Warranty Loss with Pre-Assembled Cables
No need to disassemble and reconnect connectors, so manufacturer's warranty is not voided.

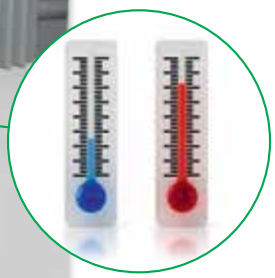






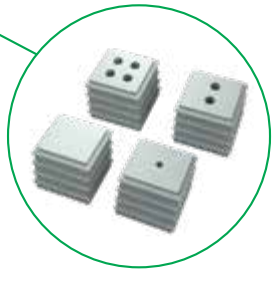
Integrated strain relief
The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.

Outstanding IP66 seal
Multi-resistant, conically tapered seals feature inner and outer sealing gills.



Can be used from -40°C to +120°C
Materials contain no halogen or silicone, suitable for many different applications.

Outstanding versatility with optimized frame
The frames and sealing elements can be combined in many ways – ensuring you many versatile configuration options.



Versatile, high-density assemblies are possible
1-way, 2-way, 3-way and 4-way seals and dummy plugs provide you with excellent versatility for cable management.

EN 61373

IP66

RoHS compliant

Made in Germany

CAD

KDS-SR Compact
Cable entry system in a compact design

Frame	KDS-SR-FB1/B	KDS-SR-FB2/C	KDS-SR-FB3/E	KDS-SR-FB4/F
Description	Compact screw frame for 2 small sealing elements	Compact screw frame for 3 small sealing elements	Compact screw frame for 4 small sealing elements	Compact screw frame for 5 small sealing elements
Type / colour	**KDS-SR-FB1/B BK**	**KDS-SR-FB2/C BK**	**KDS-SR-FB3/E BK**	**KDS-SR-FB4/F BK**
Cat. no. **Qty.**	*29008.4* **1**	*28799.4* **1**	*29009.4* **1**	*28712.4* **1**
Accessories				
Seals				
small	**See section KDS-DE**	**See section KDS-DE**	**See section KDS-DE**	**See section KDS-DE**
Sheet-metal hole punch	**BL-VA KDS-FB1**	**BL-VA KDS-FB2**	**BL-VA KDS-FB3**	**BL-VA KDS-FB4**
Cat. no. **Qty.**	*28729.0* **1**	*28741.0* **1**	*28742.0* **1**	*28743.0* **1**
EMC bracket	**KDS-EMV-SAB 1-4**	**KDS-EMV-SAB 6/10**	**KDS-EMV-SAB 8/16**	**KDS-EMV-SAB 10/24**
Cat. no. **Qty.**	*28623.0* **1**	*28624.0* **1**	*28625.0* **1**	*28626.0* **1**
Actuating tool	**KDS BW 1**	**KDS BW 1**	**KDS BW 1**	**KDS BW 1**
Cat. no. **Qty.**	*28622.0* **1**	*28622.0* **1**	*28622.0* **1**	*28622.0* **1**

IP66 | RoHS compliant | Made in Germany | CAD | EN 61373

Features

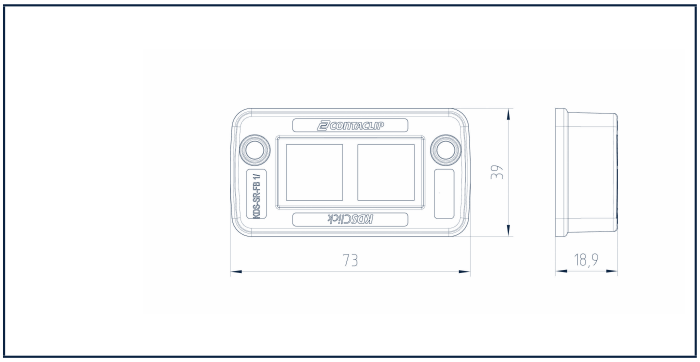
- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40°C to +120°C
- Halogen-free, silicone-free
- Protection: IP66

KDS-SR Compact

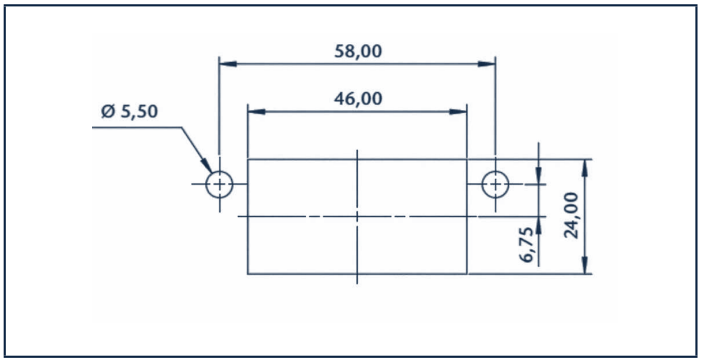
Cable entry system in a compact design
Dimensional diagrams / Mounting cut-outs

KDS-SR-FB1/B

Dimensional diagram



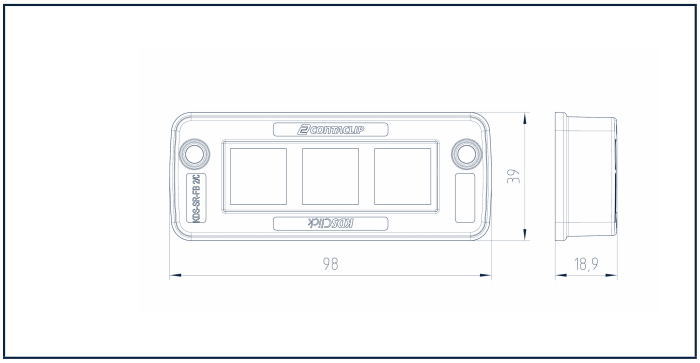
Mounting cut-out



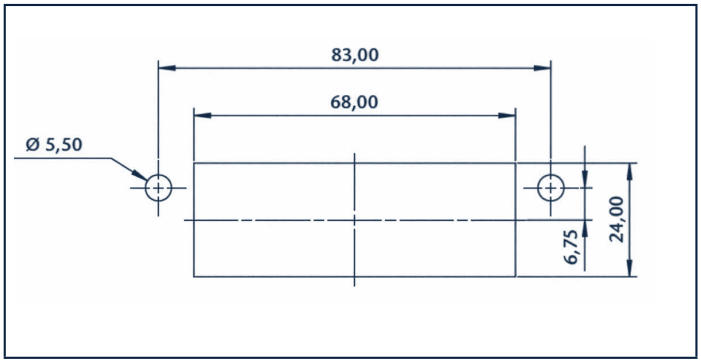
Torque for the frame's mounting screw: 3 Nm

KDS-SR-FB2/C

Dimensional diagram



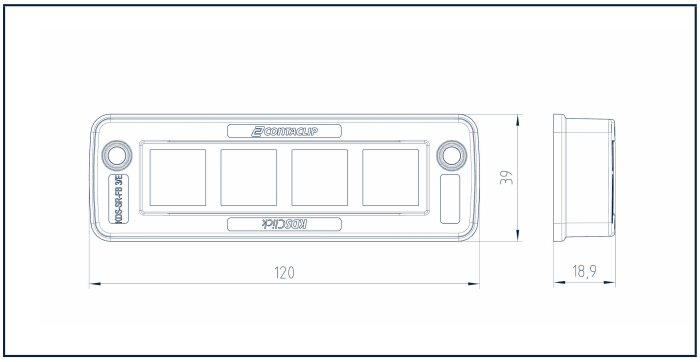
Mounting cut-out



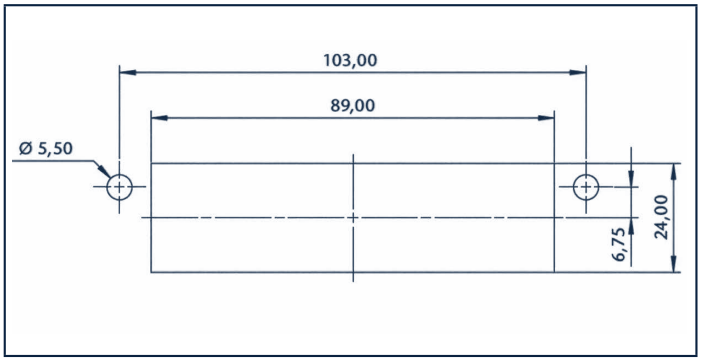
Torque for the frame's mounting screw: 3 Nm

KDS-SR-FB3/E

Dimensional diagram



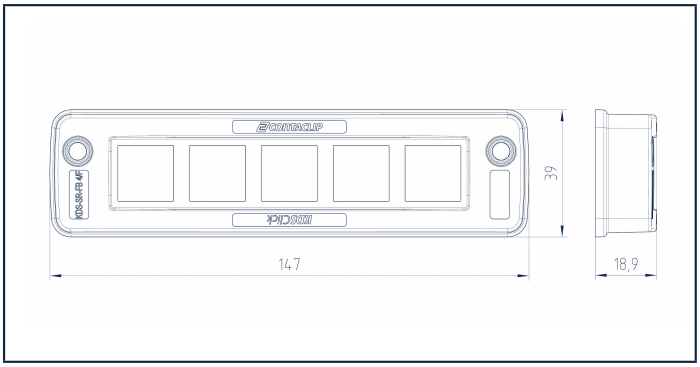
Mounting cut-out



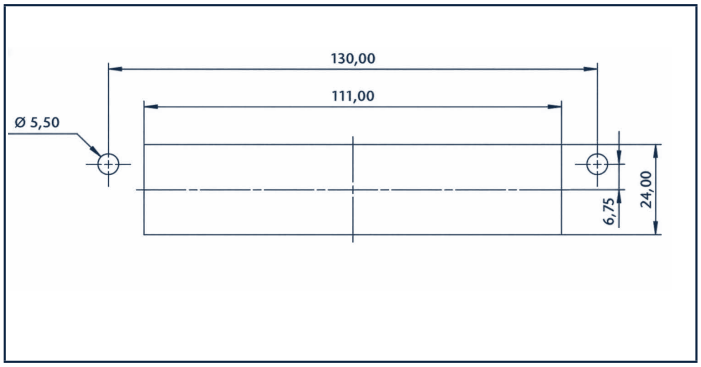
Torque for the frame's mounting screw: 3 Nm

KDS-SR-FB4/F

Dimensional diagram



Mounting cut-out



Torque for the frame's mounting screw: 3 Nm

KDS-FP
Flange plates

The new versatile solution for managing cables: The **KDS-FP** flange plate provides machine manufacturers with a very cost-effective, convenient feedthrough solution. It can be used to adapt housings and electrical cabinets to fit your updated requirements at any time, and can also considerably simplify your warehousing. You no longer have to stock electrical cabinets or distributors with different configurations of assembled cable and cable outlets. Instead, you can uniformly prepare your products with the flange plate and then adapt them at any time to your specific cabling or tubing requirements. Your advantage is that you save money by requiring fewer variants.

KDS CLICK by CONTA-CLIP

Your advantages

- Lower costs with increased variability due to standardized opening dimensions
- Guarantee retained for assembled cables
- Versatile, high-density assemblies are possible
- Integrated strain relief
- Outstanding versatility with optimized warehousing

The basic components of the modular system

Flange plate. Inlays. Seals. The modular design – 3 basic components – provides more versatility, variability and variety.

1. Flange plate

The flange plate is available in the versions **KDS-FP 2x10/24** and **KDS-FP 3x10/24** for up to 20 or 30 feedthrough openings. Uniform housing break-outs of 131 mm x 110 mm or 131 mm x 161 mm are used for installation. By screwing the flange plate on the outside of the cabinet, the break-out is completely sealed according to IP66. On the continuous closed plates, there are two or three cover segments with pre-determined breaking points; these can be pushed out (without tools) which then opens up a 110 mm x 40 mm feedthrough opening. The click-in KDSClick frame inlays can be used to subdivide this opening in up to ten appropriately sized frame openings.

2 Inlays

The click-in inlays allow flexible sizing of the frame opening to fit the seal in use. An audible "click" confirms a correct installation. You can variably configure cable entries to match various requirements (for cables, lines, tubing, pneumatic and hydraulic lines).

3. Seals

The conical shape of the sealing elements allows them to be easily pressed in. This also reliably seals the gaps and provides static strain relief in accordance with DIN EN 62444. The seals are installed by pressing them from the inside outwards into the openings of the previously installed inlays. Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are numerous different sealing elements that can be used for sealing cables of various diameters and sizes.

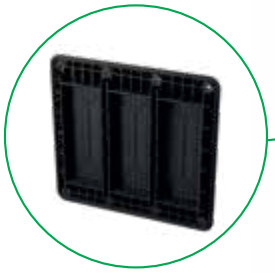
Versatility and time saving

Modifications, retrofits, service work or the readjustment of cable lengths can be made at any time without disassembling the frame, since the sealing elements are released from the outside inwards by simply pressing in.

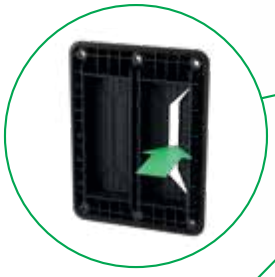
KDS-FP
Flange plates

An overview of your advantages

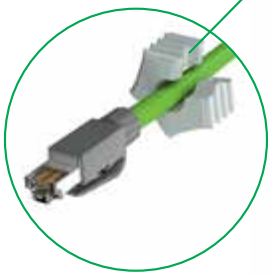
Flange plate is easy to install
The one-part flange plate can be easily and quickly attached to the wall.



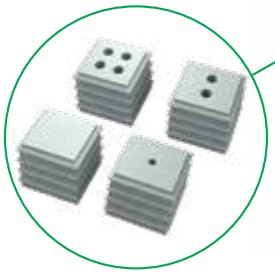
Captive gasket
The foamed-in frame gasket eliminates the risk of incorrect assembly (forgotten gasket) and speeds up the assembly process.



Variability
Can be extended to max. 30 openings, without the use of tools or further machining.

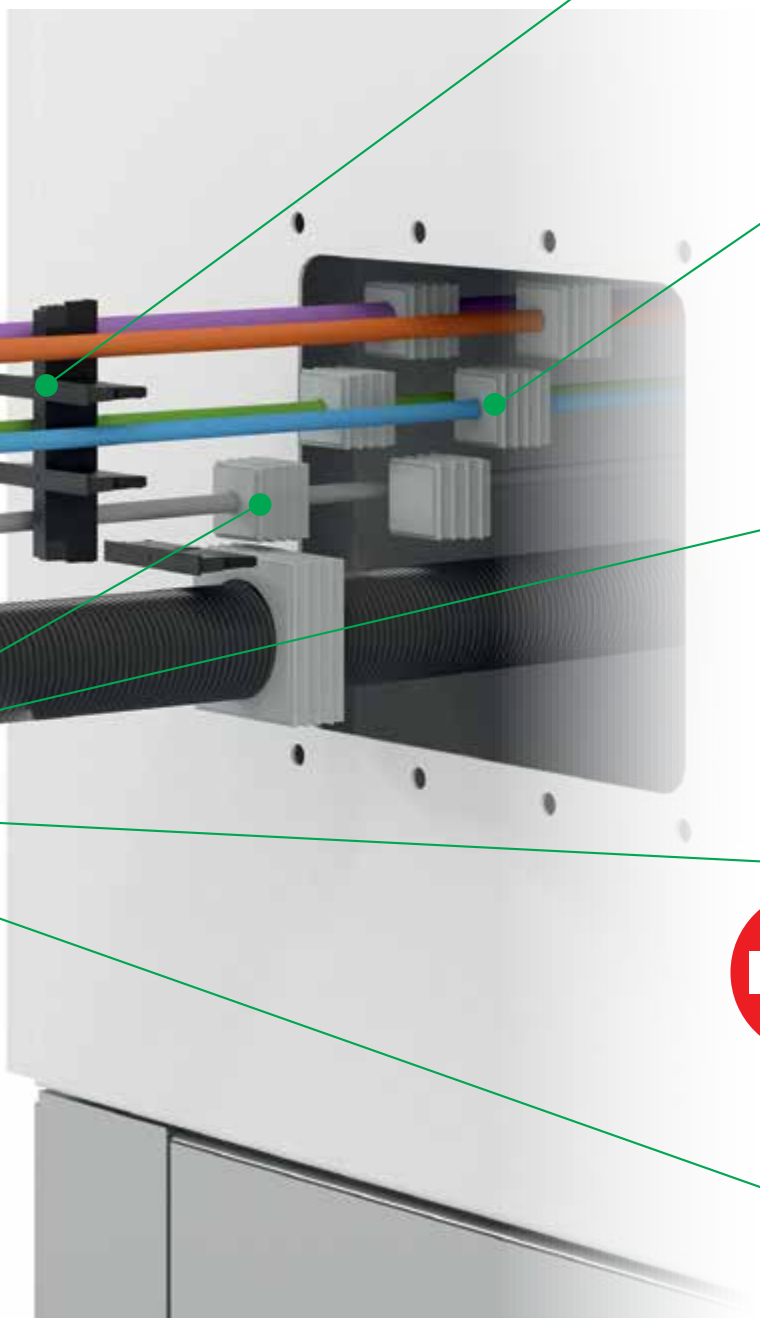


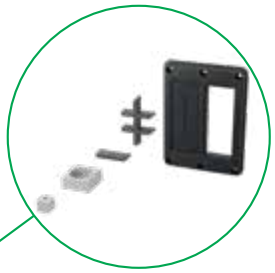
No Warranty Loss with Pre-Assembled Cables
No need to disassemble and reconnect connectors, so manufacturer's warranty is not voided.



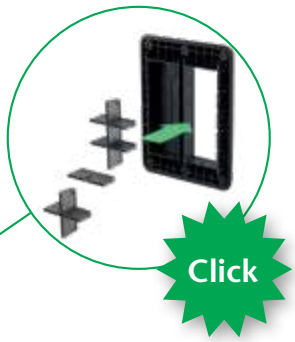
Versatile, high-density assemblies are possible
1-way, 2-way, 3-way and 4-way sealing elements and dummy plugs provide you with excellent versatility for cable management.

Optional inner locking mechanism
Locking mechanism can be installed without tools; this provides additional strain relief in direction of cabinet interior.





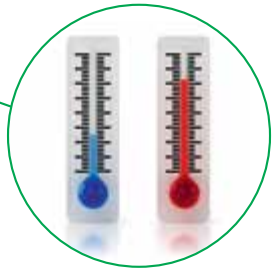
Outstanding versatility with optimized warehousing
The flange plates, inlays and seals can be combined in many ways – ensuring you many versatile configuration options.



Safe and quick installation with feedback
An audible "click" confirms that the inlay has been properly installed in the frame.

Integrated strain relief
The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.

Outstanding IP66 seal
Multi-resistant, conically tapered seals feature inner and outer sealing gills.



Can be used from -40°C to +120°C
Materials contain no halogen or silicone; suitable for many different applications.

IP66 | UL TYPE Rating 12 | UL TYPE* Rating 4x

ECOLAB certified | RoHS compliant | Made in Germany | CAD | EN 61373

* 4x is for indoor use only

KDS-FP
Flange plates

Flange plates and accessories	KDS-FP 2x10/24	KDS-FP 3x10/24
Description	Flange plate	Flange plate
Type / colour	**KDS-FP 2x10/24 BK**	**KDS-FP 3x10/24 BK**
Cat. no. **Qty.**	*28660.4* **1**	*28661.4* **1**
Accessories		
Inlay	**KDS-Inlay 1 BK**	**KDS-Inlay 1 BK**
Cat. no. **Qty.**	*28516.4* **5**	*28516.4* **5**
Description	For separating vertically	For separating vertically
Inlay	**KDS-Inlay 2 BK**	**KDS-Inlay 2 BK**
Cat. no. **Qty.**	*28517.4* **5**	*28517.4* **5**
Description	**T-shape for large/small**	**T-shape for large/small**
Inlay	**KDS-Inlay 4 BK**	**KDS-Inlay 4 BK**
Cat. no. **Qty.**	*28518.4* **5**	*28518.4* **5**
Description	for 4-way divisions	for 4-way divisions
Inlay	**KDS-Inlay 6 BK**	**KDS-Inlay 6 BK**
Cat. no. **Qty.**	*28519.4* **5**	*28519.4* **5**
Description	for 6-way divisions	for 6-way divisions
Inner lock	**KDS-FP-IVR OG**	**KDS-FP-IVR OG**
Cat. no. **Qty.**	*28664.3* **20**	*28664.3* **20**
Inner cover UL	**KDS-FP-AD/UL YE**	**KDS-FP-AD/UL YE**
Cat. no. **Qty.**	*28665.8* **10**	*28665.8* **10**
Actuating tool	**KDS BW 1**	**KDS BW 1**
Cat. no. **Qty.**	*28622.0* **1**	*28622.0* **1**
Seals		
Small and large	**See section KDS-DE and KDS-DEG**	**See section KDS-DE and KDS-DEG KDS-DE**
KDS-DES	**See section KDS-DES**	**See section KDS-DES**
Seal plugs for mounting screws	**KDS-VS-SR BK**	**KDS-VS-SR BK**
Cat. no. **Qty.**	*28779.4* **100**	*28779.4* **100**

IP66

UL TYPE Rating 12

UL TYPE* Rating 4x

EN 61373

ECOLAB certified

RoHS compliant

Made in Germany

CAD

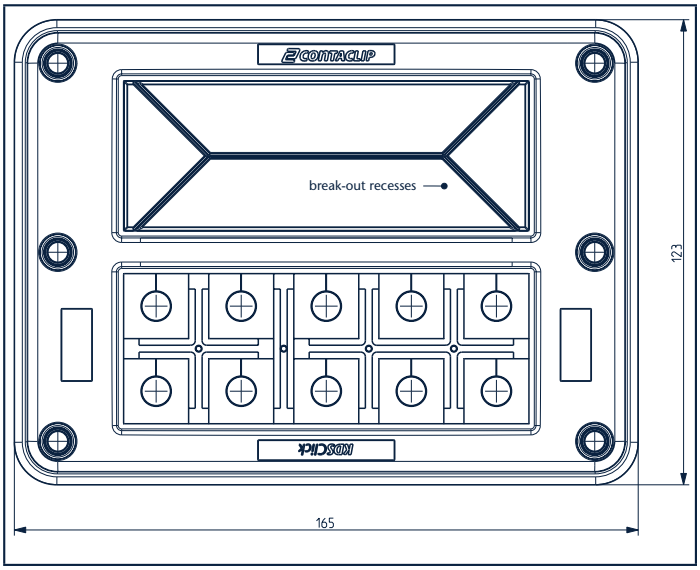
* 4x is for indoor use only

KDS-FP

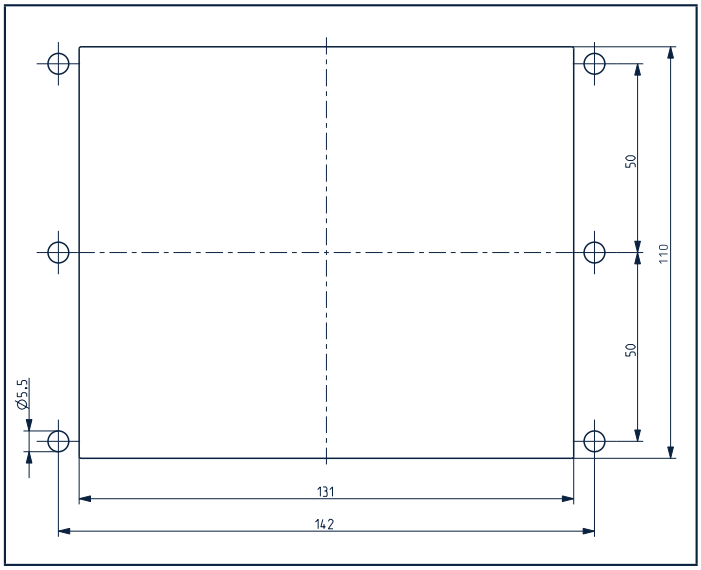
Flange plates |
Dimensional diagrams / Mounting cut-outs

KDS-FP 2x10/24

Dimensional diagram



Mounting cut-out

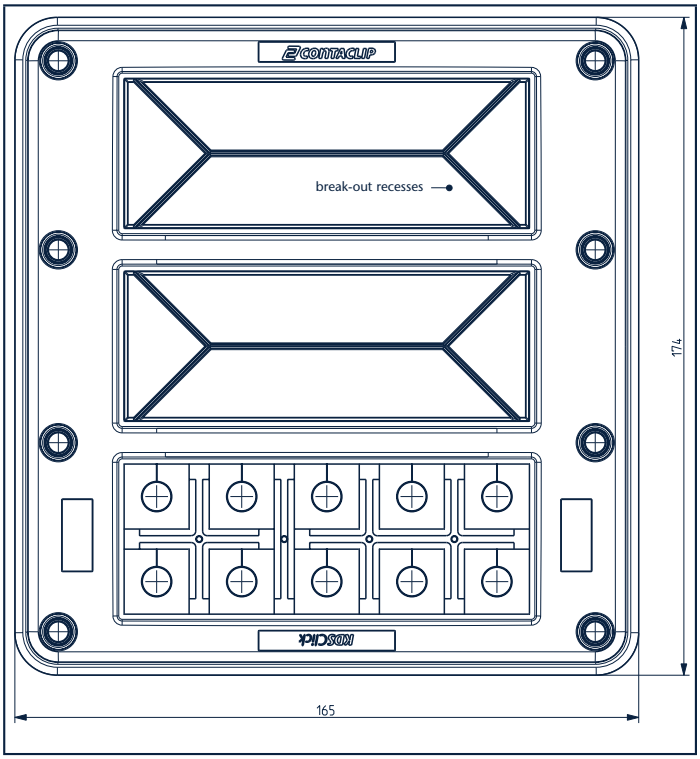


Torque for the frame's mounting screw: 3 Nm

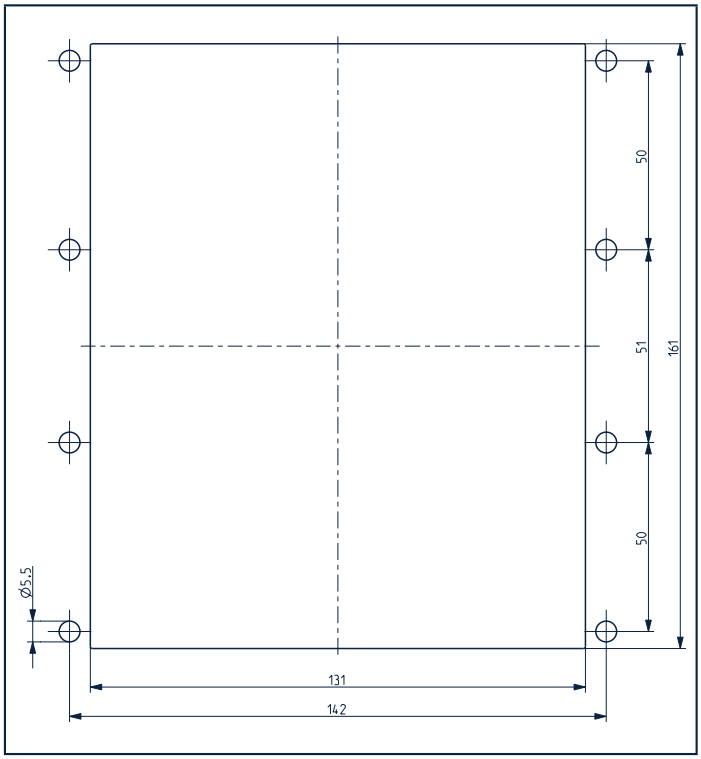
Screw for usage: ISO 4762 / DIN 912

KDS-FP 3x10/24

Dimensional diagram



Mounting cut-out



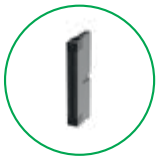
Torque for the frame's mounting screw: 3 Nm

Screw for usage: ISO 4762 / DIN 912

KDS-FP
Combination options

Combination option 1

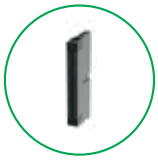
KDS-Inlay 4 BK
28518.4



KDS-Inlay 1 BK
28516.4

KDS-Inlay 6 BK
28519.4

Combination option 2



KDS-Inlay 1 BK
28516.4

KDS-Inlay 6 BK
28519.4

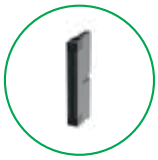
Combination option 3

KDS-Inlay 1 BK
28516.4

KDS-Inlay 1 BK
28516.4

KDS-Inlay 6 BK
28519.4

Combination option 4



KDS-Inlay 1 BK
28516.4

KDS-Inlay 2 BK
28517.4

Each of the two or three 10-frame openings can be configured with the appropriate inlays to match a wide variety of individual customer requirements.

Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40°C to +120°C
- Halogen-free, silicone-free
- Protection: IP66

More information on KDS-FP can be found here:

Notes

KDS-BS and KDS-BC
Cable entries with brush seal

The KDS-BS and KDS-BC cable entry systems offer an optimal solution for applications that do not require a high level of sealing. The two-part, snap-on brush seal provides protection against dust and drafts, offers thermal insulation, and creates a visual seal for cable entry, whether the cables have connectors or not.
In addition, this design is ideal for edge protection. The innovative KDS-BS and KDS-BC systems enable cables to be routed through network cabinets, switch boxes, and electrical cabinets, as well as through raised floors.

The KDS-BS is assembled by means of screwing; while the KDS-BC is assembled using integrated plastic expanding rivets, with the required cut-outs based on the standard cut-outs for 24-, 16-, and 10-pole heavy-duty connectors. The two frame halves can be mounted on the electrical cabinet either before or after the cables are fed through.

Your advantages

- Easy installation and handling
- Versatile applications
- Protection against dust and drafts
- Visual seal
- Edge protection

KDS CLICK by CONTA-CLIP

Variety

The two-part brush frame is available in three different sizes for standard cut-outs for 10-, 16-, and 24-pole heavy-duty connectors and two mounting options.

KDS-BS (screw assembly)

KDS-BC (mounting clip)

KDS-BS and KDS-BC
Cable entry system with brush seal

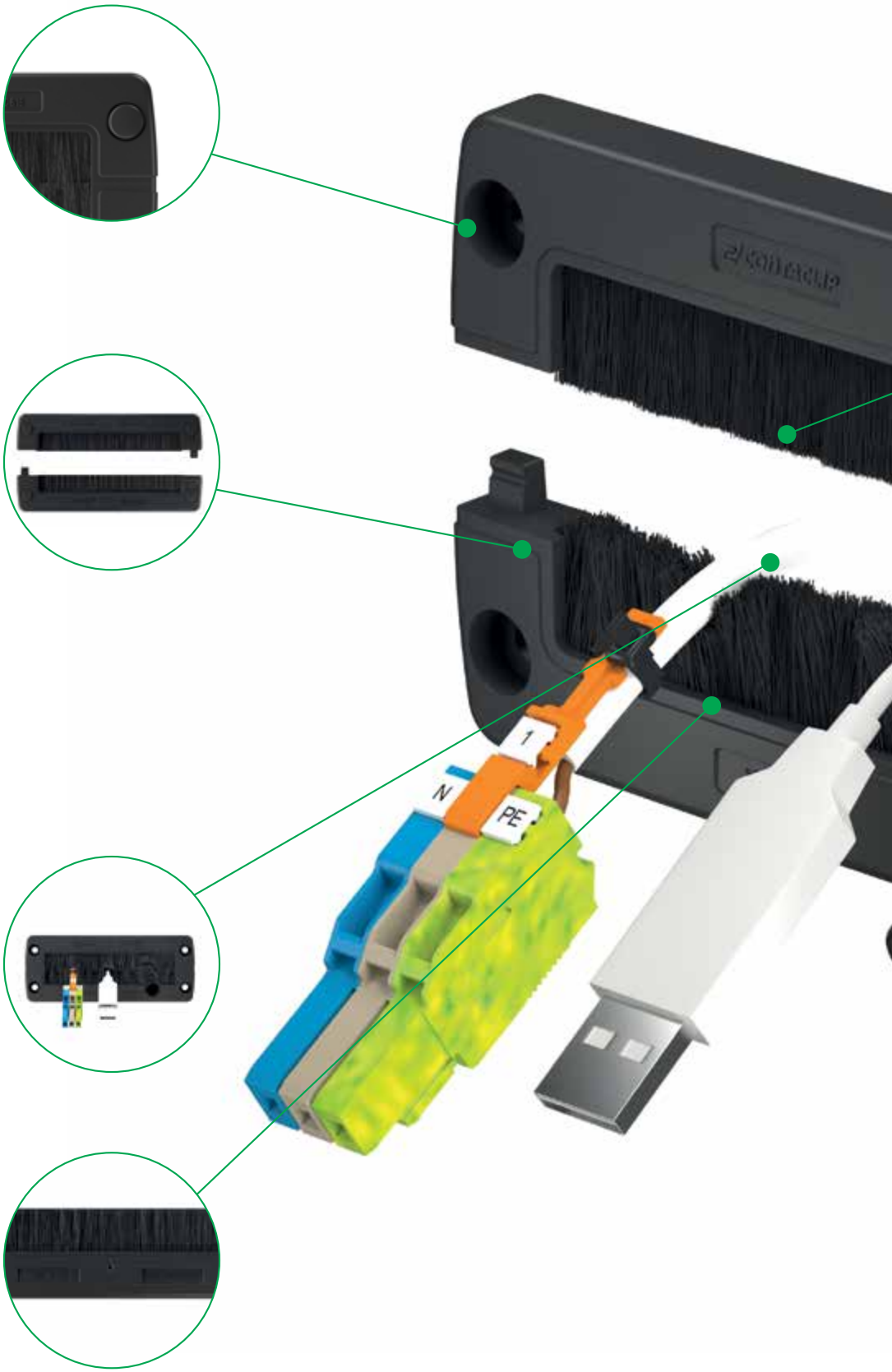
An overview of your advantages

Mounting
The BS-frame is assembled with screws, while the BC-frame is assembled without tools with mounting clips.

Two-part design
The frame halves, which snap together, enable easy installation and handling. Assembly possible as a complete frame and alternatively as a split frame.

Versatile applications
Ideal for network and electrical cabinets as well as in raised floors. Suitable for cable and lines with and without connectors.

Edge protection
Additional safety thanks to edge protection for cables and lines, preventing damage.



Secure and durable brush assembly
The brush assembly is securely fixed to the frame, does not deform, and cannot be lost.

Visual seal
Provides protection against dust and drafts, and ensures a clean visual seal when routing cables and hoses.

Efficient warehousing
The split and snap-together frame ensure an efficient warehousing as they cover a wide range of mounting requirements.

Can be used from -40°C to +90°C
Materials contain no halogen or silicone, suitable for many different applications.

RoHS compliant | Made in Germany | CAD | IP10

KDS-BS and KDS-BC
Cable entry system with brush seal

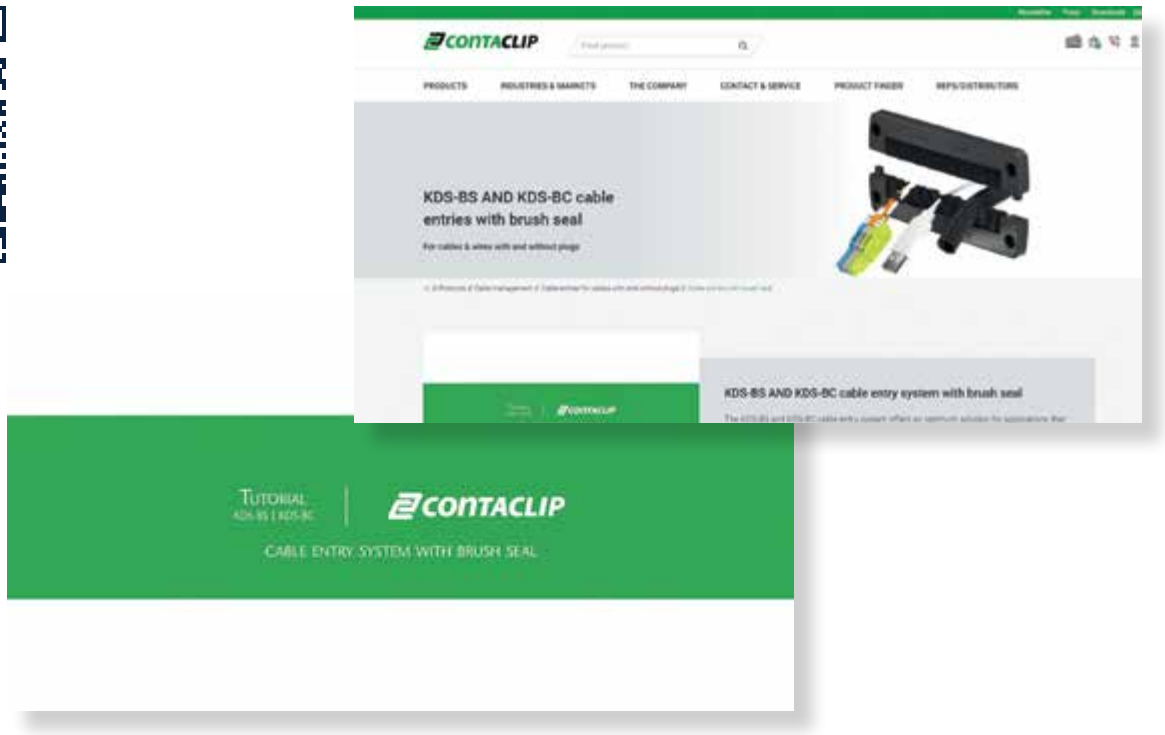
Frame	KDS-BS 6/10	KDS-BS 8/16	KDS-BS 10/24
Description	Screw frame with brush seal	Screw frame with brush seal	Screw frame with brush seal
Type / colour	**KDS-BS 6/10 BK**	**KDS-BS 8/16 BK**	**KDS-BS 10/24 BK**
Cat. no. **Qty.**	*29000.4* 10	*29001.4* 10	*29002.4* 10
Accessories			
Sheet-metal hole punch	**BL-VA KDS-SR 6/10**	**BL-VA KDS-SR 8/16**	**BL-VA KDS-SR 10/24**
Cat. no. **Qty.**	*28684.0* 1	*28685.0* 1	*28686.0* 1
Description	Sheet-metal hole punch 46.0 x 68.5 mm with marked drilling point, for stainless steel sheet up to 2 mm	Sheet-metal hole punch 46.0 x 91 mm with marked drilling point, for stainless steel sheet up to 2 mm	Sheet-metal hole punch 46.0 x 113.5 mm with marked drilling point, for stainless steel sheet up to 2 mm

Frame	KDS-BC 6/10	KDS-BC 8/16	KDS-BC 10/24
Description	Clip frame with brush seal incl. 4 x KDS-BC Clip BK	Clip frame with brush seal incl. 4 x KDS-BC Clip BK	Clip frame with brush seal incl. 4 x KDS-BC Clip BK
Type / colour	**KDS-BC 6/10 BK**	**KDS-BC 8/16 BK**	**KDS-BC 10/24 BK**
Cat. no. **Qty.**	*29003.4* 10	*29004.4* 10	*29005.4* 10
Accessories			
Mounting clip	**KDS-BC Clip BK**	**KDS-BC Clip BK**	**KDS-BC Clip BK**
Cat. no. **Qty.**	*29006.4* 40	*29006.4* 40	*29006.4* 40
Sheet-metal hole punch	**BL-VA KDS-SR 6/10**	**BL-VA KDS-SR 8/16**	**BL-VA KDS-SR 10/24**
Cat. no. **Qty.**	*28684.0* 1	*28685.0* 1	*28686.0* 1
Description	Sheet-metal hole punch 46.0 x 68.5 mm with marked drilling point, for stainless steel sheet up to 2 mm	Sheet-metal hole punch 46.0 x 91 mm with marked drilling point, for stainless steel sheet up to 2 mm	Sheet-metal hole punch 46.0 x 113.5 mm with marked drilling point, for stainless steel sheet up to 2 mm

Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40°C to +90°C
- Halogen-free, silicone-free

More information on KDS-BS and KDS-BC can be found here:



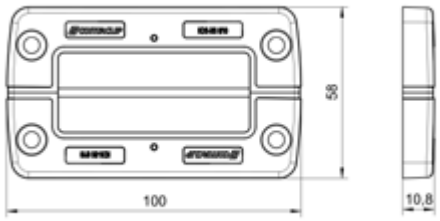
Notes

KDS-BS

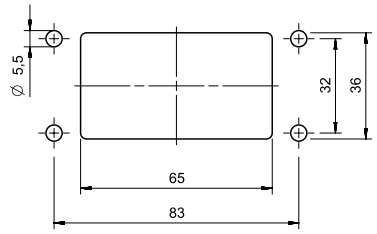
Cable entry system with brush seal screw frame | Dimensional diagrams / Mounting cut-outs

KDS-BS 6/10

Dimensional diagram



Mounting cut-out



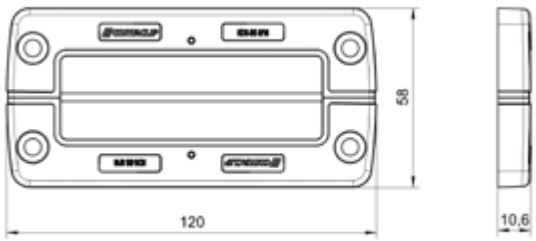
Also suitable for the CONTA-CLIP standard 46 x 68.5 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

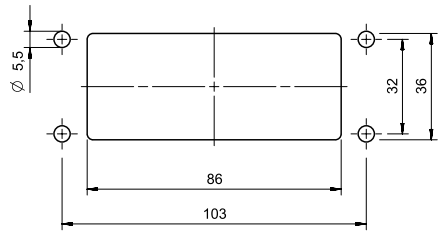
Screw for usage: ISO 4762 / DIN 912

KDS-BS 8/16

Dimensional diagram



Mounting cut-out



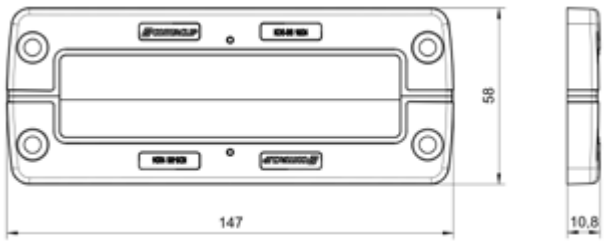
Also suitable for the CONTA-CLIP standard 46 x 91 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

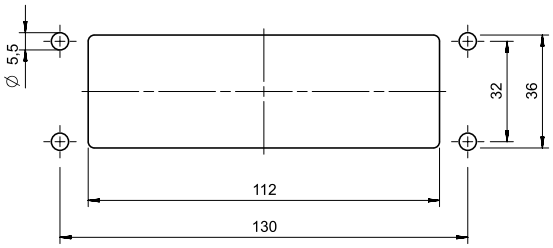
Screw for usage: ISO 4762 / DIN 912

KDS-BS 10/24

Dimensional diagram



Mounting cut-out



Also suitable for the CONTA-CLIP standard 46 x 113.5 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

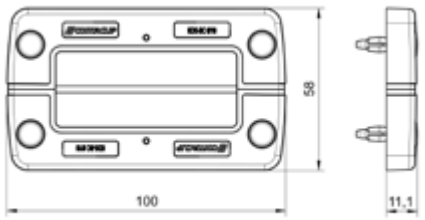
Screw for usage: ISO 4762 / DIN 912

KDS-BC

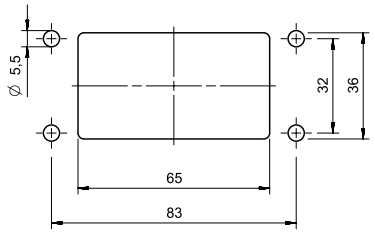
Cable entry system with brush seal clip frame | Dimensional diagrams / Mounting cut-outs

KDS-BC 6/10

Dimensional diagram



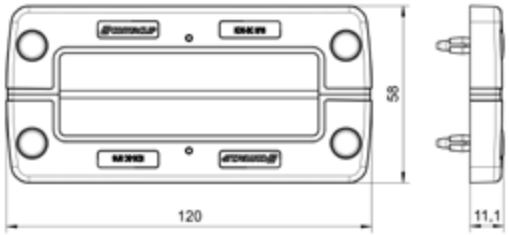
Mounting cut-out



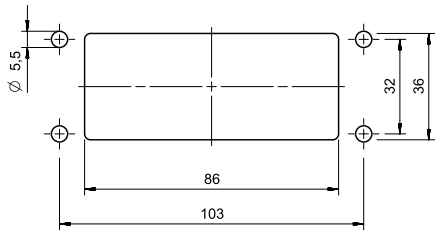
Also suitable for the CONTA-CLIP standard 46 x 68.5 mm cut-outs

KDS-BC 8/16

Dimensional diagram



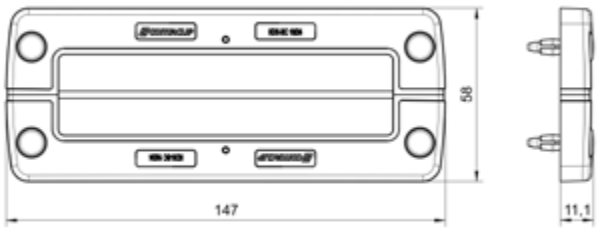
Mounting cut-out



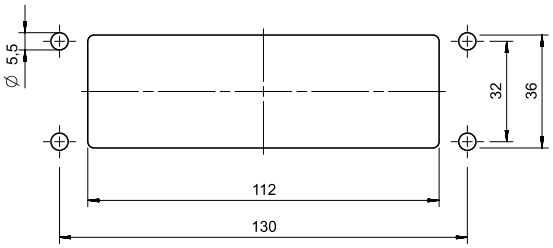
Also suitable for the CONTA-CLIP standard 46 x 91 mm cut-outs

KDS-BC 10/24

Dimensional diagram



Mounting cut-out



Also suitable for the CONTA-CLIP standard 46 x 113.5 mm cut-outs

KDS-SR-FB
Modular cable entry system for flat cables

The **KDS-SR-FB** cable entry system for flat cables provides you with outstanding versatility and saves you time while managing cables, especially for industrial trucks, crane systems and elevator applications. The "fish skin" on the seal mechanically surrounds the inserted flat cable; this ensures outstanding tolerance compensation and IP66 protection.

KDS CLICK by CONTA-CLIP

Your advantages

- Easily assembled from the inside
- Guarantee retained for assembled cables
- Retrofitting and servicing can be done quickly and easily
- Integrated strain relief
- High-density assemblies

The basic components of the modular system

Frame and sealing elements. The modular design – with two basic components – provides more versatility, variability and variety.

1. Frame

Made from a single mould, the one-part frame is quick and easy to assemble. It is made of sturdy, glass-fibre reinforced plastic. The (TPE) gasket integrated into the frame also ensures an outstanding seal in accordance with IP66 on painted and rough surfaces.

2 Seals

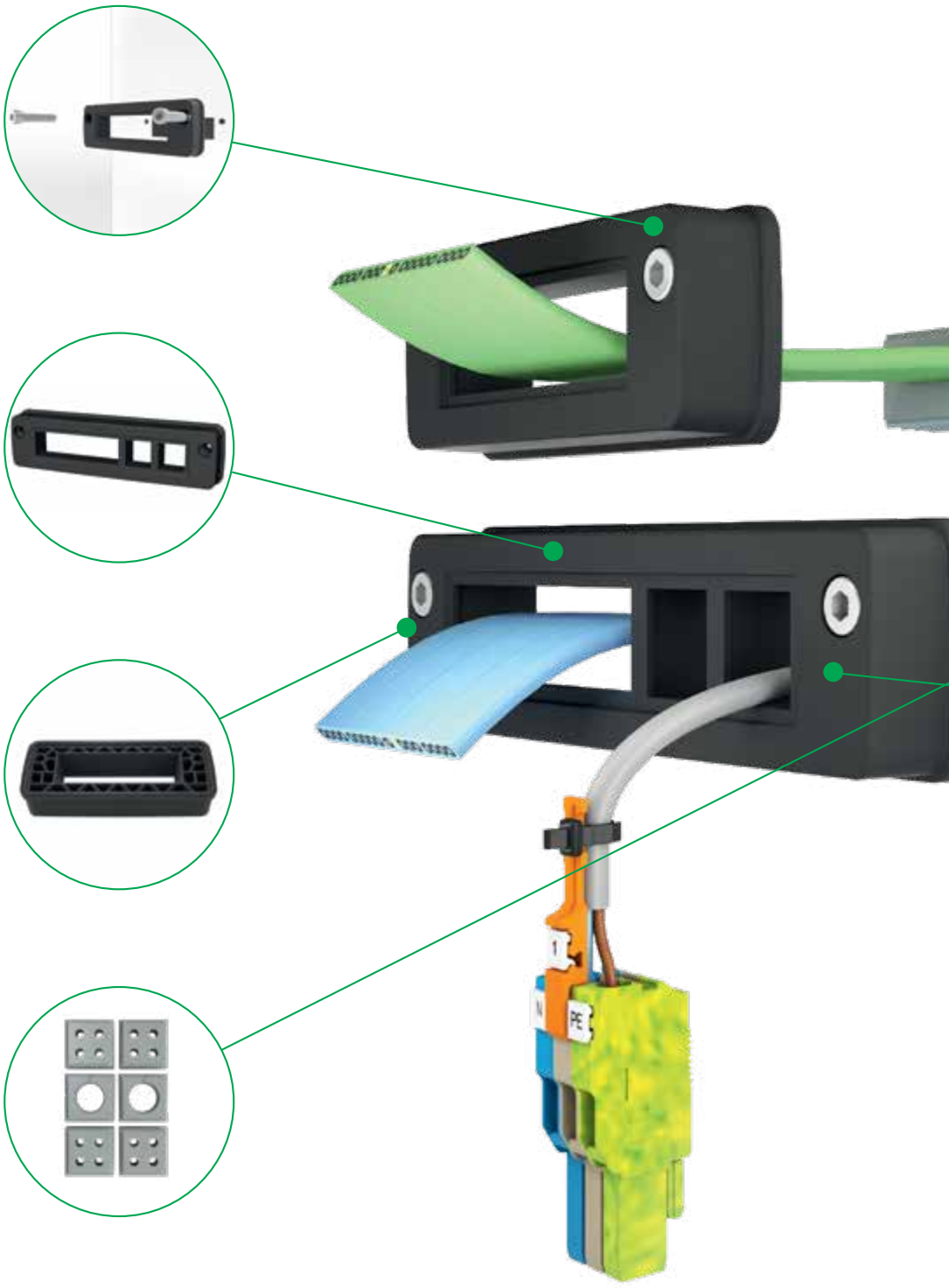
The conical shape of the sealing elements allows them to be easily pressed in. This also reliably seals the gaps and provides static strain relief in accordance with DIN EN 62444.
The seals are installed by pressing them from the inside outwards into the openings of the previously installed frames. Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are numerous different sealing elements that can be used for sealing cables of various diameters and sizes. The ribbon cable sealing elements have a "fish skin" that mechanically surrounds the inserted flat cable. this ensures outstanding tolerance compensation and IP66 protection.

Versatility and time saving

30% less time required for new installations because of the one-part frame. Modifications, retrofits, service work or the readjustment of cable lengths can be made at any time without disassembling the frame, since the seals are released from the outside inwards by simply pressing in.

KDS-SR-FB
Modular cable entry system for flat cables

An overview of your advantages

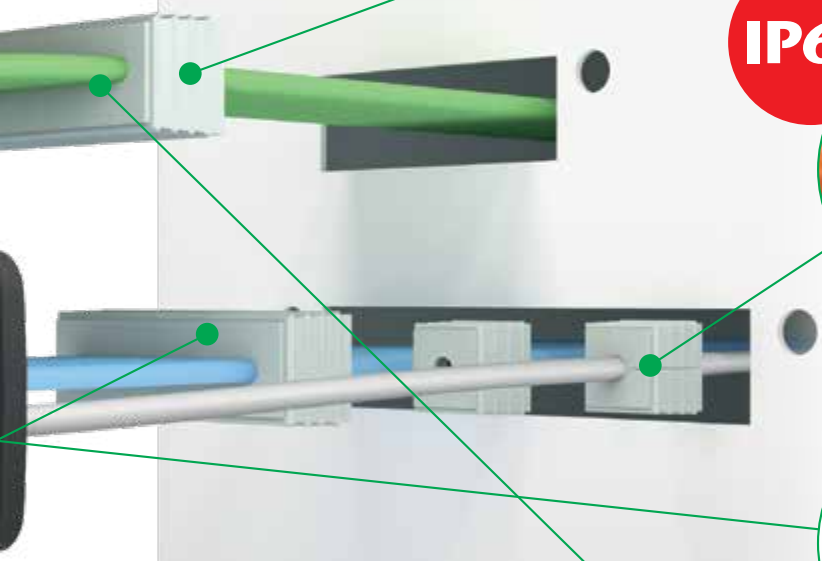


Attaching the frame
Made from a single mould, the one-part frame is quick and easy to assemble. It is made of sturdy, glass-fibre reinforced plastic.

Quickly assembled from the inside out
The frame does not need to be disassembled if your requirements change or if you're carrying out service work.

Captive gasket
The moulded-in frame gasket eliminates the risk of incorrect assembly (forgotten gasket) and speeds up the assembly process.

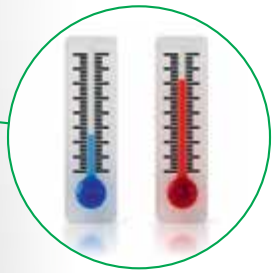
Seals
The seals' conical shape enables them to be easily pressed in so they can seal gaps. To attach them, the seals are pressed from the inside out into the openings. There are currently over 80 different seals that can be used for sealing cables of various diameters and sizes.



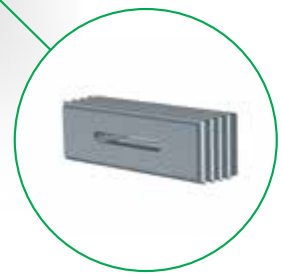
Versatile, high-density assemblies are possible
1-way, 2-way, 3-way and 4-way seals and dummy plugs provide you with excellent versatility for cable management.

IP66

Outstanding IP66 seal
Multi-resistant, conically tapered seals feature inner and outer sealing gills.



Can be used from -40°C to +120°C
Materials contain no halogen or silicone, suitable for many different applications.



Fish skin
The "fish skin" mechanically surrounds the inserted flat cable; this ensures outstanding tolerance compensation and IP66 protection.

IP66 | RoHS compliant | Made in Germany | CAD

KDS-SR-FB
Modular cable entry system for flat cables

Frame	KDS-SR-FB1/A	KDS-SR-FB2/A	KDS-SR-FB2/B
Description	Screw frame for ribbon cables	Screw frame for ribbon cables	Screw frame for ribbon cables
Type / colour	**KDS-SR-FB1/A BK**	**KDS-SR-FB2/A BK**	**KDS-SR-FB2/B BK**
Cat. no. **Qty.**	*28700.4* **10**	*28701.4* **10**	*28702.4* **10**
Seals			
KDS-DE …			1 x
KDS-DE-FB1	1 x		1 x
KDS-DE-FB2		1 x	
KDS-DE-FB3			
KDS-DE-FB4			
Accessories			
Actuating tool	**KDS BW 1**	**KDS BW 1**	**KDS BW 1**
Cat. no. **Qty.**	*28622.0* **1**	*28622.0* **1**	*28622.0* **1**
Sheet-metal hole punch	**BL-VA KDS-FB1**	**BL-VA KDS-FB2**	**BL-VA KDS-FB2**
Cat. no. **Qty.**	*28729.0* **1**	*28741.0* **1**	*28741.0* **1**
Seals			
Small	**See section KDS-DE**	**See section KDS-DE**	**See section KDS-DE**
KDS-DE-FB	**See section KDS-DE-FB**	**See section KDS-DE-FB**	**See section KDS-DE-FB**

Frame	KDS-SR-FB4/A	KDS-SR-FB4/B	KDS-SR-FB4/C
Description	Screw frame for ribbon cables	Screw frame for ribbon cables	Screw frame for ribbon cables
Type / colour	**KDS-SR-FB4/A BK**	**KDS-SR-FB4/B BK**	**KDS-SR-FB4/C BK**
Cat. no. **Qty.**	*28707.4* **10**	*28708.4* **10**	*28709.4* **10**
Seals			
KDS-DE …		2 x	1 x
KDS-DE-FB1			2 x
KDS-DE-FB2		1 x	
KDS-DE-FB3			
KDS-DE-FB4	1 x		
Accessories			
Actuating tool	**KDS BW 1**	**KDS BW 1**	**KDS BW 1**
Cat. no. **Qty.**	*28622.0* **1**	*28622.0* **1**	*28622.0* **1**
Sheet-metal hole punch	**BL-VA KDS-FB1**	**BL-VA KDS-FB1**	**BL-VA KDS-FB1**
Cat. no. **Qty.**	*28729.0* **1**	*28729.0* **1**	*28729.0* **1**
Seals			
Small	**See section KDS-DE**	**See section KDS-DE**	**See section KDS-DE**
KDS-DE-FB	**See section KDS-DE-FB**	**See section KDS-DE-FB**	**See section KDS-DE-FB**

Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40°C to +120°C
- Halogen-free, silicone-free
- Protection: IP66

KDS-SR-FB3/A

Screw frame for ribbon cables
KDS-SR-FB3/A BK
28703.4 **10**

1 x

KDS BW 1
28622.0 **1**
BL-VA KDS-FB2
28741.0 **1**

See section KDS-DE
See section KDS-DE-FB

KDS-SR-FB3/B

Screw frame for ribbon cables
KDS-SR-FB3/B BK
28704.4 **10**

1 x
1 x

KDS BW 1
28622.0 **1**
BL-VA KDS-FB2
28741.0 **1**

See section KDS-DE
See section KDS-DE-FB

KDS-SR-FB3/C

Screw frame for ribbon cables
KDS-SR-FB3/C BK
28705.4 **10**

2 x

KDS BW 1
28622.0 **1**
BL-VA KDS-FB2
28741.0 **1**

See section KDS-DE
See section KDS-DE-FB

KDS-SR-FB3/D

Screw frame for ribbon cables
KDS-SR-FB3/D BK
28706.4 **10**

2 x
1 x

KDS BW 1
28622.0 **1**
BL-VA KDS-FB2
28741.0 **1**

See section KDS-DE
See section KDS-DE-FB

KDS-SR-FB4/D

Screw frame for ribbon cables
KDS-SR-FB4/D BK
28710.4 **10**

3 x
1 x

KDS BW 1
28622.0 **1**
BL-VA KDS-FB1
28729.0 **1**

See section KDS-DE
See section KDS-DE-FB

KDS-SR-FB4/E

Screw frame for ribbon cables
KDS-SR-FB4/E BK
28711.4 **10**

1 x
1 x

KDS BW 1
28622.0 **1**
BL-VA KDS-FB1
28729.0 **1**

See section KDS-DE
See section KDS-DE-FB

KDS-SR-FB4/F

Screw frame for ribbon cables
KDS-SR-FB4/F BK
28712.4 **10**

5 x

KDS BW 1
28622.0 **1**
BL-VA KDS-FB1
28729.0 **1**

See section KDS-DE
See section KDS-DE-FB

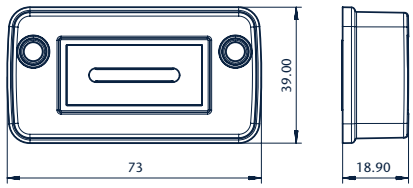
IP66 | RoHS compliant | Made in Germany | CAD

KDS-SR-FB

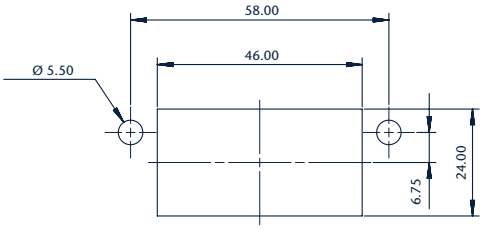
Modular cable entry system for flat cables | Dimensional diagrams / Mounting cut-outs

KDS-SR-FB1

Dimensional diagram



Mounting cut-out

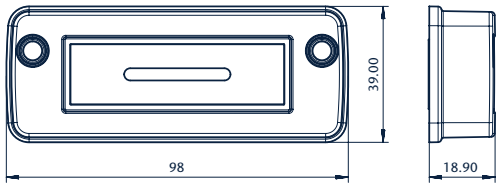


Torque for the frame's mounting screw: 3 Nm

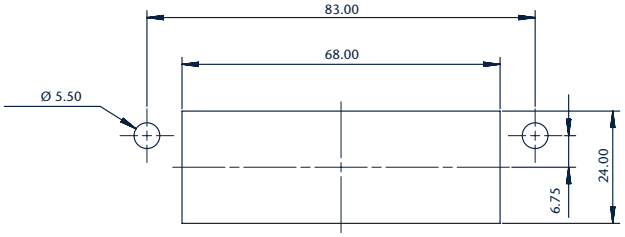
Screw for usage: ISO 4762 / DIN 912

KDS-SR-FB2

Dimensional diagram



Mounting cut-out

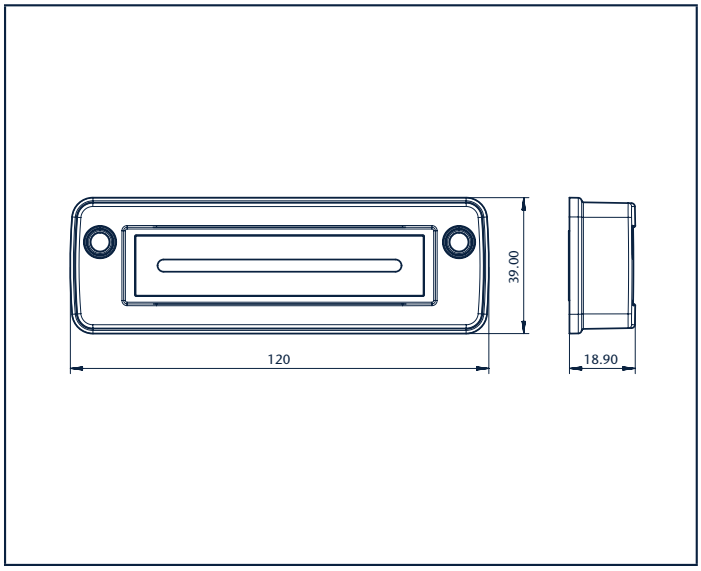


Torque for the frame's mounting screw: 3 Nm

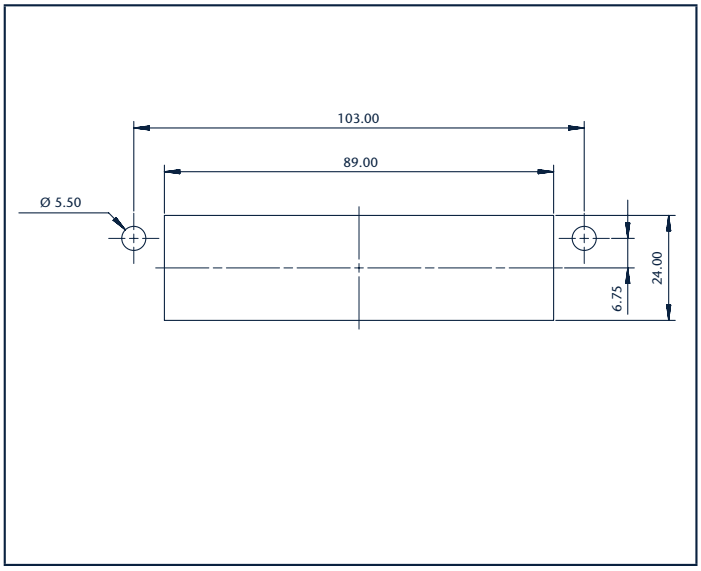
Screw for usage: ISO 4762 / DIN 912

KDS-SR-FB3

Dimensional diagram



Mounting cut-out

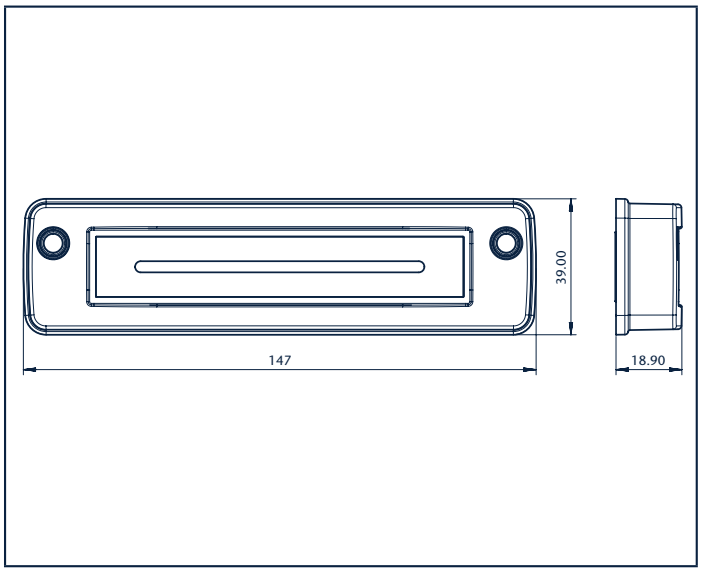


Torque for the frame's mounting screw: 3 Nm

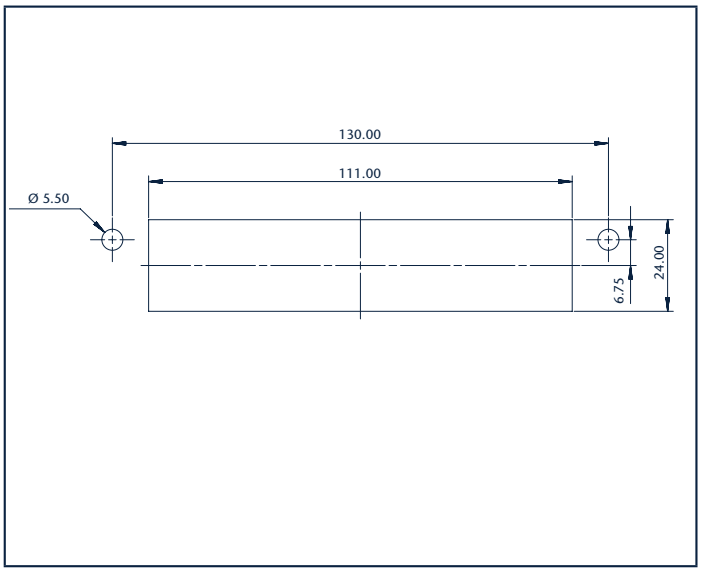
Screw for usage: ISO 4762 / DIN 912

KDS-SR-FB4

Dimensional diagram



Mounting cut-out



Torque for the frame's mounting screw: 3 Nm

Screw for usage: ISO 4762 / DIN 912

KDS-SR-FB sealing elements

Seals	KDS-DE-FB1/A	KDS-DE-FB1/B	KDS-DE-FB1/C
Type / colour	**KDS-DE-FB1/A GR**	**KDS-DE-FB1/B GR**	**KDS-DE-FB1/C GR**
Cat. no. **Qty.**	*28713.6* **5**	*28714.6* **5**	*28715.6* **5**
Sealing area		Width: 19 – 23 mm Thickness: 5.5 – 6 mm	Width: 28 – 33 mm Thickness: 5.5 – 6 mm

Seals	KDS-DE-FB2/B	KDS-DE-FB2/C	KDS-DE-FB2/D
Type / colour	**KDS-DE-FB2/B GR**	**KDS-DE-FB2/C GR**	**KDS-DE-FB2/D GR**
Cat. no. **Qty.**	*28720.6* **5**	*28721.6* **5**	*28722.6* **5**
Sealing area	Width: 32.5 – 38 mm Thickness: 5 – 5.5 mm	Width: 45 – 50.5 mm Thickness: 6 – 6.5 mm	Width: 47 – 52 mm Thickness: 9.5 – 10 mm

Seals	KDS-DE-FB3/C	KDS-DE-FB1/A	KDS-DE-FB4/B
Type / colour	**KDS-DE-FB3/C GR**	**KDS-DE-FB4/A GR**	**KDS-DE-FB4/B GR**
Cat. no. **Qty.**	*28739.6* **5**	*28727.6* **5**	*28728.6* **5**
Sealing area	Width: 64 – 69 mm Thickness: 11 – 12 mm		Width: 85 – 90 mm Thickness: 4.2 – 5.2 mm

Features

- Material: TPE
- Flammability: UL 94 V-0
- Temperature range: -40°C to +90°C (static)
- Halogen-free, silicone-free
- Protection: IP66

KDS-DE-FB1/D

KDS-DE-FB1/D GR

28716.6 **5**

Width: 24 – 30 mm
Thickness: 8.5 – 9 mm

KDS-DE-FB1/E

KDS-DE-FB1/E GR

28717.6 **5**

Width: 19 – 24 mm
Thickness: 6.5 – 7 mm

KDS-DE-FB1/F

KDS-DE-FB1/F GR

28718.6 **5**

Width: 28 – 33 mm
Thickness: 9 – 9.5 mm

KDS-DE-FB2/A

KDS-DE-FB2/A GR

28719.6 **5**

KDS-DE-FB2/E

KDS-DE-FB2/E GR

28723.6 **5**

Width: 38 – 43 mm
Thickness: 12.5 – 13 mm

KDS-DE-FB2/F

KDS-DE-FB2/F GR

28724.6 **5**

Width: 49 – 54 mm
Thickness: 5 – 6 mm

KDS-DE-FB3/A

KDS-DE-FB3/A GR

28725.6 **5**

KDS-DE-FB3/B

KDS-DE-FB3/B GR

28726.6 **5**

Width: 72 – 77 mm
Thickness: 5 – 5.5 mm

KDS-DE-FB4/C

KDS-DE-FB4/C GR

28740.6 **5**

Width: 94 – 99 mm
Thickness: 4.2 – 5.2 mm

IP66

RoHS compliant

Made in Germany

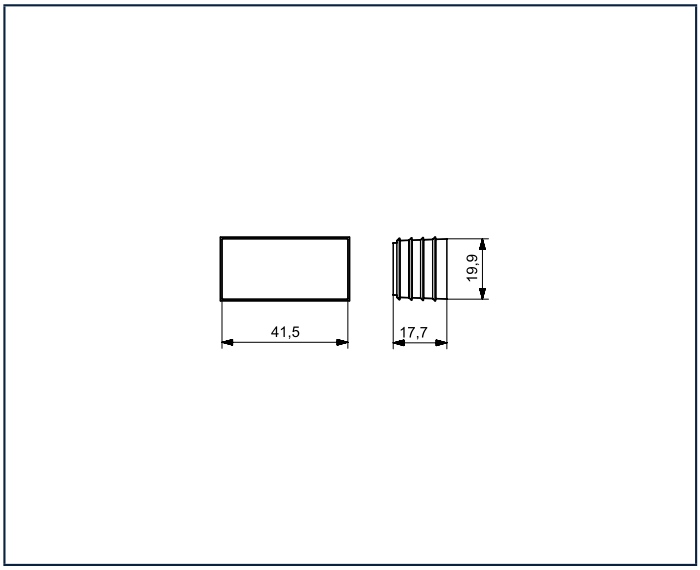
CAD

KDS-SR-FB sealing elements

Sealing elements for modular cable entry system for flat cables | Dimensional diagrams / Mounting cut-outs

KDS-DE-FB1/A GR

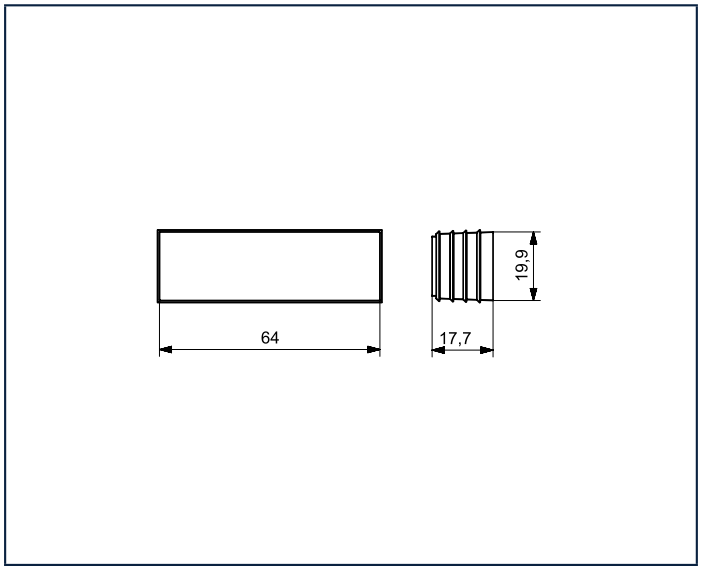
Dimensional diagram



Torque for the frame's mounting screw: 3 Nm

KDS-DE-FB2/A GR

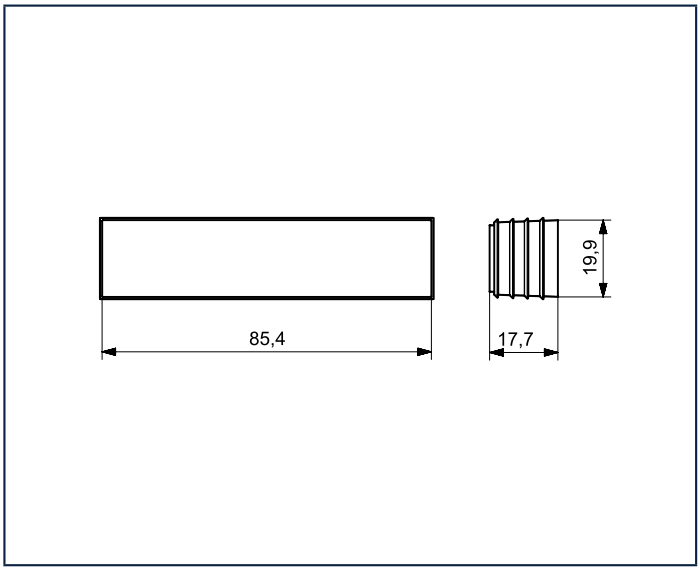
Dimensional diagram



Screw for usage: ISO 4762 / DIN 912

KDS-DE-FB3/A GR

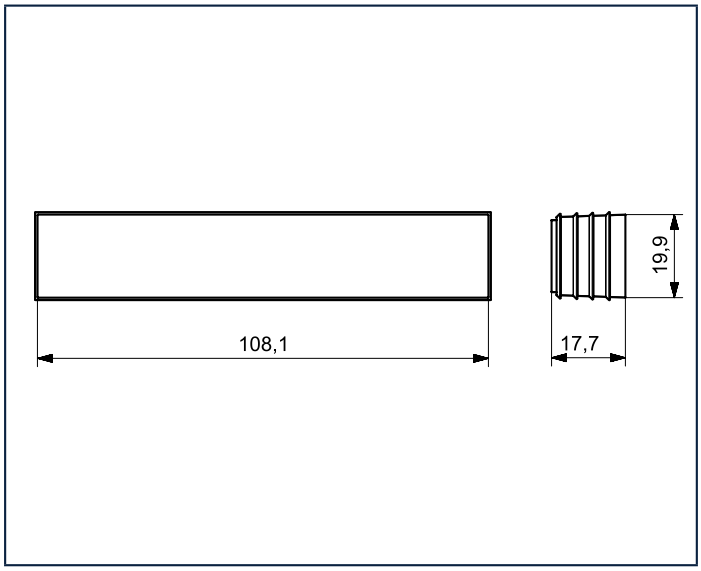
Dimensional diagram



Torque for the frame's mounting screw: 3 Nm

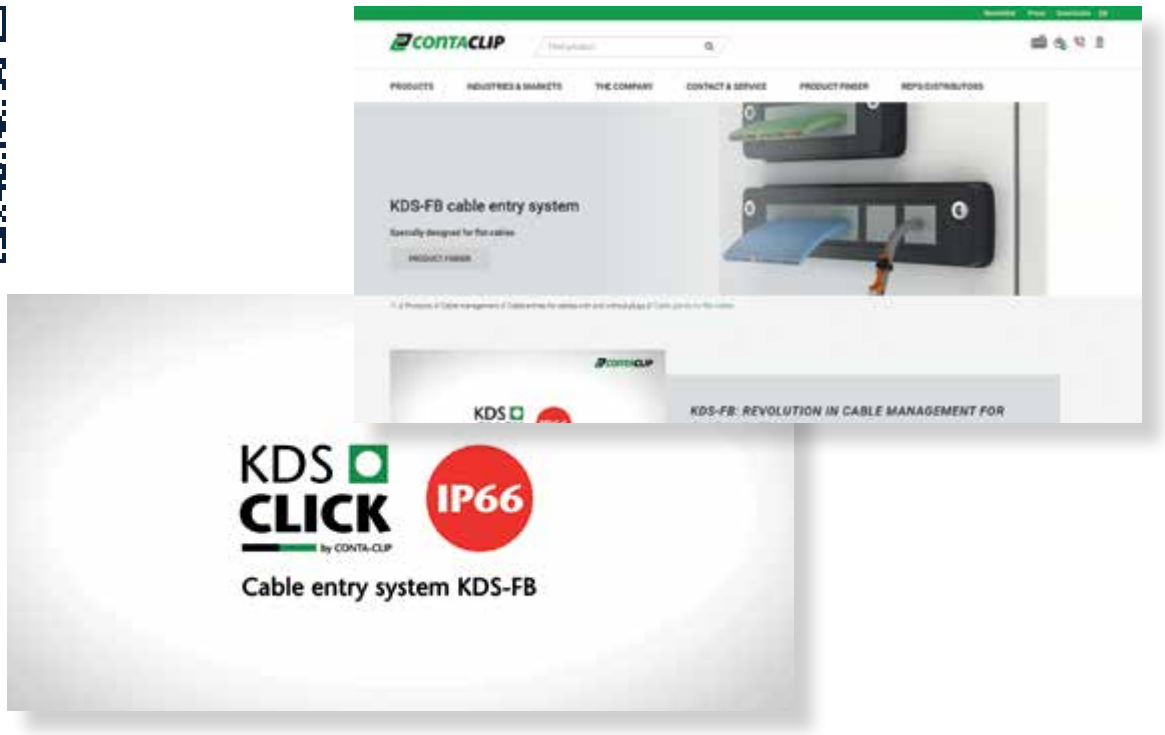
KDS-DE-FB4/A GR

Dimensional diagram



Screw for usage: ISO 4762 / DIN 912

More information on KDS-SR-FB can be found here:



Notes

Frame	KDS-SR-FB1/A BK	KDS-SR-FB2/A BK	KDS-SR-FB2/B BK	KDS-SR-FB3/A BK	KDS-SR-FB3/B BK	KDS-SR-FB3/C BK
Cat. no.	*28700.4*	*28701.4*	*28702.4*	*28703.4*	*28704.4*	*28705.4*
Seal						
			●		●	
KDS-DE-FB1/A GR *28713.6* 	●		●			●
KDS-DE-FB1/B GR *28714.6* 	●		●			●
KDS-DE-FB1/C GR *28715.6* 	●		●			●
KDS-DE-FB1/D GR *28716.6* 	●		●			●
KDS-DE-FB1/E GR *28717.6* 	●		●			●
KDS-DE-FB1/F GR *28718.6* 	●		●			●
KDS-DE-FB2/A GR *28719.6* 		●			●	
KDS-DE-FB2/B GR *28720.6* 		●			●	
KDS-DE-FB2/C GR *28721.6* 		●			●	
KDS-DE-FB2/D GR *28722.6* 		●			●	
KDS-DE-FB2/E GR *28723.6* 		●			●	
KDS-DE-FB2/F GR *28724.6* 		●			●	
KDS-DE-FB3/A GR *28725.6* 				●		
KDS-DE-FB3/B GR *28726.6* 				●		
KDS-DE-FB3/C GR *28739.6* 				●		
KDS-DE-FB4/A GR *28727.6* 						
KDS-DE-FB4/B GR *28728.6* 						
KDS-DE-FB4/C GR *28740.6* 						

* An overview of all sealing elements with the external dimensions 20 x 20 can be found on pages 106 – 107.

KDS-SR-FB3/D BK	KDS-SR-FB4/A BK	KDS-SR-FB4/B BK	KDS-SR-FB4/C BK	KDS-SR-FB4/D BK	KDS-SR-FB4/E BK	KDS-SR-FB4/F BK
28706.4	*28707.4*	*28708.4*	*28709.4*	*28710.4*	*28711.4*	*28712.4*
●		●	●	●		●
●		●		●	●	
●		●		●	●	
●		●		●	●	
●		●		●	●	
●		●		●	●	
●		●		●	●	
			●		●	
			●		●	
			●		●	
			●		●	
			●		●	
			●		●	
	●					
	●					
	●					

KDS-R
Round cable entries

The **KDS-R** round cable entries for metric cut-outs from M20 to M63 are designed for cables with and without connectors. In cases of maintenance or retrofitting with assembled cable harnesses, cables with diameters from 1.5 mm to 35 mm can be quickly and securely inserted into the electrical cabinets or housings and sealed to IP66 standards. The modular system ensures quick and easy assembly in three steps. Slitted, tapered sealing elements with a wave-cut profile ensure a secure seal and a tight fit. After the cables have been routed through the cable entry, these sealing elements are wrapped around the cables and then pressed into the round cable entry. After that, the separable thread and locking adapter on the electrical cabinet exterior is easily screwed together with the round frame. The separable locknuts that are mounted on the interior of the locking elements ensure safe and secure attachment. This system can be used with a wall thickness up to 6 mm.

KDS CLICK by CONTA-CLIP

Your advantages

- Assembled cables can be guided through
- Guarantee retained for assembled cables
- Retrofitting and servicing can be done quickly and easily
- High-density assemblies
- Assembly in metric standard cut-outs
- Protection: IP66

The basic components of the modular system

Frames. Inlays. Thread and splittable locking adapter, Split locknuts Seals. The modular design – with five basic components – provides more versatility, variability and variety.

1. Frame

The KDS-R round and one-part frame is quick and easy to assemble. It is made of sturdy, glass-fibre reinforced plastic. The gasket (TPE) integrated into the frame also ensures an outstanding seal in accordance with IP66 on painted and rough surfaces.

2 Inlays

The click-in inlays allow flexible sizing of the frame opening to fit the seal in use. You can variably configure cable entries to match various requirements (for cables, lines, tubing, pneumatic and hydraulic lines).

3. Thread and splittable locking adapter

The **KDS-RGA** two-part thread and locking adapter for versatile installation is screwed together with the round cable entry. It locks with a form fit with the cable entry and therefore ensures that the sealing elements and inlays are mechanically secured. The threaded section, located inside the electrical cabinet or housing, is available in six standard metric sizes: M20 to M32 and M40 to M63.

4. Split locknuts

The individual parts of the **KDS-GM** locknut can be snapped together quickly and easily via the dovetail guide, which can then be mounted on the round cable entry.

5. Seals

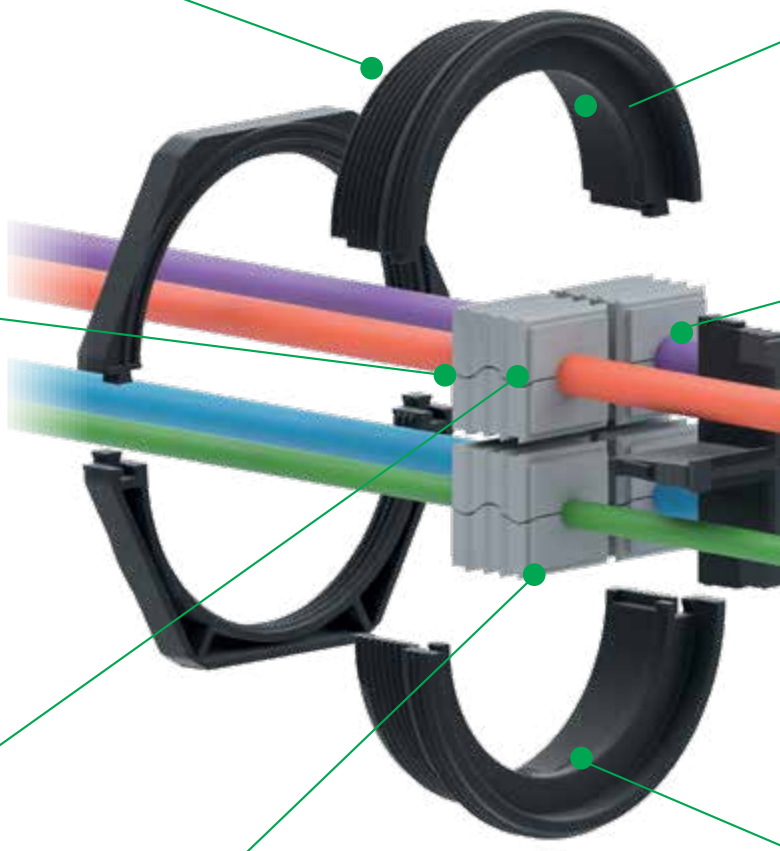
The conical shape of the **KDS-DE / KDS-DEG** sealing element enables easy pressing-in of the sealing elements, reliable sealing of the gaps and ensures a strain relief in accordance with DIN EN 62444. To attach them, the seals are pressed from the inside out into the openings of the cable entries. Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are numerous different sealing elements that can be used for sealing cables of various diameters and sizes.

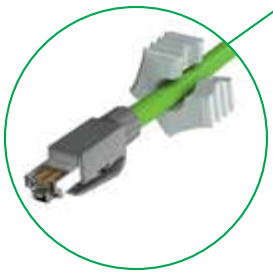
KDS-R
Round cable entries

An overview of your advantages

Mounting
The round cable entry is installed without tools.

Variability
Up to 16 cables can be fed through thanks to the compatibility of the KDS-R 40-63 with the KDS inlay 4.



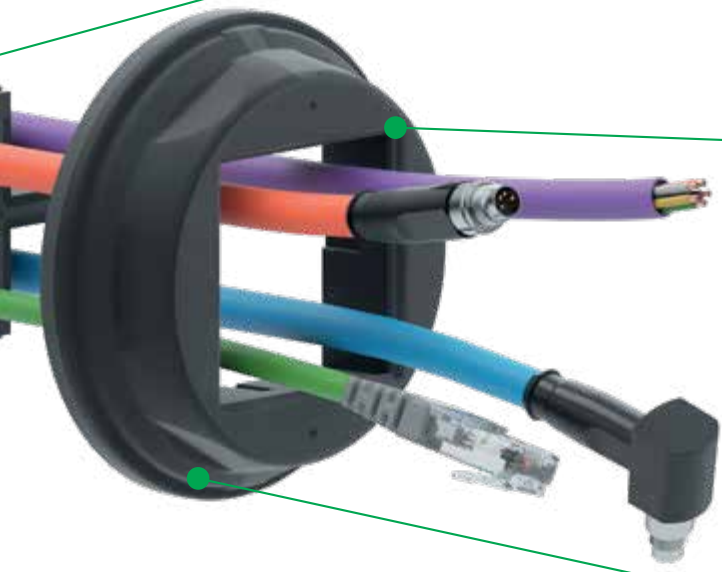


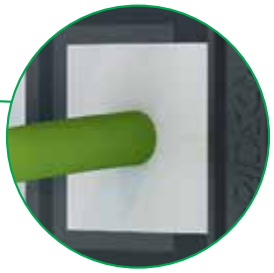
No Warranty Loss with Pre-Assembled Cables
No need to disassemble and re-connect connectors, so manufacturer's warranty is not voided.

Versatile, high-density assemblies are possible
1-way, 2-way, 3-way and 4-way sealing elements and dummy plugs provide you with excellent versatility for cable management.

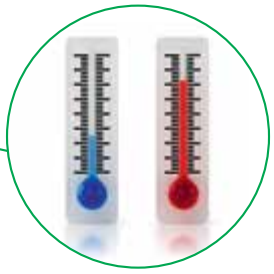
Two round cable entries for six metric cut-out sizes
Thanks to six different thread and locking adapters and two external frame sizes, the metric break-through sizes M20 to M32 and M40 to M63 can be equipped with the **KSR-R** modular system. Assembly is carried out from the outside inwards.

Outstanding IP66 seal
Multi-resistant, conically tapered seals feature inner and outer sealing gills.





Integrated strain relief
The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.



Can be used from -40°C to +120°C
Materials contain no halogen or silicone; suitable for many different applications.

Facility availability
Maintenance work is possible during operation due to the separation of the thread adapter and the locknut.

UL TYPE Rating 12 | UL TYPE* Rating 4x | EN 61373

ECOLAB certified | RoHS compliant | Made in Germany | CAD

* 4x is for indoor use only

KDS-R
Round cable entries

Round cable entries	KDS-R 20-32	KDS-RGA M20/25/32	KDS-GM 20/25/32
Description	Round cable entry	Threaded locking adapter	Split locknut
Type / colour	**KDS-R 20-32 BK**	**KDS-RGA M20 BK**	**KDS-GM M20 BK**
Cat. no. **Qty.**	*28770.4* **5**	*28771.4* **5**	*28616.4* **10**
Type / colour		**\KDS-RGA M25 BK**	**KDS-GM M25 BK**
Cat. no. **Qty.**		*28772.4* **5**	*28617.4* **10**
Type / colour		**KDS-RGA M32 BK**	**KDS-GM M32 BK**
Cat. no. **Qty.**		*28773.4* **5**	*28618.4* **10**
Cable diameter			
KDS-DE	1.5-16 mm	1.5-16 mm	1.5-16 mm
KDS-DEG			
Accessories			
Thread adapters	**KDS-RGA M20 BK**		
Cat. no. **Qty.**	*28771.4* **5**		
Thread adapters	**KDS-RGA M25 BK**		
Cat. no. **Qty.**	*28772.4* **5**		
Thread adapters	**KDS-RGA M32 BK**		
Cat. no. **Qty.**	*28773.4* **5**		
Locknut		**KDS-GM M20 BK**	
Cat. no. **Qty.**		*28616.4* **10**	
Locknut		**KDS-GM M25 BK**	
Cat. no. **Qty.**		*28617.4* **10**	
Locknut		**KDS-GM M32 BK**	
Cat. no. **Qty.**		*28618.4* **10**	
Inlay			
Cat. no. **Qty.**			
Inlay			
Cat. no. **Qty.**			
Inlay			
Cat. no. **Qty.**			
Actuating tool	**KDS BW 1**		
Cat. no. **Qty.**	*28622.0* **1**		
Sheet-metal hole punch		**BL KDS-KV M20**	
Cat. no. **Qty.**		*28746.0* **1**	
Sheet-metal hole punch		**BL KDS-KV M25**	
Cat. no. **Qty.**		*28747.0* **1**	
Sheet-metal hole punch		**BL KDS-KV M32**	
Cat. no. **Qty.**		*28748.0* **1**	
Seals			
Small	**See section KDS-DE**	**See section KDS-DE**	
Tightening torque of lock nut, in Nm			**4**

UL TYPE Rating 12 | UL TYPE* Rating 4x | EN 61373

ECOLAB certified | RoHS compliant | Made in Germany | CAD

* 4x is for indoor use only

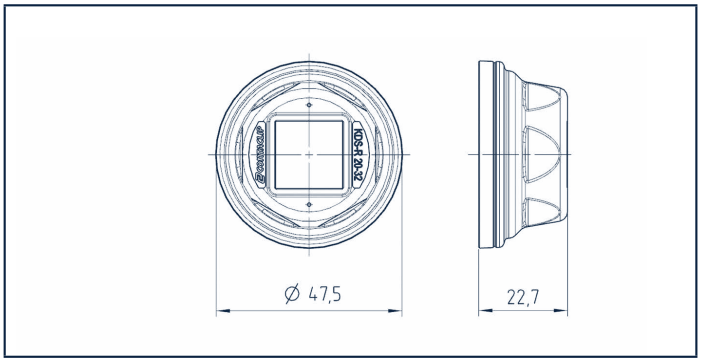
Round cable entries	KDS-R 40-63 BK	KDS-RGA M40/50/63	KDS-GM 40/50/63
Description	Round cable entry	Threaded locking adapter	Split locknut
Type / colour	**KDS-R 40-63 BK**	**KDS-RGA M40 BK**	**KDS-GM M40 BK**
Cat. no. **Qty.**	*28774.4* **5**	*28775.4* **5**	*28619.4* **10**
Type / colour		**KDS-RGA M50 BK**	**KDS-GM M50 BK**
Cat. no. **Qty.**		*28776.4* **5**	*28620.4* **10**
Type / colour		**KDS-RGA M63 BK**	**KDS-GM M63 BK**
Cat. no. **Qty.**		*28777.4* **5**	*28621.4* **10**
Cable diameter			
KDS-DE	1.5-16 mm	1.5-16 mm	1.5-16 mm
KDS-DEG	12-35 mm	12-35 mm	12-35 mm
Accessories			
Thread adapters	**KDS-RGA M40 BK**		
Cat. no. **Qty.**	*28775.4* **5**		
Thread adapters	**KDS-RGA M50 BK**		
Cat. no. **Qty.**	*28776.4* **5**		
Thread adapters	**KDS-RGA M63 BK**		
Cat. no. **Qty.**	*28777.4* **5**		
Locknut		**KDS-GM M40 BK**	
Cat. no. **Qty.**		*28619.4* **10**	
Locknut		**KDS-GM M50 BK**	
Cat. no. **Qty.**		*28620.4* **10**	
Locknut		**KDS-GM M63 BK**	
Cat. no. **Qty.**		*28621.4* **10**	
Inlay	**KDS-Inlay 1 BK**		
Cat. no. **Qty.**	*28516.4* **5**		
Inlay	**KDS-Inlay 2 BK**		
Cat. no. **Qty.**	*28517.4* **5**		
Inlay	**KDS-Inlay 4 BK**		
Cat. no. **Qty.**	*28518.4* **5**		
Actuating tool	**KDS BW 1**		
Cat. no. **Qty.**	*28622.0* **1**		
Sheet-metal hole punch		**BL KDS-KV M40**	
Cat. no. **Qty.**		*28749.0* **1**	
Sheet-metal hole punch		**BL KDS-KV M50**	
Cat. no. **Qty.**		*28750.0* **1**	
Sheet-metal hole punch		**BL KDS-KV M63**	
Cat. no. **Qty.**		*28751.0* **1**	
Seals			
Small and large	**See section KDS-DE**	**See section KDS-DE**	**KDS-DE**
Tightening torque of lock nut, in Nm			**7**

Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40°C to +120°C
- Halogen-free, silicone-free
- Protection: IP66

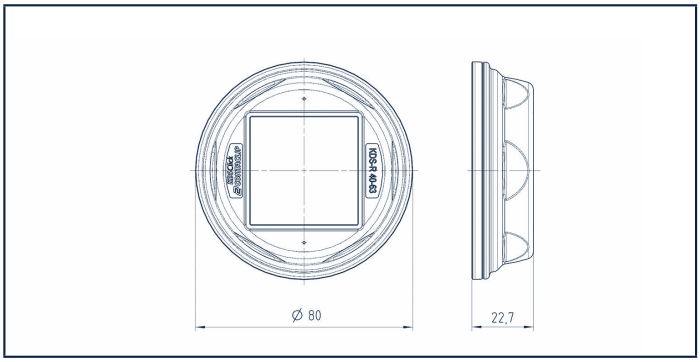
KDS-R
Round cable entries |
Dimensional diagrams / Mounting cut-outs

KDS-R 20-32
Dimensional diagram



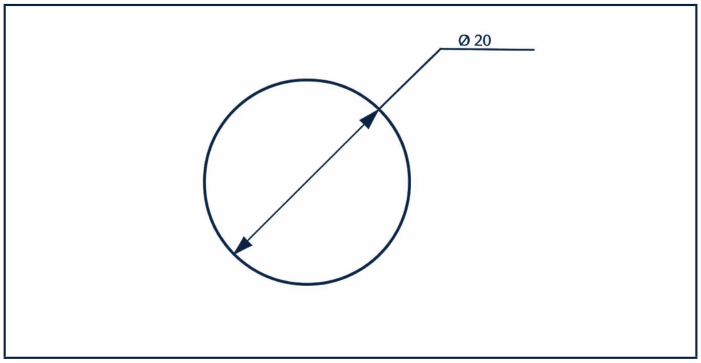
Torque for the locknut: 3 Nm

KDS-R 40-63
Dimensional diagram

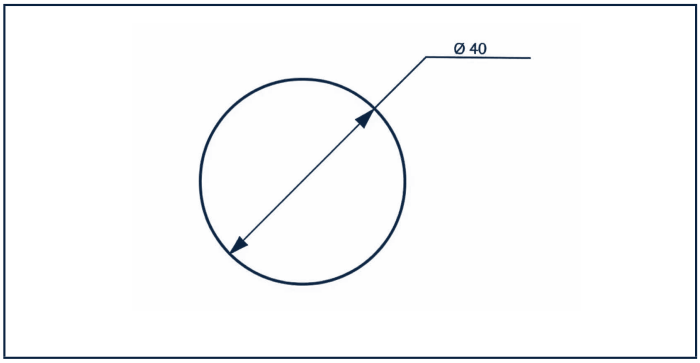


Torque for the locknut: 7 Nm

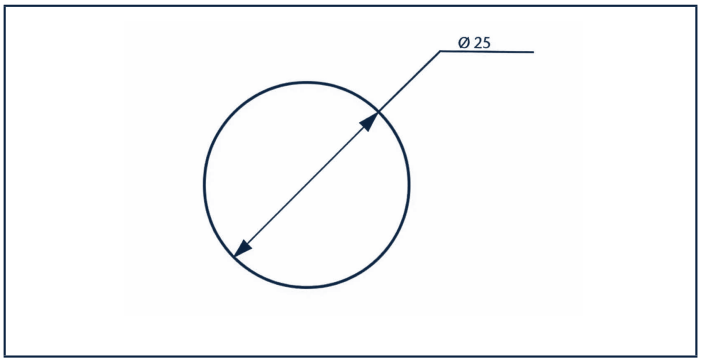
KDS-RGA M20
Mounting cut-out



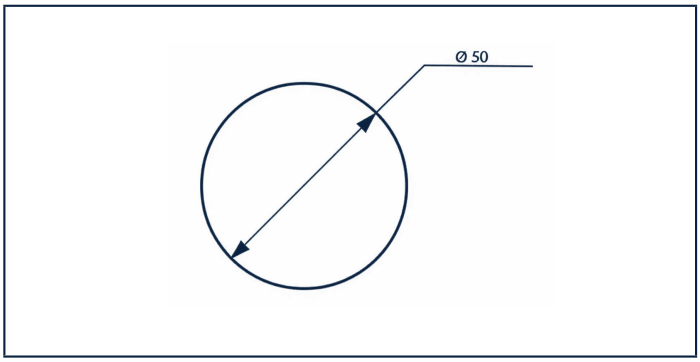
KDS-RGA M40
Mounting cut-out



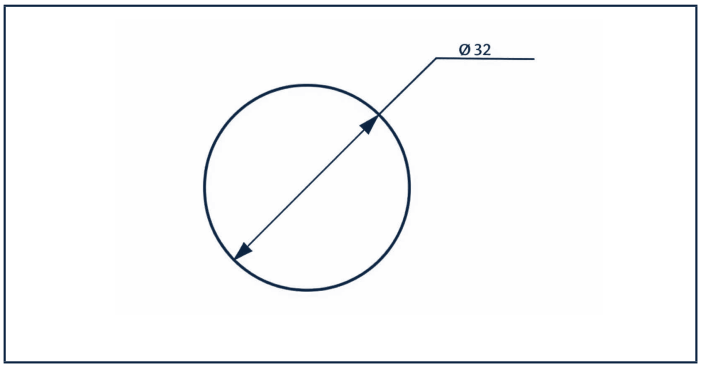
KDS-RGA M25
Mounting cut-out



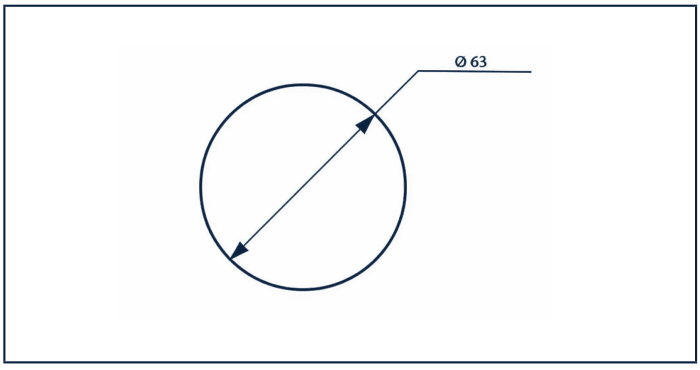
KDS-RGA M50
Mounting cut-out



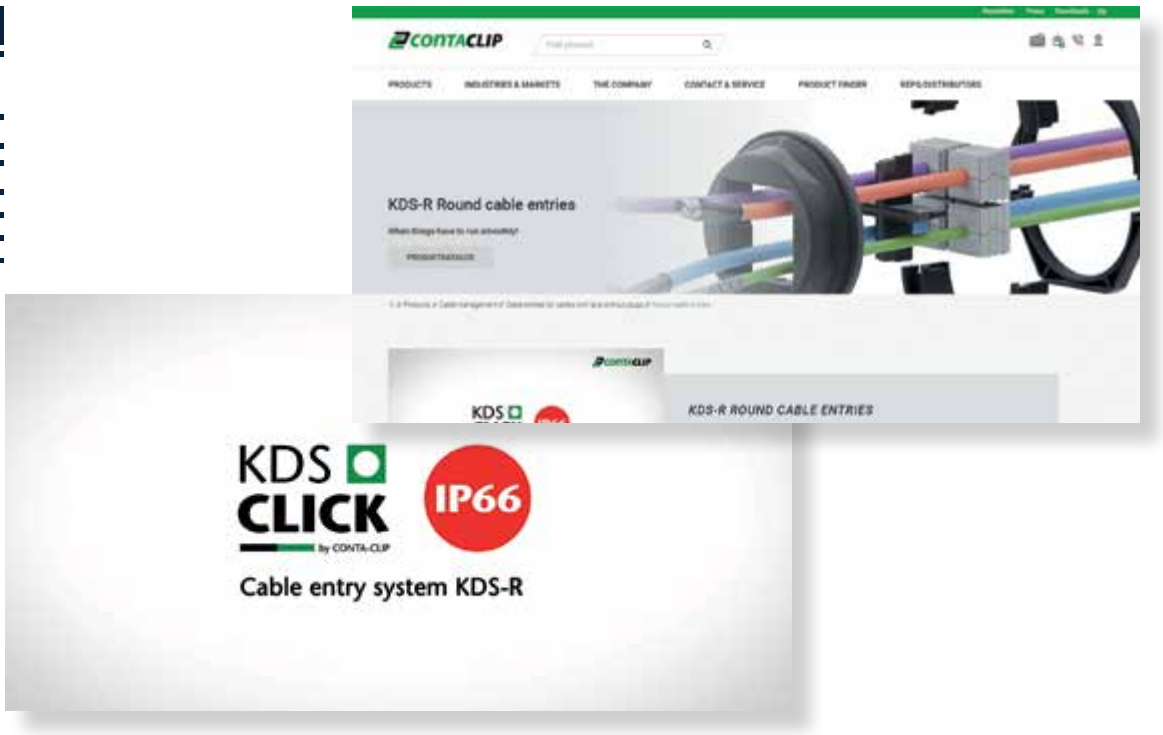
KDS-RGA M32
Mounting cut-out



KDS-RGA M63
Mounting cut-out



More information on KDS-R can be found here:



Notes

Compatibility matrix
Sealing elements for round cable entries KDS-R

Seals

Grey small	
Type	*Cat. no.*
KDS-DE/B GR	*28561.6*
KDS-DE 1.5-2 GR	*28562.6*
KDS-DE 2-3 GR	*28563.6*
KDS-DE 3-4 GR	*28564.6*
KDS-DE 4-5 GR	*28565.6*
KDS-DE 5-6 GR	*28566.6*
KDS-DE 6-7 GR	*28567.6*
KDS-DE 7-8 GR	*28568.6*
KDS-DE 8-9 GR	*28569.6*
KDS-DE 9-10 GR	*28570.6*
KDS-DE 10-11 GR	*28571.6*
KDS-DE 11-12 GR	*28572.6*
KDS-DE 12-13 GR	*28573.6*
KDS-DE 13-14 GR	*28574.6*
KDS-DE 14-15 GR	*28609.6*
KDS-DE 15-16 GR	*28671.6*
KDS-DE 2 x 4-5 GR	*28595.6*
KDS-DE 2 x 5-6 GR	*28596.6*
KDS-DE 2 x 6.5 GR	*28607.6*
KDS-DE 4 x 2-3 GR	*28597.6*
KDS-DE 4 x 3-4 GR	*28598.6*
KDS-DE 4 x 4.5 GR	*28606.6*
KDS-DE 4 x 5 GR	*28673.6*
KDS-DE 4 x 6 GR	*28762.6*
KDS-DE/1 x ASI GR	*28599.6*
KDS-DE/2 x ASI GR	*28600.6*

Black small	
Type	*Cat. no.*
KDS-DE/B BK	*28520.4*
KDS-DE 1.5-2 BK	*28521.4*
KDS-DE 2-3 BK	*28522.4*
KDS-DE 3-4 BK	*28523.4*
KDS-DE 4-5 BK	*28524.4*
KDS-DE 5-6 BK	*28525.4*
KDS-DE 6-7 BK	*28526.4*
KDS-DE 7-8 BK	*28527.4*
KDS-DE 8-9 BK	*28528.4*
KDS-DE 9-10 BK	*28529.4*
KDS-DE 10-11 BK	*28530.4*
KDS-DE 11-12 BK	*28531.4*
KDS-DE 12-13 BK	*28532.4*
KDS-DE 13-14 BK	*28533.4*
KDS-DE 14-15 BK	*28608.4*
KDS-DE 15-16 BK	*28670.4*
KDS-DE 2 x 4-5 BK	*28555.4*
KDS-DE 2 x 5-6 BK	*28556.4*
KDS-DE 2 x 6.5 BK	*28682.4*
KDS-DE 4 x 2-3 BK	*28557.4*
KDS-DE 4 x 3-4 BK	*28558.4*
KDS-DE 4 x 4.5 BK	*28681.4*
KDS-DE 4 x 5 BK	*28672.4*
KDS-DE 4 x 6 BK	*28763.4*
KDS-DE/1 x ASI BK	*28559.4*
KDS-DE/2 x ASI BK	*28560.4*
KDS-DE/K 2-11 BK	*28553.4*

Grey large	
Type	*Cat. no.*
KDS-DEG/B GR	*28575.6*
KDS-DEG 14-15 GR	*28576.6*
KDS-DEG 15-16 GR	*28577.6*
KDS-DEG 16-17 GR	*28578.6*
KDS-DEG 17-18 GR	*28579.6*
KDS-DEG 18-19 GR	*28580.6*
KDS-DEG 19-20 GR	*28581.6*
KDS-DEG 20-21 GR	*28582.6*
KDS-DEG 21-22 GR	*28583.6*
KDS-DEG 22-23 GR	*28584.6*
KDS-DEG 23-24 GR	*28585.6*
KDS-DEG 24-25 GR	*28586.6*
KDS-DEG 25-26 GR	*28587.6*
KDS-DEG 26-27 GR	*28588.6*
KDS-DEG 27-28 GR	*28589.6*
KDS-DEG 28-29 GR	*28590.6*
KDS-DEG 29-30 GR	*28591.6*
KDS-DEG 30-31 GR	*28592.6*
KDS-DEG 31-32 GR	*28593.6*
KDS-DEG 32-33 GR	*28594.6*
KDS-DEG 33-34 GR	*28731.6*
KDS-DEG 34-35 GR	*28733.6*

Black large	
Type	*Cat. no.*
KDS-DEG/B BK	*28534.4*
KDS-DEG 14-15 BK	*28535.4*
KDS-DEG 15-16 BK	*28536.4*
KDS-DEG 16-17 BK	*28537.4*
KDS-DEG 17-18 BK	*28538.4*
KDS-DEG 18-19 BK	*28539.4*
KDS-DEG 19-20 BK	*28540.4*
KDS-DEG 20-21 BK	*28541.4*
KDS-DEG 21-22 BK	*28542.4*
KDS-DEG 22-23 BK	*28543.4*
KDS-DEG 23-24 BK	*28544.4*
KDS-DEG 24-25 BK	*28545.4*
KDS-DEG 25-26 BK	*28546.4*
KDS-DEG 26-27 BK	*28547.4*
KDS-DEG 27-28 BK	*28548.4*
KDS-DEG 28-29 BK	*28549.4*
KDS-DEG 29-30 BK	*28550.4*
KDS-DEG 30-31 BK	*28551.4*
KDS-DEG 31-32 BK	*28552.4*
KDS-DEG 32-33 BK	*28601.4*
KDS-DEG 33-34 BK	*28730.4*
KDS-DEG 34-35 BK	*28732.4*

Small seals

Large seals

DES seals

KDS-DES	
Type	*Cat. no.*
KDS-DES 2X10.5 GR	*28800.6*
KDS-DES 3X9.5 GR	*28801.6*
KDS-DES 3X8.5 GR	*28802.6*
KDS-DES 4X7.5 GR	*28803.6*
KDS-DES 7X6.5 GR	*28804.6*
KDS-DES 8X5.5 GR	*28805.6*
KDS-DES 8X4.5 GR	*28806.6*
KDS-DE-FB1/A GR	*28713.6*
KDS-DE-FB1/B GR	*28714.6*
KDS-DE-FB1/C GR	*28715.6*
KDS-DE-FB1/D GR	*28716.6*
KDS-DE-FB1/E GR	*28717.6*
KDS-DE-FB1/F GR	*28718.6*

Round cable entries KDS-R

KDS-R 20 – 32			KDS-R 40 – 63		
KDS-R M20	KDS-R M25	KDS-R M32	KDS-R M40	KDS-R M50	KDS-R M63
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KDS-KV
Separable cable glands

For metric cut-outs from M20 to M63, CONTA-CLIP provides the **KDS-KV** separable cable glands for cables with or without attached plugs. In case of maintenance or retrofitting with assembled cable harnesses, cables with diameters from 1.5 mm to 35 mm can be quickly and securely inserted into the electrical cabinets or housings and sealed according to IP66. This separable system ensures quick and simple installation. The slitted seal has a wave-cut profile that ensures a reliable seal and a totally secure attachment. The seal is first placed around the cable and then inserted in one of the two halves of the cable gland.

After inserting the sealing elements, the two halves of the cable gland are simply snapped together.
A locknut (which can also be separated) on the inside of the cabinet ensures a safe and secure attachment.

KDS CLICK by CONTA-CLIP

Your advantages

- Assembled cables can be guided through
- Guarantee retained for assembled cables
- Retrofitting and servicing can be done quickly and easily
- High-density assemblies
- Assembly in metric standard cut-outs
- Including separable locknut

The basic components of the modular system

1. Split cable glands
Consisting of two half-shells, the cable gland is quick and easy to install. It is made of dimensionally stable, glass-fibre reinforced plastic. The integrated gasket guarantees an optimal seal with IP66 protection, even on painted or rough surfaces.

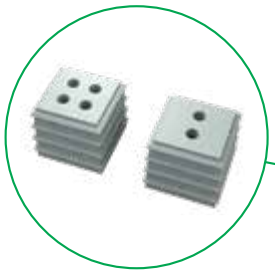
2 Split locknuts
The individual parts of the locknut can be snapped together quickly and easily via the dovetail guide and then mounted with the gland.

3. Seals
The conical shape of the sealing elements allows them to be easily inserted. This also reliably seals the gaps and provides static strain relief in accordance with DIN EN 62444. Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are numerous different sealing elements that can be used for sealing cables of various diameters and sizes.

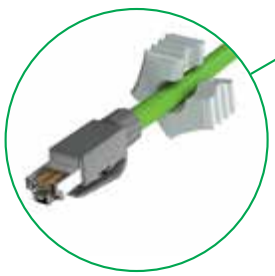
KDS-KV
Separable cable glands

An overview of your advantages

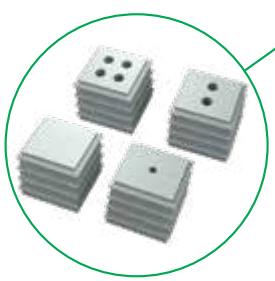
Mounting
No tools are required to mount the cable gland.



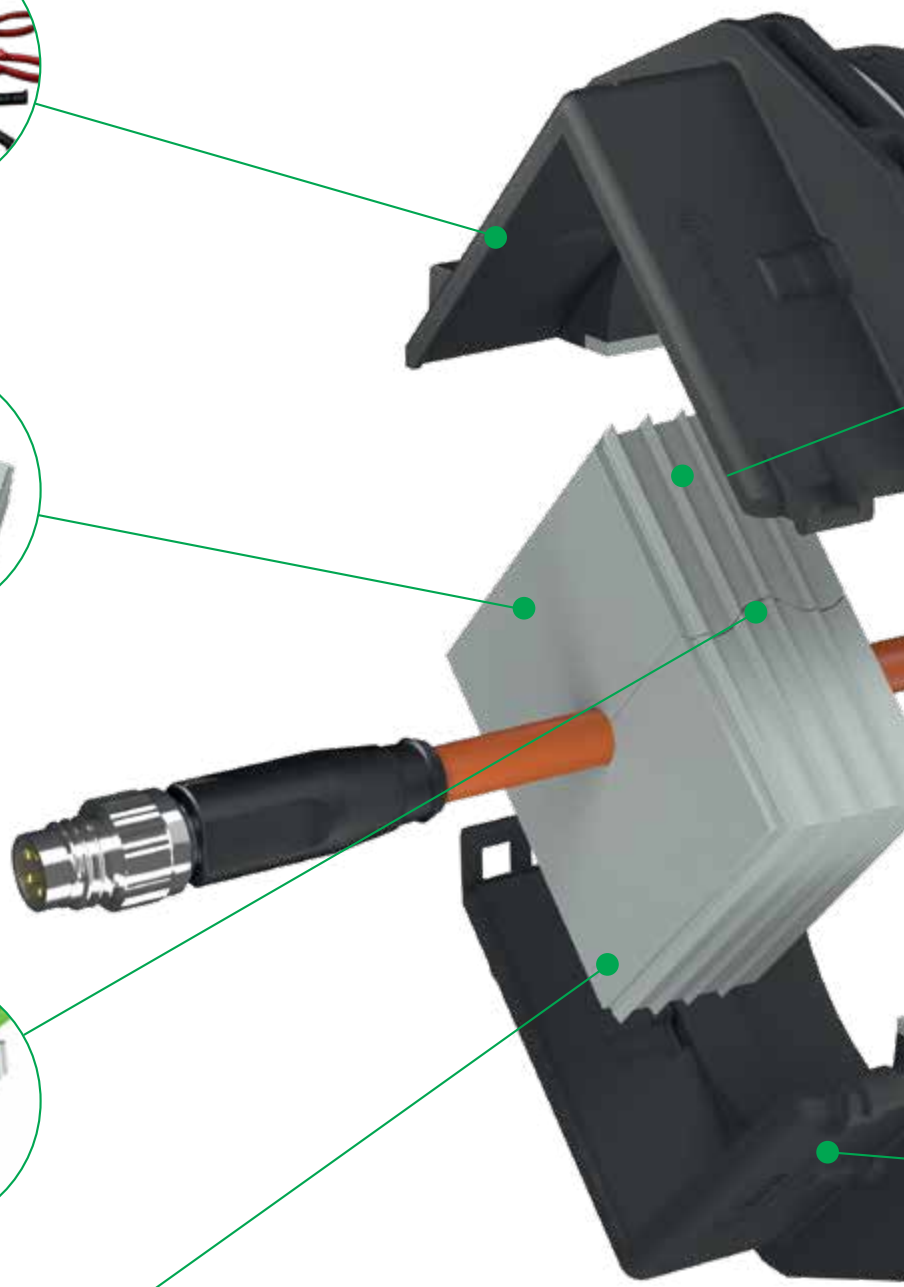
Variability
Up to 4 cables can be fed through using just one cable gland.



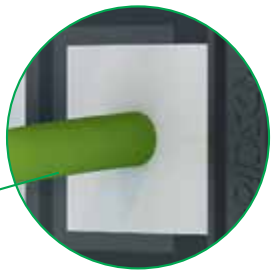
No Warranty Loss with Pre-Assembled Cables
No need to disassemble and re-connect connectors, so manufacturer's warranty is not voided.



Versatile, high-density assemblies are possible
1-way, 2-way, 3-way and 4-way seals and dummy plugs provide you with excellent versatility for cable management.

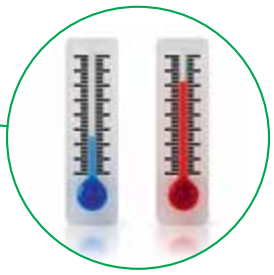


Outstanding seal
Multi-resistant, conically tapered seals feature inner and outer sealing gills.



Integrated strain relief
The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.

Facility availability
Since the cable gland and the lock-nut are separable, servicing can be carried out during operations.



Can be used from -40°C to +120°C
Materials contain no halogen or silicone; suitable for many different applications.

IP66 | ECOLAB certified | RoHS compliant | Made in Germany | CAD | EN 61373

KDS-KV
Separable cable glands

Separable cable glands	KDS-KV M20	KDS-KV M25	KDS-KV M32
Description	Split cable gland, including split locknut	Split cable gland, including split locknut	Split cable gland, including split locknut
Type / colour	**KDS-KV M20 BK**	**KDS-KV M25 BK**	**KDS-KV M32 BK**
Cat. no. **Qty.**	*28610.4* **10**	*28611.4* **10**	*28612.4* **10**
Cable diameter, mm			
KDS-DE	1.5–13 mm	1.5–16 mm	1.5–16 mm
Accessories			
Locknut	**KDS-GM M20 BK**	**KDS-GM M25 BK**	**KDS-GM M32 BK**
Cat. no. **Qty.**	*28616.4* **10**	*28617.4* **10**	*28618.4* **10**
Description	Split locknut	Split locknut	Split locknut
Seals			
Small	**See section KDS-DE**	**See section KDS-DE**	**See section KDS-DE**
Tightening torque of lock nut, in Nm	4	4	4
Combinations			
Accessories			
Sheet-metal hole punch	**BL KDS-KV M20**	**BL KDS-KV M25**	**BL KDS-KV M32**
Cat. no. **Qty.**	*28746.0* **1**	*28747.0* **1**	*28748.0* **1**

Separable cable glands	KDS-KV M40	KDS-KV M50	KDS-KV M63
Description	Split cable gland, including split locknut	Split cable gland, including split locknut	Split cable gland, including split locknut
Type / colour	**KDS-KV M40 BK**	**KDS-KV M50 BK**	**KDS-KV M63 BK**
Cat. no. **Qty.**	*28613.4* **5**	*28614.4* **5**	*28615.4* **5**
Cable diameter, mm			
KDS-DEG	12–35 mm	12–35 mm	12–35 mm
Accessories			
Locknut	**KDS-GM M40 BK**	**KDS-GM M50 BK**	**KDS-GM M63 BK**
Cat. no. **Qty.**	*28619.4* **5**	*28620.4* **5**	*28621.4* **5**
Description	Split locknut	Split locknut	Split locknut
Seals			
Large	**See section KDS-DE**	**See section KDS-DE**	**See section KDS-DE**
Tightening torque of lock nut, in Nm	*7*	*7*	*7*
Combinations			
Accessories			
Sheet-metal hole punch	**BL KDS-KV M40**	**BL KDS-KV M50**	**BL KDS-KV M63**
Cat. no. **Qty.**	*28749.0* **1**	*28750.0* **1**	*28751.0* **1**

Features

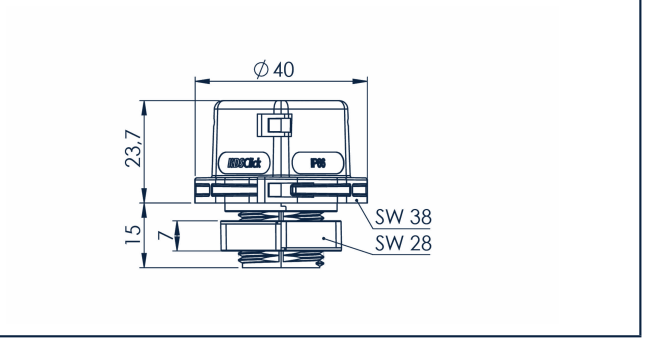
- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40°C to +120°C
- Halogen-free, silicone-free
- Protection: IP66

KDS-KV

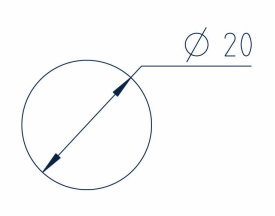
Separable cable glands | Dimensional diagrams / Mounting cut-outs

KDS-KV M20

Dimensional diagram



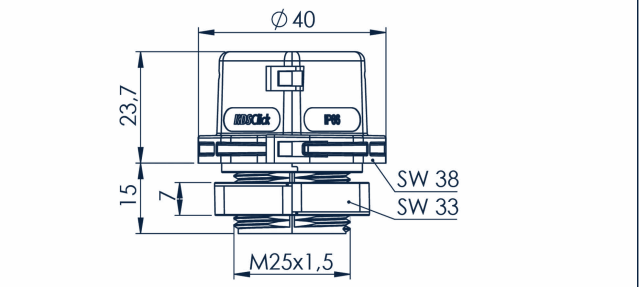
Mounting cut-out



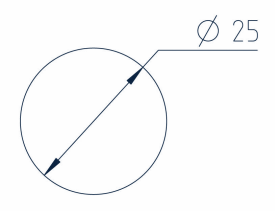
Torque for the locknut: 3 Nm

KDS-KV M25

Dimensional diagram



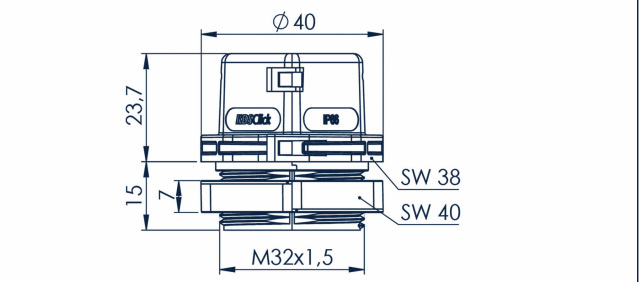
Mounting cut-out



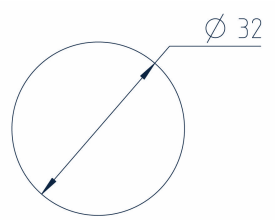
Torque for the locknut: 3 Nm

KDS-KV M32

Dimensional diagram



Mounting cut-out



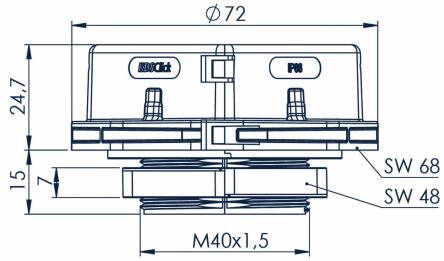
Torque for the locknut: 3 Nm

KDS-KV

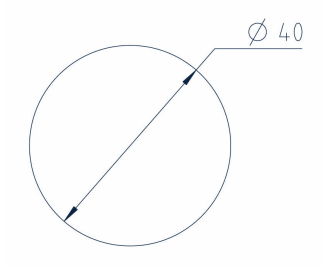
Separable cable glands | Dimensional diagrams / Mounting cut-outs

KDS-KV M40

Dimensional diagram



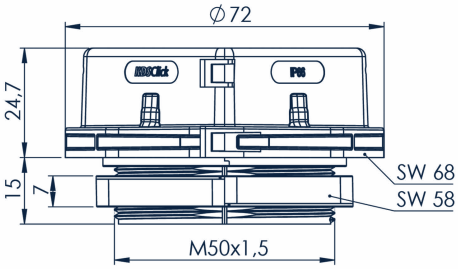
Mounting cut-out



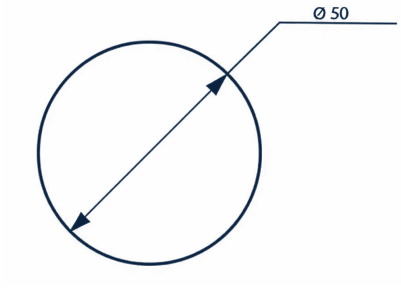
Torque for the locknut: 7 Nm

KDS-KV M50

Dimensional diagram



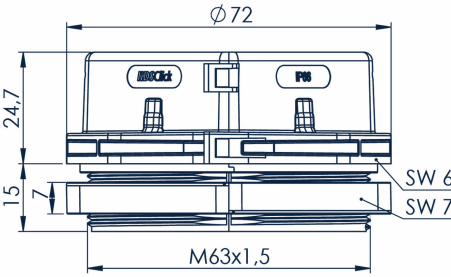
Mounting cut-out



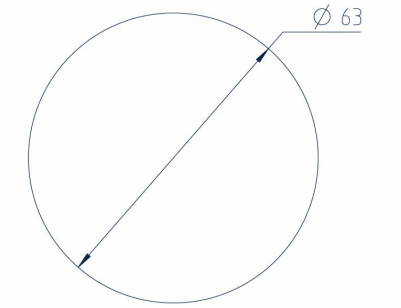
Torque for the locknut: 7 Nm

KDS-KV M63

Dimensional diagram



Mounting cut-out



Torque for the locknut: 7 Nm

KDS-DEG-A/KS-D and KDS-DEG-AI/KS-D sealing element adapters

The **KDS-DEG-A/KS-D** and **KDS-DEG-AI/KS-D** sealing element adapters are specially developed for integrating Keystone modules such as USB 3.0, USB-C, HDMI and Ethernet in the modular KDSClick cable entry systems. The transparent cover made of heavy-duty plastic protects the modules reliably against dust, water and other environmental conditions with IP65 protection. The simple snap-in assembly and the quick release of the Keystone modules enable straightforward installation and maintenance.

Thanks to the modular design, data cables can be connected directly without having to open the machine.
This reduces installation time and costs.
The sealing element adapters provide a flexible and reliable interface for modern machinery, ensuring high connectivity and a long service life.

IP65

KDS CLICK by CONTA-CLIP

Your advantages

- Easy access to interfaces on electrical cabinets
- Adapters for assembling Keystone modules into KDS frame systems
- Snap-on assembly simplifies installation
- Robust design reinforced by KDS frame
- Protection: IP65

Variety

The sealing element adapters are available in two different versions: for KDS systems for assembly from the inside, and for KDSI systems for assembly from the outside.
Both variants feature a transparent and sealable lid that ensures reliable protection for the adapter up to IP65.

Adapter for KDS systems

Adapter for KDSI systems

KDS-DEG-A/KS-D and KDS-DEG-AI/KS-D

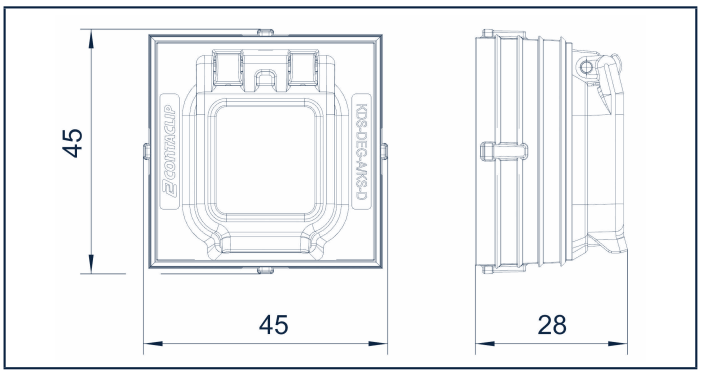
Sealing element adapter for use with Keystone modules in cable entries from the KDS & KDSI series

Sealing element adapter	KDS-DEG-A/KS-D	KDS-DEG-AI/KS-D
Description	Sealing element adapter for frames from the KDS series	Sealing element adapter for frames from the KDSI series
Type / colour	**KDS-DEG-A/KS-D**	**KDS-DEG-AI/KS-D**
Cat. no. **Qty.**	*29077.6* **10**	*29078.6* **10**
Accessories for Keystone modules		
Type / colour	**KDS-A/KS USB 3.0**	**KDS-A/KS USB 3.0**
Cat. no. **Qty.**	*29114.0* **1**	*29114.0* **1**
Type / colour	**KDS-A/KS USB-C**	**KDS-A/KS USB-C**
Cat. no. **Qty.**	*29115.0* **1**	*29115.0* **1**
Type / colour	**KDS-A/KS CAT6**	**KDS-A/KS CAT6**
Cat. no. **Qty.**	*29116.0* **1**	*29116.0* **1**
Type / colour	**KDS-A/KS HDMI**	**KDS-A/KS HDMI**
Cat. no. **Qty.**	*29117.0* **1**	*29117.0* **1**

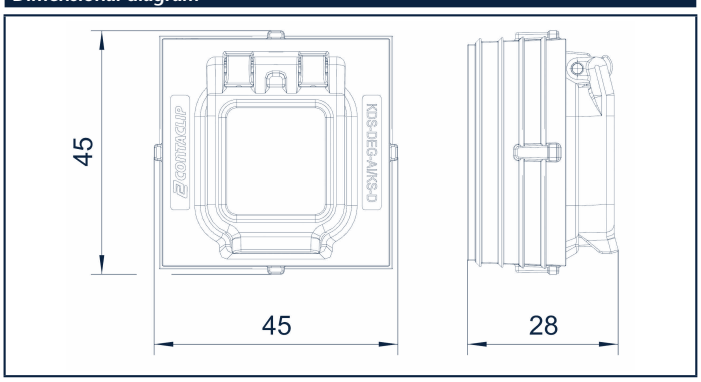
KDS-DEG-A/KS-D and KDS-DEG-AI/KS-D

Sealing element adapters for use with Keystone modules in cable entries from the KDS & KDSI series | Dimensional drawings

KDS-DEG-A/KS-D
Dimensional diagram



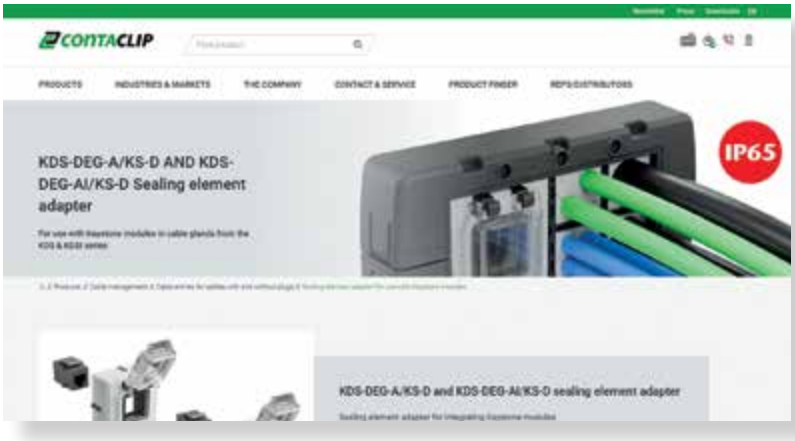
KDS-DEG-AI/KS-D
Dimensional diagram



Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Lid material: Polycarbonate transparent
- Flammability: UL 94 V-0
- Temperature range: -40°C to +100°C (static)
- Halogen-free, silicone-free
- Protection: IP65
- Keystone modules available separately

More information on KDS-DEG-A/KS-D and KDS-DEG-AI/KS-D can be found here:



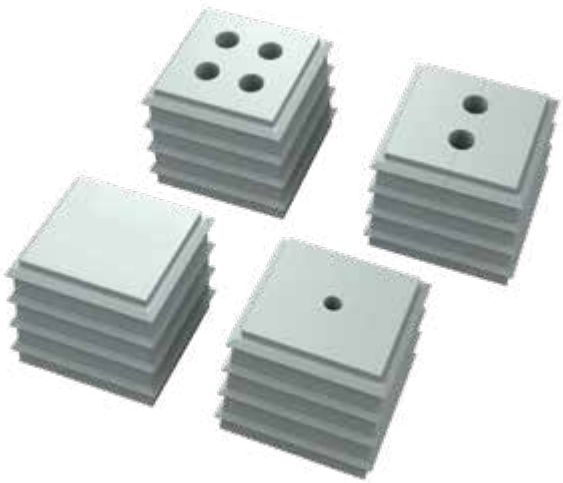
Notes

KDS-DE and KDS-DEG

Sealing elements for cable entry systems KDS

The conical shape of the **KDS-DE** (small) / **KDS-DEG** (large) sealing elements enable user-friendly pressing-in of the sealing element, reliable sealing of the gaps and ensure a static strain relief in accordance with DIN EN 62444. To attach them, the sealing elements are pressed into the openings of the cable entries. Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are numerous different sealing elements that can be used for sealing cables of various diameters and sizes.

The small sealing elements cover a diameter range of 1.5 to 16 mm, and the large sealing elements cover a diameter range of 12 to 35 mm. Dummy elements can not seal sealing element spaces. The sealing elements are available in black and grey.



Your advantages

- Smart division of sealing elements using a wave-cut profile
- Versatile, high-density assemblies are possible
- IP66 protection
- Integrated strain relief
- Available in two different sizes

KDS-DE and KDS-DEG

Sealing elements for cable entry systems KDS

An overview of your advantages

No loss of guarantee when using assembled cables

No need to disassemble and reconnect connectors, so the manufacturer's warranty is not voided.

Versatile, high-density assemblies are possible

1-way, 2-way, 3-way and 4-way sealing elements provide you with excellent versatility for your cable management. There are numerous different sealing elements that can be used for sealing cables of various diameters and sizes.

Integrated strain relief

The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.

Outstanding IP66 seal

The conically tapered shape of the sealing elements with inner and outer sealing gills in combination with the frame and inlays ensures a high level of sealing.

Smart separation of the seals

The wave-cut profile makes them easy to install and ensures a perfect fit around the cables.

Sealing elements are available in two different sizes

KDS-DE 19.5 x 19.5 mm for cable diameters of 1.5 bis 16 mm,
KDS-DEG 42 x 42 mm for cable diameters of 12 bis 35 mm

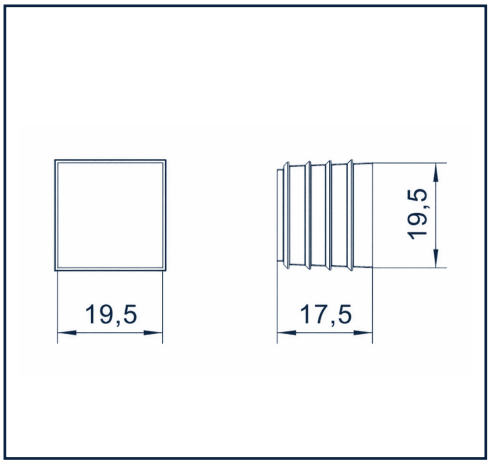
Sealing elements for KDS systems

Seals

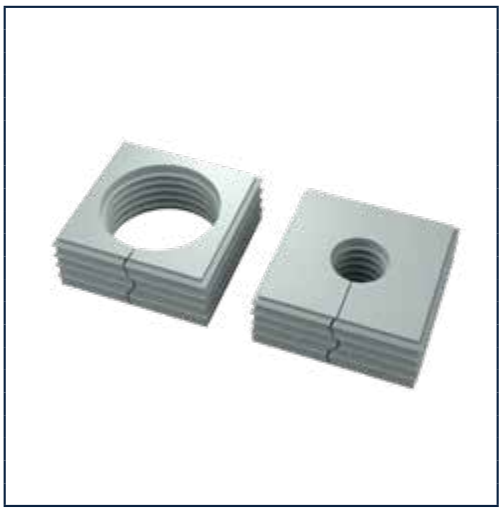
Grey small

Type	Cat. no.	Qty.	Max. Ø
KDS-DE/B GR	28561.6	10	Blind
KDS-DE 1.5 GR	28694.6	10	1.5 mm
KDS-DE 1.5-2 GR	28562.6	10	2 mm
KDS-DE 2 GR	28696.6	10	2 mm
KDS-DE 2-3 GR	28563.6	10	3 mm
KDS-DE 3 GR	28698.6	10	3 mm
KDS-DE 3-4 GR	28564.6	10	4 mm
KDS-DE 4-5 GR	28565.6	10	5 mm
KDS-DE 5-6 GR	28566.6	10	6 mm
KDS-DE 6-7 GR	28567.6	10	7 mm
KDS-DE 7-8 GR	28568.6	10	8 mm
KDS-DE 8-9 GR	28569.6	10	9 mm
KDS-DE 9-10 GR	28570.6	10	10 mm
KDS-DE 10-11 GR	28571.6	10	11 mm
KDS-DE 11-12 GR	28572.6	10	12 mm
KDS-DE 12-13 GR	28573.6	10	13 mm
KDS-DE 13-14 GR	28574.6	10	14 mm
KDS-DE 14-15 GR	28609.6	10	15 mm
KDS-DE 15-16 GR	28671.6	10	16 mm
KDS-DE 3,3X5.4 GR oval	28778.6	10	3.3x5.4mm

Dimensional drawings

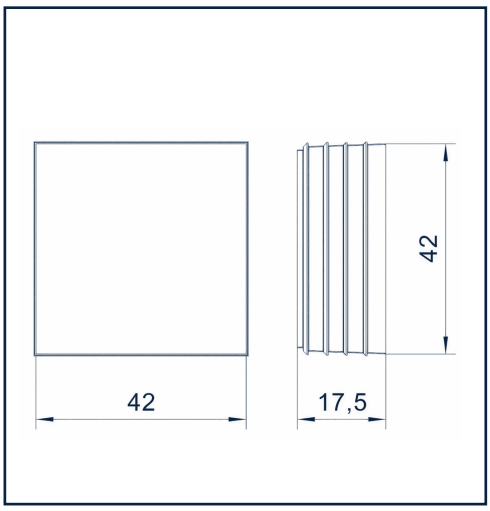


Seals



Grey large

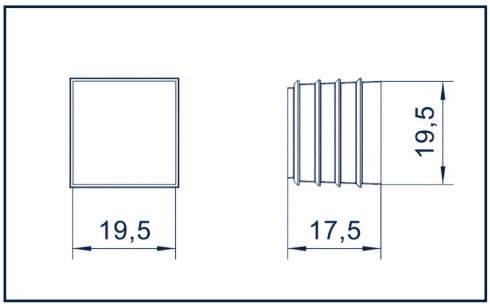
KDS-DEG/B GR	28575.6	10	Blind
KDS-DEG 12-13 GR	28867.6	10	13 mm
KDS-DEG 14-15 GR	28576.6	10	15 mm
KDS-DEG 15-16 GR	28577.6	10	16 mm
KDS-DEG 16-17 GR	28578.6	10	17 mm
KDS-DEG 17-18 GR	28579.6	10	18 mm
KDS-DEG 18-19 GR	28580.6	10	19 mm
KDS-DEG 19-20 GR	28581.6	10	20 mm
KDS-DEG 20-21 GR	28582.6	10	21 mm
KDS-DEG 21-22 GR	28583.6	10	22 mm
KDS-DEG 22-23 GR	28584.6	10	23 mm
KDS-DEG 23-24 GR	28585.6	10	24 mm
KDS-DEG 24-25 GR	28586.6	10	25 mm
KDS-DEG 25-26 GR	28587.6	10	26 mm
KDS-DEG 26-27 GR	28588.6	10	27 mm
KDS-DEG 27-28 GR	28589.6	10	28 mm
KDS-DEG 28-29 GR	28590.6	10	29 mm
KDS-DEG 29-30 GR	28591.6	10	30 mm
KDS-DEG 30-31 GR	28592.6	10	31 mm
KDS-DEG 31-32 GR	28593.6	10	32 mm
KDS-DEG 32-33 GR	28594.6	10	33 mm
KDS-DEG 33-34 GR	28731.6	10	34 mm
KDS-DEG 34-35 GR	28733.6	10	35 mm



Seals with multiple holes

Grey multiple

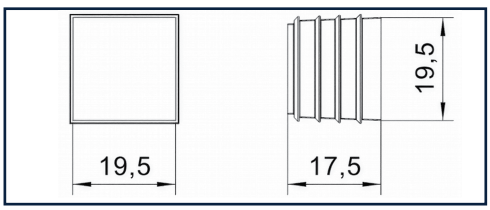
KDS-DE 2x2-3 GR	28667.6	10	3 mm
KDS-DE 2x3-4 GR	28896.6	10	4 mm
KDS-DE 2x4-5 GR	28595.6	10	5 mm
KDS-DE 2x5-6 GR	28596.6	10	6 mm
KDS-DE 2x6.5 GR	28607.6	10	6.5 mm
KDS-DE 2x7 GR	28690.6	10	7 mm
KDS-DE 2x8 GR	28692.6	10	8 mm
KDS-DE 3x4-5 GR	28769.6	10	5 mm
KDS-DE 3x5-6 GR	28688.6	10	6 mm
KDS-DE 4x2-3 GR	28597.6	10	3 mm
KDS-DE 4x3-4 GR	28598.6	10	4 mm
KDS-DE 4x4.5 GR	28606.6	10	4.5 mm
KDS-DE 4x5 GR	28673.6	10	5 mm
KDS-DE 4x6 GR	28762.6	10	6 mm



Seals for AS interface cables

Grey

KDS-DE/1xASI GR	28599.6	10	
KDS-DE/2xASI GR	28600.6	10	



IP66

RoHS compliant

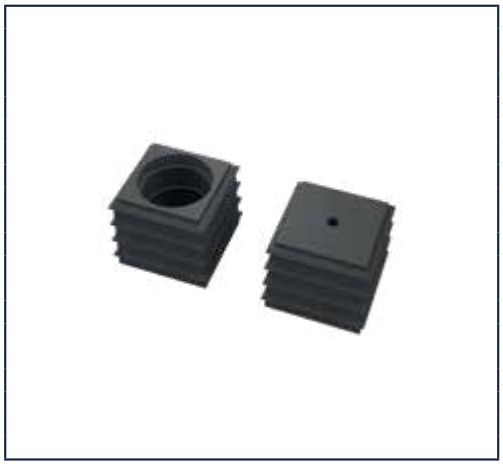
Made in Germany

CAD

Features

- Material: TPE
- Flammability: UL 94 V-0
- Temperature range: -40°C to +90°C (static)
- Halogen-free, silicone-free
- Protection: IP66

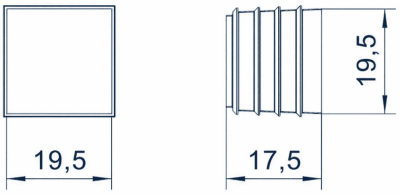
Seals



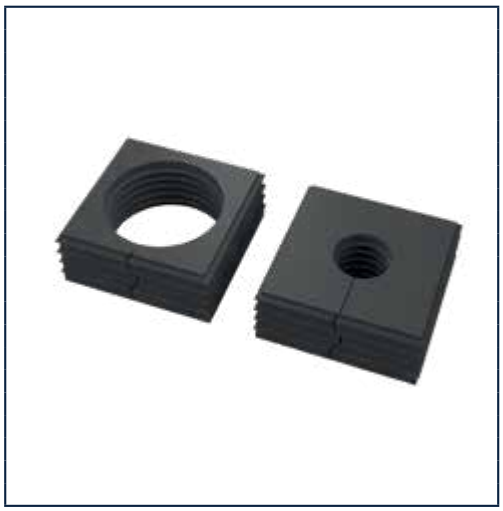
Black small

Type	Cat. no.	Qty.	Max. Ø
KDS-DE/B BK	28520.4	10	Blind
KDS-DE 1.5 BK	28693.4	10	1.5 mm
KDS-DE 1.5-2 BK	28521.4	10	2 mm
KDS-DE 2 BK	28695.4	10	2 mm
KDS-DE 2-3 BK	28522.4	10	3 mm
KDS-DE 3 BK	28697.4	10	3 mm
KDS-DE 3-4 BK	28523.4	10	4 mm
KDS-DE 4-5 BK	28524.4	10	5 mm
KDS-DE 5-6 BK	28525.4	10	6 mm
KDS-DE 6-7 BK	28526.4	10	7 mm
KDS-DE 7-8 BK	28527.4	10	8 mm
KDS-DE 8-9 BK	28528.4	10	9 mm
KDS-DE 9-10 BK	28529.4	10	10 mm
KDS-DE 10-11 BK	28530.4	10	11 mm
KDS-DE 11-12 BK	28531.4	10	12 mm
KDS-DE 12-13 BK	28532.4	10	13 mm
KDS-DE 13-14 BK	28533.4	10	14 mm
KDS-DE 14-15 BK	28608.4	10	15 mm
KDS-DE 15-16 BK	28670.4	10	16 mm

Dimensional drawings

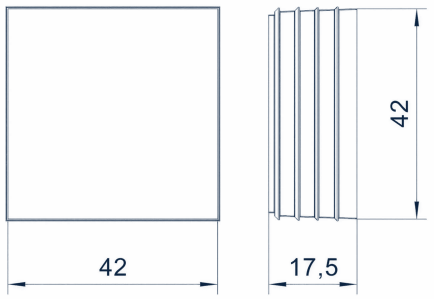


Seals



Black large

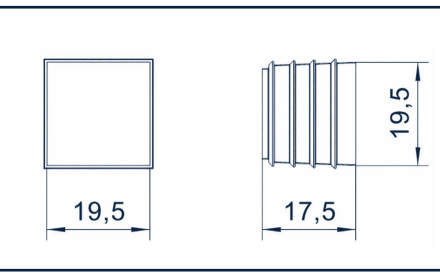
KDS-DEG/B BK	28534.4	10	Blind
KDS-DEG 12-13 BK	28868.4	10	13 mm
KDS-DEG 14-15 BK	28535.4	10	15 mm
KDS-DEG 15-16 BK	28536.4	10	16 mm
KDS-DEG 16-17 BK	28537.4	10	17 mm
KDS-DEG 17-18 BK	28538.4	10	18 mm
KDS-DEG 18-19 BK	28539.4	10	19 mm
KDS-DEG 19-20 BK	28540.4	10	20 mm
KDS-DEG 20-21 BK	28541.4	10	21 mm
KDS-DEG 21-22 BK	28542.4	10	22 mm
KDS-DEG 22-23 BK	28543.4	10	23 mm
KDS-DEG 23-24 BK	28544.4	10	24 mm
KDS-DEG 24-25 BK	28545.4	10	25 mm
KDS-DEG 25-26 BK	28546.4	10	26 mm
KDS-DEG 26-27 BK	28547.4	10	27 mm
KDS-DEG 27-28 BK	28548.4	10	28 mm
KDS-DEG 28-29 BK	28549.4	10	29 mm
KDS-DEG 29-30 BK	28550.4	10	30 mm
KDS-DEG 30-31 BK	28551.4	10	31 mm
KDS-DEG 31-32 BK	28552.4	10	32 mm
KDS-DEG 32-33 BK	28601.4	10	33 mm
KDS-DEG 33-34 BK	28730.4	10	34 mm
KDS-DEG 34-35 BK	28732.4	10	35 mm



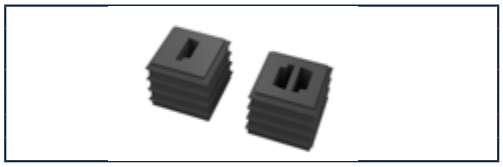
Seals with multiple holes

Black multiple

KDS-DE 2x4-5 BK	28555.4	10	5 mm
KDS-DE 2x5-6 BK	28556.4	10	6 mm
KDS-DE 2x6.5 BK	28682.4	10	6.5 mm
KDS-DE 2x7 BK	28689.4	10	7 mm
KDS-DE 2x8 BK	28691.4	10	8 mm
KDS-DE 3x4-5 BK	28768.4	10	5 mm
KDS-DE 3x5-6 BK	28687.4	10	6 mm
KDS-DE 4x2-3 BK	28557.4	10	3 mm
KDS-DE 4x3-4 BK	28558.4	10	4 mm
KDS-DE 4x4.5 BK	28681.4	10	4.5 mm
KDS-DE 4x5 BK	28672.4	10	5 mm
KDS-DE 4x6 BK	28763.4	10	6 mm

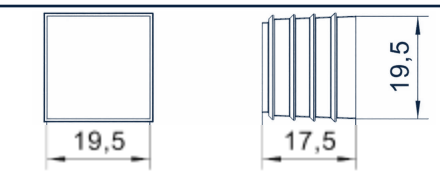


Seals for AS interface cables



Black

KDS-DE/1xASI BK	28559.4	10
KDS-DE/2xASI BK	28560.4	10



Cone-shaped sealing elements

Black

				L x W x H
KDS-DE/K 2-11 BK	28553.4	10	11 mm	19.5 x 19.5 x 42.7
KDS-DEG/K 7-24 BK	28554.4	10	24 mm	42 x 42 x 63.2

IP66

RoHS compliant

Made in Germany

CAD

Features

- Material: TPE
- Flammability: UL 94 HB
- Temperature range: -40°C to +120°C (static)
- Halogen-free, silicone-free
- High chemical resistance
- UV-stabilized
- Protection: IP66

KDS-DES seals

The **KDS-DES** sealing elements enable you to install non-assembled cables. The corresponding membrane must be pierced (center point is marked) to insert the cables. The cables can then be guided through the seal. Thanks to their design based on the proven **KES** system, the **KDS-DES** sealing elements ensure an IP54-tight seal. Despite the high packing density (up to eight cables), the **KDS-DES** sealing elements are compatible with virtually all **KDS** solutions.

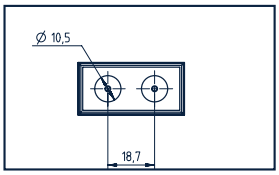
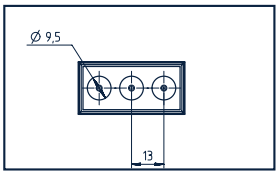
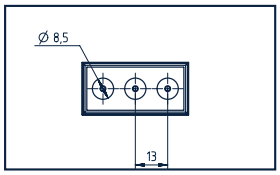
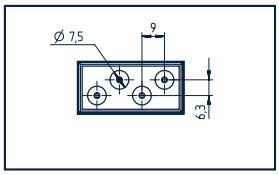
The seals' conical shape enables them to be easily pressed in so they can seal gaps. For the assembly, they are pressed into the selected **KDS** system from the inside outwards.

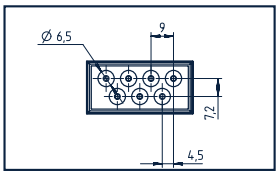
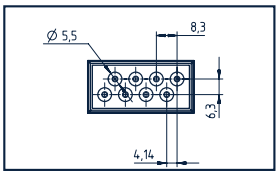
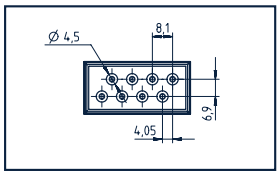
Features

- Material: TPE
- Flammability: UL 94 V-0
- Temperature range: -40°C to +90°C (static)
- Halogen-free, silicone-free
- Protection class: IP54

KDS-DES seals

Dimensional diagrams / Technical data

Seals	KDS-DES 2X10.5	KDS-DES 3X9.5	KDS-DES 3X8.5	KDS-DES 4X7.5
Diagram				
Type	**KDS-DES 2X10.5 GR**	**KDS-DES 3X9.5 GR**	**KDS-DES 3X8.5 GR**	**KDS-DES 4X7.5 GR**
Cat. no. **Qty.**	*28800.6* **5**	*28801.6* **5**	*28802.6* **5**	*28803.6* **5**
Size (L x W x H), mm	42 x 19.5 x 17.5	42 x 19.5 x 17.5	42 x 19.5 x 17.5	42 x 19.5 x 17.5
Connection data				
Number of cables x cable diameter (mm)	2 x 10.5	3 x 9.5	3 x 8.5	4 x 7.5

Seals	KDS-DES 7X6.5	KDS-DES 8X5.5	KDS-DES 8X4.5	
Diagram				
Type	**KDS-DES 7X6.5 GR**	**KDS-DES 8X5.5 GR**	**KDS-DES 8X4.5 GR**	
Cat. no. **Qty.**	*28804.6* **5**	*28805.6* **5**	*28806.6* **5**	
Size (L x W x H), mm	42 x 19.5 x 17.5	42 x 19.5 x 17.5	42 x 19.5 x 17.5	
Connection data				
Number of cables x cable diameter (mm)	7 x 6.5	8 x 5.5	8 x 4.5	

Notice

The KDS-DES sealing elements are not comparable with the KDSI-SR frame.

IP54 | RoHS compliant | Made in Germany | CAD

KDS-DE-Z2K Combi sealing elements

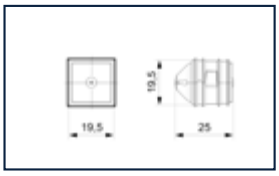
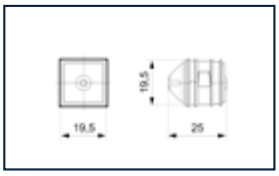
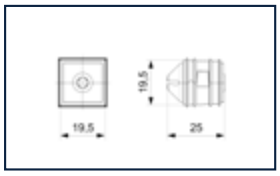
The **KDS-DE-Z2K** dual-component combi patented sealing elements – consisting of a flexible seal and a robust strain relief – enable flexible cable routing for both pre-assembled and non-pre-assembled cables with a IP66 protection rating. The two-part sealing element, whose half-shells can be easily opened and closed via a snap-on mechanism, ensures they are easy-to-install and fit perfectly around the cables. The combi sealing elements are installed by pressing them from the inside outwards into the openings of the previously installed inlays of the KDS cable entry systems. The special design of the sealing elements ensures compliance with the specified tensile forces for retention and strain relief for unarmoured cables and lines in Type A of the DIN EN 62444:2014-05 standard (cable glands for electrical installations). Thanks to their extended sealing range, just five variants cover cable diameters from 1 mm to 8.7 mm. This reduces warehousing and inventory costs.

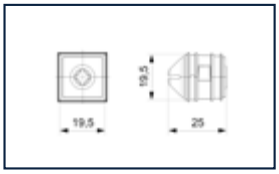
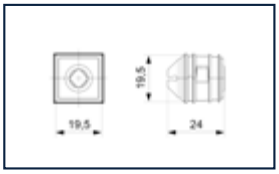
Your advantages

- Extended diameter range for each sealing element
- No loss of guarantee when using assembled cables
- Versatile, high-density assemblies are possible
- Smart division and tool-less assembly of the s ealing elements
- Outstanding strain relief in accordance with DIN EN 62444

KDS-DE-Z2K Combi sealing elements

Dimensional diagrams / Technical data

Seals	KDS-DE-Z2K 1.0-2.6	KDS-DE-Z2K 3.0-4.7	KDS-DE-Z2K 4.8-6.2
Diagram			
Type	**KDS-DE-Z2K 1,0-2,6 GR**	**KDS-DE-Z2K 3,0-4,7 GR**	**KDS-DE-Z2K 4,8-6,2 GR**
Cat. no. **Qty.**	*28980.6* **10**	*28981.6* **10**	*28982.6* **10**
Size (L x W x H), mm	19.5 x 19.5 x 25	19.5 x 19.5 x 25	19.5 x 19.5 x 25
Connection data			
Cable diameter mm	1 – 2.6	3 – 4.7	4.8 – 6.2
Retention capacity N	5	10	10
Strain relief N	-	30	30

Seals	KDS-DE-Z2K 6.3-8.1	KDS-DE-Z2K 8.0-8.7
Diagram		
Type	**KDS-DE-Z2K 6,3-8,1 GR**	**KDS-DE-Z2K 8,0-8,7 GR**
Cat. no. **Qty.**	*28983.6* **10**	*28984.6* **10**
Size (L x W x H), mm	19.5 x 19.5 x 25	19.5 x 19.5 x 24
Connection data		
Cable diameter mm	6.3 – 8.1	8 – 8.7
Retention capacity N	10	15
Strain relief N	30	42

Notice

The KDS-DE-Z2K is compatible with the following frames:
KDS-SR, KDS-R, KDS-FP, KDS-FB, KDS-KV

Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Flammability: UL 94 V-0
- Temperature range: -40°C to +90°C (static)
- Halogen-free, silicone-free
- Protection: IP66

IP66 | RoHS compliant | Made in Germany | CAD

KDS-Inlays
Inlays for cable entry systems

The patented, click-in inlays enable needs-based dimensioning of the frame opening, corresponding to the sealing element being used. An audible "click" confirms a correct installation. You can variably configure cable entries to match various requirements (for cables, lines, tubing, pneumatic and hydraulic lines).

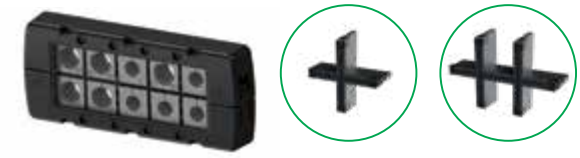
Your advantages

- Modular system for all cable entry systems
- Outstanding versatility with optimized warehousing
- Safe quick installation with feedback
- The frames, inlays and sealing elements can be combined easily through versatile configuration options

KDS-Inlays
Inlays for cable entry systems

An overview of your advantages

Modular design enables maximum flexibility with optimised warehousing
The frames, inlays and sealing elements can be combined in many ways ensuring you many versatile configuration options.



Example 1: Configuration for ten small sealing elements
KDSI-SR 10/24 BK + 1 x KDS-Inlay-4 BK and 1 x KDS-Inlay-6 BK + ten small sealing elements

Example 2: Configuration for one large and six small sealing elements
KDSI-SR 10/24 BK + 1 x KDS-Inlay-6 BK + six small sealing elements + one large sealing element

Safe quick installation with feedback
An audible "click" confirms that the inlay has been properly installed in the frame.

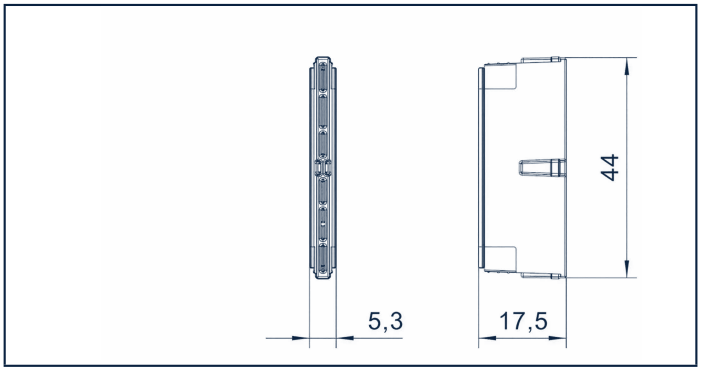
Two-component design guarantees impermeability to IP66
The additional TPE gasket of the inlays ensures a reliable seal on the surfaces between the frame and inlays in combination with sealing elements.

KDS-Inlays

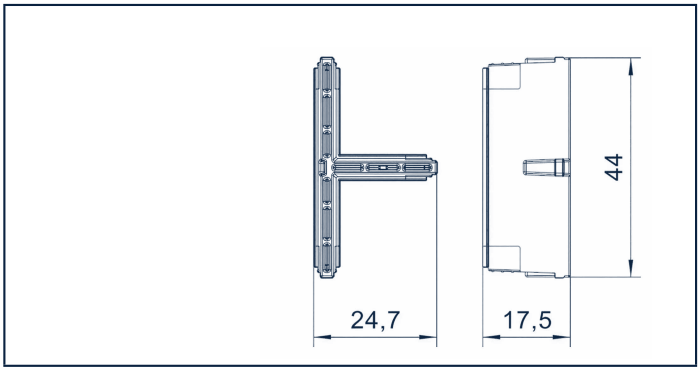
Inlays for cable entry systems

Inlay	KDS-Inlay 1 BK	KDS-Inlay 2 BK	KDS-Inlay 4 BK	KDS-Inlay 6 BK
Description	for 1-way divisions	for 2-way divisions	for 4-way divisions	for 6-way divisions
Type / colour	**KDS-Inlay 1 BK**	**KDS-Inlay 2 BK**	**KDS-Inlay 4 BK**	**KDS-Inlay 6 BK**
Cat. no. **Qty.**	*28516.4* **5**	*28517.4* **5**	*28518.4* **5**	*28519.4* **5**

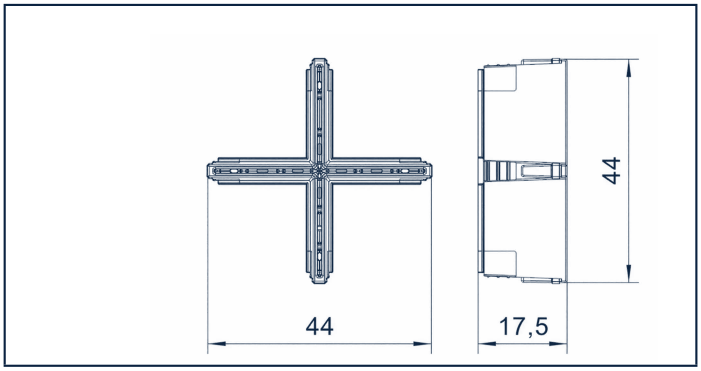
KDS-Inlay 1 BK
Dimensional diagram



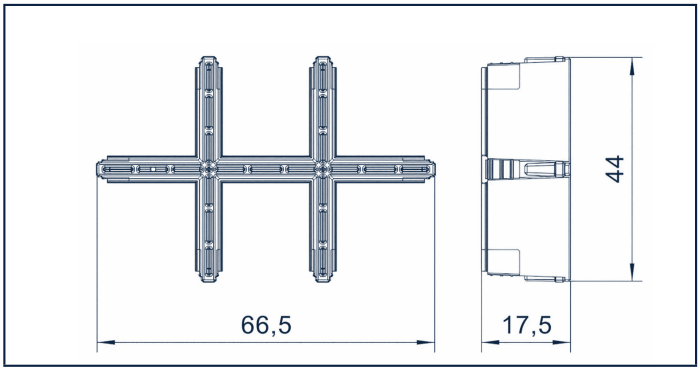
KDS-Inlay 2 BK
Dimensional diagram



KDS-Inlay 4 BK
Dimensional diagram



KDS-Inlay 6 BK
Dimensional diagram



Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour polyamide: black | TPE colour: black
- Flammability class polyamide: UL 94 V-0
- Flammability class black TPE UL 94 HB
- Temperature range: -40°C to +120°C
- Halogen-free, silicone-free
- Protection: IP66

IP66 | RoHS compliant | Made in Germany | CAD

Notes

KES
Cable entries

When feeding in non-assembled cables and pneumatic hoses (without connected plugs), CONTA-CLIP has a wide range of products that offer alternatives to cable glands or single-membrane feedthroughs.

The **KES** cable entries are very flat; they enable space-saving professional cable entries with a very tight seal.

Due to its high assembly density, the **KES** system is well suited for applications where the installations must be carried out in confined spaces.

Your advantages

- Can be screwed/snapped on
- Outstanding stability
- Outstanding strain relief
- Simple assembly
- High-density assemblies
- Two-way seal
- Hygienic design: no dirt-prone niches
- Large assortment (48 varieties)
- UL-listed plastic materials

An overview of your advantages

Two components

The **KES** system consists of two components. The inner core, made of polyamide PA 6.6 GF, is crucial for the stability and strain relief; it is over-moulded in the sealing areas with TPE to ensure an IP66 protective seal.

Many cables in a confined space

Many cables (with various diameters from 3.2 to 20.5 mm) can be inserted in a confined space and double sealed (IP66) thanks to the special construction of the conical grommets. There are three ways that the **KES** system can be installed: screw fastening from outside, screw fastening with threaded bushes and latching clips from the inside, or snap-in fastening from the outside. The corresponding membrane must be pierced (center point is marked) to insert the cables.

UL 94 V-0 classification

The **KES** is designed for use in mounting cut-outs of 24-pole heavy-duty connectors. All variants are available in grey and black. The materials used comply with the UL 94 V-0 classification.

Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Flammability: UL 94 V-0
- Temperature range: -40°C to +90°C
- Halogen-free, silicone-free
- Snap-on for wall thickness: 1.5 – 2.0 mm
- Protection class snap-on: IP54
- Protection class screwed: IP66

IP66 | UL TYPE Rating 12 | UL TYPE* Rating 4x

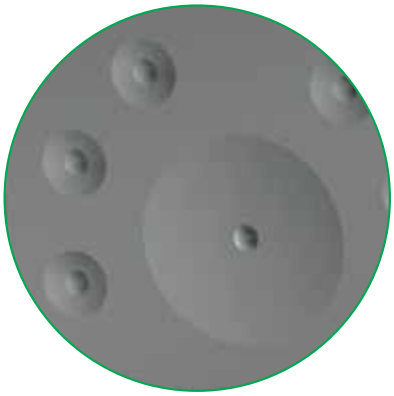
ECOLAB certified | RoHS compliant | Made in Germany | CAD | EN 61373

* 4x is for indoor use only

KES
Cable entries

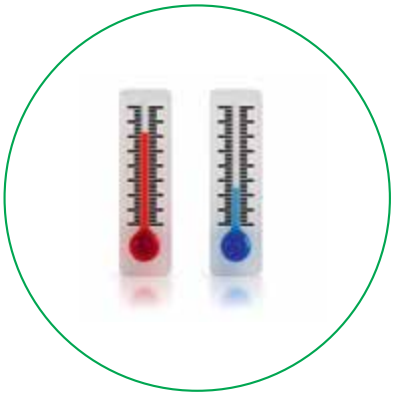
An overview of your advantages

High-density assemblies
In contrast to the classic cable gland, the **KES** allows many cables, hoses and lines to be installed in a space-saving manner, even in cramped installation conditions.



Very precise
The piercing points are clearly marked so that cables and hoses can be centred precisely.

Integrated strain relief
The special shape of the multi-layered membrane cone grommet ensures an optimal strain relief mechanism for the cables, in accordance with DIN EN 62444.



Can be used from -40°C to +90°C
Materials contain no halogen or silicone; suitable for many different applications.

EN 61373 * | IP66 | UL TYPE Rating 12 | UL TYPE* Rating 4x | ECOLAB certified | RoHS compliant | Made in Germany | CAD

* only for screw fastening

* 4x is for indoor use only

Mounting options

You can choose one of three attachment options to fit your requirements.

1. Screw-on mount

The **KES** (without threaded bush) is screwed from the outside onto the housing wall.

2 Screw-on mount with threaded bushes and latching clips

Using the latching clips, the **KES-GB** latches onto the outside of the housing wall. It is then screwed on from the inside, through the housing wall, using the integrated threaded bushes.

3. Latched (snap-on) mount using latching clips

The **KES-R** is latched from outside to the housing wall using the latching clips.

KES
Cable entries

Cable entries	KES 13/24	KES 14/24	KES 16/24
Description	Cable entry with membrane for non-assembled cables	Cable entry with membrane for non-assembled cables	Cable entry with membrane for non-assembled cables
Mounting type			
Screw-on mount			
Type / colour	**KES 13/24 GR** ●	**KES 14/24 GR** ●	**KES 16/24 GR** ●
Cat. no. **Qty.**	*28630.6* **10**	*28631.6* **10**	*28632.6* **10**
Type / colour	**KES 13/24 BK** ●	**KES 14/24 BK** ●	**KES 16/24 BK** ●
Cat. no. **Qty.**	*28630.4* **10**	*28631.4* **10**	*28632.4* **10**
Mounting type			
Screw fastening with pressed-in threaded bush and snap-in latching clips			
Type / colour	**KES-GB 13/24 GR** ●	**KES-GB 14/24 GR** ●	**KES-GB 16/24 GR** ●
Cat. no. **Qty.**	*28640.6* **10**	*28641.6* **10**	*28642.6* **10**
Type / colour	**KES-GB 13/24 BK** ●	**KES-GB 14/24 BK** ●	**KES-GB 16/24 BK** ●
Cat. no. **Qty.**	*28640.4* **10**	*28641.4* **10**	*28642.4* **10**
Mounting type			
Tool-free latch-on mount			
Type / colour	**KES-R 13/24 GR** ●	**KES-R 14/24 GR** ●	**KES-R 16/24 GR** ●
Cat. no. **Qty.**	*28650.6* **10**	*28651.6* **10**	*28652.6* **10**
Type / colour	**KES-R 13/24 BK** ●	**KES-R 14/24 BK** ●	**KES-R 16/24 BK** ●
Cat. no. **Qty.**	*28650.4* **10**	*28651.4* **10**	*28652.4* **10**
Connection data			
Number of cables x cable diameter (mm)	10 x 3.2 – 6.3 3 x 16 – 20.5	5 x 3.2 – 6.3 2 x 4 – 7.5 3 x 5.5 – 10.5 1 x 8 – 12.5 3 x 12 – 16.2	8 x 3.2 – 5.5 6 x 5 – 8.5 2 x 9.5 – 14.5
Features			
Material of frame / sealing plate	PA 6.6 GF / elastomer	PA 6.6 GF / elastomer	PA 6.6 GF / elastomer
Temperature range	-40°C to +90°C	-40°C to +90°C	-40°C to +90°C
Protection	IP66 (with snap-in mount: IP54)	IP66 (with snap-in mount: IP54)	IP66 (with snap-in mount: IP54)
Flammability class	UL 94 V-0	UL 94 V-0	UL 94 V-0
Accessories			
Sheet-metal hole punch	**BL KES**	**BL KES**	**BL KES**
Cat. no. **Qty.**	*28744.0* **1**	*28744.0* **1**	*28744.0* **1**

IP66 | UL TYPE Rating 12 | UL TYPE* Rating 4x

ECOLAB certified | RoHS compliant | Made in Germany | CAD

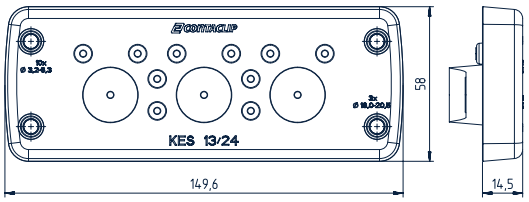
* 4x is for indoor use only

KES 16-1/24	KES 17/24	KES 20/24	KES 21/24	KES 32/24
Cable entry with membrane for non-assembled cables	Cable entry with membrane for non-assembled cables	Cable entry with membrane for non-assembled cables	Cable entry with membrane for non-assembled cables	Cable entry with membrane for non-assembled cables
KES 16-1/24 GR ●	**KES 17/24 GR** ●	**KES 20/24 GR** ●	**KES 21/24 GR** ●	**KES 32/24 GR** ●
28633.6 **10**	*28634.6* **10**	*28635.6* **10**	*28636.6* **10**	*28637.6* **10**
KES 16-1/24 BK ●	**KES 17/24 BK** ●	**KES 20/24 BK** ●	**KES 21/24 BK** ●	**KES 32/24 BK** ●
28633.4 **10**	*28634.4* **10**	*28635.4* **10**	*28636.4* **10**	*28637.4* **10**
KES-GB 16-1/24 GR ●	**KES-GB 17/24 GR** ●	**KES-GB 20/24 GR** ●	**KES-GB 21/24 GR** ●	**KES-GB 32/24 GR** ●
28643.6 **10**	*28644.6* **10**	*28645.6* **10**	*28646.6* **10**	*28647.6* **10**
KES-GB 16-1/24 BK ●	**KES-GB 17/24 BK** ●	**KES-GB 20/24 BK** ●	**KES-GB 21/24 BK** ●	**KES-GB 32/24 BK** ●
28643.4 **10**	*28644.4* **10**	*28645.4* **10**	*28646.4* **10**	*28647.4* **10**
KES-R 16-1/24 GR ●	**KES-R 17/24 GR** ●	**KES-R 20/24 GR** ●	**KES-R 21/24 GR** ●	**KES-R 32/24 GR** ●
28653.6 **10**	*28654.6* **10**	*28655.6* **10**	*28656.6* **10**	*28657.6* **10**
KES-R 16-1/24 BK ●	**KES-R 17/24 BK** ●	**KES-R 20/24 BK** ●	**KES-R 21/24 BK** ●	**KES-R 32/24 BK** ●
28653.4 **10**	*28654.4* **10**	*28655.4* **10**	*28656.4* **10**	*28657.4* **10**
2 x 3.2–6.3 9 x 4–7.5 1 x 5.5 – 10.5 1 x 8–12.5 3 x 12 – 16.2	4 x 3.2–6.3 2 x 4 – 7.5 1 x 5.5 – 10.5 10 x 8 – 12.5	12 x 3.2 – 6.3 8 x 5.5 – 10.5	1 x 3.2 – 6.3 14 x 4 – 7.5 4 x 5.5 – 10.5 2 x 8 – 12.5	32 x 3.2 – 6.3
PA 6.6 GF / elastomer -40°C to +90°C IP66 (with snap-in mount: IP54) UL 94 V-0	PA 6.6 GF / elastomer -40°C to +90°C IP66 (with snap-in mount: IP54) UL 94 V-0	PA 6.6 GF / elastomer -40°C to +90°C IP66 (with snap-in mount: IP54) UL 94 V-0	PA 6.6 GF / elastomer -40°C to +90°C IP66 (with snap-in mount: IP54) UL 94 V-0	PA 6.6 GF / elastomer -40°C to +90°C IP66 (with snap-in mount: IP54) UL 94 V-0
BL KES	**BL KES**	**BL KES**	**BL KES**	**BL KES**
28744.0 **1**	*28744.0* **1**	*28744.0* **1**	*28744.0* **1**	*28744.0* **1**

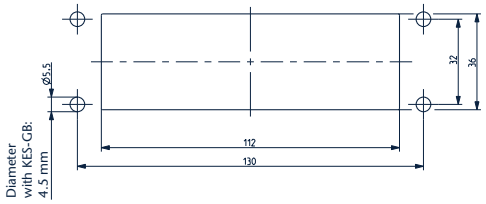
KES
Cable entries |
Dimensional diagrams / Mounting cut-outs

KES 13/24

Dimensional diagram



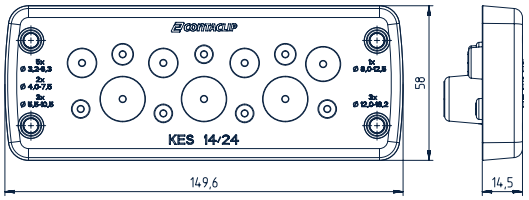
Mounting cut-out



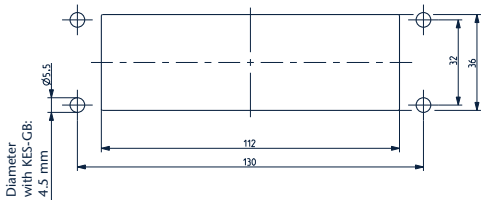
Torque for the frame's mounting screws: 2.5 – 3 Nm

KES 14/24

Dimensional diagram



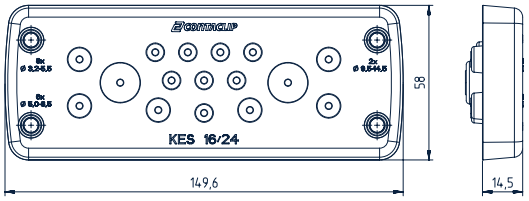
Mounting cut-out



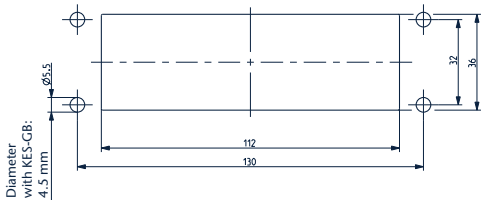
Torque for the frame's mounting screws: 2.5 – 3 Nm

KES 16/24

Dimensional diagram



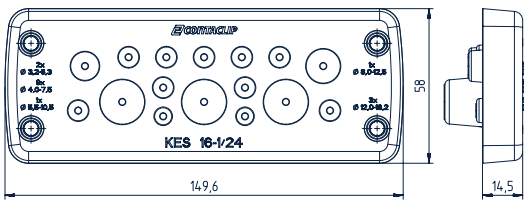
Mounting cut-out



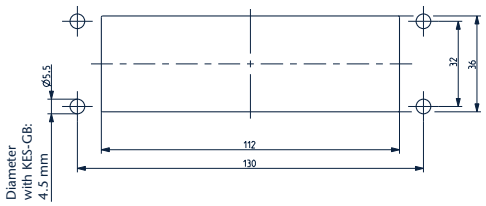
Torque for the frame's mounting screws: 2.5 – 3 Nm

KES 16-1/24

Dimensional diagram



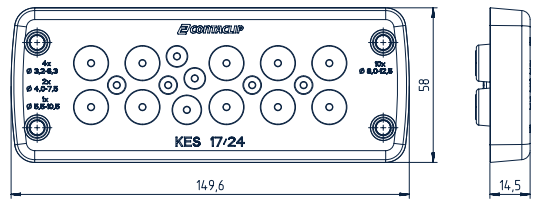
Mounting cut-out



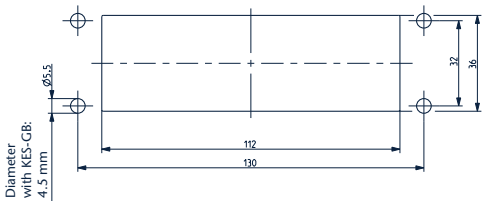
Torque for the frame's mounting screws: 2.5 – 3 Nm

KES 17/24

Dimensional diagram



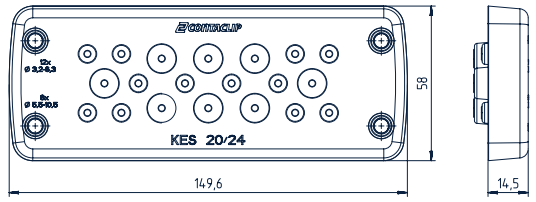
Mounting cut-out



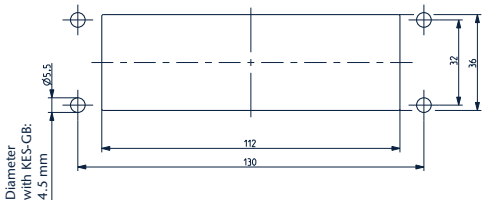
Torque for the frame's mounting screw: 2.5 – 3 Nm

KES 20/24

Dimensional diagram



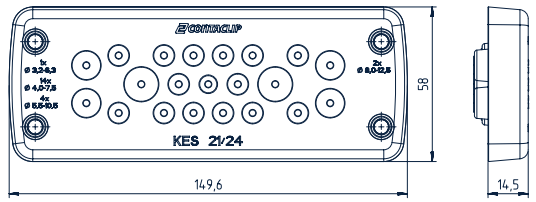
Mounting cut-out



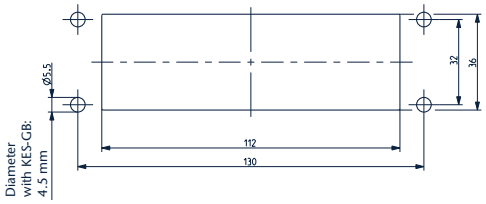
Torque for the frame's mounting screw: 2.5 – 3 Nm

KES 21/24

Dimensional diagram



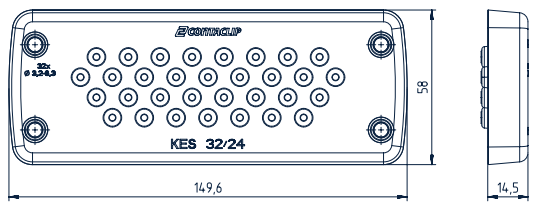
Mounting cut-out



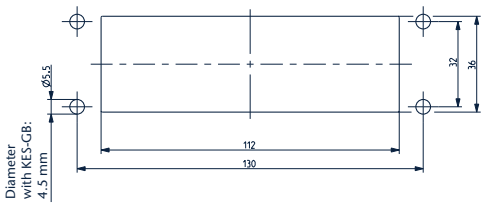
Torque for the frame's mounting screw: 2.5 – 3 Nm

KES 32/24

Dimensional diagram



Mounting cut-out

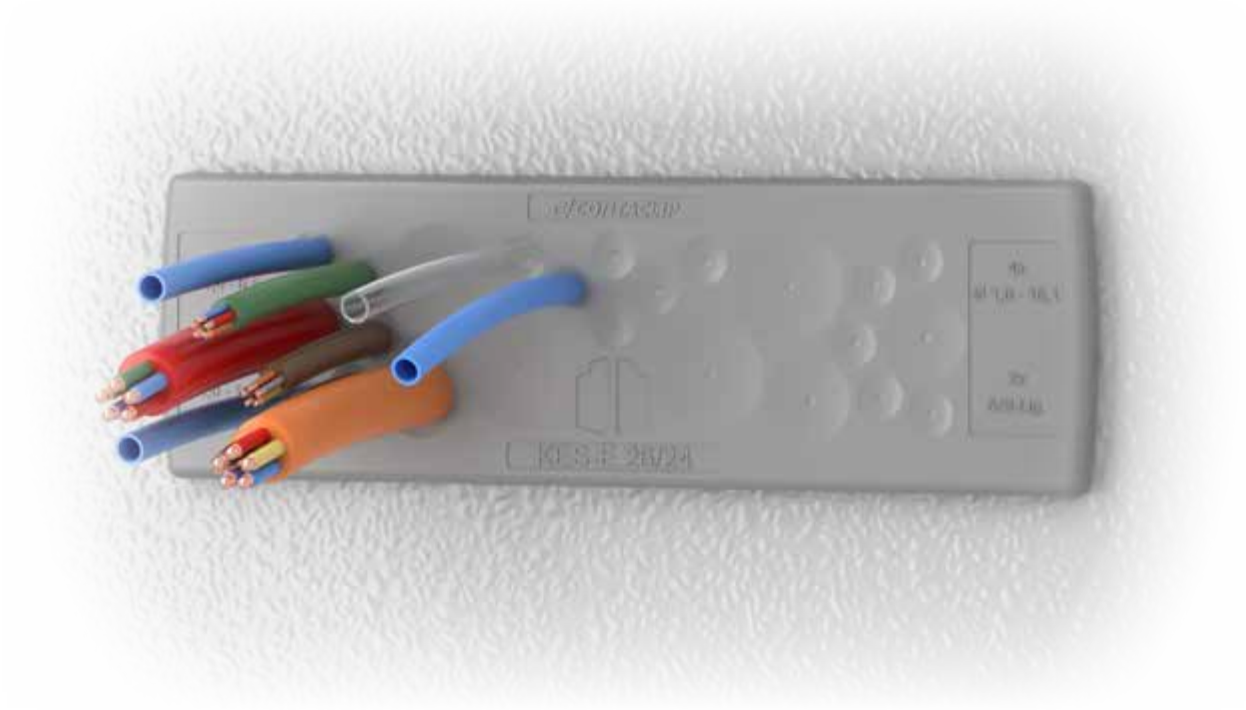


Torque for the frame's mounting screw: 2.5 – 3 Nm

KES-E
Cable entries

Many cables in a confined space: The **KES-E** cable entry system enables you to insert many cables with diameters ranging from 1.0 mm to 16.1 mm into a very confined space. The cable entry is inserted without tools into the intended opening (variant "A" for wall thickness from 1.5 to 2.5 mm, and variant "B" for wall thickness from 2.5 to 4.0 mm).

In order to insert the cables, the corresponding membrane (with marked centring point) must be pierced; the cables are then simply guided through. The material TPE guarantees that IP54 protection is maintained.



Your advantages

- Tool-free installation
- Outstanding stability
- Simple assembly
- High-density assemblies
- Hygienic design
- For walls of various thickness

Features

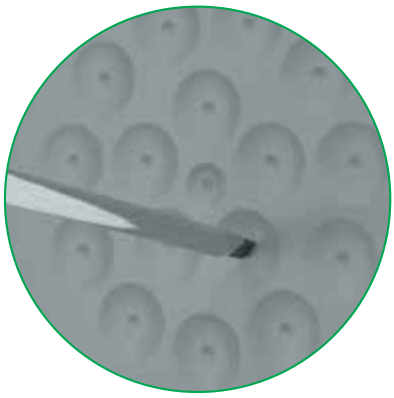
- Material: TPE
- Flammability: UL 94 V-0
- Temperature range: -40°C to +90°C (static)
- Halogen-free, silicone-free
- Wall thickness A: 1.5 – 2.5 mm, and B: 2.5 – 4.0 mm
- Protection class: IP54

KES-E

An overview of your advantages

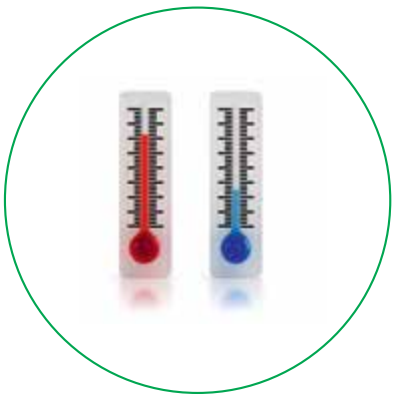
High-density assemblies
In contrast to the classic cable gland, the **KES-E** allows many cables, hoses and lines to be installed in a space-saving manner, even in cramped installation conditions.

Very precise
The piercing points are clearly marked so that cables and hoses can be centred precisely.



Tool-free installation
Simple, tool-free insertion into the cut-out thanks to an asymmetrical inner contour.

Can be used from -40°C to +90°C
Materials contain no halogen or silicone, suitable for many different applications.



UL TYPE Rating 12 | IP54 | RoHS compliant | Made in Germany | CAD

KES-E
Cable entries

Cable entries	KES-E 6/6	KES-E 12/6	KES-E 14/6	KES-E 25/6
Type	**KES-E 6/6 A GR**	**KES-E 12/6 A GR**	**KES-E 14/6 A GR**	**KES-E 25/6 A GR**
Cat. no. **Qty.**	*28960.6* **10**	*28961.6* **10**	*28962.6* **10**	*28963.6* **10**
For wall thicknesses mm	1.5 – 2.5	1.5 – 2.5	1.5 – 2.5	1.5 – 2.5
Type	**KES-E 6/6 B GR**	**KES-E 12/6 B GR**	**KES-E 14/6 B GR**	**KES-E 25/6 B GR**
Cat. no. **Qty.**	*28970.6* **10**	*28971.6* **10**	*28972.6* **10**	*28973.6* **10**
For wall thicknesses mm	2.5 – 4.0	2.5 – 4.0	2.5 – 4.0	2.5 – 4.0
Connection data				
Number of cables x c able diameter (mm)	6 x 1.0 – 12.1	8 x 1.0 – 6.5 2 x 1.0 – 12.6 2 x 1.0 – 16.1	10 x 1.0 – 6.5 4 x 1.0 – 10.5	21 x 1.0 – 5.0 4 x 1.0 – 8.3
Features				
Protection	IP54	IP54	IP54	IP54

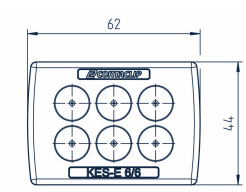
Cable entries	KES-E 10/16	KES-E 11/16	KES-E 20/16
Type	**KES-E 10/16 A GR**	**KES-E 11/16 A GR**	**KES-E 20/16 A GR**
Cat. no. **Qty.**	*28964.6* **10**	*28965.6* **10**	*28966.6* **10**
For wall thicknesses mm	1.5 – 2.5	1.5 – 2.5	1.5 – 2.5
Type	**KES-E 10/16 B GR**	**KES-E 11/16 B GR**	**KES-E 20/16 B GR**
Cat. no. **Qty.**	*28974.6* **10**	*28975.6* **10**	*28976.6* **10**
For wall thicknesses mm	2.5 – 4.0	2.5 – 4.0	2.5 – 4.0
Connection data			
Number of cables x cable diameter (mm)	10 x 1.0 – 12.1	3 x 1.0 – 10.5 8 x 1.0 – 12.6	20 x 1.0 – 8.3
Features			
Protection	IP54	IP54	IP54

Cable entries	KES-E 22/16	KES-E 23/16	KES-E 26/16
Type	**KES-E 22/16 A GR**	**KES-E 23/16 A GR**	**KES-E 26/16 A GR**
Cat. no. **Qty.**	*28967.6* **10**	*28968.6* **10**	*28969.6* **10**
For wall thicknesses mm	1.5 – 2.5	1.5 – 2.5	1.5 – 2.5
Type	**KES-E 22/16 B GR**	**KES-E 23/16 B GR**	**KES-E 26/16 B GR**
Cat. no. **Qty.**	*28977.6* **10**	*28978.6* **10**	*28979.6* **10**
For wall thicknesses mm	2.5 – 4.0	2.5 – 4.0	2.5 – 4.0
Connection data			
Number of cables x cable diameter (mm)	13 x 1.0 – 6.5 4 x 1.0 – 8.3 5 x 1.0 – 12.1	18 x 1.0 – 6.5 5 x 1.0 – 12.1	19 x 1.0 – 6.5 7 x 1.0 – 8.3
Features			
Protection	IP54	IP54	IP54

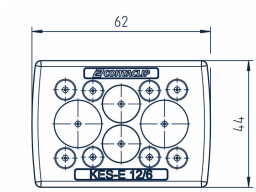
KES-E

Cable entries |
Dimensional diagrams / Mounting cut-outs

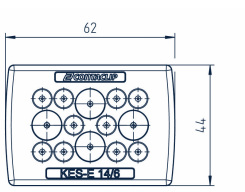
KES-E 6/6
Dimensional diagram



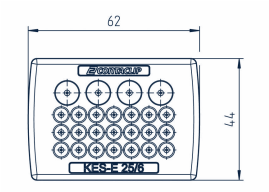
KES-E 12/6
Dimensional diagram



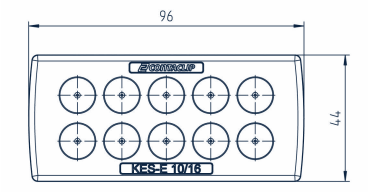
KES-E 14/6
Dimensional diagram



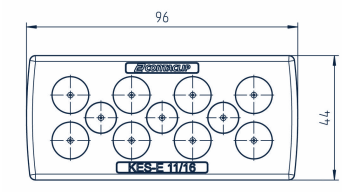
KES-E 25/6
Dimensional diagram



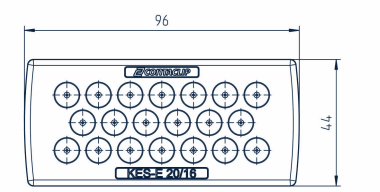
KES-E 10/16
Dimensional diagram



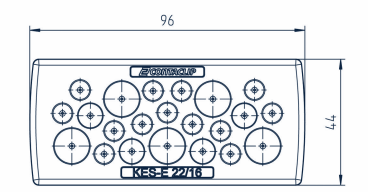
KES-E 11/16
Dimensional diagram



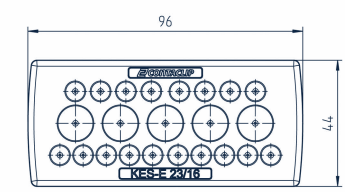
KES-E 20/16
Dimensional diagram



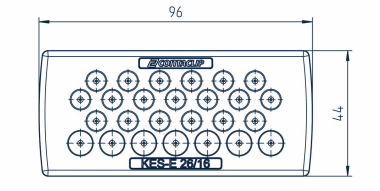
KES-E 22/16
Dimensional diagram



KES-E 23/16
Dimensional diagram



KES-E 26/16
Dimensional diagram



KES-E .../6
Mounting cut-out

KES-E .../16
Mounting cut-out

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KES-E
Cable entries

Cable entries	KES-E 12/24	KES-E 14/24	KES-E 17/24
Type	**KES-E 12/24 A GR** ●	**KES-E 14/24 A GR** ●	**KES-E 17/24 A GR** ●
Cat. no. **Qty.**	*28810.6* **10**	*28811.6* **10**	*28812.6* **10**
For wall thicknesses mm	1.5 – 2.5	1.5 – 2.5	1.5 – 2.5
Type	**KES-E 12/24 B GR** ●	**KES-E 14/24 B GR** ●	**KES-E 17/24 B GR** ●
Cat. no. **Qty.**	*28840.6* **10**	*28841.6* **10**	*28842.6* **10**
For wall thicknesses mm	2.5 – 4.0	2.5 – 4.0	2.5 – 4.0
Connection data			
Number of cables x cable diameter (mm)	12 x 1.0 – 15.0	14 x 1.0 – 12.1	5 x 1.0 – 10.5
			12 x 1.0 – 12.6
Features			
Protection	IP54	IP54	IP54

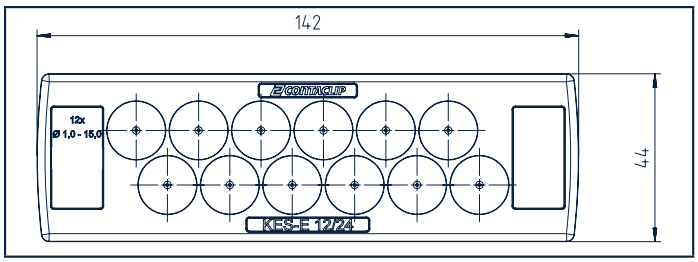
Cable entries	KES-E 18/24	KES-E 19/24	KES-E 26/24
Type	**KES-E 18/24 A GR** ●	**KES-E 19/24 A GR** ●	**KES-E 26/24 A GR** ●
Cat. no. **Qty.**	*28813.6* **10**	*28814.6* **10**	*28815.6* **10**
For wall thicknesses mm	1.5 – 2.5	1.5 – 2.5	1.5 – 2.5
Type	**KES-E 18/24 B GR** ●	**KES-E 19/24 B GR** ●	**KES-E 26/24 B GR** ●
Cat. no. **Qty.**	*28843.6* **10**	*28844.6* **10**	*28845.6* **10**
For wall thicknesses mm	2.5 – 4.0	2.5 – 4.0	2.5 – 4.0
Connection data			
Number of cables x cable diameter (mm)	4 x 1.0 – 6.5	12 x 1.0 – 6.5	16 x 1.0 – 6.5
	5 x 1.0 – 10.5	7 x 1.0 – 12.1	4 x 1.0 – 12.1
	5 x 1.0 – 12.5		4 x 1.0 – 16.1
	4 x 1.0 – 16.1		2 x ASI
Features			
Protection	IP54	IP54	IP54

Cable entries	KES-E 42/24	KES-E 48/24	KES-E 50/24
Type	**KES-E 42/24 A GR** ●	**KES-E 48/24 A GR** ●	**KES-E 50/24 A GR** ●
Cat. no. **Qty.**	*28816.6* **10**	*28817.6* **10**	*28818.6* **10**
For wall thicknesses mm	1.5 – 2.5	1.5 – 2.5	1.5 – 2.5
Type	**KES-E 42/24 B GR** ●	**KES-E 48/24 B GR** ●	**KES-E 50/24 B GR** ●
Cat. no. **Qty.**	*28846.6* **10**	*28847.6* **10**	*28848.6* **10**
For wall thicknesses mm	2.5 – 4.0	2.5 – 4.0	2.5 – 4.0
Connection data			
Number of cables x cable diameter (mm)	12 x 1.0 – 7.2	48 x 1.0 – 6.5	33 x 1.0 – 5.3
	17 x 1.0 – 6.4		9 x 1.0 – 6.4
	12 x 1.0 – 5.0		8 x 1.0 – 8.3
	1 x 1.0 – 4.7		
Features			
Protection	IP54	IP54	IP54

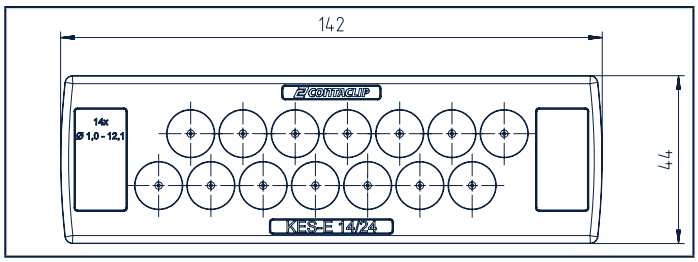
KES-E

Cable entries |
Dimensional diagrams / Mounting cut-outs

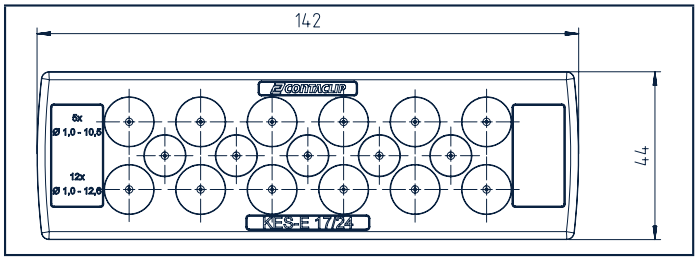
KES-E 12/24
Dimensional diagram



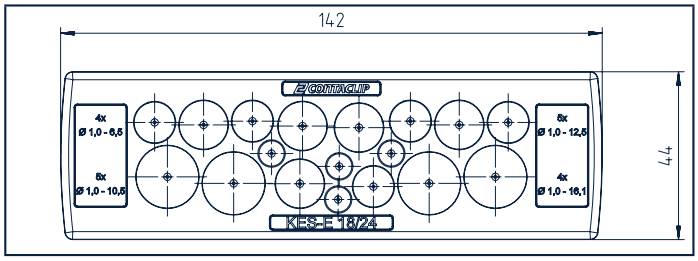
KES-E 14/24
Dimensional diagram



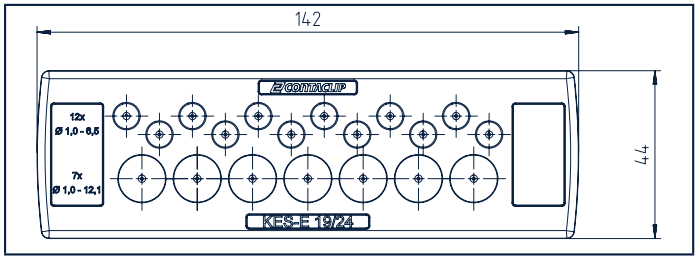
KES-E 17/24
Dimensional diagram



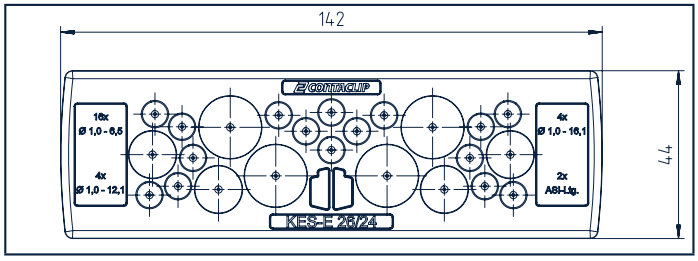
KES-E 18/24
Dimensional diagram



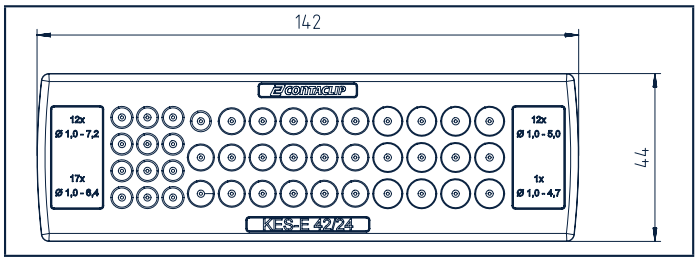
KES-E 19/24
Dimensional diagram



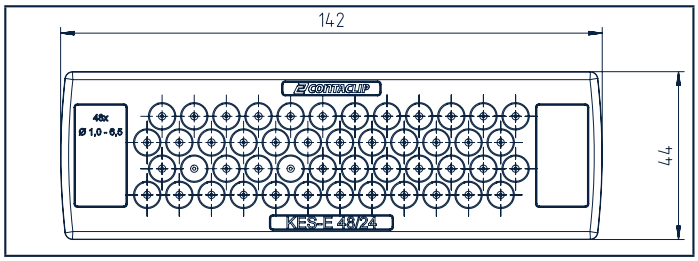
KES-E 26/24
Dimensional diagram



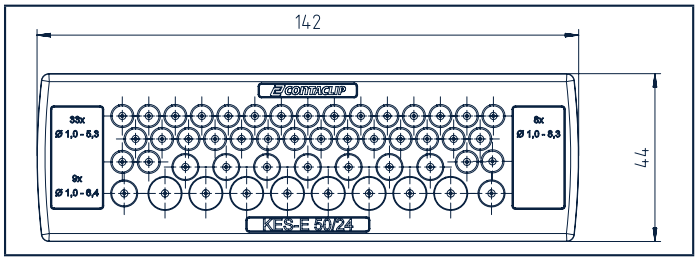
KES-E 42/24
Dimensional diagram



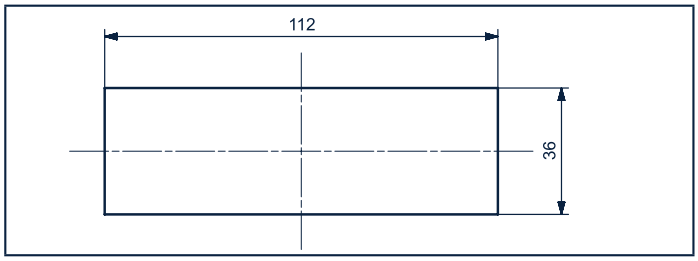
KES-E 48/24
Dimensional diagram



KES-E 50/24
Dimensional diagram



Mounting cut-out



UL TYPE Rating 12 | IP54 | RoHS compliant | Made in Germany | CAD

KES-E-R
Round cable entries

Many cables in a confined space: The **KES-E-R** cable entry system enables you to insert many cables with diameters ranging from 1.0 mm to 22.5 mm into a very confined space. The cable entry is inserted without tools into the intended opening (variant "A" for wall thickness from 1.5 to 2.5 mm, and variant "B" for wall thickness from 2.5 to 4.0 mm).

In order to insert the cables, the corresponding membrane (with marked centring point) must be pierced; the cables are then simply guided through. The material TPE guarantees that IP54 protection is maintained.

Your advantages

- Tool-free installation
- Simple assembly
- High-density assemblies
- Hygienic design
- For walls of various thickness

Features

- Material: TPE
- Flammability: UL 94 V-0
- Temperature range: -40°C to +90°C (static)
- Halogen-free, silicone-free
- Wall thickness A: 1.5 – 2.5 mm, and B: 2.5 – 4.0 mm
- Protection class: IP54

KES-E-R

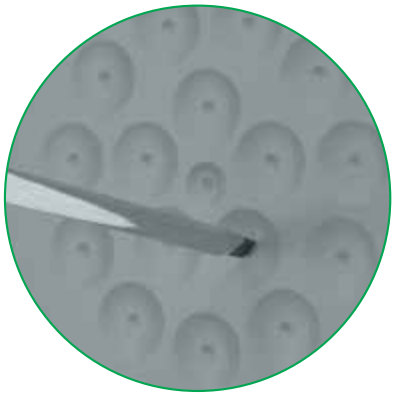
An overview of your advantages

High-density assemblies

In contrast to the classic cable gland, the **KES-E-R** allows many cables, hoses and lines to be installed in a space-saving manner, even in cramped installation conditions.

Very precise

The piercing points are clearly marked so that cables and hoses can be centred precisely.

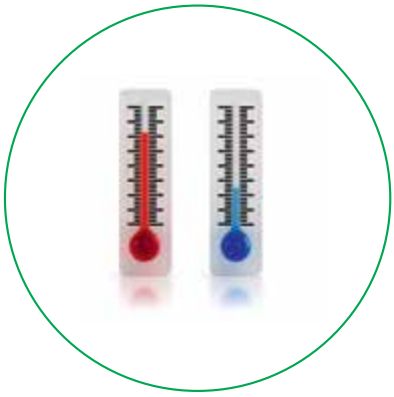


Tool-free installation

Simple, tool-free insertion into the cut-out thanks to an asymmetrical inner contour.

Can be used from -40°C to +90°C

Materials contain no halogen or silicone, suitable for many different applications.



UL TYPE* Rating 12 | UL TYPE* Rating 4x | IP54 | RoHS compliant | Made in Germany | CAD

* UL approval for the 50 mm variants only;
UL type rating 4x for indoor use only

KES-E-R
Round cable entries

Round cable entries	KES-E-R 20/4	KES-E-R 20/5	KES-E-R 20/9
Typ	**KES-E-R 20/4 A GR** ●	**KES-E-R 20/5 A GR** ●	**KES-E-R 20/9 A GR** ●
Cat. no. **Qty.**	*28820.6* **10**	*28821.6* **10**	*28822.6* **10**
For wall thicknesses mm	1.5 – 2.5	1.5 – 2.5	1.5 – 2.5
Typ	**KES-E-R 20/4 B GR** ●	**KES-E-R 20/5 B GR** ●	**KES-E-R 20/9 B GR** ●
Cat. no. **Qty.**	*28850.6* **10**	*28851.6* **10**	*28852.6* **10**
For wall thicknesses mm	2.5 – 4.0	2.5 – 4.0	2.5 – 4.0
Connection data			
Number of cables x cable diameter (mm)	4 x 1.0 – 5.2	2 x 1.0 – 3.6	4 x 1.0 – 3.6
		2 x 1.0 – 4.6	5 x 1.0 – 4.6
		1 x 1.0 – 10.6	
Features			
Protection	IP54	IP54	IP54
Mounting cut-out round hole mm	20	20	20

Round cable entries	KES-E-R 25/4	KES-E-R 25/6	KES-E-R 32/10
Typ	**KES-E-R 25/4 A GR** ●	**KES-E-R 25/6 A GR** ●	**KES-E-R 32/10 A GR** ●
Cat. no. **Qty.**	*28823.6* **10**	*28824.6* **10**	*28825.6* **10**
For wall thicknesses mm	1.5 – 2.5	1.5 – 2.5	1.5 – 2.5
Typ	**KES-E-R 25/4 B GR** ●	**KES-E-R 25/6 B GR** ●	**KES-E-R 32/10 B GR** ●
Cat. no. **Qty.**	*28853.6* **10**	*28854.6* **10**	*28855.6* **10**
For wall thicknesses mm	2.5 – 4.0	2.5 – 4.0	2.5 – 4.0
Connection data			
Number of cables x cable diameter (mm)	4 x 1.0 – 8.0	4 x 1.0 – 5.2	6 x 1.0 – 5.2
		2 x 1.0 – 9.4	2 x 1.0 – 6.4
			2 x 1.0 – 9.4
Features			
Protection	IP54	IP54	IP54
Mounting cut-out round hole mm	25	25	32

Round cable entries	KES-E-R 40/9	KES-E-R 40/16	KES-E-R 40/17
Typ	**KES-E-R 40/9 A GR** ●	**KES-E-R 40/16 A GR** ●	**KES-E-R 40/17 A GR** ●
Cat. no. **Qty.**	*28826.6* **10**	*28827.6* **10**	*28828.6* **10**
For wall thicknesses mm	1.5 – 2.5	1.5 – 2.5	1.5 – 2.5
Typ	**KES-E-R 40/9 B GR** ●	**KES-E-R 40/16 B GR** ●	**KES-E-R 40/17 B GR** ●
Cat. no. **Qty.**	*28856.6* **10**	*28857.6* **10**	*28858.6* **10**
For wall thicknesses mm	2.5 – 4.0	2.5 – 4.0	2.5 – 4.0
Connection data			
Number of cables x cable diameter (mm)	8 x 1.0 – 9.5	2 x 1.0 – 5.3	1 x 1.0 – 4.0
	1 x 1.0 – 11.3	10 x 1.0 – 6.3	16 x 1.0 – 7.2
		2 x 1.0 – 9.5	
		2 x 1.0 – 11.3	
Features			
Protection	IP54	IP54	IP54
Mounting cut-out round hole mm	40	40	40

KES-E-R
Round cable entries

Round cable entries	KES-E-R 50/9	KES-E-R 50/11	KES-E-R 50/12
Type	**KES-E-R 50/9 A GR**	**KES-E-R 50/11 A GR**	**KES-E-R 50/12 A GR**
Cat. no. **Qty.**	*28829.6* **10**	*28830.6* **10**	*28831.6* **10**
For wall thicknesses mm	1.5 – 2.5	1.5 – 2.5	1.5 – 2.5
Type	**KES-E-R 50/9 B GR**	**KES-E-R 50/11 B GR**	**KES-E-R 50/12 B GR**
Cat. no. **Qty.**	*28859.6* **10**	*28860.6* **10**	*28861.6* **10**
For wall thicknesses mm	2.5 – 4.0	2.5 – 4.0	2.5 – 4.0
Connection data			
Number of cables x cable diameter (mm)	5 x 1.0 – 7.0	7 x 1.0 – 7.2	10 x 1.0 – 9.2
	4 x 1.0 – 18.0	3 x 1.0 – 11.2	2 x 1.0 – 11.2
		1 x 1.0 – 22.5	
Features			
Protection	IP54	IP54	IP54

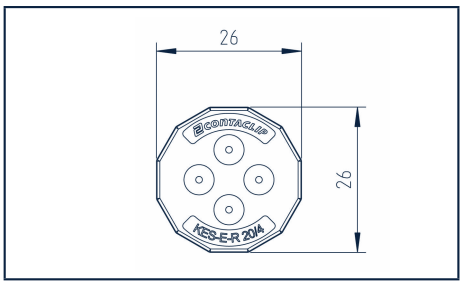
Round cable entries	KES-E-R 50/16	KES-E-R 50/18	KES-E-R 50/20
Type	**KES-E-R 50/16 A GR**	**KES-E-R 50/18 A GR**	**KES-E-R 50/20 A GR**
Cat. no. **Qty.**	*28832.6* **10**	*28833.6* **10**	*28834.6* **10**
For wall thicknesses mm	1.5 – 2.5	1.5 – 2.5	1.5 – 2.5
Type	**KES-E-R 50/16 B GR**	**KES-E-R 50/18 B GR**	**KES-E-R 50/20 B GR**
Cat. no. **Qty.**	*28862.6* **10**	*28863.6* **10**	*28864.6* **10**
For wall thicknesses mm	2.5 – 4.0	2.5 – 4.0	2.5 – 4.0
Connection data			
Number of cables x cable diameter (mm)	4 x 1.0 – 5.3	2 x 1.0 – 4.0	16 x 1.0 – 6.3
	5 x 1.0 – 6.3	2 x 1.0 – 6.0	4 x 1.0 – 9.3
	3 x 1.0 – 9.5	4 x 1.0 – 7.2	
	4 x 1.0 – 11.3	5 x 1.0 – 9.4	
		5 x 1.0 – 12.0	
Features			
Protection	IP54	IP54	IP54

Round cable entries	KES-E-R 50/35		
Type	**KES-E-R 50/35 A GR**		
Cat. no. **Qty.**	*28835.6* **10**		
For wall thicknesses mm	1.5 – 2.5		
Type	**KES-E-R 50/35 B GR**		
Cat. no. **Qty.**	*28865.6* **10**		
For wall thicknesses mm	2.5 – 4.0		
Connection data			
Number of cables x cable diameter (mm)	35 x 1.0 – 5.2		
Features			
Protection	IP54		

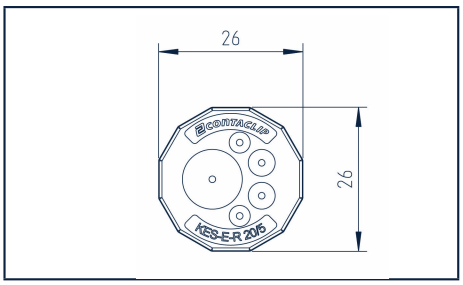
KES-E-R

Round cable entries | Dimensional diagrams / Mounting cut-outs

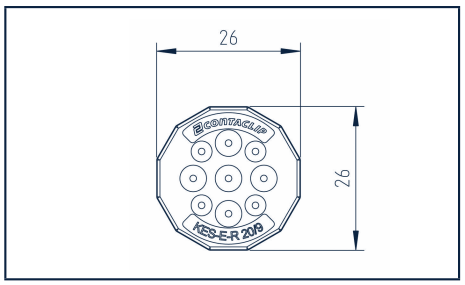
KES-E-R 20/4
Dimensional diagram



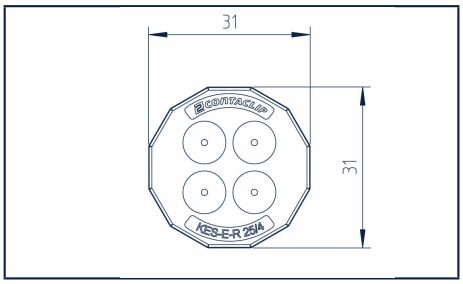
KES-E-R 20/5
Dimensional diagram



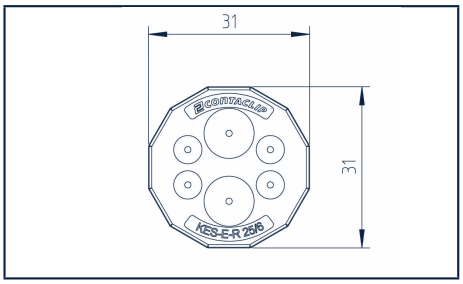
KES-E-R 20/9
Dimensional diagram



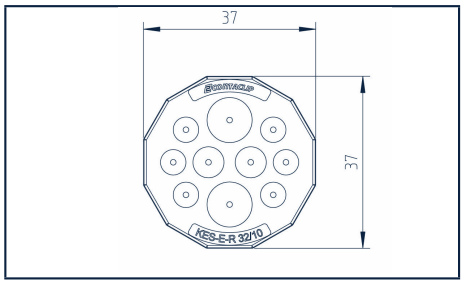
KES-E-R 25/4
Dimensional diagram



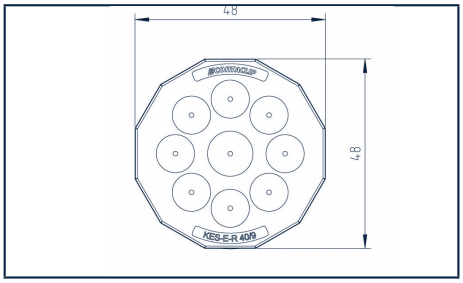
KES-E-R 25/6
Dimensional diagram



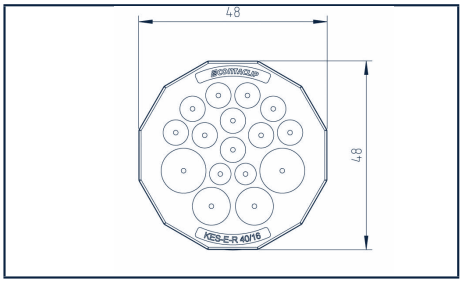
KES-E-R 32/10
Dimensional diagram



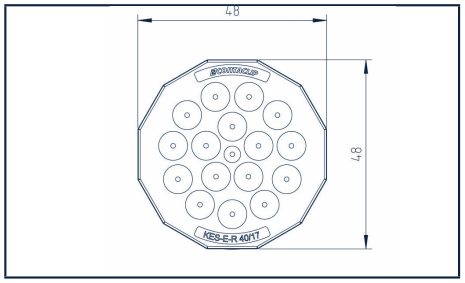
KES-E-R 40/9
Dimensional diagram



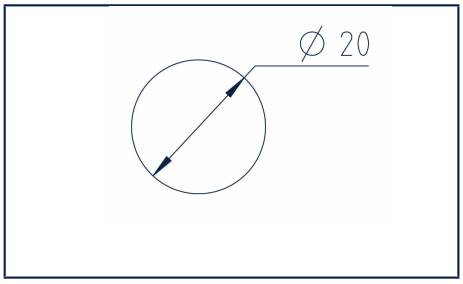
KES-E-R 40/16
Dimensional diagram



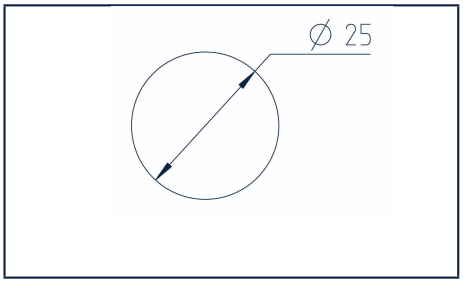
KES-E-R 40/17
Dimensional diagram



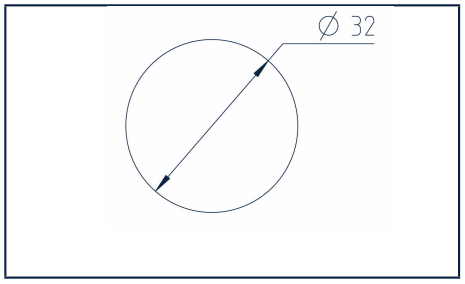
KES-E-R 20
Mounting cut-out



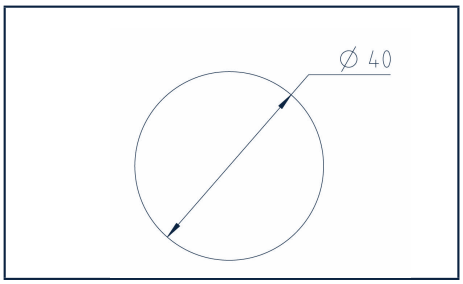
KES-E-R 25
Mounting cut-out



KES-E-R 32
Mounting cut-out



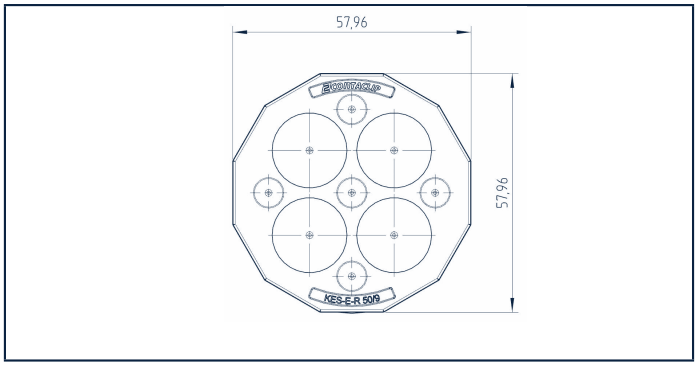
KES-E-R 40
Mounting cut-out



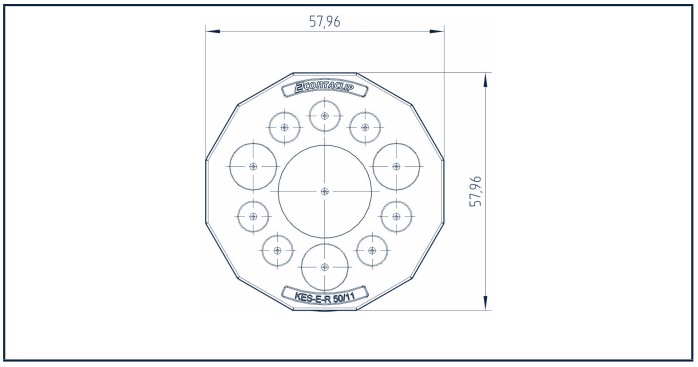
KES-E-R

Round cable entries | Dimensional diagrams / Mounting cut-outs

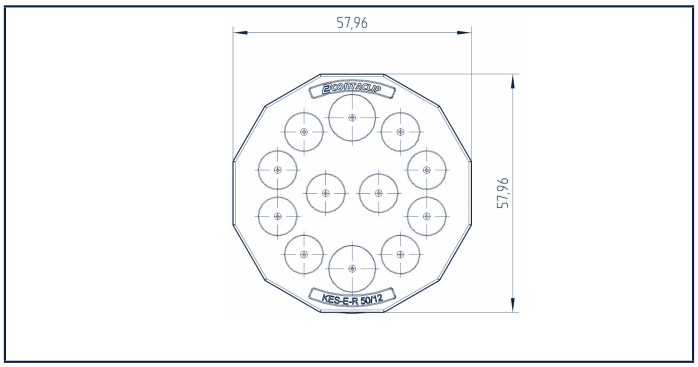
KES-E-R 50/9
Dimensional diagram



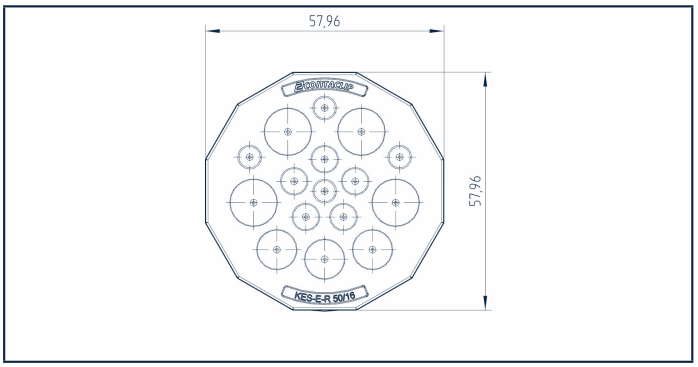
KES-E-R 50/11
Dimensional diagram



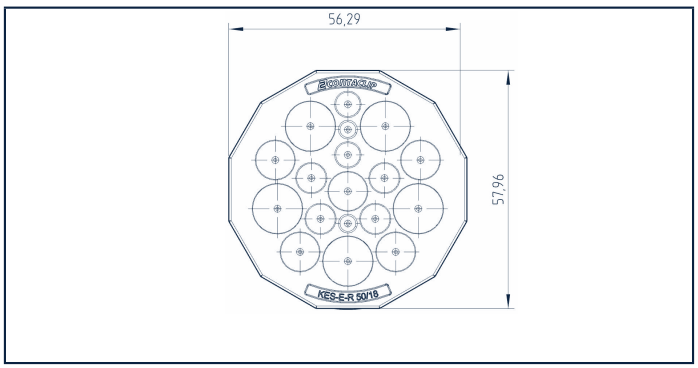
KES-E-R 50/12
Dimensional diagram



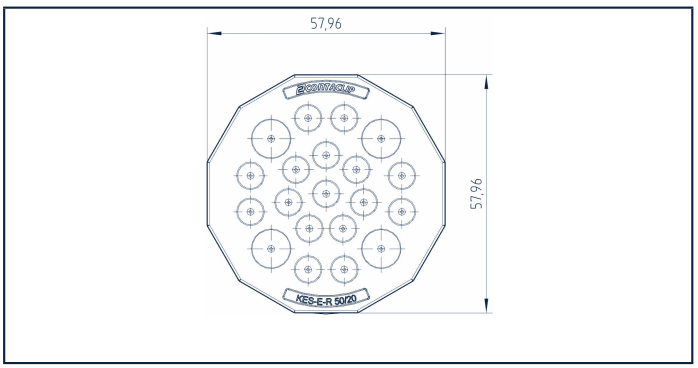
KES-E-R 50/16
Dimensional diagram



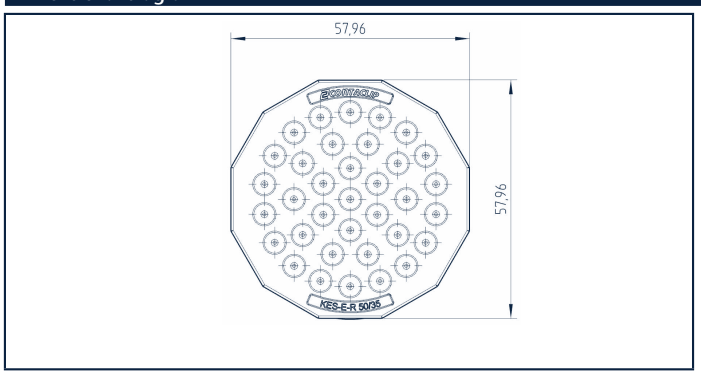
KES-E-R 50/18
Dimensional diagram



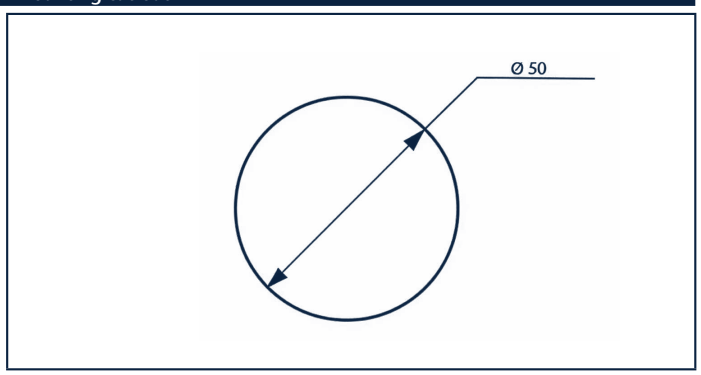
KES-E-R 50/20
Dimensional diagram



KES-E-R 50/35
Dimensional diagram



KES-E-R 50
Mounting cut-out



UL TYPE* Rating 12 | UL TYPE* Rating 4x | IP54 | RoHS compliant | Made in Germany | CAD

* UL approval for the 50 mm variants only;
UL type rating 4x for indoor use only

KES-R M
Round cable entries for snap-on and screw connections

Speed up your installation by using the variants of the KES cable entry system. The **KES-R M** cable entries, with CONTA-CLIP's distinctive do-decagon design, are snapped directly from the outside onto a round cut-out from M25 to M63. If the wall is thicker, or if you need a tighter seal up to protection class IP66, then you can also use a locknut to secure the entries from the inside of the panel. The assembly takes just seconds.

Simply pierce the sealing membrane at the marked point and insert the electrical cables and pneumatic tubes!

IP66

Your advantages

- Hygienic design
- Snap-on and screw-on
- Increased strain relief
- Simple assembly
- High-density assemblies
- Double seal using the inner tulips

Features

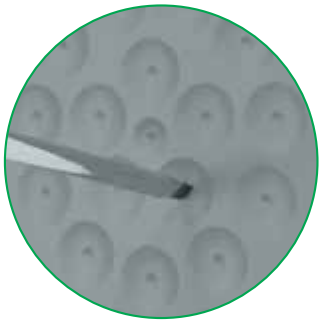
- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Flammability: UL 94 V-0
- Temperature range: -40°C to +90°C (static)
- Halogen-free, silicone-free
- Snap-on for wall thickness: 1.0 – 2.5 mm
- Protection class snap-on: IP54
- Protection class screwed: IP66
- Tightening torque of locknut:
  M25, M32: 3 Nm
  M40: 5 Nm
  M50, M63: 7 Nm

KES-R M
Round cable entries for snap-on and screw connections

An overview of your advantages

High-density assemblies
In contrast to the classic cable gland, the **KES-R M** allows many cables, hoses and lines to be installed in a space-saving manner, even in cramped installation conditions.

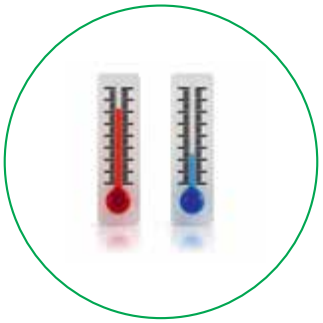
Very precise
The piercing points are clearly marked so that cables and hoses can be centred precisely.



Snap-on assembly
The **KES-R M** are snapped directly from the outside into a round cut-out from M25 to M63 and thus achieve protection class IP54.

Screw-on assembly
If the wall is thicker, or if you need a tighter seal in accordance with protection class IP66, then you can also use a locknut to secure the entries from the inside of the panel.

Can be used from -40°C to +90°C
Materials contain no halogen or silicone, suitable for many different applications.



UL TYPE Rating 12 | UL TYPE* Rating 4x | IP54 | IP66 | RoHS compliant | Made in Germany | CAD

* UL type rating 4x for indoor use only

KES-R M
Round cable entries for snap-on and screw connections

Round cable entries	KES-R M25/3	KES-R M25/4	KES-R M32/4	KES-R M32/4-2	KES-R M32/7
Type	**KES-R M25/3 GR**	**KES-R M25/4 GR**	**KES-R M32/4 GR**	**KES-R M32/4-2 GR**	**KES-R M32/7 GR**
Cat. no. **Qty.**	*28910.6* **10**	*28911.6* **10**	*28912.6* **10**	*28913.6* **10**	*28914.6* **10**
Snap-on for wall thicknesses mm	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5
Screwed for wall thicknesses up to mm	11	11	11	11	11
Connection data					
Number of cables x cable diameter (mm)	1 x 3.2 – 6.5	4 x 3.2 – 5.2	3 x 3.2 – 6.5	2 x 3.2 – 6.5	7 x 3.2 – 6.5
	2 x 3.2 – 5.2		1 x 7.2 – 12.5	2 x 5.0 – 9.5	
Features					
Protection class snap-on	IP54	IP54	IP54	IP54	IP54
Protection class screwed	IP66	IP66	IP66	IP66	IP66
Accessories					
Locknut	**S/M 25X1.5/F BK**	**S/M 25X1.5/F BK**	**S/M 32X1.5/F BK**	**S/M 32X1.5/F BK**	**S/M 32X1.5/F BK**
Cat. no. **Qty.**	*4152.4* **100**	*4152.4* **100**	*4153.4* **100**	*4153.4* **100**	*4153.4* **100**

Round cable entries	KES-R M40/8	KES-R M50/8	KES-R M50/10	KES-R M50/12	KES-R M50/19
Type	**KES-R M40/8 GR**	**KES-R M50/8 GR**	**KES-R M50/10 GR**	**KES-R M50/12 GR**	**KES-R M50/19 GR**
Cat. no. **Qty.**	*28915.6* **10**	*28916.6* **10**	*28917.6* **10**	*28918.6* **10**	*28919.6* **10**
Snap-on for wall thicknesses mm	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5
Screwed for wall thicknesses up to mm	11	11	11	11	11
Connection data					
Number of cables x cable diameter (mm)	2 x 3.2 – 5.2	5 x 5.0 – 10.2	7 x 3.2 – 6.5	4 x 3.2 – 6.5	19 x 3.2 – 6.5
	2 x 3.2 – 6.5	3 x 7.2 – 12.5	2 x 5.0 – 10.2	8 x 5.0 – 10.2	
	4 x 5.0 – 10.2		1 x 16.0 – 22.2		
Features					
Protection class snap-on	IP54	IP54	IP54	IP54	IP54
Protection class screwed	IP66	IP66	IP66	IP66	IP66
Accessories					
Locknut	**S/M 40X1.5/F BK**	**S/M 50X1.5/F BK**	**S/M 50X1.5/F BK**	**S/M 50X1.5/F BK**	**S/M 50X1.5/F BK**
Cat. no. **Qty.**	*4154.4* **50**	*4155.4* **25**	*4155.4* **25**	*4155.4* **25**	*4155.4* **25**

Round cable entries	KES-R M50/68	KES-R M63/9	KES-R M63/13	KES-R M63/14	KES-R M63/35
Type	**KES-R M50/68 GR**	**KES-R M63/9 GR**	**KES-R M63/13 GR**	**KES-R M63/14 GR**	**KES-R M63/35 GR**
Cat. no. **Qty.**	*28920.6* **10**	*28921.6* **10**	*28922.6* **10**	*28923.6* **10**	*28924.6* **10**
Snap-on for wall thicknesses mm	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5
Screwed for wall thicknesses up to mm	11	11	11	11	11
Connection data					
Number of cables x cable diameter (mm)	68 x 1.5 – 2.6	1 x 3.2 – 6.5	4 x 3.2 – 6.5	14 x 5.0 – 10.2	35 x 3.2 – 6.5
		3 x 5.0 – 10.2	4 x 5.0 – 10.2		
		4 x 9.0 – 16.2	5 x 9.0 – 16.2		
		1 x 16.0 – 22.2			
Features					
Protection class snap-on	IP54	IP54	IP54	IP54	IP54
Protection class screwed	IP66	IP66	IP66	IP66	IP66
Accessories					
Locknut	**S/M 50X1.5/F BK**	**S/M 63X1.5/F BK**	**S/M 63X1.5/F BK**	**S/M 63X1.5/F BK**	**S/M 63X1.5/F BK**
Cat. no. **Qty.**	*4155.4* **25**	*4156.4* **10**	*4156.4* **10**	*4156.4* **10**	*4156.4* **10**

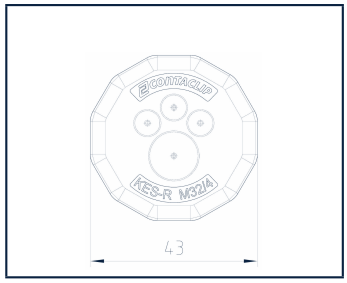
KES-R M

Round cable entries | Dimensional diagrams / Mounting cut-outs

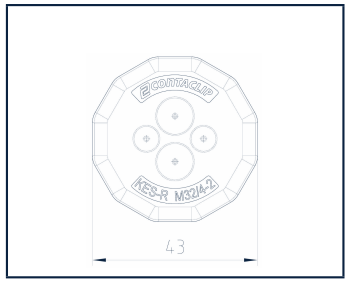
KES-R M25/3
Dimensional diagram

KES-R M25/4
Dimensional diagram

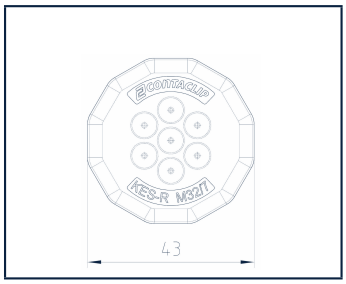
KES-R M32/4
Dimensional diagram



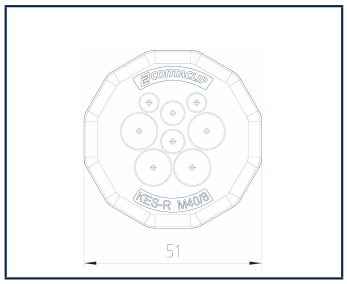
KES-R M32/4-2
Dimensional diagram



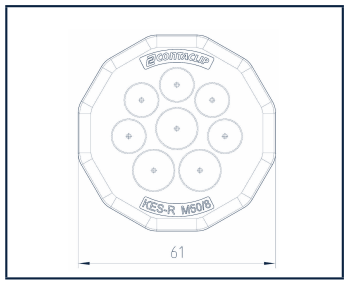
KES-R M32/7
Dimensional diagram



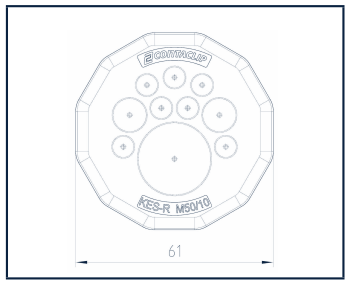
KES-R M40/8
Dimensional diagram



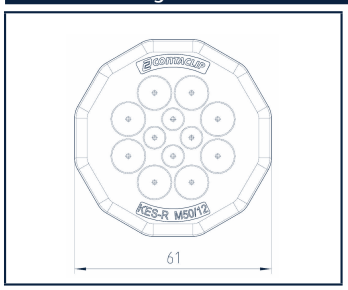
KES-R M50/8
Dimensional diagram



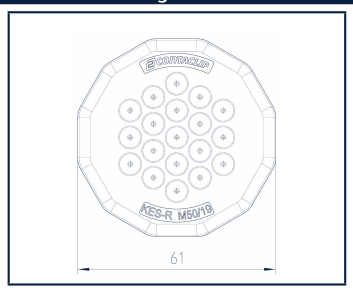
KES-R M50/10
Dimensional diagram



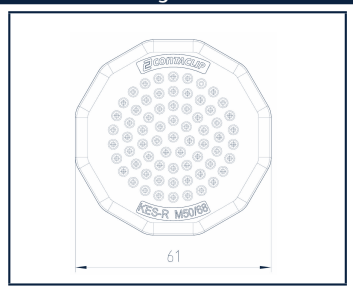
KES-R M50/12
Dimensional diagram



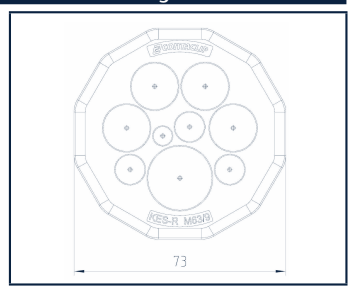
KES-R M50/19
Dimensional diagram



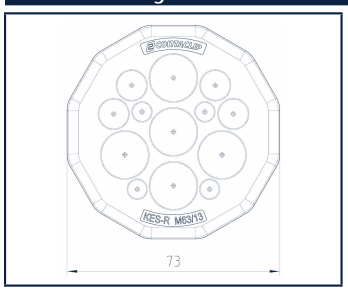
KES-R M50/68
Dimensional diagram



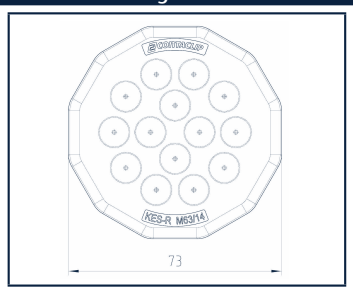
KES-R M63/9
Dimensional diagram



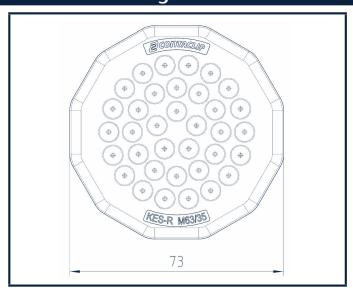
KES-R M63/13
Dimensional diagram



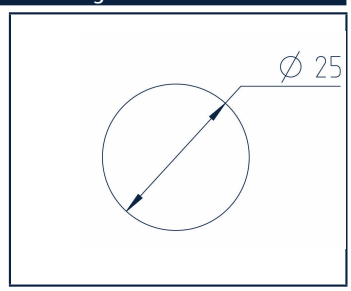
KES-R M63/14
Dimensional diagram



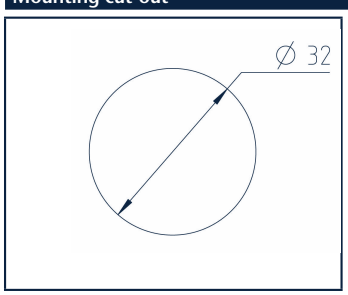
KES-R M63/35
Dimensional diagram



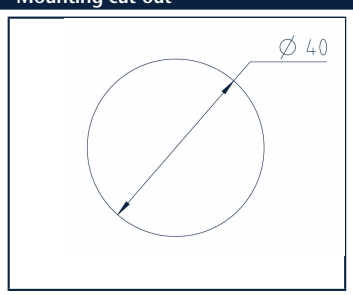
KES-R M25
Mounting cut-out



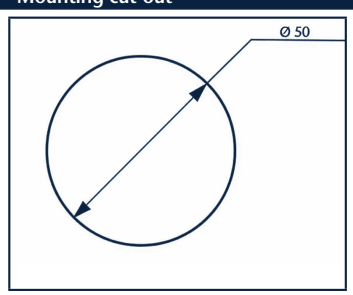
KES-R M32
Mounting cut-out



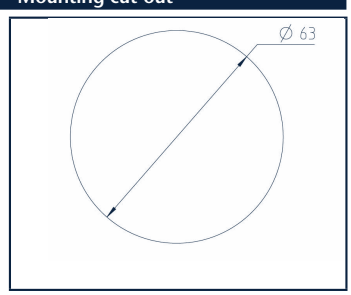
KES-R M40
Mounting cut-out



KES-R M50
Mounting cut-out



KES-R M63
Mounting cut-out



Tightening torque for the locknut:
M25, M32: 4 Nm
M40: 5 Nm
M50, M63: 7 Nm

UL TYPE Rating 12 | UL TYPE* Rating 4x | IP54 | IP66 | RoHS compliant | Made in Germany | CAD

* UL type rating 4x for indoor use only

KES-R M Cone
Round cable entries for snap-on and screw connections with conical shape

Speed up your installation by using the variants of the KES cable entry system. The **KES-R M Cone** cable entries, with CONTA-CLIP's distinctive do-decagon design, are snapped directly from the outside onto a round cut-out from M25 to M63. If the wall is thicker, or if you need a tighter seal up to protection class IP66, then you can also use a locknut to secure the entries from the inside of the panel. The assembly takes just seconds.

Determine the cable diameter and open the cable entry with a clean cut. **KES-R M Cone** must be opened in such a way that the diameter marking specified on the cone steps matches the cable to be routed and remains visible.

Your advantages

- Hygienic design
- Snap-on and screw-on
- Increased strain relief
- Simple assembly
- High flexibility

Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Flammability: UL 94 V-0
- Temperature range: -40°C to +90°C (static)
- Halogen-free, silicone-free
- Snap-on for wall thickness: 1.0 – 2.5 mm
- Protection class snap-on: IP54
- Protection class screwed: IP66

KES-R M Cone
Round cable entries for snap-on and screw connections with conical shape

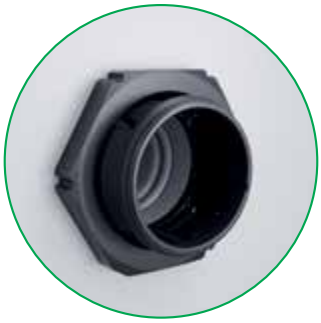
An overview of your advantages

High flexibility
The cable entries are designed for use with cables featuring outer diameters of up to 50 mm. They are particularly suitable for applications where the exact cable diameters have not yet been defined at the time of design.

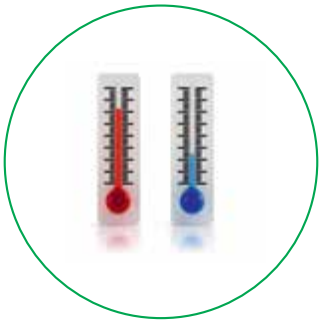
Opening the cone entry
KES-R M Cone must be opened in such a way that the diameter marking specified on the cone steps matches the cable to be routed and remains visible.

Snap-on assembly
The **KES-R M Cone** are snapped directly from the outside into a round cut-out from M25 to M63 and thus achieve protection class IP54.

Screw-on assembly
If the wall is thicker, or if you need a tighter seal in accordance with protection class IP66, then you can also use a locknut to secure the entries from the inside of the panel.



Can be used from -40°C to +90°C
Materials contain no halogen or silicone, suitable for many different applications.



IP54 | IP66 | RoHS compliant | Made in Germany | CAD

KES-R M Cone

Round cable entries for snap-on and screw connections with conical shape

Round cable entries		KES-R M25/K		KES-R M32/K		KES-R M40/K	
Type		**KES-R M25/K 3-13 GR** ●		**KES-R M32/K 4-18 GR** ●		**KES-R M40/K 9-27 GR** ●	
Cat. no.	**Qty.**	*28925.6*	**10**	*28926.6*	**10**	*28927.6*	**10**
Snap-on for wall thicknesses mm		1.0 – 2.5		1.0 – 2.5		1.0 – 2.5	
Screwed for wall thicknesses mm		11		11		11	
Connection data							
Number of cables x cable diameter (mm)		1 x 3 -13		1 x 4 - 18		1 x 9 - 27	
Features							
Protection class snap-on		IP54		IP54		IP54	
Protection class screwed		IP66		IP66		IP66	
Accessories							
Locknut		**S/M 25X1.5/F BK**		**S/M 32X1.5/F BK**		**S/M 40X1.5/F BK**	
Cat. no.	**Qty.**	*4152.4*	**100**	*4153.4*	**100**	*4154.4*	**50**

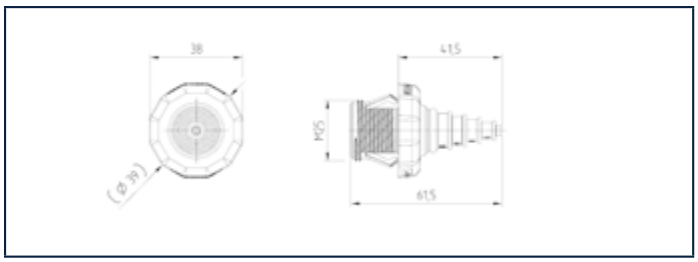
Round cable entries		KES-R M50/K		KES-R M63/K	
Type		**KES-R M50/K 18-37 GR** ●		**KES-R M63/K 24-50 GR** ●	
Cat. no.	**Qty.**	*28928.6*	**10**	*28929.6*	**10**
Snap-on for wall thicknesses mm		1.0 – 2.5		1.0 – 2.5	
Screwed for wall thicknesses mm		11		11	
Connection data					
Number of cables x cable diameter (mm)		1 x 18 - 37		1 x 24 - 50	
Features					
Protection class snap-on		IP54		IP54	
Protection class screwed		IP66		IP66	
Accessories					
Locknut		**S/M 50X1.5/F BK**		**S/M 63X1.5/F BK**	
Cat. no.	**Qty.**	*4155.4*	**25**	*4156.4*	**10**

KES-R M Cone

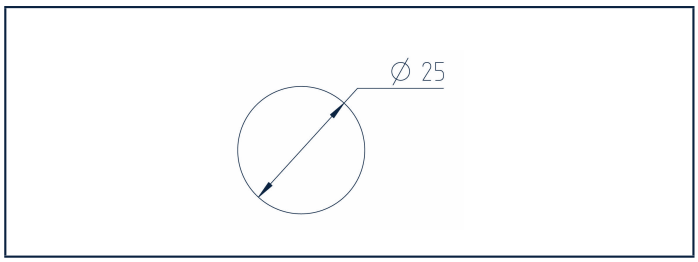
Round cable entries for snap-on and screw connections with conical shape | Dimensional diagrams / Mounting cut-outs

KES-R M25/K

Dimensional diagram

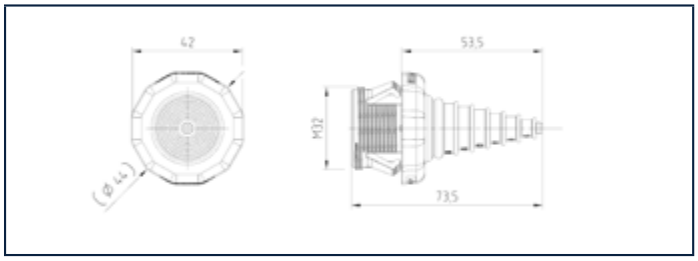


Mounting cut-out

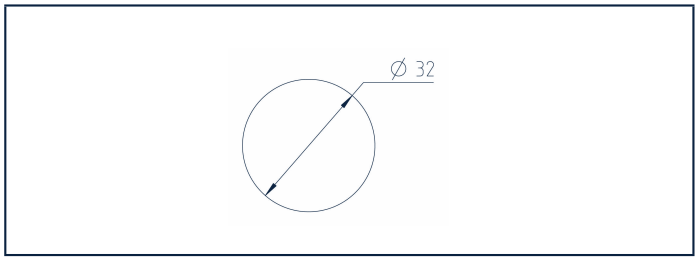


KES-R M32/K

Dimensional diagram

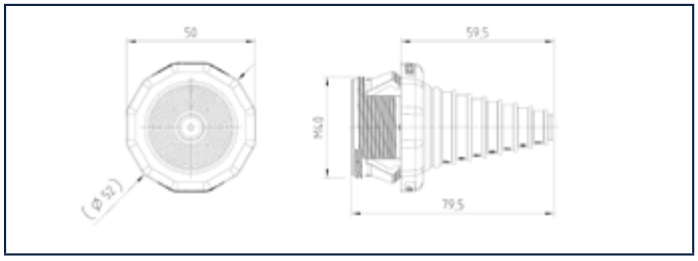


Mounting cut-out

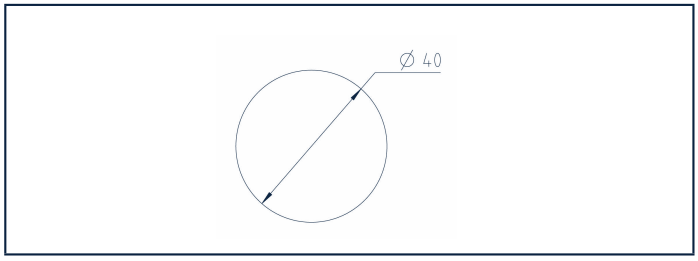


KES-R M40/K

Dimensional diagram

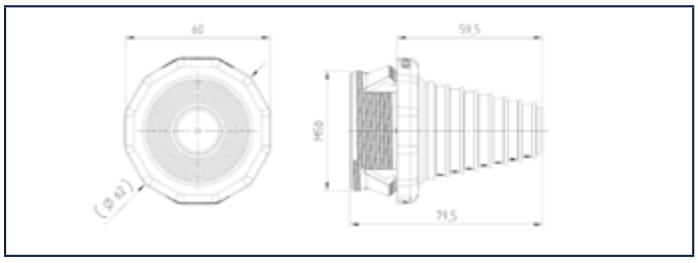


Mounting cut-out

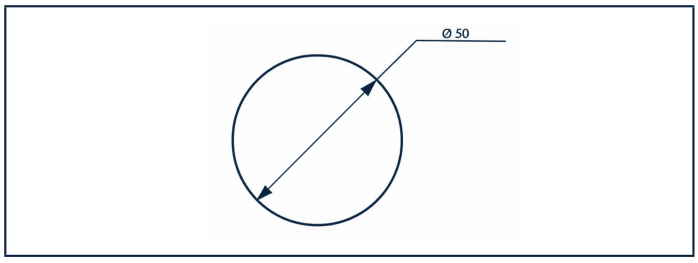


KES-R M50/K

Dimensional diagram

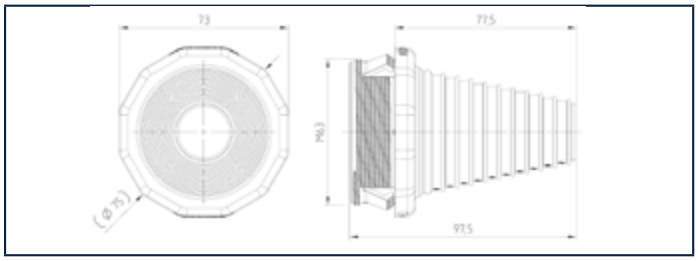


Mounting cut-out

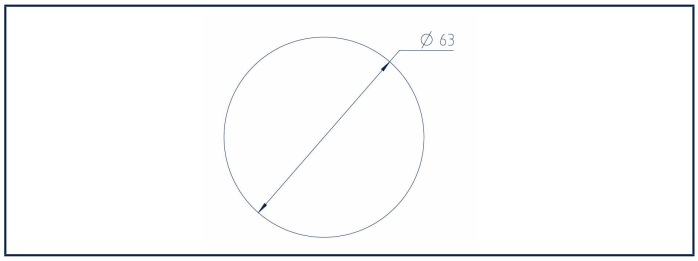


KES-R M63/K

Dimensional diagram



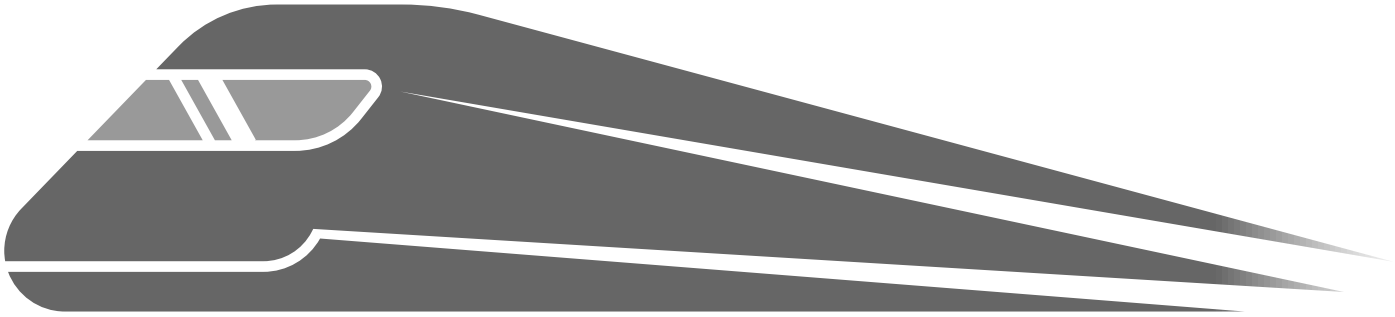
Mounting cut-out



Tightening torque for the locknut:
M25, M32: 4 Nm
M40: 5 Nm
M50, M63: 7 Nm

IP54 | IP66 | RoHS compliant | Made in Germany | CAD

Cable entries for railway technology applications



In modern rail transport, passenger safety is the top priority. Our cable entry systems are therefore tested and certified in accordance with the strictest industry-specific standards:

Fire protection is a central component of this. The European standard DIN EN 45545 ("Railway applications - Fire protection on railway vehicles") is the Europe-wide harmonised set of regulations that has replaced older national standards (such as the German DIN 5510-2). Its primary objective: In the event of a fire, the spread of fire and the generation of toxic smoke must be delayed to such an extent that passengers and staff can safely evacuate the train. The standard is complex and is divided into seven parts, ranging from general definitions (Part 1) and design requirements (Part 4) to electrical equipment (Part 5). For suppliers of components and materials, Part 2 (DIN EN 45545-2) is of crucial importance.

Requirements in railway technology – Standards guide

The requirement sets: R22 and R23
To ensure test procedures remain realistic, EN 45545-2 divides products into different categories (known as requirement sets, R1 to R28). A large-surface wall cladding must be tested differently to a small cable entry. Sets R22 and R23 are primarily relevant for seals, hoses, and electrotechnical components:

R22 (Interior)
Applies to components located inside the vehicle. Since smoke and toxic gases directly pollute the passengers' breathing air here in the event of a fire, the limit values for R22 are extremely strict.

R23 (Exterior)
Applies to components mounted on the outside of the vehicle (e.g. on the underbody or on the roof). Since smoke can dissipate outwards here, the specifications for smoke development and toxicity are slightly less stringent, but nevertheless remain at a very high safety level.

To obtain approval in accordance with R22 or R23, the material is tested in certified laboratories for three critical parameters:

1. Oxygen index (OI)
This value measures flammability. It indicates the minimum percentage of oxygen that must be present in the ambient air for the material to continue burning on its own. Since our breathing air only contains around 21% oxygen, the following applies: The higher the OI value of the plastic, the more flame-retardant it is.

2 Smoke gas density (Ds max)
This value measures how much smoke the material generates during combustion. Dense smoke blocks the view of escape routes and emergency exits. Here, the lower the value, the better for safe evacuation.

3. Toxicity (CIT)
The "Conventional Index of Toxicity" measures the concentration of life-threatening gases (such as carbon monoxide or hydrogen cyanide) in the resulting smoke. A low value is crucial to prevent smoke gas poisoning.

DIN EN 45545-2: Fire behaviour of materials and components
Not every material in the train has to undergo exactly the same test. The standard differentiates heavily according to where a component is installed and what type of train it is. This is where the so-called Hazard Levels (HL) come into play. The hazard level of a railway vehicle is calculated from two factors:

1. Design category
Is it a standard train, an automatic train, a double-decker carriage, or a sleeping car?

2 Operation category
Does the train only run above ground, does it pass through short tunnels, or does it operate on routes with tunnels over 5 km in length without lateral possibilities to escape?

This combination results in three levels:

HL1 (Low risk)
Usually applies to standard trains in purely above-ground local transport.

HL2 (Medium risk)
The standard for many regional and
long-distance trains that also pass through shorter tunnel routes.

HL3 (Highest risk)
The strictest level. It applies to trains with the highest risk, such as sleeping cars in tunnels or underground trains on routes with very long tunnel systems.

The CONTA-CLIP advantages

HL3-approval
Maximum flame retardancy
Plastic components that meet HL3 specifications are extremely flame-retardant and generate virtually no toxic gases or dense smoke in the event of a fire. With the HL3 approval of our KDS-RAIL systems, you have the guarantee that they can be used without restriction in any train class and on any route.

DIN EN 62444
Reliable strain relief
If a cable is pulled or moves during travel, this mechanical force must not be transmitted to the sensitive electrical contacts inside the housing. DIN EN 62444 certifies that our cable entries provide a standard-compliant static retention value integrated into the sealing element. It protects the cable sheath and prevents cables from being pulled out.

DIN EN 61373
Maximum shock and vibration resistance
During daily operations, trains are permanently exposed to shocks, vibrations, and impacts. DIN EN 61373 defines the test procedures for railway vehicle equipment to ensure that mechanical connections do not loosen over decades. The certification of our KDS products according to this standard guarantees that cables remain securely and tightly sealed even under extreme stress (e.g., in the bogie area or gangway connections).

Ingress protection codes (according to DIN EN 60529)
Sealed against dust and water
Railway vehicles brave all weather conditions and are regularly subject to intensive cleaning. Our cable entries offer protection ratings of up to IP66. This means the system is completely dust-tight and reliably protects the vehicle interior or control cabinet against moisture ingress, even when subjected to powerful water jets (e.g., heavy rain).

KDS-RAIL
Fire protection kits

Certified fire integrity according to DIN EN 45545-3 (E30)

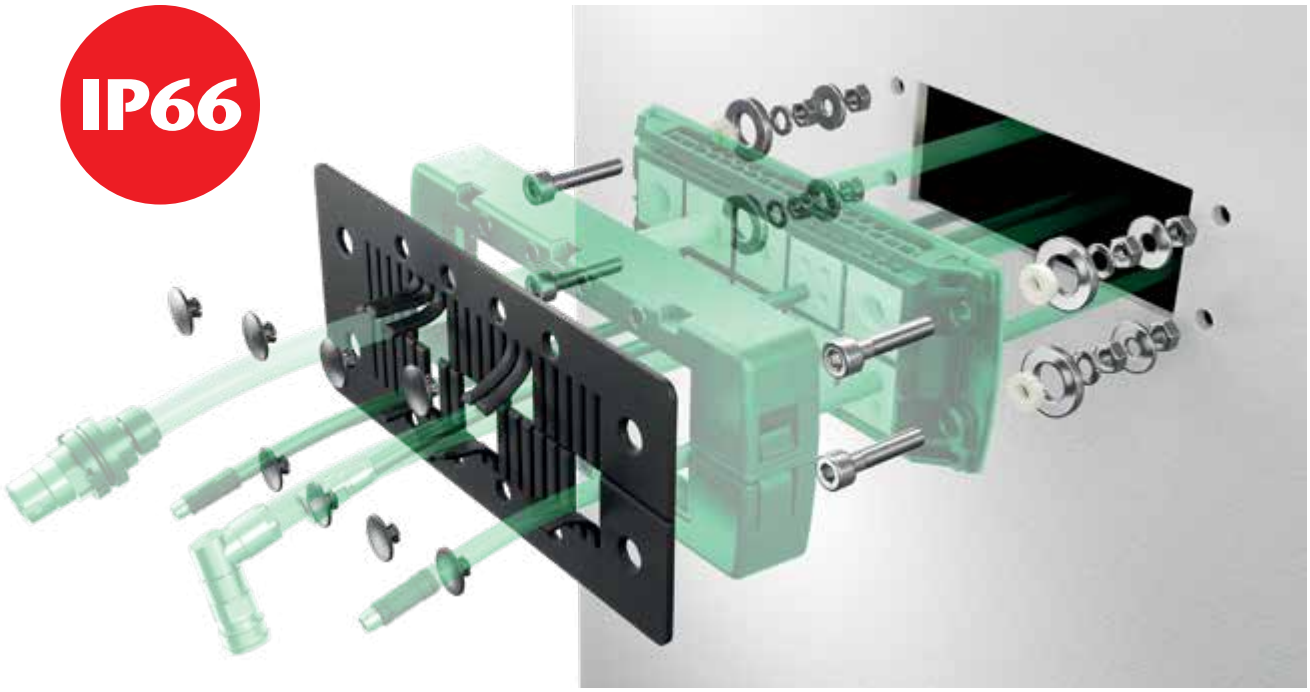
In addition to raw material fire behaviour (HL3), railway engineering requires reliable structural integrity at sensitive partitions, such as between the engine room and the passenger compartment. The spread of flames through the wall cut-out must be strictly prevented for a specified period of time. That is exactly why we offer our certified KDS-RAIL fire protection kits for all different frame sizes. With these customised add-on packages, your installations effortlessly achieve the E30 fire resistance rating (30-minute fire integrity) in compliance with the European standard DIN EN 45545-3.

The complete package for maximum safety:

Our kits eliminate the complex task of searching for individual components. They consist of a perfectly sized, intumescent (swelling) fire protection mat, as well as special heat-resistant mounting screws and all necessary installation materials.

Functionality in the event of a fire:

During installation, the fire protection mat is mounted directly in front of the KDS frame on the side facing the potential fire. If the temperature rises above 200 °C in an emergency, the material reacts immediately: it expands extensively and multiplies its volume. The resulting expansion pressure forces its way into all cavities and completely encloses even melting cable sheaths. The special screws included in the kit guarantee that the frame remains securely in position even under extreme heat and heavy expansion pressure. The penetration is hermetically sealed and the breakthrough of fire is reliably stopped.



KDS CLICK by CONTA-CLIP

* Available for KDSI-SR 10/24, 8/16, 6-10, 1-4 and KDS-SR 10/24, 8/16, 6/10, 1-4

Contents and layout of the fire protection kit

Fire protection mat. Snap fasteners. Screws. Ablative fire protection material. Lock washer. Hex. nut. Washers.
The seven basic components of our fire protection kit guarantee safety according to DIN EN 45545, combined with maximum flexibility and versatility.

1. Fire protection mat

The IFPS fire protection mat with a glass-fibre fabric structure serves as a fire-resistant seal for cable entries. Thanks to its intumescent properties, it prevents the spread of fire, smoke, and heat to adjacent fire compartments in the event of a fire.

2 Snap fasteners

The snap fasteners secure the fire protection mat to the outside of the KDSI frame.

3. Screws

M5x30 mounting screws are used for stable mechanical fastening and assembly of the components within the fire protection kit.

4. Ablative fire protection material

In the event of a fire, the washers made of ablative fire protection material reduce heat transfer, protect adjacent materials from thermal stress, and increase the fire resistance of the cable entry.

5. Lock washer

Thanks to its interlocking teeth, the lock washer ensures a vibration-proof connection and prevents the screw connection from loosening unintentionally.

6. Hex nut

In combination with the corresponding screws, the hexagon nut ensures secure bolting and fastening of the mounted components.

7. Washers

Washers distribute the acting forces evenly across the fastening surfaces and protect the components from damage caused by the bolting process.

Safety according to DIN EN 45545-3

With the certified KDS-RAIL fire protection kits, you asily achieve the E30 fire resistance rating according to DIN EN 45545-3, reliably preventing the passage of flames and fire for at least 30 minutes in the event of a fire.

KDS-RAIL fire protection kit

Cable entries for railway technology applications

Fire protection kit	KDS-BM 1-4-Set	KDS-BM 6/10-Set	KDS-BM 8/16-Set	KDS-BM 10/24-Set
Description	Fire protection kit for EN45545-3	Fire protection kit for EN45545-3	Fire protection kit for EN45545-3	Fire protection kit for EN45545-3
Type / Set	**KDS-BM 1-4-Set**	**KDS-BM 6/10-Set**	**KDS-BM 8/16-Set**	**KDS-BM 10/24-Set**
Cat. no. **Qty.**	*29176.0* **1**	*29177.0* **1**	*29178.0* **1**	*29179.0* **1**
Description Set consists of:	Fire protection mat 1-4 Snap fasteners M5 screws Ablative fire protection material Lock washer Hex nut Washers	Fire protection mat 6-10 Snap fasteners M5 screws Ablative fire protection material Lock washer Hex nut Washers	Fire protection mat 8-16 Snap fasteners M5 screws Ablative fire protection material Lock washer Hex nut Washers	Fire protection mat 10-24 Snap fasteners M5 screws Ablative fire protection material Lock washer Hex nut Washers
Accessories for frames				
Type / colour	**KDSI-SR 1-4 BK**	**KDSI-SR 6/10 BK**	**KDSI-SR 8/16 BK**	**KDSI-SR 10/24 BK**
Cat. no. **Qty.**	*28880.4* **1**	*28881.4* **1**	*28882.4* **1**	*28883.4* **1**
Type / colour	**KDS-SR 1-4 BK**	**KDS-SR 6/10 BK**	**KDS-SR 8/16 BK**	**KDS-SR 10/24 BK**
Cat. no. **Qty.**	*28506.4* **1**	*28500.4* **1**	*28502.4* **1**	*28504.4* **1**
Inlay		**KDS-Inlay 2 BK**		**KDS-Inlay 2 BK**
Cat. no. **Qty.**		*28517.4* **5**		*28517.4* **5**
Description		T-shape		T-shape
Inlay	**KDS-Inlay 4 BK**	**KDS-Inlay 4 BK**	**KDS-Inlay 4 BK**	**KDS-Inlay 4 BK**
Cat. no. **Qty.**	*28518.4* **5**	*28518.4* **5**	*28518.4* **5**	*28518.4* **5**
Description	For 4-way divisions	For 4-way divisions	For 4-way divisions	For 4-way divisions
Inlay		**KDS-Inlay 6 BK**		**KDS-Inlay 6 BK**
Cat. no. **Qty.**		*28519.4* **5**		*28519.4* **5**
Description		for 6-way divisions		For 6-way divisions
Sheet-metal hole punch	**BL KDS-SR 1-4**	**BL KDS-SR 6/10**	**BL KDS-SR 8/16**	**BL KDS-SR 10/24**
Cat. no. **Qty.**	*28674.0* **1**	*28675.0* **1**	*28676.0* **1**	*28677.0* **1**
Description	For sheet steel up to 2 mm; also for marking drilling hole points	For sheet steel up to 2 mm; also for marking drilling hole points	For sheet steel up to 2 mm; also for marking drilling hole points	For sheet steel up to 2 mm; also for marking drilling hole points
Actuating tool	**KDS BW 1**	**KDS BW 1**	**KDS BW 1**	**KDS BW 1**
Cat. no. **Qty.**	*28622.0* **1**	*28622.0* **1**	*28622.0* **1**	*28622.0* **1**
Seals				
Small and large	**See section KDS-DE-RAIL and KDS-DEG-RAIL**	**See section KDS-DE-RAIL and KDS-DEG-RAIL**	**See section KDS-DE-RAIL and KDS-DEG-RAIL**	**See section KDS-DE-RAIL and KDS-DEG-RAIL**

UL TYPE Rating 12 · UL TYPE* Rating 4x · EN 45545-2 HL3 | R22, R23, R24

IP66 · RoHS compliant · Made in Germany · CAD · EN 45545-3 E30 | EI15

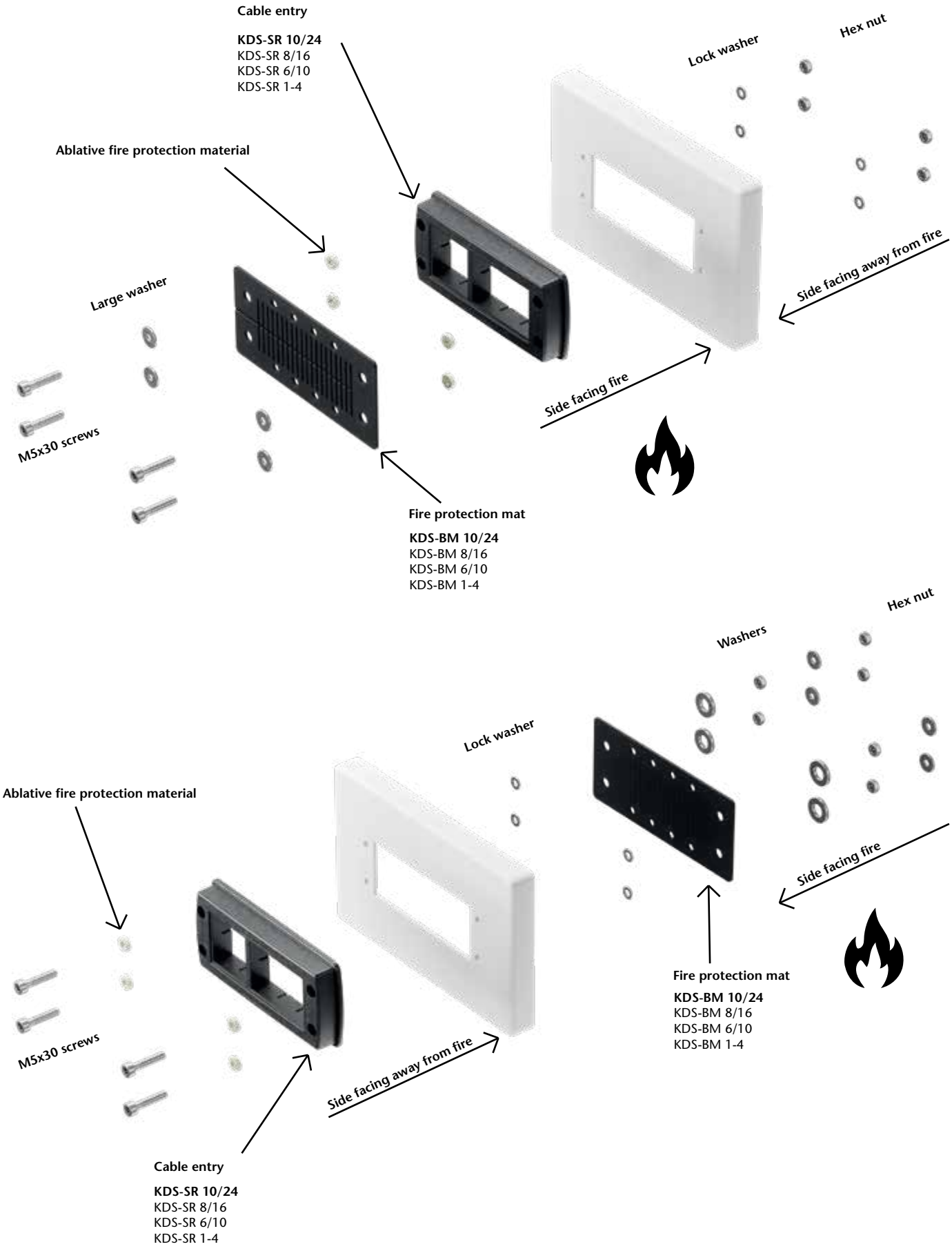
Features

- Certified fire resistance according to DIN EN 45545-3 for class E30
- The ready-to-install kit consisting of a fire protection mat and special screws saves time in procurement and design
- Intelligent sealing
- Retrofitting and servicing can be done quickly and easily
- Secure hold under extreme conditions

* 4x is for indoor use only

KDS-RAIL fire protection kit

Cable entries for railway technology applications | Example assembly instructions

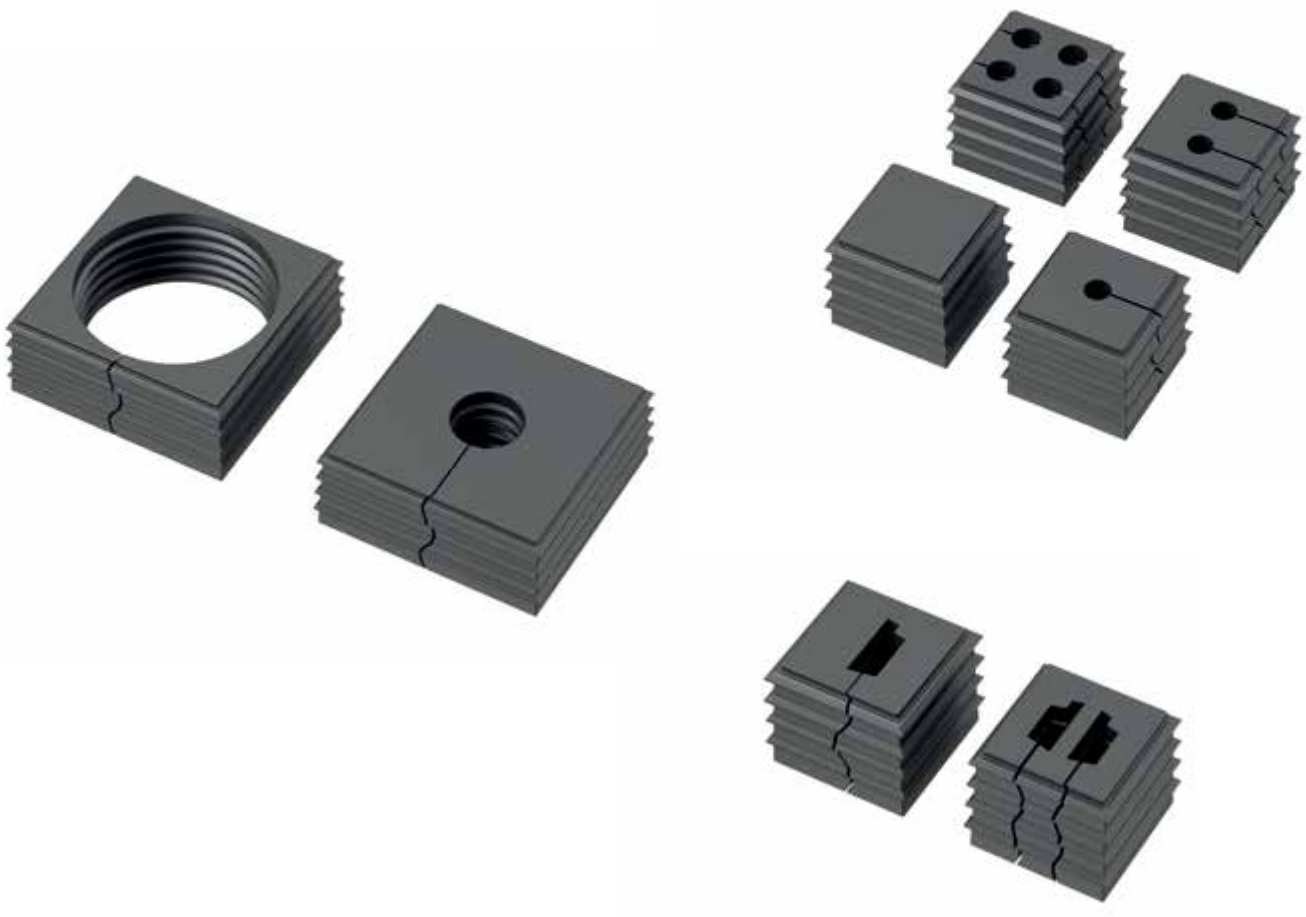


KDS-DE-RAIL and KDS-DEG-RAIL

Sealing elements made of rail-approved material for KDS cable entry systems

The **KDS-DE-RAIL** (small) and **KDS-DEG-RAIL** (large) sealing elements are at the heart of our rail-certified cable entries. Manufactured from a special TPE approved in accordance with **DIN EN 45545-2 (HL3)**, they ensure the highest level of safety, fire protection, and reliability for demanding applications in rail vehicles.
The conical shape of the sealing elements enables easy, tool-free pressing into the openings of the cable entries. At the same time, it ensures completely reliable sealing of the gaps and static strain relief in accordance with DIN EN 62444.
The intelligent wave-cut profile of the split sealing elements ensures they are easy-to-install and fit perfectly around the cable, even with pre-terminated connectors.

To offer you more maximum flexibility during installation combined with high packing density, numerous sealing elements are available for a wide variety of cable diameters and geometries. The small sealing elements cover a diameter range of **1.5** to **16 mm**, while the large sealing elements serve the range from **12** to **35 mm**. If slots in the frame are currently not required, they can be sealed securely and in compliance with standards using our special dummy elements.



Your advantages

- Manufactured from rail-approved, flame-retardant material
- Smart division of sealing elements using a wave-cut profile
- Versatile, high-density assemblies are possible
- IP66 protection
- Integrated strain relief
- Available in two different sizes

* KDSI-SR 10/24, 8/16, 6-10, 1-4 & KDS-SR 10/24, 8/16, 6/10, 1-4 with RAIL sealing elements are certified according to EN 45545-2 for R22/23 in HL3. Please refer to the data sheets for precise application details.

KDS-DE-RAIL and KDS-DEG-RAIL

Sealing elements made of rail-approved material for KDS cable entry systems

An overview of your advantages

No loss of guarantee when using assembled cables

No need to disassemble and reconnect connectors, so the manufacturer's warranty is not voided.

Versatile, high-density assemblies are possible

1-way, 2-way, 3-way and 4-way sealing elements provide you with excellent versatility for your cable management. There are currently numerous different sealing elements made of railway-compliant TPE that can be used for sealing cables of various diameters and sizes.

Integrated strain relief

The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.

Outstanding IP66 seal

The conically tapered shape of the sealing elements with inner and outer sealing gills in combination with the frame and inlays ensures a high level of sealing.

Smart separation of the seals

The wave-cut profile makes them easy to install and ensures a perfect fit around the cables.

Sealing elements are available in two different sizes

KDS-DE-RAIL 19.5 x 19.5 mm for cable diameters from 1.5 to 16 mm
KDS-DEG-RAIL 42 x 42 mm for cable diameters from 12 to 35 mm

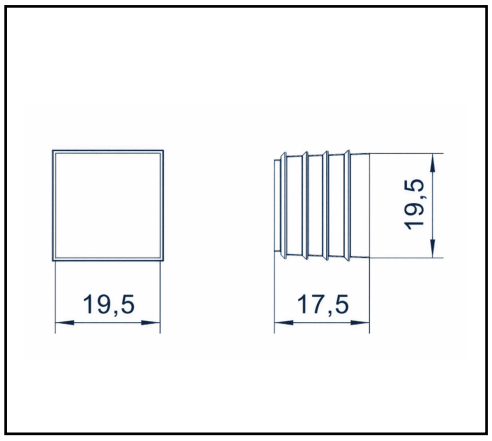
RAIL sealing elements KDS systems

Seals

Dark grey small

Type	Cat. no.	Qty.	Max. Ø
KDS-DE-RAIL/B GR	29120.6	10	Blind
KDS-DE-RAIL 1,5 GR	29121.6	10	1.5 mm
KDS-DE-RAIL 2 GR	29123.6	10	2 mm
KDS-DE-RAIL 2-3 GR	29124.6	10	3 mm
KDS-DE-RAIL 3 GR	29125.6	10	3 mm
KDS-DE-RAIL 3-4 GR	29126.6	10	4 mm
KDS-DE-RAIL 4-5 GR	29127.6	10	5 mm
KDS-DE-RAIL 5-6 GR	29128.6	10	6 mm
KDS-DE-RAIL 6-7 GR	29129.6	10	7 mm
KDS-DE-RAIL 7-8 GR	29130.6	10	8 mm
KDS-DE-RAIL 8-9 GR	29131.6	10	9 mm
KDS-DE-RAIL 9-10 GR	29132.6	10	10 mm
KDS-DE-RAIL 10-11 GR	29133.6	10	11 mm
KDS-DE-RAIL 11-12 GR	29134.6	10	12 mm
KDS-DE-RAIL 12-13 GR	29135.6	10	13 mm
KDS-DE-RAIL 13-14 GR	29136.6	10	14 mm
KDS-DE-RAIL 14-15 GR	29137.6	10	15 mm
KDS-DE-RAIL 15-16 GR	29138.6	10	16 mm

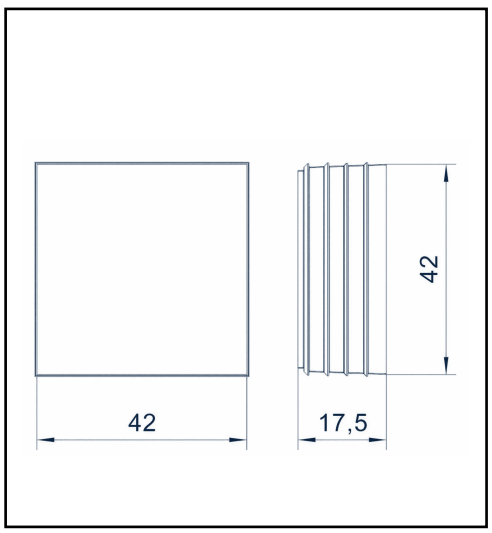
Dimensional drawings



Seals

Dark grey large

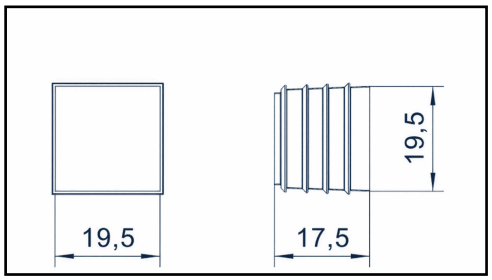
KDS-DEG-RAIL/B GR	29153.6	10	Blind
KDS-DEG-RAIL 12-13 GR	29154.6	10	13 mm
KDS-DEG-RAIL 14-15 GR	29155.6	10	15 mm
KDS-DEG-RAIL 15-16 GR	29156.6	10	16 mm
KDS-DEG-RAIL 16-17 GR	29157.6	10	17 mm
KDS-DEG-RAIL 17-18 GR	29158.6	10	18 mm
KDS-DEG-RAIL 18-19 GR	29159.6	10	19 mm
KDS-DEG-RAIL 19-20 GR	29160.6	10	20 mm
KDS-DEG-RAIL 20-21 GR	29161.6	10	21 mm
KDS-DEG-RAIL 21-22 GR	29162.6	10	22 mm
KDS-DEG-RAIL 22-23 GR	29163.6	10	23 mm
KDS-DEG-RAIL 23-24 GR	29164.6	10	24 mm
KDS-DEG-RAIL 24-25 GR	29165.6	10	25 mm
KDS-DEG-RAIL 25-26 GR	29166.6	10	26 mm
KDS-DEG-RAIL 26-27 GR	29167.6	10	27 mm
KDS-DEG-RAIL 27-28 GR	29168.6	10	28 mm
KDS-DEG-RAIL 28-29 GR	29169.6	10	29 mm
KDS-DEG-RAIL 29-30 GR	29170.6	10	30 mm
KDS-DEG-RAIL 30-31 GR	29171.6	10	31 mm
KDS-DEG-RAIL 31-32 GR	29172.6	10	32 mm
KDS-DEG-RAIL 32-33 GR	29173.6	10	33 mm
KDS-DEG-RAIL 33-34 GR	29174.6	10	34 mm
KDS-DEG-RAIL 34-35 GR	29175.6	10	35 mm



Seals with multiple holes

Dark grey multi-hole

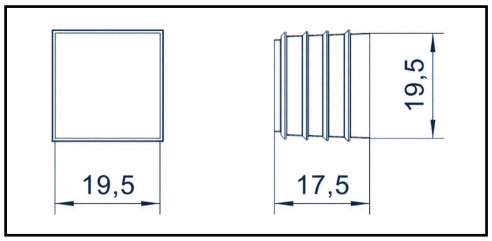
KDS-DE-RAIL 2X4-5 GR	29139.6	10	5 mm
KDS-DE-RAIL 2X5-6 GR	29140.6	10	6 mm
KDS-DE-RAIL 2X6,5 GR	29141.6	10	6.5 mm
KDS-DE-RAIL 2X7 GR	29142.6	10	7 mm
KDS-DE-RAIL 2X8 GR	29143.6	10	8 mm
KDS-DE-RAIL 3X4-5 GR	29144.6	10	5 mm
KDS-DE-RAIL 3X5-6 GR	29145.6	10	6 mm
KDS-DE-RAIL 4X2-3 GR	29146.6	10	3 mm
KDS-DE-RAIL 4X3-4 GR	29147.6	10	4 mm
KDS-DE-RAIL 4X4.5 GR	29148.6	10	4.5 mm
KDS-DE-RAIL 4X5 GR	29149.6	10	5 mm
KDS-DE-RAIL 4X6 GR	29150.6	10	6 mm



Seals for AS interface cables

Dark grey

KDS-DE-RAIL/1XASI GR	29151.6	10	
KDS-DE-RAIL/2XASI GR	29152.6	10	

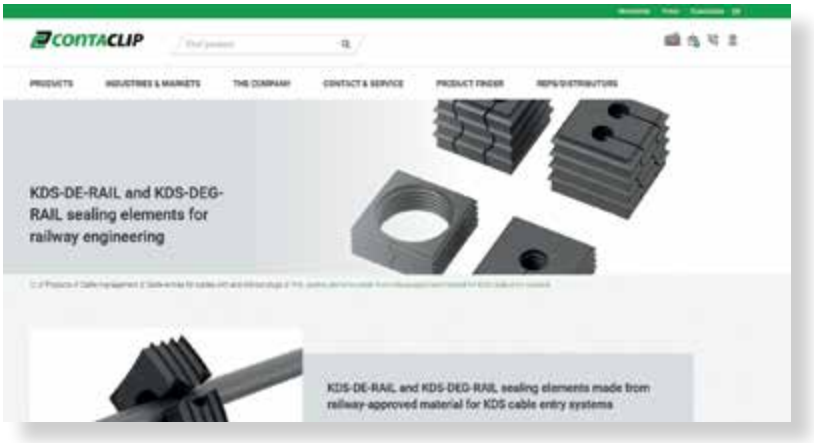


Features

- Material: Rail-compliant dark grey TPE
- Flammability: UL 94 V-0
- Temperature range: -40°C to +85°C (static)
- Halogen-free, silicone-free
- IP66 protection
- Material approval: DIN EN 45545-2 (02/2016; 10/2020), R22/R23, HL1, HL2, HL3

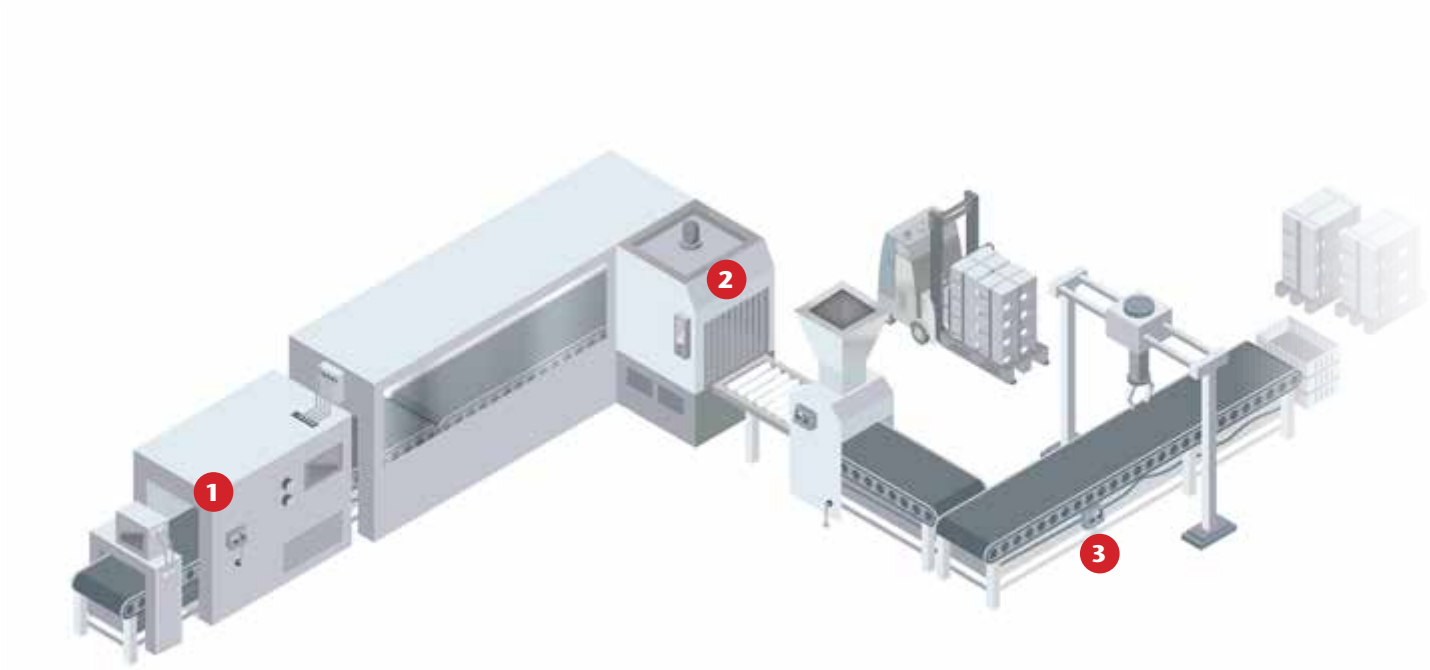
IP66 | RoHS compliant | Made in Germany | CAD

More information on RAIL sealing elements at:



Notes

Cable management systems for the food industry, FDA-compliant, in Hygienic Design



In the food industry, there are strict hygiene regulations that require that all surfaces in the immediate vicinity of the process can be cleaned easily, thoroughly and without abrasion. Of course, these cover the cable entries and cable glands that seal the passages of cables and hoses into the interior of machine housings or switchgear. These must not have any rough surfaces, crevices or cracks that could promote germ build-up. The housing materials and sealing systems must also be able to withstand frequent cleaning processes, even when aggressive chemicals are used.

The importance of FDA compliance: The FDA (Food and Drug Administration) is a US agency responsible for protecting public health by regulating the safety of food, drugs, cosmetics and other products.
In the food sector, the FDA has defined various zones or categories to guarantee food safety and quality.

The three FDA food zones are:

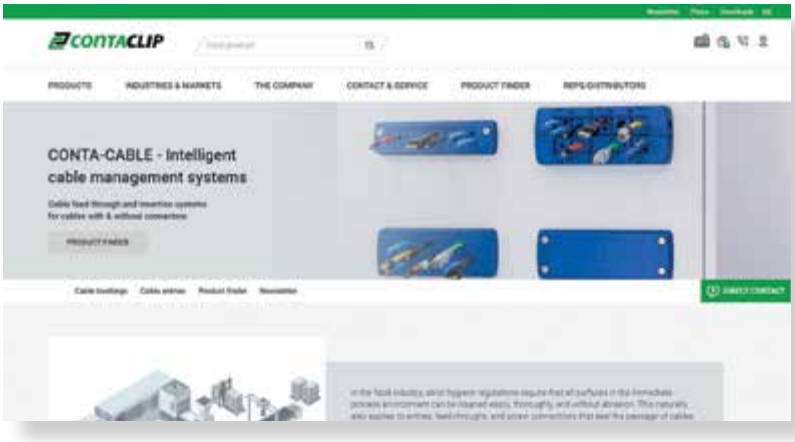
1 Zone 1: Direct food contact
This zone includes materials and surfaces that come into direct contact with food.
Requirements: Materials must be food-grade, i.e. they must not release any harmful substances into food and must be easy to clean.

2 Zone 2: Indirect food contact/splash zone
This zone includes areas where food can come into indirect contact with surfaces but is not returned to the product cycle.
Requirements: Surfaces must be kept clean and must not release any substances that could impair food quality.

3 Zone 3: Ambient air and product-free zone
Products do not come into direct contact with food.
Requirements: Surfaces must be able to be kept clean, corrosion-resistant, disinfectable and easily washable.

The cable management systems meet the requirements of zone 2 and 3 for use in food production applications. They enable the reliable sealing of up to 40 cables in a very confined space. The FDA-compliant materials TPE and polyamide 6.6 meet the requirements of the Food Industry Regulations 1935/2004/EC and (EU) 10/2011, as well as the requirements from the US Food and Drug Administration (FDA).

More information on cable management systems for the food industry, FDA-compliant, in hygienic design at:



Notes

KDSI-SR-FDA
Inverted, modular cable entry system

The **KDSI-SR-FDA** inverted screw frames allow complete assembly from the outside. If you're managing cables, our **KDSI-SR-FDA** inverted and modular cable entry system ensures outstanding versatility and time savings. It can be used to securely seal cables with or without connectors.
The one-part screw frames allow for quick and complete assembly from the outside. The proven, bearing-optimized, and easy-to-use KDS modular system (consisting of the frame, inlays, and sealing elements) is supplemented by an additional two-part protective cover that ensures a secure fit for the sealing elements on the outside.
The safe IP66 seal and reliable static strain relief, in accordance with DIN EN 62444, are ensured by the integrated frame gaskets and the conical shape of the sealing elements, which are pressed into the frame openings from the outside. As with all **KDS** cable entry systems, the modular click-and-plug principle of the **KDSI-SR-FDA** allows individual cable entry openings and seals to be reconfigured at any time as required without any extra installation work.

KDS CLICK by CONTA-CLIP

Your advantages

- Complete assembly from outside inwards
- Guarantee retained for assembled cables
- Retrofit: Modernization, retrofitting, and service work can be carried out quickly and easily without dismantling the frame.
- High-density assemblies

The basic components of the modular system

Frames. Inlays. Seals. Protective hood. The modular design – with four basic components – provides more versatility, variability and variety.

1. Frame

Made from a single mould, the one-part frame is quick and easy to assemble. It is made of sturdy, glass-fibre reinforced plastic. The integrated TPE gasket guarantees an optimal seal with IP66 protection, even on painted or rough surfaces. The frames also fit the standard cut-outs for 10-, 16- and, 24-pole connectors.

2 Inlays

The click-in inlays allow flexible sizing of the frame opening to fit the seal in use. An audible "click" confirms a correct installation. You can variably configure cable entries to match various requirements (for cables, lines, tubing, pneumatic and hydraulic lines).
The additional FDA-compliant TPE gasket on the inlays ensures a reliable seal on the surfaces between the frame and inlays.

3. Sealing elements

The conical shape of the sealing elements allows them to be easily pressed in. This also reliably seals the gaps and provides static strain relief in accordance with DIN EN 62444. The seals are installed by pressing them from the outside inwards into the openings of the previously installed inlays.
Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are currently numerous different sealing elements made of FDA-compliant TPE that can be used for sealing cables of various diameters and sizes.

4. Protective hood

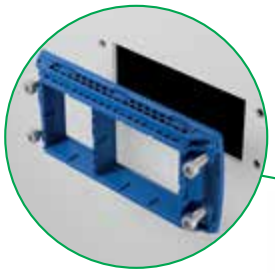
The two-part protective hood has TPE gaskets at three different levels; this ensures that an IP66 seal is achieved.
The two-part protective hood also guarantees the tight fit of the pressed-in sealing elements to the outside and covers the screws of the one-part frame.

More versatility and safety

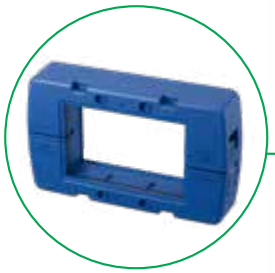
The sealing elements can be released by pressing from the inside to the outside. Changes, retrofits, servicing or the readjustment of the cable lengths can be made at any time without dismantling the frame.

KDSI-SR-FDA
Inverted, modular cable entry system

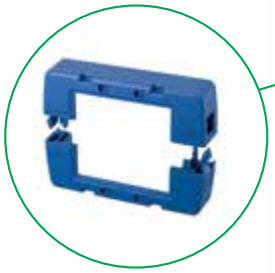
An overview of your advantages



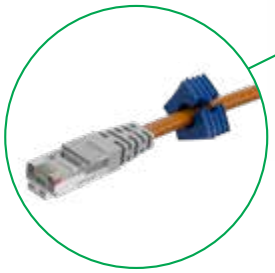
Attaching the frame
The one-part frame can be easily and quickly attached to the wall.



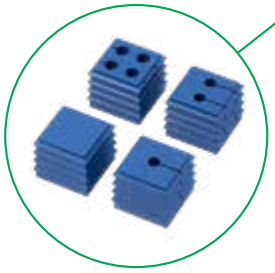
Fast assembly from outside inwards for easier, friendlier servicing
The frame does not need to be disassembled if your requirements change or if you're carrying out service work.



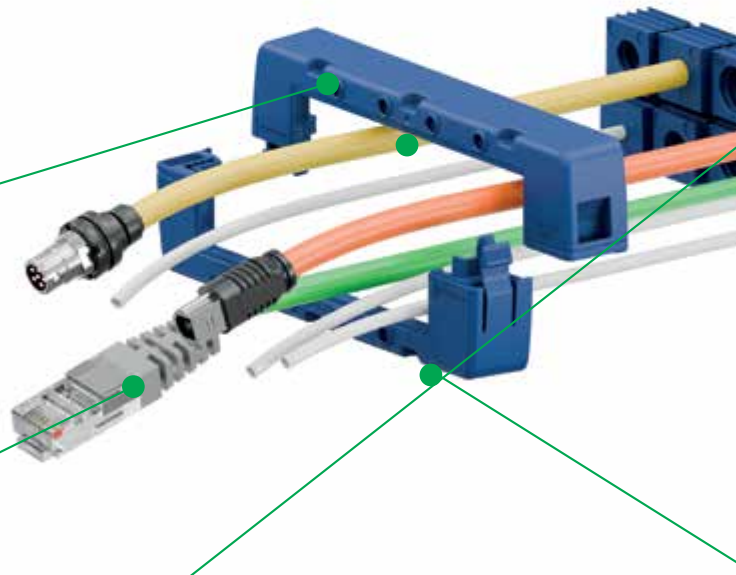
Protective hood
The two-part protective hood has TPE gaskets at three levels and guarantees IP66 protection. A tight fit for the sealing elements, pressed in from the outside, is also guaranteed.

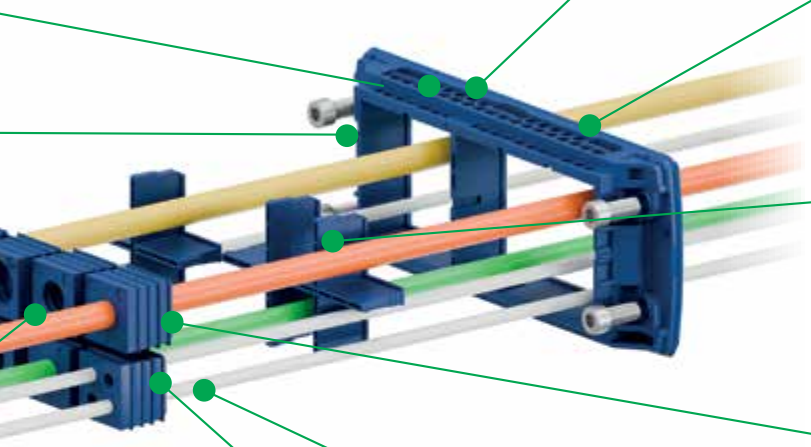


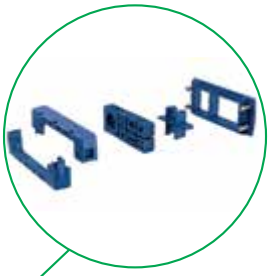
No Warranty Loss with Pre-Assembled Cables
No need to disassemble and reconnect connectors, so manufacturer's warranty is not voided.



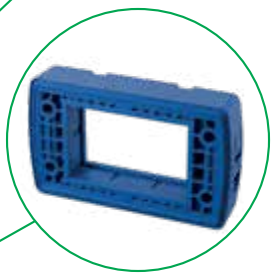
Versatile, high-density assemblies are possible
1-way, 2-way, 3-way and 4-way sealing elements provide you with excellent versatility for your cable management.
There are currently numerous different sealing elements made of FDA-compliant TPE that can be used for sealing cables of various diameters and sizes.







Outstanding versatility with optimized frame
The frames, inlays, seals and protective hoods can be combined in many ways – ensuring you many versatile configuration options.



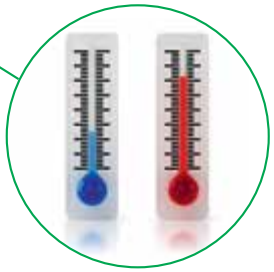
Captive gasket
The integrated frame gasket eliminates the risk of incorrect assembly (forgotten gasket) and speeds up the assembly process.

Safe and quick installation with feedback
An audible "click" confirms that the inlay has been properly installed in the frame.

Integrated strain relief
The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.

Outstanding IP66 seal
Conically tapered sealing elements feature inner and outer sealing gills.

Smart separation of the seals
The wave-cut profile makes them easy to install and ensures a perfect fit around the cables.



Can be used from -40°C to +80°C
Materials contain no halogen or silicone, suitable for many different requirements.

IP66 | RoHS compliant | Made in Germany | CAD

KDSI-SR-FDA
Inverted, modular cable entry system

Frames and inlays	KDSI-SR-FDA 1-4	KDSI-SR-FDA 6/10	KDSI-SR-FDA 8/16	KDSI-SR-FDA 10/24
Description	Screw frame with two-part protective hood	Screw frame with two-part protective hood	Screw frame with two-part protective hood	Screw frame with two-part protective hood
Type / colour	**KDSI-SR-FDA 1-4 BU**	**KDSI-SR-FDA 6/10 BU**	**KDSI-SR-FDA 8/16 BU**	**KDSI-SR-FDA 10/24 BU**
Cat. no. **Qty.**	*29091.5* **1**	*29092.5* **1**	*29093.5* **1**	*29094.5* **1**
Accessories				
Inlay		**KDS-Inlay-FDA 2 BU**		**KDS-Inlay-FDA 2 BU**
Cat. no. **Qty.**		*29017.5* **5**		*29017.5* **5**
Description		T-shape		T-shape
Inlay	**KDS-Inlay-FDA 4 BU**	**KDS-Inlay-FDA 4 BU**	**KDS-Inlay-FDA 4 BU**	**KDS-Inlay-FDA 4 BU**
Cat. no. **Qty.**	*29018.5* **5**	*29018.5* **5**	*29018.5* **5**	*29018.5* **5**
Description	For 4-way divisions	For 4-way divisions	For 4-way divisions	For 4-way divisions
Inlay		**KDS-Inlay-FDA 6 BU**		**KDS-Inlay-FDA 6 BU**
Cat. no. **Qty.**		*29019.5* **5**		*29019.5* **5**
Description		For 6-way divisions		For 6-way divisions
Sheet-metal hole punch	**BL KDS-SR 1-4**	**BL KDS-SR 6/10**	**BL KDS-SR 8/16**	**BL KDS-SR 10/24**
Cat. no. **Qty.**	*28674.0* **1**	*28675.0* **1**	*28676.0* **1**	*28677.0* **1**
Description	For sheet steel up to 2 mm; also for marking drilling hole points	For sheet steel up to 2 mm; also for marking drilling hole points	For sheet steel up to 2 mm; also for marking drilling hole points	For sheet steel up to 2 mm; also for marking drilling hole points
Actuating tool	**KDS BW 1**	**KDS BW 1**	**KDS BW 1**	**KDS BW 1**
Cat. no. **Qty.**	*28622.0* **1**	*28622.0* **1**	*28622.0* **1**	*28622.0* **1**
Seals				
Small and large	**See section KDS-DE-FDA and KDS-DEG-FDA**	**See section KDS-DE-FDA and KDS-DEG-FDA**	**See section KDS-DE-FDA and KDS-DEG-FDA**	**See section KDS-DE-FDA and KDS-DEG-FDA**

IP66

RoHS compliant

Made in Germany

CAD

Features

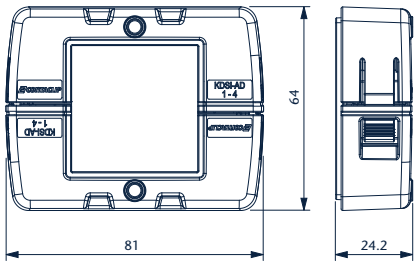
- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: blue
- Flammability class polyamide: UL 94 V-0
- Flammability class TPE UL 94 HB
- Temperature range: -40°C to +80°C
- Halogen-free, silicone-free
- Protection: IP66

KDSI-SR-FDA

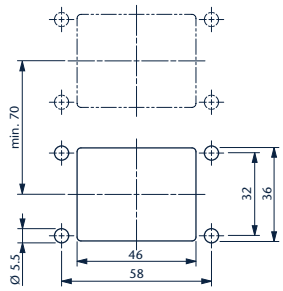
Inverted, modular cable entry system
Dimensional diagrams / Mounting cut-outs

KDSI-SR-FDA 1-4

Dimensional diagram



Mounting cut-out



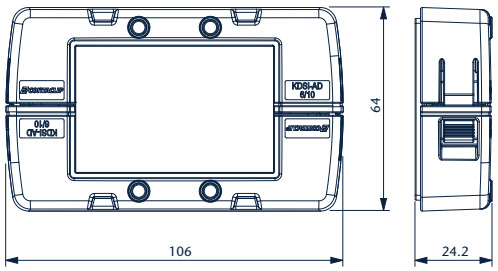
Also suitable for the CONTA-CLIP standard 46 x 46 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

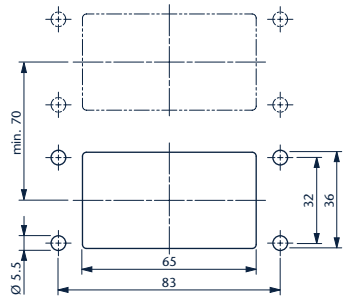
Screw for usage: ISO 4762 / DIN 912

KDSI-SR-FDA 6/10

Dimensional diagram



Mounting cut-out



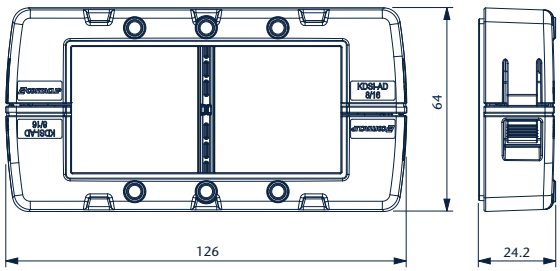
Also suitable for the CONTA-CLIP standard 46 x 68.5 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

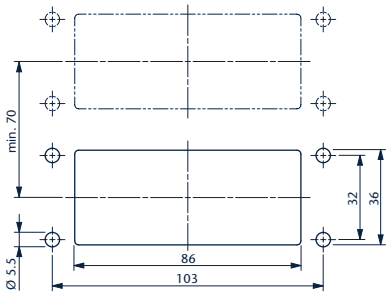
Screw for usage: ISO 4762 / DIN 912

KDSI-SR-FDA 8/16

Dimensional diagram



Mounting cut-out



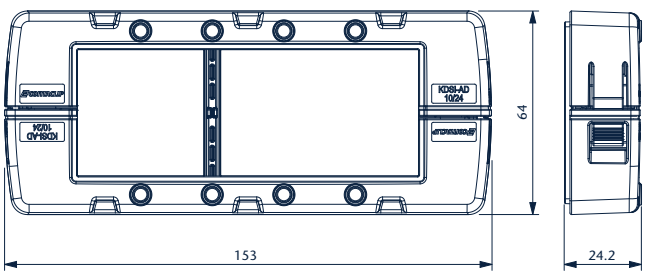
Also suitable for the CONTA-CLIP standard 46 x 91 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

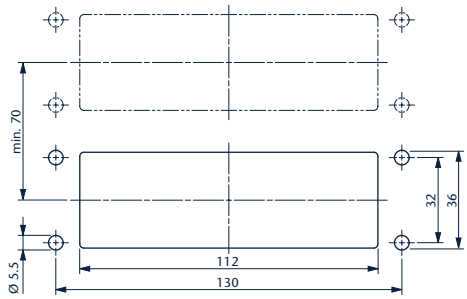
Screw for usage: ISO 4762 / DIN 912

KDSI-SR-FDA 10/24

Dimensional diagram



Mounting cut-out



Also suitable for the CONTA-CLIP standard 46 x 113.5 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

Screw for usage: ISO 4762 / DIN 912

KDSI-SR-FDA
Combination examples

KDSI-SR-FDA 1-4

KDS-Inlay-FDA 4 BU
29018.5

KDSI-SR-FDA 6/10

KDS-Inlay-FDA 6 BU
29019.5

KDS-Inlay-FDA 2 BU
29017.5

KDSI-SR-FDA 8/16

KDS-Inlay-FDA 4 BU
29018.5

KDS-Inlay-FDA 4 BU
29018.5

KDS-Inlay-FDA 4 BU
29018.5

KDSI-SR-FDA 10/24

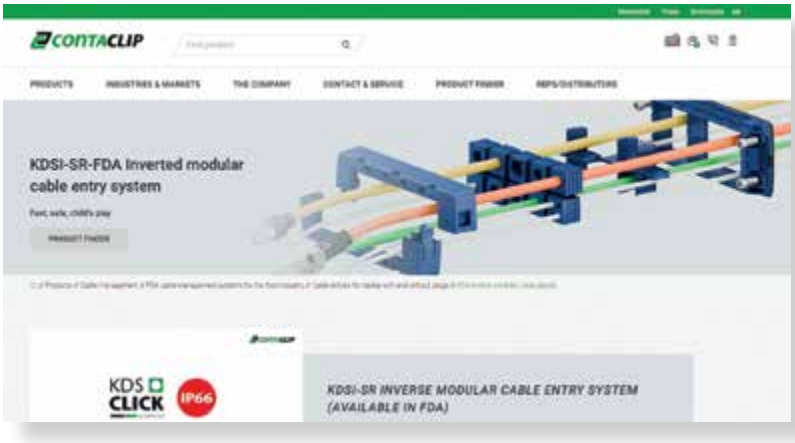
KDS-Inlay-FDA 4 BU
29018.5

KDS-Inlay-FDA 6 BU
29019.5

KDS-Inlay-FDA 6 BU
29019.5

KDS-Inlay-FDA 2 BU
29017.5

More information on KDSI-SR-FDA at:



Notes

KDS-SR-FDA Compact
Cable entry system in a compact design

Our **KDS-SR-FDA Compact** compact cable entry system ensures that cables and hoses can be routed quickly and securely, even in extremely cramped installation conditions, with IP66 protection. The compact screw frame offers protection against dust and deposits and can be easily fitted with pre-fabricated or non-prefabricated cables and hoses. The sealing frames can be equipped with various sealing elements from the KDS cable management system. The installation uses M5 screws. This makes cable management on control cabinets and enclosures very easy and changes can be made at any time without tools - quickly, securely and in just a few simple steps.

KDS CLICK by CONTA-CLIP

Your advantages

- Completely assembled from the inside outwards
- Guarantee retained for assembled cables
- Retrofit: Modernization, retrofitting, and service work can be carried out quickly and easily without dismantling the frame
- High-density assemblies
- Cable entry for extremely cramped installation conditions

The basic components of the modular system

Frames. Seals. The modular design – with two basic components – provides more versatility, variability and variety.

1. Frame

Made from a single mould, the one-part frame is quick and easy to assemble. It is made of sturdy, glass-fibre reinforced plastic. The integrated TPE gasket guarantees an optimal seal with IP66 protection, even on painted or rough surfaces.

2 Seals

The conical shape of the sealing elements allows them to be easily pressed in. This also reliably seals the gaps and provides static strain relief in accordance with DIN EN 62444. The seals are installed by pressing them from the inside outwards into the openings of the previously installed frames.
Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are currently numerous different sealing elements made of FDA-compliant TPE that can be used for sealing cables of various diameters and sizes.

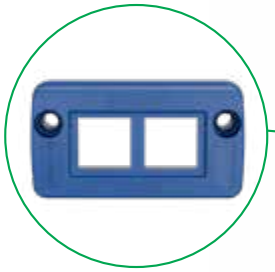
More versatility and safety

The sealing elements can be released by pressing from the outside inwards. Changes, retrofits, servicing or the readjustment of the cable lengths can be made at any time without dismantling the frame.

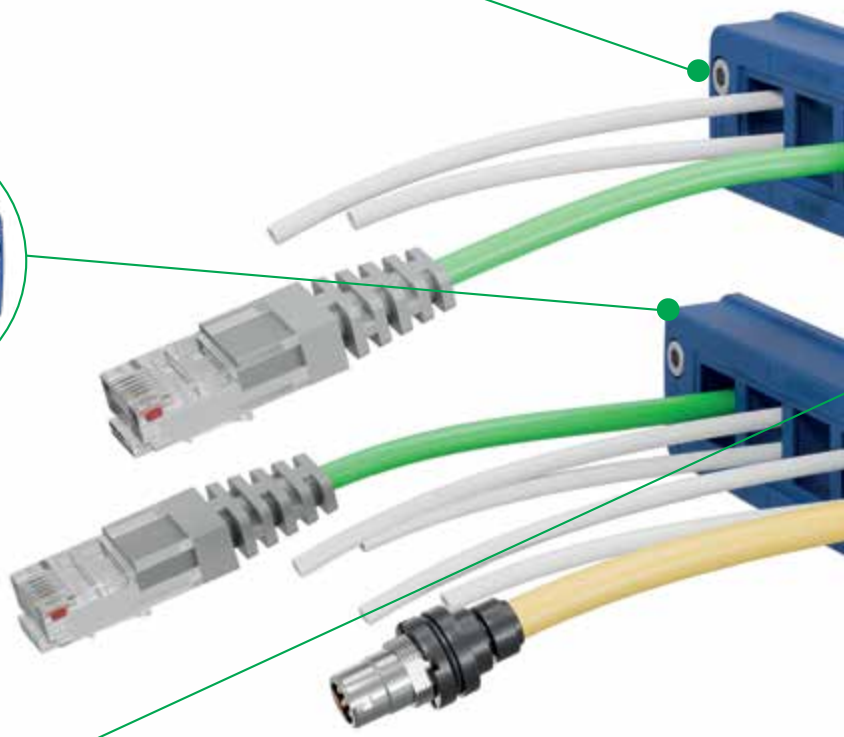
KDS-SR-FDA Compact
Cable entry system in a compact design

An overview of your advantages

Attaching the frame
The one-part frame can be easily and quickly attached to the wall.

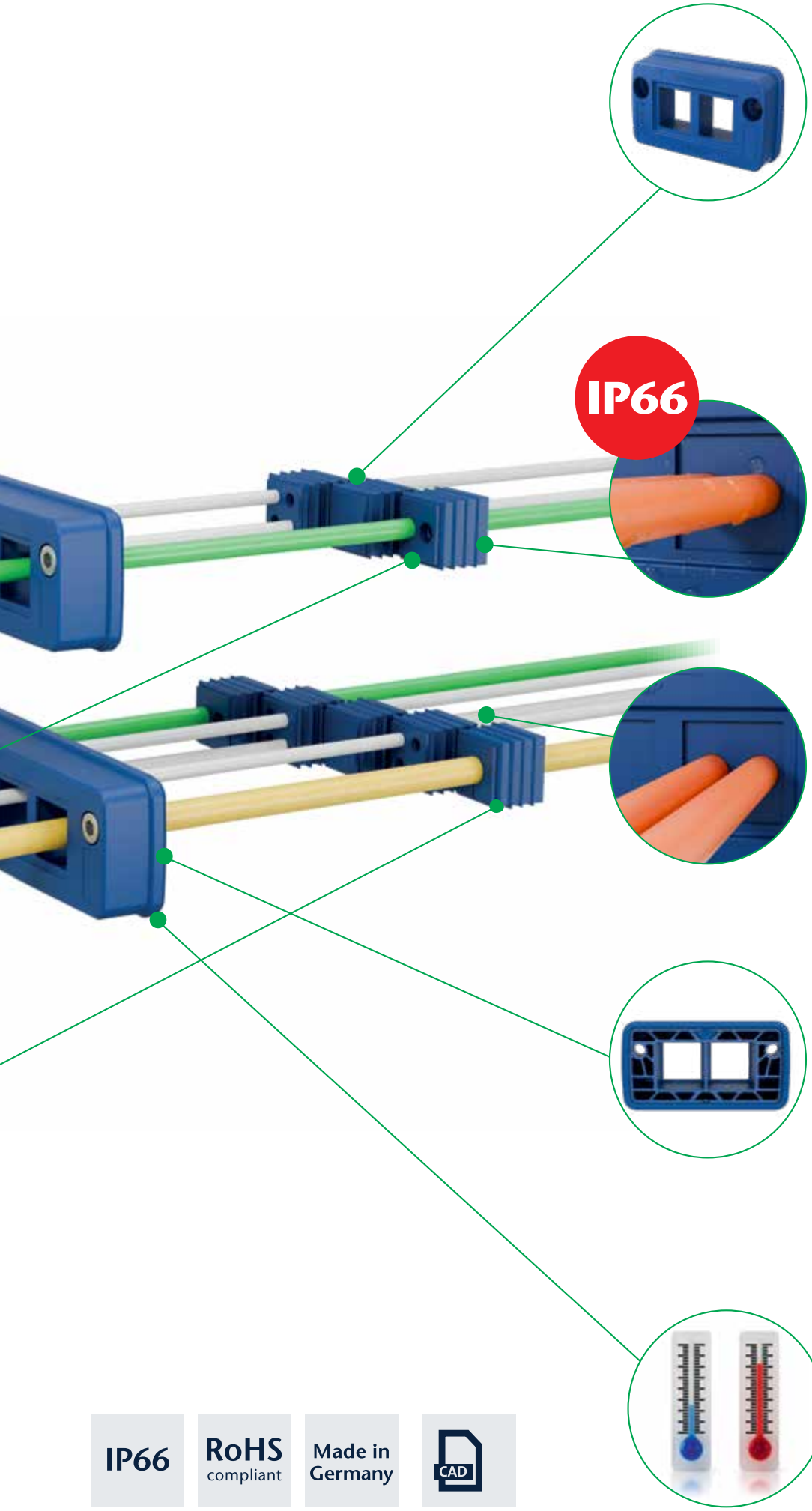


Quick inside-outwards assembly for easier servicing work
The frame does not need to be disassembled if your requirements change or if you're carrying out service work.



Smart separation of the seals
The wave-cut profile makes them easy to install and ensures a perfect fit around the cables.

Versatile, high-density assemblies are possible
1-way, 2-way, 3-way and 4-way sealing elements provide you with excellent versatility for your cable management. There are currently numerous different sealing elements made of FDA-compliant TPE that can be used for sealing cables of various diameters and sizes.



Outstanding versatility with optimized frame
The frames and sealing elements can be combined in many ways – ensuring you many versatile configuration options.

Outstanding IP66 seal
Multi-resistant, conically tapered seals feature inner and outer sealing gills.

Integrated strain relief
The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.

Captive gasket
The moulded-in
frame gasket eliminates the risk of incorrect assembly (forgotten gasket) and speeds up the assembly process.

Can be used from -40°C to +80°C
Materials contain no halogen or silicone, suitable for many different requirements.

IP66 | RoHS compliant | Made in Germany | CAD

KDS-SR-FDA Compact

Cable entry system in a compact design

Frame	KDS-SR-FDA-FB1/B	KDS-SR-FDA-FB2/C	KDS-SR-FDA-FB3/E	KDS-SR-FDA-FB4/F
Description	Compact screw frame for 2 small sealing elements	Compact screw frame for 3 small sealing elements	Compact screw frame for 4 small sealing elements	Compact screw frame for 5 small sealing elements
Type / colour	**KDS-SR-FDA-FB1/B BU**	**KDS-SR-FDA-FB2/C BU**	**KDS-SR-FDA-FB3/E BU**	**KDS-SR-FDA-FB4/F BU**
Cat. no. **Qty.**	*29080.5* **10**	*29081.5* **10**	*29082.5* **10**	*29083.5* **10**
Actuating tool	**KDS BW 1**	**KDS BW 1**	**KDS BW 1**	**KDS BW 1**
Cat. no. **Qty.**	*28622.0* **1**	*28622.0* **1**	*28622.0* **1**	*28622.0* **1**
Seals				
small	**See section KDS-DE-FDA**	**See section KDS-DE-FDA**	**See section KDS-DE-FDA**	**See section KDS-DE-FDA**

Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: blue
- Flammability class polyamide: UL 94 V-0
- Flammability class TPE UL 94 HB
- Temperature range: -40°C to +80°C
- Halogen-free, silicone-free
- Protection: IP66

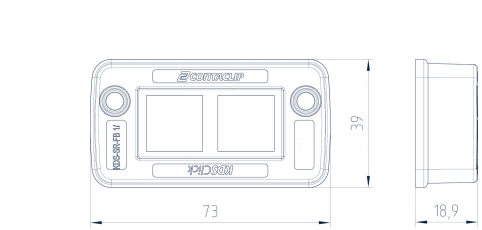
IP66 | RoHS compliant | Made in Germany | CAD

KDS-SR-FDA Compact

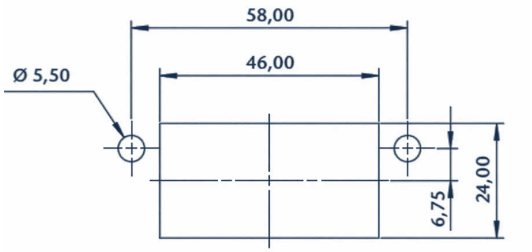
Cable entry system in a compact design
Dimensional diagrams / Mounting cut-outs

KDS-SR-FDA-FB1/B

Dimensional diagram



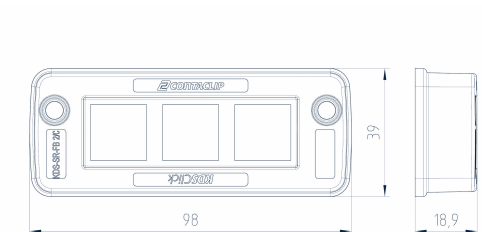
Mounting cut-out



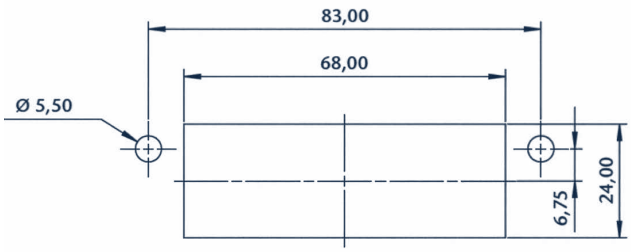
Torque for the frame's mounting screw: 3 Nm

KDS-SR-FDA-FB2/C

Dimensional diagram



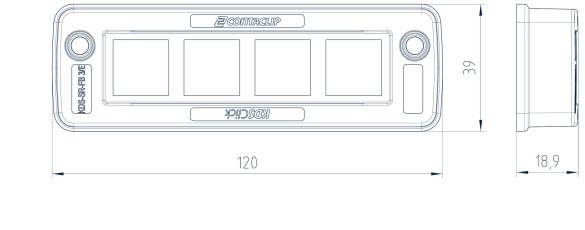
Mounting cut-out



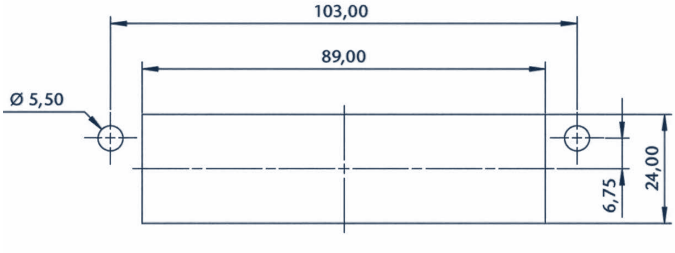
Torque for the frame's mounting screw: 3 Nm

KDS-SR-FDA-FB3/E

Dimensional diagram



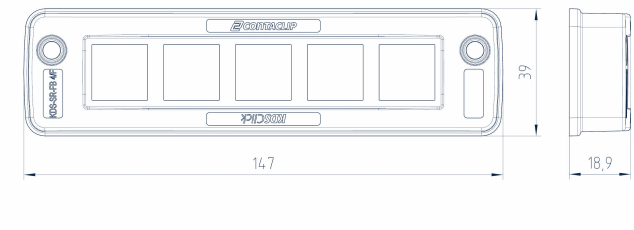
Mounting cut-out



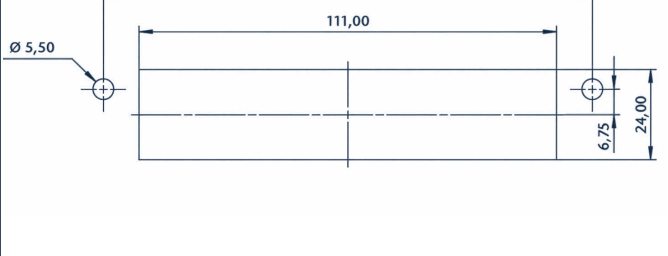
Torque for the frame's mounting screw: 3 Nm

KDS-SR-FDA-FB4/F

Dimensional diagram



Mounting cut-out



Torque for the frame's mounting screw: 3 Nm

KDS-R-FDA
Round cable entries

The **KDS-R-FDA** patented round cable entries for metric cut-outs from M20 to M63 are designed for cables with and without connectors. In cases of maintenance or retrofitting with assembled cable harnesses, cables with diameters from 1.5 mm to 35 mm can be quickly and securely inserted into the electrical cabinets or housings and sealed to IP66 standards. The proven and user-friendly KDS modular system enables fast and straightforward assembly in just three steps. A reliable seal and absolute secure fit is also provided by the slitted, conically tapered sealing elements made of FDA-compliant TPE with a wave-cut profile, which, after the cables are routed through the cable entry, are placed around the cables and then pressed into the round cable entry.

After that, the separable thread and locking adapter on the electrical cabinet exterior is easily screwed together with the round frame. The separable locknuts that are mounted on the interior of the locking elements ensure safe and secure attachment. This system can be used with a wall thickness up to 6 mm.

KDS CLICK by CONTA-CLIP

Your advantages

- Assembled cables can be guided through
- Guarantee retained for assembled cables
- Retrofit: Modernization, retrofitting, and service work can be carried out quickly and easily without dismantling the frame
- High-density assemblies
- Can be installed on standard metric cut-outs
- Protection: IP66

The basic components of the modular system

Frames. Inlays. Thread and splittable locking adapter, Split locknuts. Seals. The modular design – with five basic components – provides more versatility, variability and variety.

1. Round cable entries

The **KDS-R-FDA** round cable entries ensure quick and secure assembly of hoses and electrical cables in switchboxes and electrical cabinets. The gaskets (TPE) integrated into the cable entry also ensure an outstanding seal in accordance with IP66 on painted and rough surfaces.

2 Inlays

The click-in inlays allow flexible sizing of the frame opening to fit the seal in use. An audible "click" confirms a correct installation. You can variably configure cable entries to match various requirements (for cables, lines, tubing, pneumatic and hydraulic lines). The additional FDA-compliant TPE gasket on the inlays ensures a reliable seal on the surfaces between the frame and inlays.

3. Thread and splittable locking adapter

The **KDS-RGA** two-part thread and locking adapter for versatile installation is screwed together with the round cable entry. It is securely screwed onto the round cable entry, creating a form-fit connection. This ensures that the sealing elements and inlays are mechanically secured in place. The threaded section, l ocated inside the electrical cabinet or housing, is available in six standard metric sizes: M20 to M32 and M40 to M63. Since the KDS-RGA is mounted internally, it is made from durable black PA 6.6 material.

4. Split locknuts

The individual parts of the **KDS-GM** locknut can be snapped together quickly and easily via the dovetail guide, which can then be mounted on the round cable entry. Since the KDS-GM is mounted internally, it is made from durable black PA 6.6 material.

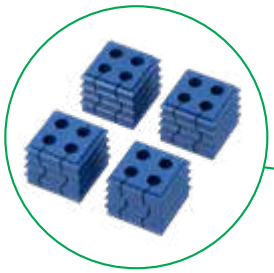
5. Seals

The conical shape of the **KDS-DE / KDS-DEG** sealing element enables easy press-ing-in of the seal, reliable sealing of the gaps and ensures a strain relief in accordance with DIN EN 62444. To attach them, the seals are pressed from the inside out into the openings of the cable entries. Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are currently numerous different sealing elements made of FDA-compliant TPE that can be used for sealing cables of various diameters and sizes.

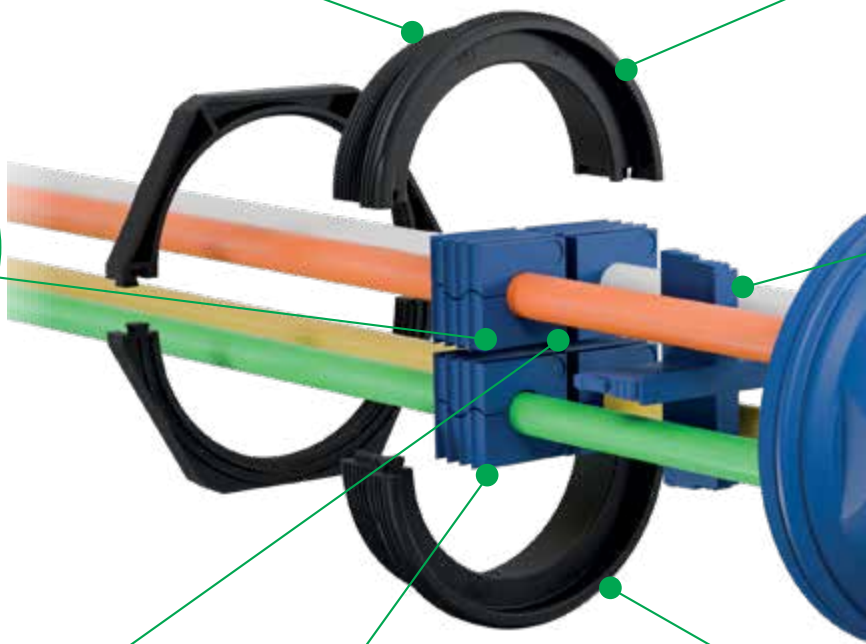
KDS-R-FDA
Round cable entries

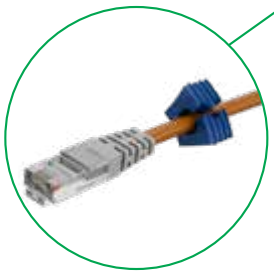
An overview of your advantages

Mounting
The round cable entry is installed without tools.

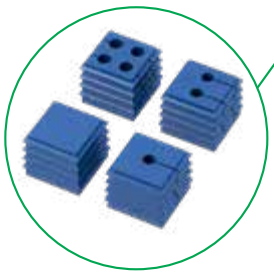


Variability
Up to 16 cables can be fed through thanks to the compatibility of the KDS-R-FDA 40-63 with the KDS inlay FDA 4.





No Warranty Loss with Pre-Assembled Cables
No need to disassemble and re-connect connectors, so manufacturer's warranty is not voided.

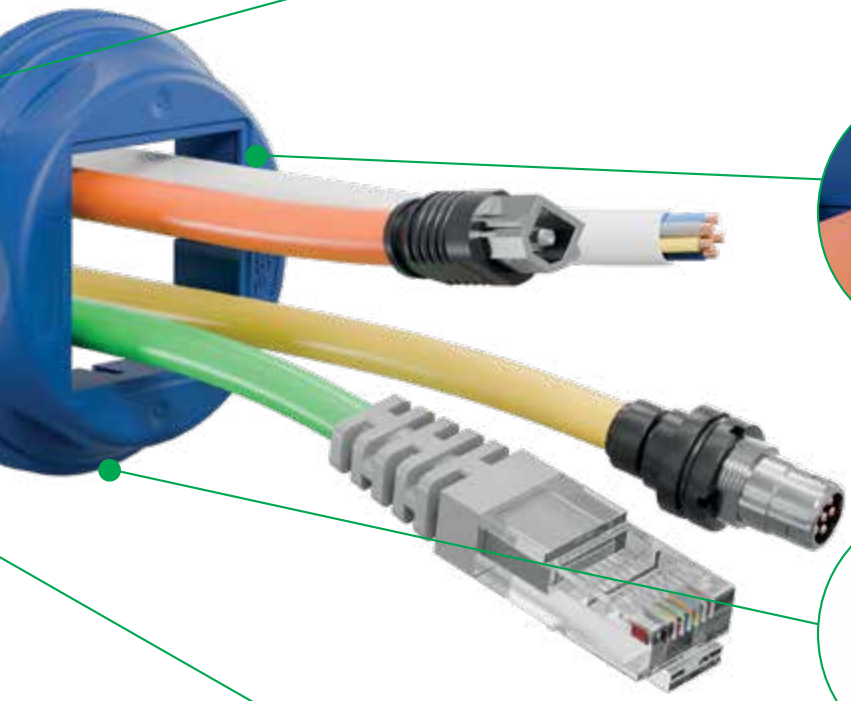


Versatile, high-density assemblies are possible
1-way, 2-way, 3-way and 4-way sealing elements provide you with excellent versatility for your cable management. There are currently numerous different sealing elements made of FDA-compliant TPE that can be used for sealing cables of various diameters and sizes.

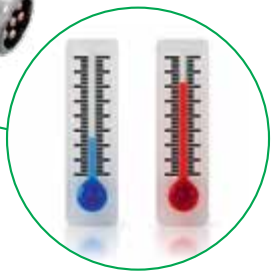
Two round cable entries for six metric cut-out sizes
Thanks to six different thread and locking adapters and two external frame sizes, the metric cut-out sizes M20 to M32 and M40 to M63 can be equipped with the **KDS-R-FDA** modular system. Assembly is carried out from the outside inwards.

IP66

Outstanding IP66 seal
Multi-resistant, conically tapered seals feature inner and outer sealing gills.



Integrated strain relief
The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.



Can be used from -40°C to +80°C
Materials contain no halogen or silicone, suitable for many different requirements.

Facility availability
Maintenance work is possible during operation due to the separation of the thread adapter and the locknut.

IP66 | RoHS compliant | Made in Germany | CAD

KDS-R-FDA
Round cable entries

Round cable entries	KDS-R-FDA 20-32	KDS-RGA M20/25/32	KDS-GM 20/25/32
Description	Round cable entry	Threaded locking adapter	Split locknut
Type / colour	**KDS-R-FDA 20-32 BU**	**KDS-RGA M20 BK**	**KDS-GM M20 BK**
Cat. no. **Qty.**	*29010.5* **10**	*28771.4* **5**	*28616.4* **10**
Type / colour		**\KDS-RGA M25 BK**	**KDS-GM M25 BK**
Cat. no. **Qty.**		*28772.4* **5**	*28617.4* **10**
Type / colour		**KDS-RGA M32 BK**	**KDS-GM M32 BK**
Cat. no. **Qty.**		*28773.4* **5**	*28618.4* **10**
Cable diameter			
KDS-DE	1.5-16 mm	1.5-16 mm	1.5-16 mm
KDS-DEG			
Accessories			
Thread adapters	**KDS-RGA M20 BK**		
Cat. no. **Qty.**	*28771.4* **5**		
Thread adapters	**KDS-RGA M25 BK**		
Cat. no. **Qty.**	*28772.4* **5**		
Thread adapters	**KDS-RGA M32 BK**		
Cat. no. **Qty.**	*28773.4* **5**		
Locknut		**KDS-GM M20 BK**	
Cat. no. **Qty.**		*28616.4* **10**	
Locknut		**KDS-GM M25 BK**	
Cat. no. **Qty.**		*28617.4* **10**	
Locknut		**KDS-GM M32 BK**	
Cat. no. **Qty.**		*28618.4* **10**	
Inlay			
Cat. no. **Qty.**			
Actuating tool	**KDS BW 1**		
Cat. no. **Qty.**	*28622.0* **1**		
Sheet-metal hole punch		**BL KDS-KV M20**	
Cat. no. **Qty.**		*28746.0* **1**	
Sheet-metal hole punch		**BL KDS-KV M25**	
Cat. no. **Qty.**		*28747.0* **1**	
Sheet-metal hole punch		**BL KDS-KV M32**	
Cat. no. **Qty.**		*28748.0* **1**	
Seals			
Small	**See section KDS-DE-FDA**	**See section KDS-DE-FDA**	**See section KDS-DE-FDA**

IP66 | RoHS compliant | Made in Germany | CAD

Round cable entries	KDS-R-FDA 40-63 BK	KDS-RGA M40/50/63	KDS-GM 40/50/63
Description	Round cable entry	Threaded locking adapter	Split locknut
Type / colour	**KDS-R-FDA 40-63 BU**	**KDS-RGA M40 BK**	**KDS-GM M40 BK**
Cat. no. **Qty.**	*29011.5* **4**	*28775.4* **5**	*28619.4* **10**
Type / colour		**KDS-RGA M50 BK**	**KDS-GM M50 BK**
Cat. no. **Qty.**		*28776.4* **5**	*28620.4* **10**
Type / colour		**KDS-RGA M63 BK**	**KDS-GM M63 BK**
Cat. no. **Qty.**		*28777.4* **5**	*28621.4* **10**
Cable diameter			
KDS-DE	1.5-16 mm	1.5-16 mm	1.5-16 mm
KDS-DEG	12-35 mm	12-35 mm	12-35 mm
Accessories			
Thread adapters	**KDS-RGA M40 BK**		
Cat. no. **Qty.**	*28775.4* **5**		
Thread adapters	**KDS-RGA M50 BK**		
Cat. no. **Qty.**	*28776.4* **5**		
Thread adapters	**KDS-RGA M63 BK**		
Cat. no. **Qty.**	*28777.4* **5**		
Locknut		**KDS-GM M40 BK**	
Cat. no. **Qty.**		*28619.4* **10**	
Locknut		**KDS-GM M50 BK**	
Cat. no. **Qty.**		*28620.4* **10**	
Locknut		**KDS-GM M63 BK**	
Cat. no. **Qty.**		*28621.4* **10**	
Inlay	**KDS-Inlay-FDA 4 BU**		
Cat. no. **Qty.**	*29018.5* **5**		
Actuating tool	**KDS BW 1**		
Cat. no. **Qty.**	*28622.0* **1**		
Sheet metal hole punch (see accessories)		**BL KDS-KV M40**	
Cat. no. **Qty.**		*28749.0* **1**	
Sheet metal hole punch (see accessories)		**BL KDS-KV M50**	
Cat. no. **Qty.**		*28750.0* **1**	
Sheet metal hole punch (see accessories)		**BL KDS-KV M63**	
Cat. no. **Qty.**		*28751.0* **1**	
Seals			
Small and large	**See section KDS-DE-FDA and KDS-DEG-FDA**	**See section KDS-DE-FDA and KDS-DEG-FDA**	**See section KDS-DE-FDA and KDS-DEG-FDA**

Tightening torque of locknut:
M20, M25, M32: 3 Nm
M40, M50, M63: 7 Nm

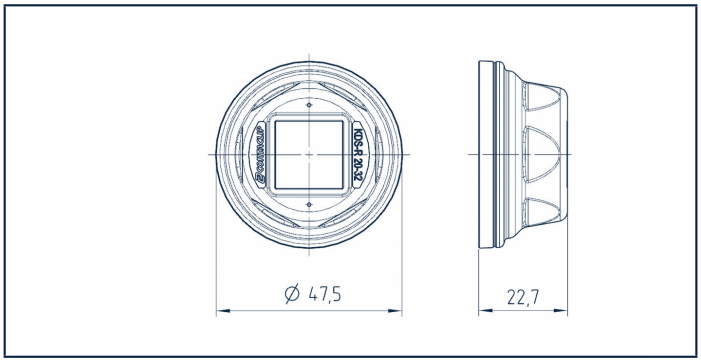
Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: blue
- Flammability class polyamide: UL 94 V-0
- Flammability class TPE UL 94 HB
- Temperature range: -40°C to +80°C
- Halogen-free, silicone-free
- Protection: IP66

KDS-R-FDA

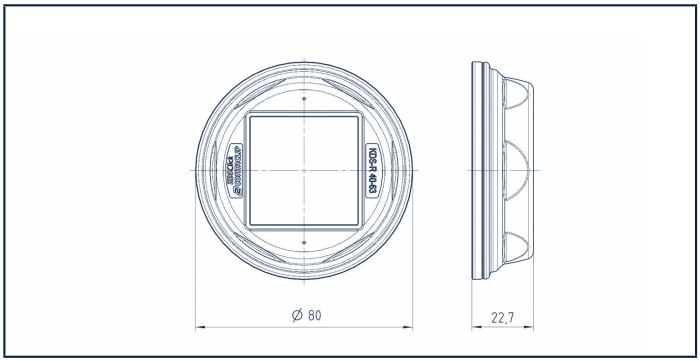
Round cable entries | Dimensional diagrams/Mounting cut-outs

KDS-R-FDA 20-32
Dimensional diagram



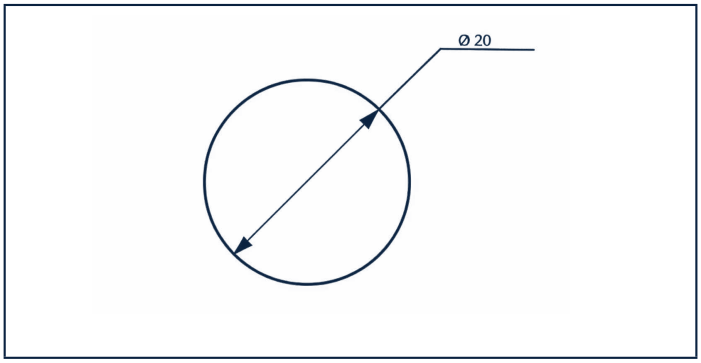
Torque for the frame's mounting screw: 3 Nm

KDS-R-FDA 40-63
Dimensional diagram

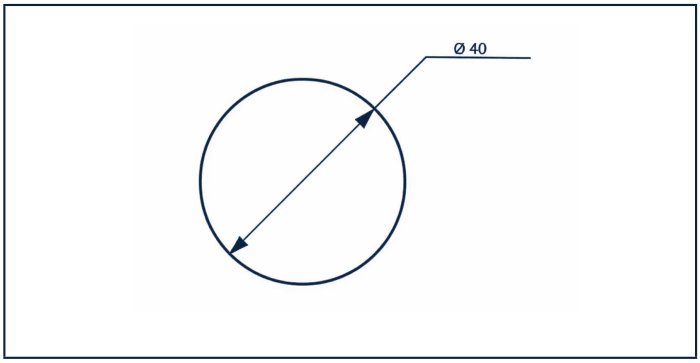


Torque for the frame's mounting screw: 7 Nm

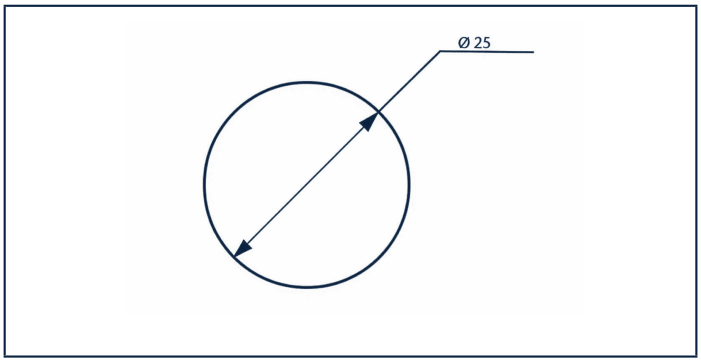
KDS-RGA M20
Mounting cut-out



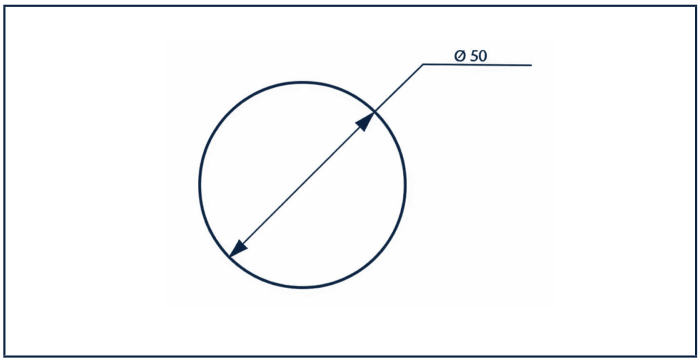
KDS-RGA M40
Mounting cut-out



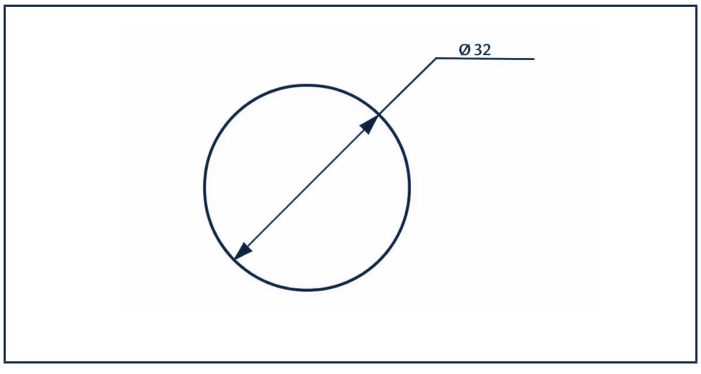
KDS-RGA M25
Mounting cut-out



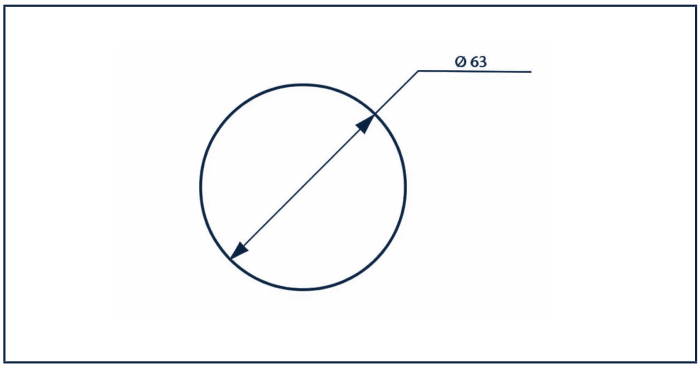
KDS-RGA M50
Mounting cut-out



KDS-RGA M32
Mounting cut-out



KDS-RGA M63
Mounting cut-out



Notes

Compatibility matrix
Sealing elements for round cable entries KDS-R-FDA

KDS-DE-FDA have the dimensions 19.5 x 19.5 mm (small)

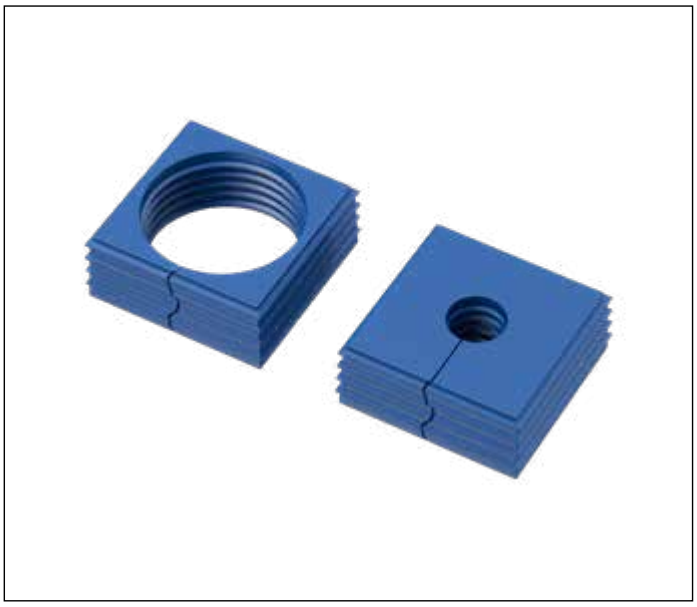
KDS-DEG-FDA have the dimensions 42 x 42 mm (large)

Seals

Blue small

Type	Cat. no.
KDS-DE-FDA/B BU	29020.5
KDS-DE-FDA 1.5 BU	29021.5
KDS-DE-FDA 2 BU	29023.5
KDS-DE-FDA 2-3 BU	29024.5
KDS-DE-FDA 3 BU	29025.5
KDS-DE-FDA 3-4 BU	29026.5
KDS-DE-FDA 4-5 BU	29027.5
KDS-DE-FDA 5-6 BU	29028.5
KDS-DE-FDA 6-7 BU	29029.5
KDS-DE-FDA 7-8 BU	29030.5
KDS-DE-FDA 8-9 BU	29031.5
KDS-DE-FDA 9-10 BU	29032.5
KDS-DE-FDA 10-11 BU	29033.5
KDS-DE-FDA 11-12 BU	29034.5
KDS-DE-FDA 12-13 BU	29035.5
KDS-DE-FDA 13-14 BU	29036.5
KDS-DE-FDA 14-15 BU	29037.5
KDS-DE-FDA 15-16 BU	29038.5
KDS-DE-FDA 2X4-5 BU	29039.5
KDS-DE-FDA 2X5-6 BU	29040.5
KDS-DE-FDA 2X6,5 BU	29041.5
KDS-DE-FDA 2X7 BU	29042.5
KDS-DE-FDA 2X8 BU	29043.5
KDS-DE-FDA 3X4-5 BU	29044.5
KDS-DE-FDA 3X5-6 BU	29045.5
KDS-DE-FDA 4X2-3 BU	29046.5
KDS-DE-FDA 4X3-4 BU	29047.5
KDS-DE-FDA 4X4.5 BU	29048.5
KDS-DE-FDA 4X5 BU	29049.5
KDS-DE-FDA 4X6 BU	29050.5
KDS-DE-FDA/1XASI BU	29051.5
KDS-DE-FDA/2XASI BU	29052.5

Blue large



Type	
KDS-DEG-FDA/B BU	29053.5
KDS-DEG-FDA 12-13 BU	29054.5
KDS-DEG-FDA 14-15 BU	29055.5
KDS-DEG-FDA 15-16 BU	29056.5
KDS-DEG-FDA 16-17 BU	29057.5
KDS-DEG-FDA 17-18 BU	29058.5
KDS-DEG-FDA 18-19 BU	29059.5
KDS-DEG-FDA 19-20 BU	29060.5
KDS-DEG-FDA 20-21 BU	29061.5
KDS-DEG-FDA 21-22 BU	29062.5
KDS-DEG-FDA 22-23 BU	29063.5
KDS-DEG-FDA 23-24 BU	29064.5
KDS-DEG-FDA 24-25 BU	29065.5
KDS-DEG-FDA 25-26 BU	29066.5
KDS-DEG-FDA 26-27 BU	29067.5
KDS-DEG-FDA 27-28 BU	29068.5
KDS-DEG-FDA 28-29 BU	29069.5
KDS-DEG-FDA 29-30 BU	29070.5
KDS-DEG-FDA 30-31 BU	29071.5
KDS-DEG-FDA 31-32 BU	29072.5
KDS-DEG-FDA 32-33 BU	29073.5
KDS-DEG-FDA 33-34 BU	29074.5
KDS-DEG-FDA 34-35 BU	29075.5

Round cable entries KDS-R-FDA

KDS-R-FDA 20 – 32			KDS-R-FDA 40 – 63		
KDS-R-FDA M20	KDS-R-FDA M25	KDS-R-FDA M32	KDS-R-FDA M40	KDS-R-FDA M50	KDS-R-FDA M63
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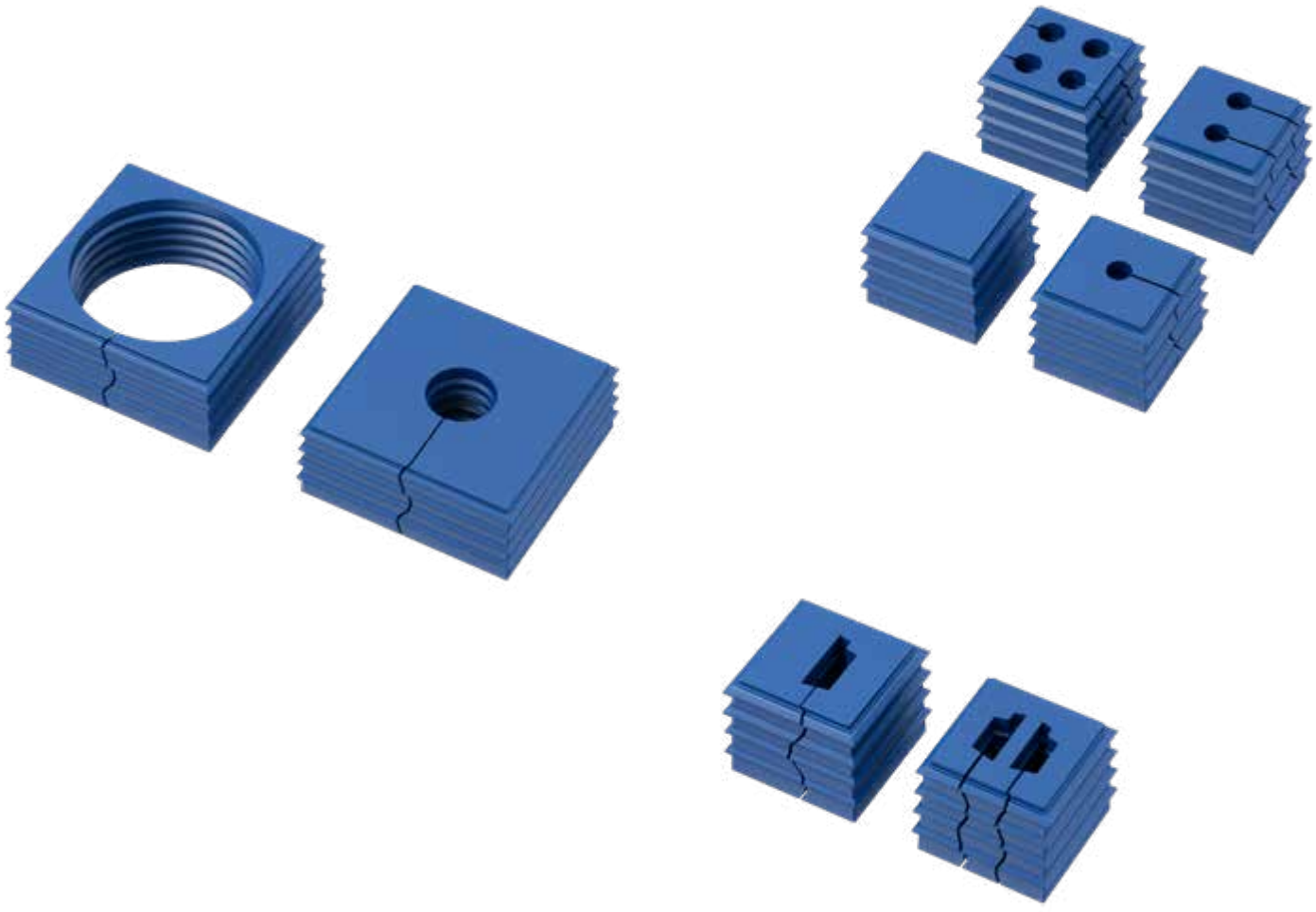
KDS-DE-FDA and KDS-DEG-FDA

Sealing elements for cable entry systems KDS

The conical shape of the **KDS-DE-FDA** (small) / **KDS-DEG-FDA** (large) sealing element enables user-friendly insertion of the sealing element, reliable sealing of the gaps and ensures a static strain relief in accordance with DIN EN 62444. To attach them, the sealing elements are pressed into the openings of the cable entries. Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are currently numerous different sealing elements made of FDA-compliant TPE that can be used for sealing cables of various diameters and sizes.

The blue sealing elements (small) cover the diameter range from 1.5 to 16 mm and the blue sealing elements (large) cover the diameter range from 12 to 35 mm. Dummy elements can be used to seal unused sealing element slots.



Your advantages

- Smart division of sealing elements using a wave-cut profile
- Versatile, high-density assemblies are possible
- High level of sealing in combination with frame and inlay: Protection class IP66
- Integrated strain relief
- Available in two different sizes

KDS-DE-FDA and KDS-DEG-FDA

Sealing elements for cable entry systems KDS

An overview of your advantages

No loss of guarantee when using assembled cables

No need to disassemble and reconnect connectors, so the manufacturer's warranty is not voided.

Versatile, high-density assemblies are possible

1-way, 2-way, 3-way and 4-way sealing elements provide you with excellent versatility for your cable management. There are currently numerous different sealing elements made of FDA-compliant TPE that can be used for sealing cables of various diameters and sizes.

Integrated strain relief

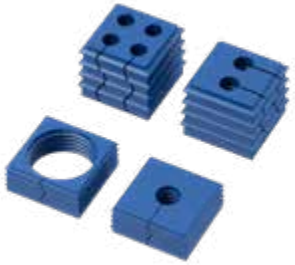
The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.

Outstanding IP66 seal

The conically tapered shape of the sealing elements with inner and outer sealing gills in combination with the frame and inlays ensures a high level of sealing.

Smart separation of the seals

The wave-cut profile makes them easy to install and ensures a perfect fit around the cables.

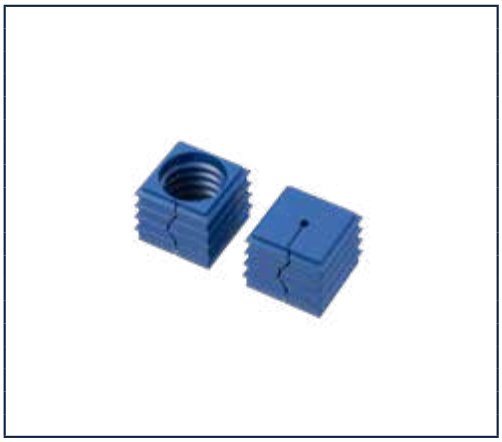


Sealing elements are available in two different sizes

KDS-DE-FDA 19.5 x 19.5 mm for cable diameters from 1.5 to 16 mm
KDS-DEG-FDA 42 x 42 mm for cable diameters from 12 to 35 mm

FDA sealing elements KDS systems

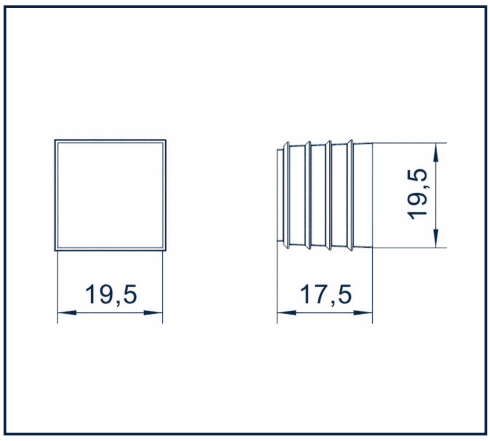
Seals



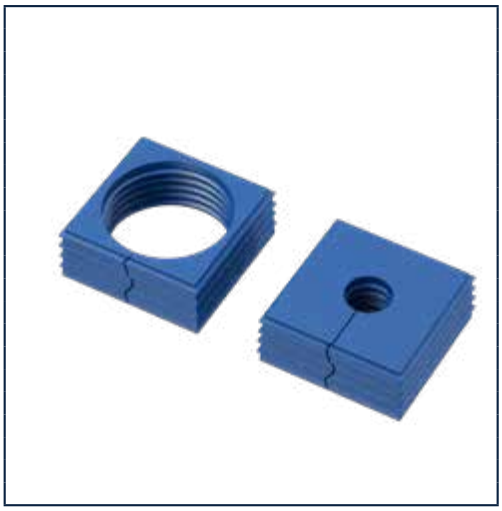
Blue small

Type	Cat. no.	Qty.	Max. Ø
KDS-DE-FDA/B BU	29020.5	10	Blind
KDS-DE-FDA 1.5 BU	29021.5	10	1.5 mm
KDS-DE-FDA 2 BU	29023.5	10	2 mm
KDS-DE-FDA 2-3 BU	29024.5	10	3 mm
KDS-DE-FDA 3 BU	29025.5	10	3 mm
KDS-DE-FDA 3-4 BU	29026.5	10	4 mm
KDS-DE-FDA 4-5 BU	29027.5	10	5 mm
KDS-DE-FDA 5-6 BU	29028.5	10	6 mm
KDS-DE-FDA 6-7 BU	29029.5	10	7 mm
KDS-DE-FDA 7-8 BU	29030.5	10	8 mm
KDS-DE-FDA 8-9 BU	29031.5	10	9 mm
KDS-DE-FDA 9-10 BU	29032.5	10	10 mm
KDS-DE-FDA 10-11 BU	29033.5	10	11 mm
KDS-DE-FDA 11-12 BU	29034.5	10	12 mm
KDS-DE-FDA 12-13 BU	29035.5	10	13 mm
KDS-DE-FDA 13-14 BU	29036.5	10	14 mm
KDS-DE-FDA 14-15 BU	29037.5	10	15 mm
KDS-DE-FDA 15-16 BU	29038.5	10	16 mm

Dimensional drawings

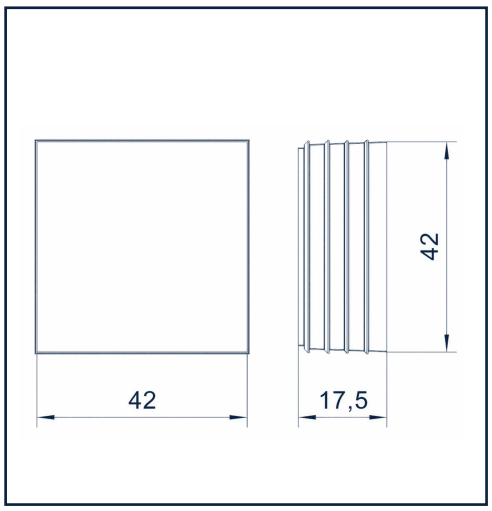


Seals

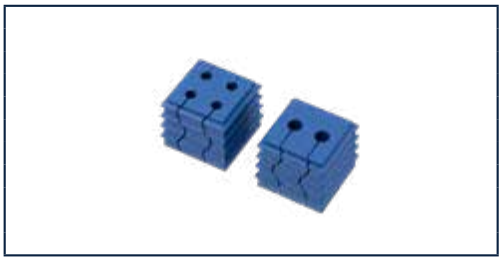


Blue large

KDS-DEG-FDA/B BU	29053.5	10	Blind
KDS-DEG-FDA 12-13 BU	29054.5	10	13 mm
KDS-DEG-FDA 14-15 BU	29055.5	10	15 mm
KDS-DEG-FDA 15-16 BU	29056.5	10	16 mm
KDS-DEG-FDA 16-17 BU	29057.5	10	17 mm
KDS-DEG-FDA 17-18 BU	29058.5	10	18 mm
KDS-DEG-FDA 18-19 BU	29059.5	10	19 mm
KDS-DEG-FDA 19-20 BU	29060.5	10	20 mm
KDS-DEG-FDA 20-21 BU	29061.5	10	21 mm
KDS-DEG-FDA 21-22 BU	29062.5	10	22 mm
KDS-DEG-FDA 22-23 BU	29063.5	10	23 mm
KDS-DEG-FDA 23-24 BU	29064.5	10	24 mm
KDS-DEG-FDA 24-25 BU	29065.5	10	25 mm
KDS-DEG-FDA 25-26 BU	29066.5	10	26 mm
KDS-DEG-FDA 26-27 BU	29067.5	10	27 mm
KDS-DEG-FDA 27-28 BU	29068.5	10	28 mm
KDS-DEG-FDA 28-29 BU	29069.5	10	29 mm
KDS-DEG-FDA 29-30 BU	29070.5	10	30 mm
KDS-DEG-FDA 30-31 BU	29071.5	10	31 mm
KDS-DEG-FDA 31-32 BU	29072.5	10	32 mm
KDS-DEG-FDA 32-33 BU	29073.5	10	33 mm
KDS-DEG-FDA 33-34 BU	29074.5	10	34 mm
KDS-DEG-FDA 34-35 BU	29075.5	10	35 mm

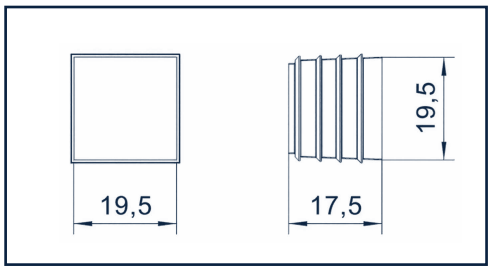


Seals with multiple holes



Blue multiple

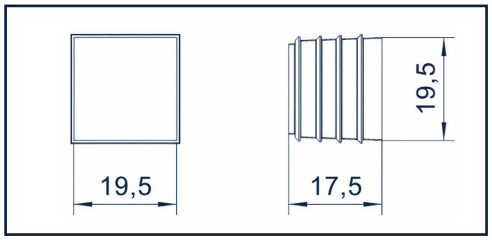
KDS-DE-FDA 2X4-5 BU	29039.5	10	5 mm
KDS-DE-FDA 2X5-6 BU	29040.5	10	6 mm
KDS-DE-FDA 2X6,5 BU	29041.5	10	6.5 mm
KDS-DE-FDA 2X7 BU	29042.5	10	7 mm
KDS-DE-FDA 2X8 BU	29043.5	10	8 mm
KDS-DE-FDA 3X4-5 BU	29044.5	10	5 mm
KDS-DE-FDA 3X5-6 BU	29045.5	10	6 mm
KDS-DE-FDA 4X2-3 BU	29046.5	10	3 mm
KDS-DE-FDA 4X3-4 BU	29047.5	10	4 mm
KDS-DE-FDA 4X4.5 BU	29048.5	10	4.5 mm
KDS-DE-FDA 4X5 BU	29049.5	10	5 mm
KDS-DE-FDA 4X6 BU	29050.5	10	6 mm



Seals for AS interface cables

Blue

KDS-DE-FDA/1XASI BU	29051.5	10	
KDS-DE-FDA/2XASI BU	29052.5	10	

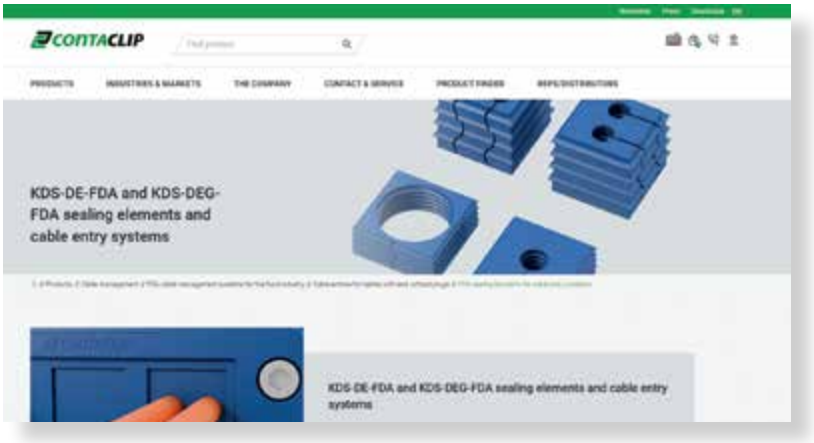


Features

- Material: FDA-compliant blue TPE
- Flammability: UL 94 HB
- Temperature range: -40°C to +80°C (static)
- Halogen-free, silicone-free
- IP66 protection

IP66 | RoHS compliant | Made in Germany | CAD

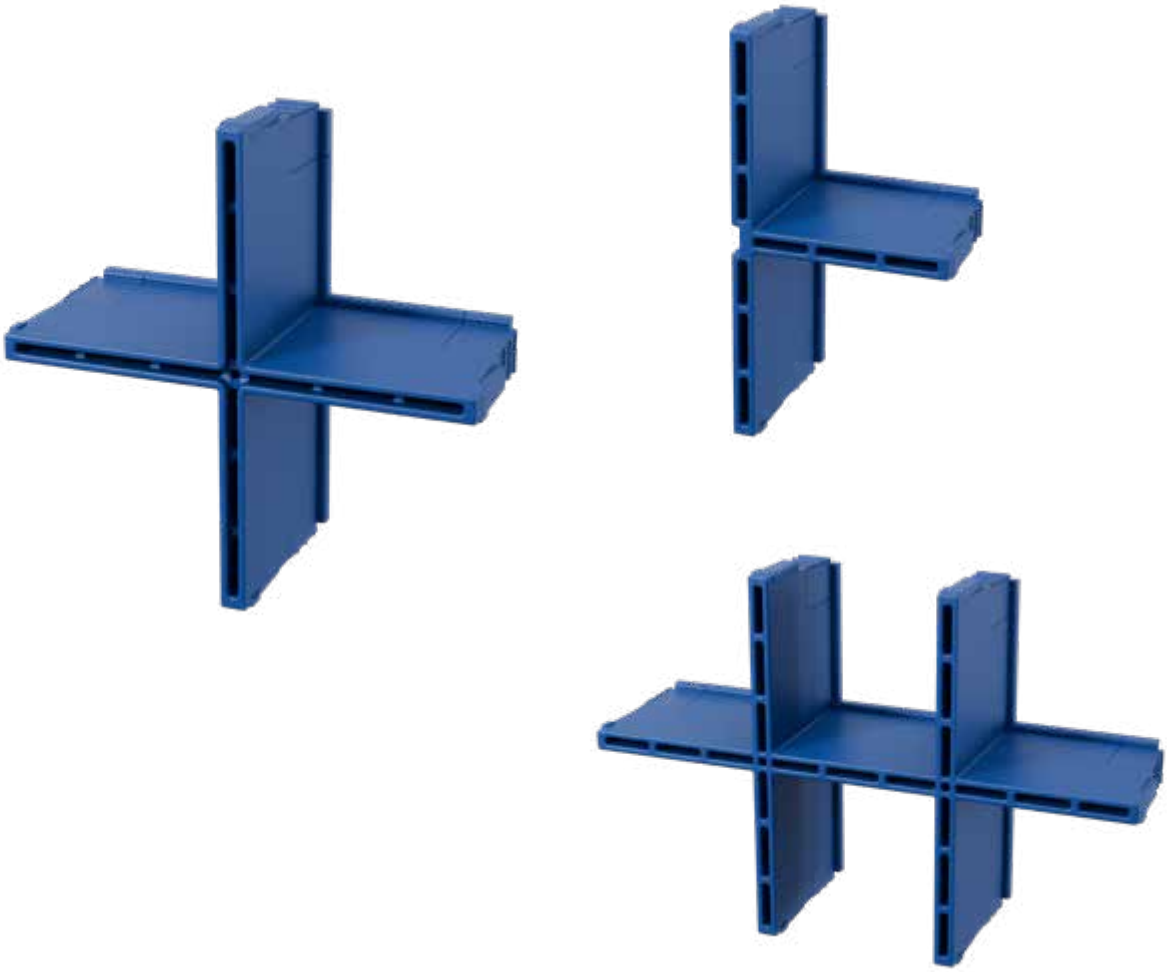
More information on FDA sealing elements at:



Notes

KDS-Inlays-FDA
Inlays for cable entry systems

The patented, click-in inlays enable needs-based dimensioning of the frame opening, corresponding to the sealing element being used. An audible "click" confirms a correct installation. You can variably configure cable entries to match various requirements (for cables, lines, tubing, pneumatic and hydraulic lines).



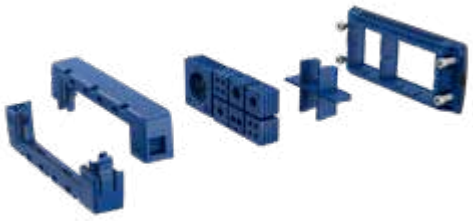
Your advantages

- Modular system for all cable entry systems
- Outstanding versatility with optimized warehousing
- Safe quick installation with feedback
- The frames, inlays and sealing elements can be combined easily through versatile configuration options

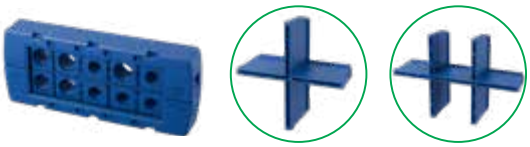
KDS-Inlays-FDA
Inlays for cable entry systems

An overview of your advantages

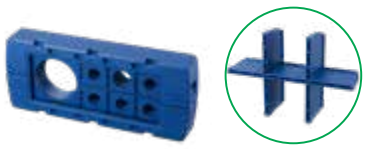
Modular design enables maximum flexibility with optimised warehousing
The frames, inlays and sealing elements can be combined in many ways ensuring you many versatile configuration options.



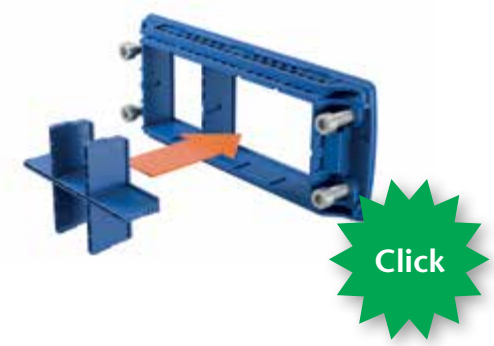
Example 1: Configuration for ten small sealing elements
KDSI-SR-FDA 10/24 BU + 1 x KDS-Inlay-FDA 4 BU and 1 x KDS-Inlay-FDA 6 BU + ten small sealing elements



Example 2: Configuration for one large and six small sealing elements
KDSI-SR-FDA 10/24 BU + 1 x KDS-Inlay-FDA 6 BU + six small sealing elements + one large sealing element



Safe quick installation with feedback
An audible "click" confirms that the inlay has been properly installed in the frame.

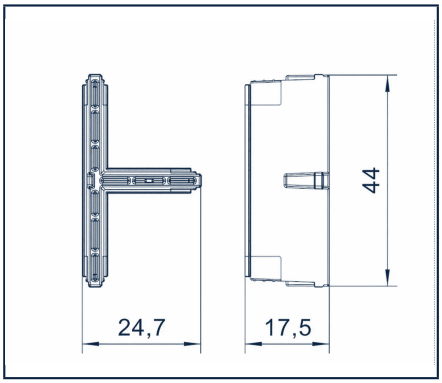


Two-component design guarantees impermeability to IP66
The additional TPE gasket of the inlays ensures a reliable seal on the surfaces between the frame and inlays in combination with sealing elements.

KDS-Inlays-FDA
Inlays for cable entry systems

KDS-Inlay-FDA 2 BU

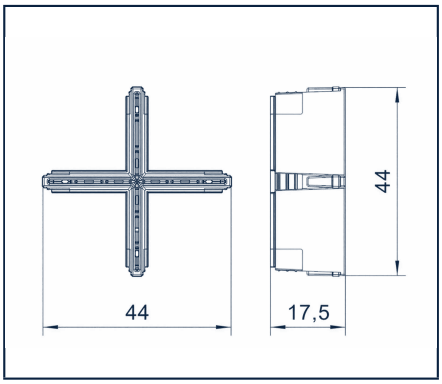
Dimensional drawings



Description	For 2-way divisions
Type / colour	KDS-Inlay-FDA 2 BU
Cat. no.	*29017.5*
Qty.	5

KDS-Inlay-FDA 4 BU

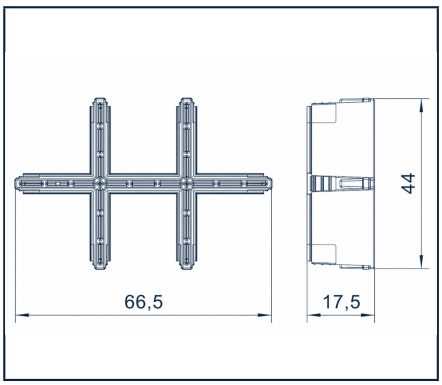
Dimensional drawings



Description	For 4-way divisions
Type / colour	KDS-Inlay-FDA 4 BU
Cat. no.	*29018.5*
Qty.	5

KDS-Inlay-FDA 6 BU

Dimensional drawings



Description	For 6-way divisions
Type / colour	KDS-Inlay-FDA 6 BU
Cat. no.	*29019.5*
Qty.	5

Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour polyamide: Blue | Colour TPE: Blue
- Flammability class polyamide: UL 94 V-0
- Flammability class blue TPE UL 94 HB
- Temperature range: -40°C to +80°C
- Halogen-free, silicone-free
- Protection: IP66

IP66

RoHS compliant

Made in Germany

CAD

KDS-BP-FDA
Blanking plates

Blanking plates

The **KDS-BP-FDA** blanking plates provide a simple method for securely closing existing wall cut-outs for the **KDS** or **KES** systems. They are made of glass-fibre reinforced PA 6.6 material which enables excellent impact resistance. An injected, all-round gasket made of TPE ensures a reliable IP66 protective seal.

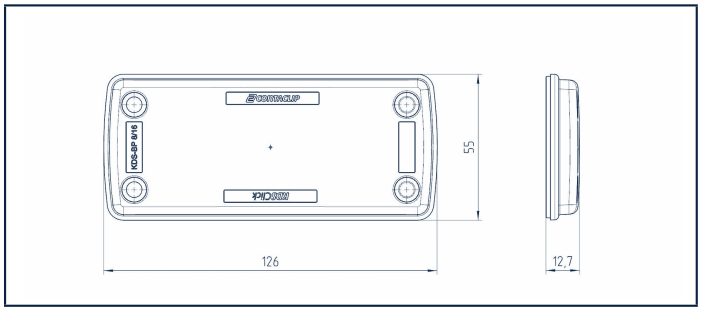
	KDS-BP-FDA 8/16	KDS-BP-FDA 10/24
Description	Blanking plate	Blanking plate
Type / colour	**KDS-BP-FDA 8/16 BU**	**KDS-BP-FDA 10/24 BU**
Cat. no. **Qty.**	*29084.5* **10**	*29085.5* **10**
Dimensions, mm		
Length x Width:	126 x 55	153 x 55
Installation height	11.5	11.5
Dimensions for mounting cut-out (mm)		
KDSClick	91 x 46	113.5 x 46
Standard cut-outs	86 x 36	112 x 36
Accessories		
Sheet-metal hole punch	**BL-VA KDS-SR 8/16**	**BL-VA KDS-SR 10/24**
Cat. no. **Qty.**	*28685.0* **1**	*28686.0* **1**

Example cut-out

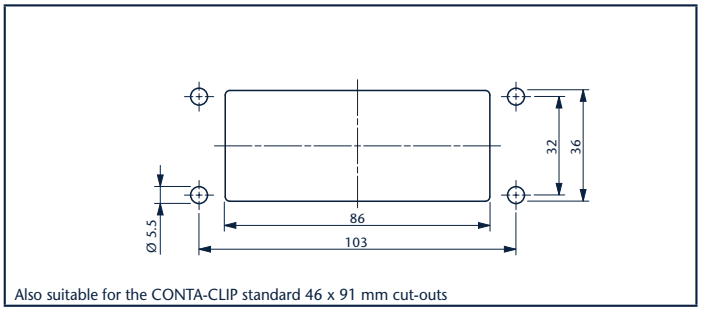
KDS-BP-FDA
Dimensional diagrams / Mounting cut-out for cable entries

KDS-BP-FDA 8/16

Dimensional diagram



Mounting cut-out

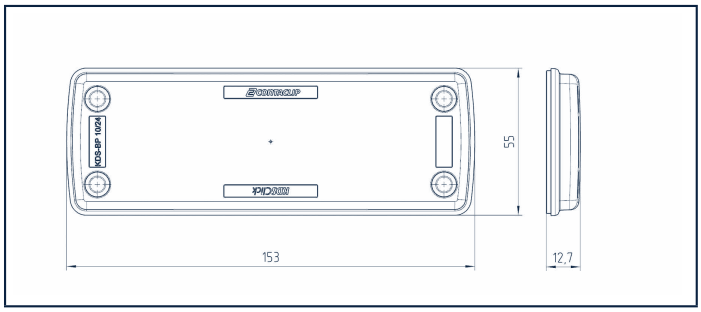


Also suitable for the CONTA-CLIP standard 46 x 91 mm cut-outs

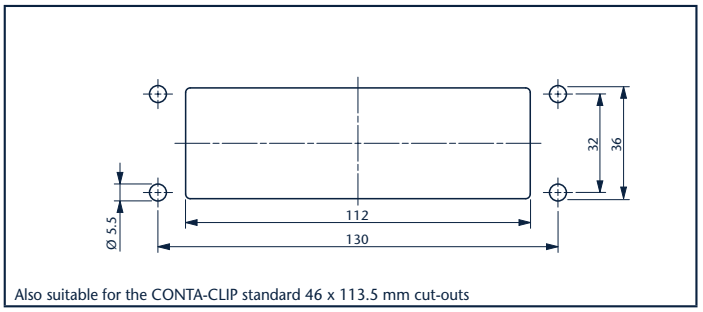
Torque for the frame's mounting screw: 3 Nm

KDS-BP-FDA 10/24

Dimensional diagram



Mounting cut-out



Also suitable for the CONTA-CLIP standard 46 x 113.5 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour polyamide: Blue | Colour TPE: Black (seal)
- Flammability class polyamide: UL 94 V-0
- Flammability class black TPE UL 94 V-0
- Temperature range: -40°C to +120°C
- Halogen-free, silicone-free
- Protection: IP66

IP66 | RoHS compliant | Made in Germany | CAD

KES-GB-FDA
Cable entries

In the food industry, there are strict hygiene regulations which require that all surfaces in the immediate vicinity of the process can be cleaned easily, thoroughly and without abrasion. Of course, these cover the cable entries and cable glands that seal the passages of cables and hoses into the interior of machine housings or switchgear. These must not have any rough surfaces, crevices or cracks that could promote germ build-up.
The housing materials and sealing systems must also be able to withstand frequent cleaning processes, even when aggressive chemicals are used.

The cable entry plates from our **KES-GB-FDA** series meet the requirements for use in food production applications. They enable the reliable sealing of up to 40 cables in a very confined space.

Your advantages

- Can be screwed/snapped on
- Outstanding stability
- Outstanding strain relief
- Simple assembly
- High-density assemblies
- Two-way seal
- Hygienic design: no dirt-prone niches
- Wide variety
- UL-listed plastic materials
- Protection: IP66

Two components

The **KES-GB-FDA** system consists of two components. The inner core, made of polyamide PA 6.6 GF, is crucial for the stability and strain relief; it is over-moulded in the sealing areas with FDA-compliant TPE to ensure an IP66 protective seal.

Many cables in a confined space

Many cables (with various diameters from 3.2 to 20.5 mm) can be inserted in a confined space and double sealed (IP66) thanks to the special construction of the conical grommets.

Screw-on mount with threaded bushes and latching clips

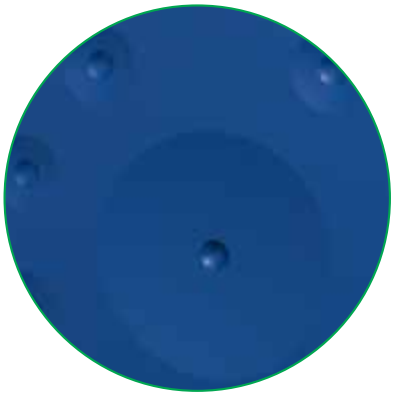
The **KES-GB-FDA** system uses threaded bushes and latching clips from the inside as the attachment mechanism. The corresponding membrane must be pierced (center point is marked) to insert the cables.

IP66 | RoHS compliant | Made in Germany | CAD

KES-GB-FDA
Cable entries

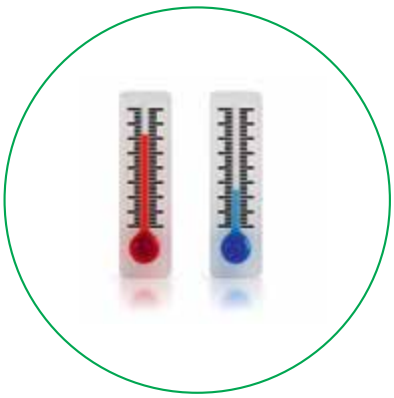
An overview of your advantages

High-density assemblies
In contrast to the classic cable gland, the **KES-GB-FDA** allows many cables, hoses and lines to be installed in a space-saving manner, even in cramped installation conditions.



Very precise
The piercing points are clearly marked so that cables and hoses can be centred precisely.

Integrated strain relief
A multi-layered membrane cone grommet The special geometry ensures a high degree of strain relief for the cables complies with DIN EN 62444.



Can be used from -40°C to +80°C
Materials contain no halogen or silicone; suitable for many different applications.

IP66 | RoHS compliant | Made in Germany | CAD

More information on KES-GB-FDA can be found here:

Notes

KES-GB-FDA
Cable entries

Cable entries	KES-GB-FDA 13/24	KES-GB-FDA 14/24	KES-GB-FDA 16/24
Mounting type			
Screw fastening with pressed-in threaded bush and snap-in latching clips.			
Type / colour	**KES-GB-FDA 13/24 BU**	**KES-GB-FDA 14/24 BU**	**KES-GB-FDA 16/24 BU**
Cat. no. **Qty.**	*28900.5* **10**	*28901.5* **10**	*28902.5* **10**
Connection data			
Number of cables x cable diameter (mm)	10 x 3.2 – 6.3 3 x 16 – 20.5	5 x 3.2 – 6.3 2 x 4 – 7.5 3 x 5.5 – 10.5 1 x 8 – 12.5 3 x 12 – 16.2	8 x 3.2 – 5.5 6 x 5 – 8.5 2 x 9.5 – 14.5
Features			
Material of frame / sealing plate	PA 6.6 GF / elastomer	PA 6.6 GF / elastomer	PA 6.6 GF / elastomer
Temperature range	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C
Protection	IP66	IP66	IP66
Flammability class	UL 94 HB	UL 94 HB	UL 94 HB
Accessories			
Sheet-metal hole punch	**BL KES**	**BL KES**	**BL KES**
Cat. no. **Qty.**	*28744.0* **1**	*28744.0* **1**	*28744.0* **1**
Diagram	**See the following pages**	**See the following pages**	**See the following pages**

IP66 | RoHS compliant | Made in Germany | CAD

KES-GB-FDA 16-1/24	KES-GB-FDA 17/24	KES-GB-FDA 20/24	KES-GB-FDA 21/24	KES-GB-FDA 32/24
KES-GB-FDA 16-1/24 BU	**KES-GB-FDA 17/24 BU**	**KES-GB-FDA 20/24 BU**	**KES-GB-FDA 21/24 BU**	**KES-GB-FDA 32/24 BU**
28903.5 **10**	*28904.5* **10**	*28905.5* **10**	*28906.5* **10**	*28907.5* **10**
2 x 3.2–6.3 9 x 4–7.5 1 x 5.5 – 10.5 1 x 8–12.5 3 x 12 – 16.2	4 x 3.2–6.3 2 x 4 – 7.5 1 x 5.5 – 10.5 10 x 8 – 12.5	12 x 3.2 – 6.3 8 x 5.5 – 10.5	1 x 3.2 – 6.3 14 x 4 – 7.5 4 x 5.5 – 10.5 2 x 8 – 12.5	32 x 3.2 – 6.3
PA 6.6 GF / elastomer -40°C to +80°C IP66 UL 94 HB	PA 6.6 GF / elastomer -40°C to +80°C IP66 UL 94 HB	PA 6.6 GF / elastomer -40°C to +80°C IP66 UL 94 HB	PA 6.6 GF / elastomer -40°C to +80°C IP66 UL 94 HB	PA 6.6 GF / elastomer -40°C to +80°C IP66 UL 94 HB
BL KES	**BL KES**	**BL KES**	**BL KES**	**BL KES**
28744.0 **1**	*28744.0* **1**	*28744.0* **1**	*28744.0* **1**	*28744.0* **1**
See the following pages	**See the following pages**	**See the following pages**	**See the following pages**	**See the following pages**

Features

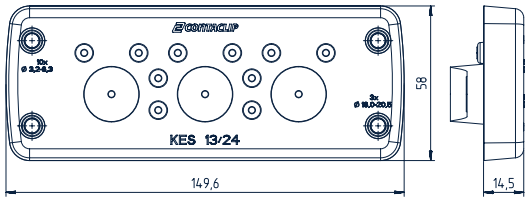
- Material: polyamide PA 6.6, glass-fibre reinforced | FDA-compliant TPE
- Flammability class polyamide: UL 94 V-0
- Flammability class blue TPE UL 94 HB
- Temperature range: -40°C to +80°C
- Halogen-free, silicone-free
- Protection class snap-on: IP54
- Protection class screwed: IP66

KES-GB-FDA
Cable entries |
Dimensional diagrams / Mounting cut-outs

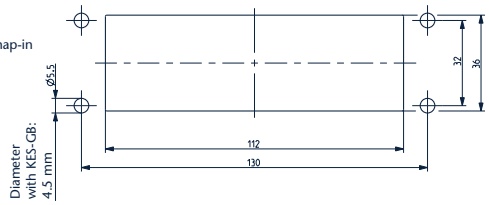
KES-GB-FDA 13/24

Dimensional diagram

KES 13/24
10 x Ø 3.2 – 6.3 mm
3 x Ø 16 – 20.5 mm



Mounting cut-out

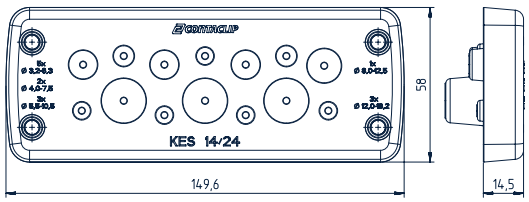


Torque for the frame's mounting screws: 2.5 – 3 Nm

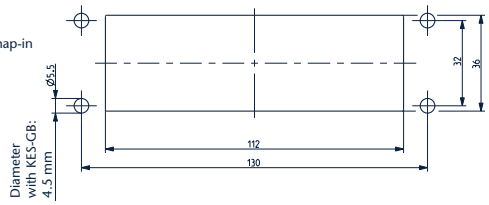
KES-GB-FDA 14/24

Dimensional diagram

KES 14/24
5 x Ø 3.2 – 6.3 mm
2 x Ø 4.0 – 7.5 mm
3 x Ø 5.5 – 10.5 mm
1 x Ø 8.0 – 12.5 mm
3 x Ø 12 – 16.2 mm



Mounting cut-out

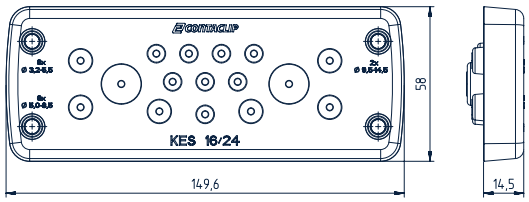


Torque for the frame's mounting screws: 2.5 – 3 Nm

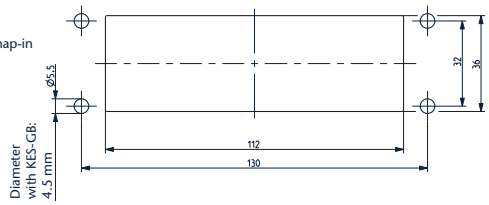
KES-GB-FDA 16/24

Dimensional diagram

KES 16/24
8 x Ø 3.2 – 5.5 mm
6 x Ø 5.0 – 8.5 mm
2 x Ø 9.5 – 14.5 mm



Mounting cut-out

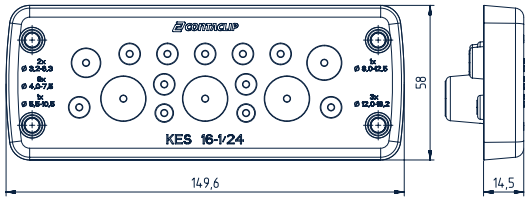


Torque for the frame's mounting screws: 2.5 – 3 Nm

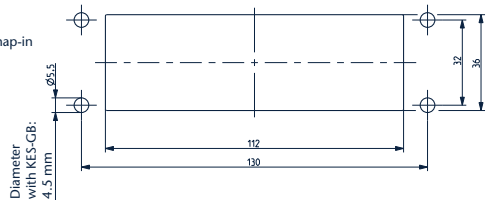
KES-GB-FDA 16-1/24

Dimensional diagram

KES 16-1/24
2 x Ø 3.2 – 6.3 mm
9 x Ø 4.0 – 7.5 mm
1 x Ø 5.5 – 10.5 mm
1 x Ø 8.0 – 12.5 mm
3 x Ø 12 – 16.2 mm



Mounting cut-out

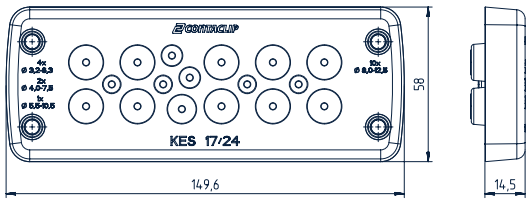


Torque for the frame's mounting screws: 2.5 – 3 Nm

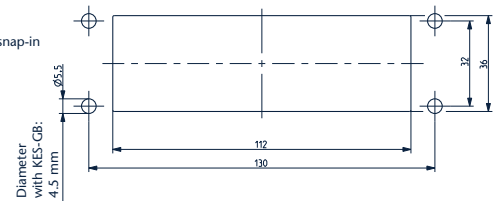
KES-GB-FDA 17/24

Dimensional diagram

KES 17/24
4 x Ø 3.2 – 6.3 mm
2 x Ø 4.0 – 7.5 mm
1 x Ø 5.5 – 10.5 mm
10 x Ø 8.0 – 12.5 mm



Mounting cut-out

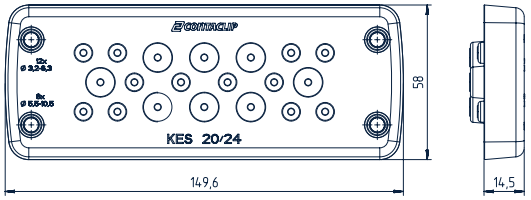


Torque for the frame's mounting screws: 2.5 – 3 Nm

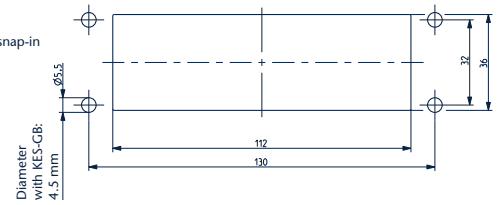
KES-GB-FDA 20/24

Dimensional diagram

KES 20/24
12 x Ø 3.2 – 6.3 mm
8 x Ø 5.5 – 10.5 mm



Mounting cut-out

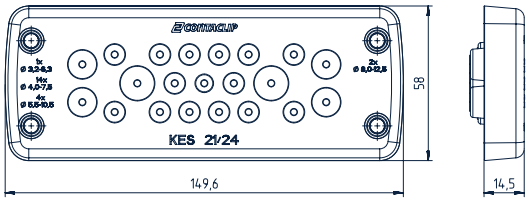


Torque for the frame's mounting screws: 2.5 – 3 Nm

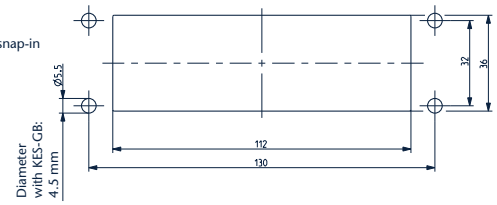
KES-GB-FDA 21/24

Dimensional diagram

KES 20/24
1 x Ø 3.2 – 6.3 mm
14 x Ø 4.0 – 7.5 mm
4 x Ø 5.5 – 10.5 mm
2 x Ø 8.0 – 12.5 mm



Mounting cut-out

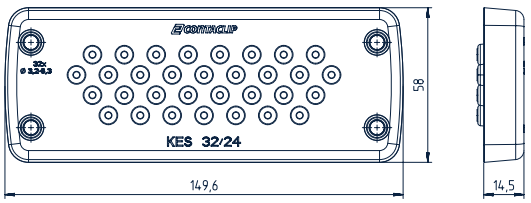


Torque for the frame's mounting screws: 2.5 – 3 Nm

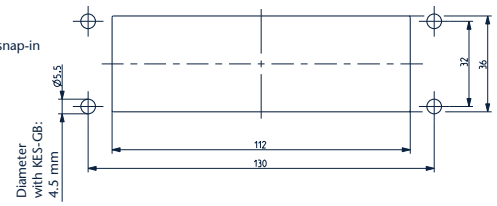
KDS-GB-FDA KES 32/24

Dimensional diagram

KES 32/24
32 x Ø 3.2 – 6.3 mm



Mounting cut-out

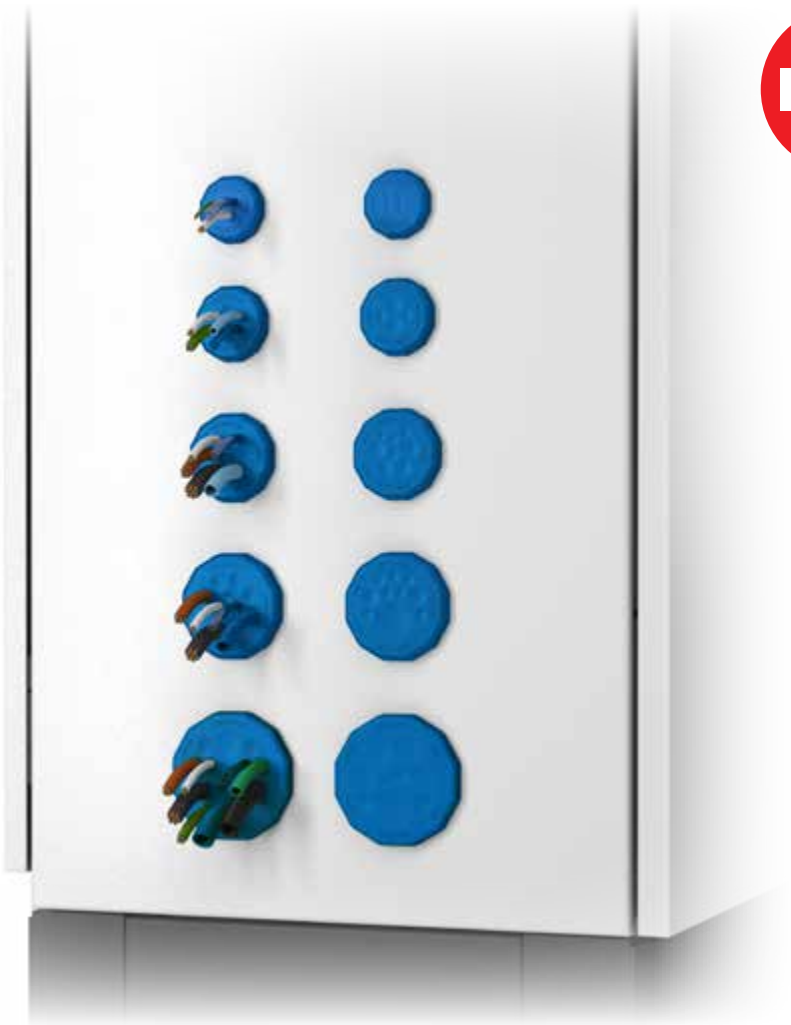


Torque for the frame's mounting screws: 2.5 – 3 Nm

KES-R-FDA M
Round cable entries

The **KES-R-FDA M** cable entries, with CONTA-CLIP's distinctive dodecagon design, are snapped directly from the outside onto a rounded cut-out hole from M25 to M63. If the wall is thicker, or if you need a tighter seal up to protection class IP66, then you can also use a locknut to secure the entries from the inside of the panel.

The assembly takes just seconds. Speed up your installation by using the different variants of the KES cable entry system. Simply pierce the sealing membrane at the marked point and insert the electrical cables and pneumatic tubes!



IP66

Your advantages

- Hygienic design
- Snap-on and screw-on
- Outstanding strain relief
- Simple assembly
- High-density assemblies
- Double seal using the inner tulips
- Protection class: IP66 in combination with locknut, IP54 in combination with detent

Features

- Material: polyamide PA 6.6, glass-fibre reinforced | FDA-compliant TPE
- Flammability class polyamide: UL 94 V-0
- Flammability class blue TPE UL 94 HB
- Temperature range: -40°C to +80°C
- Halogen-free, silicone-free
- Protection class snap-on: IP54
- Protection class screwed: IP66

KES-R-FDA M
Round cable entries

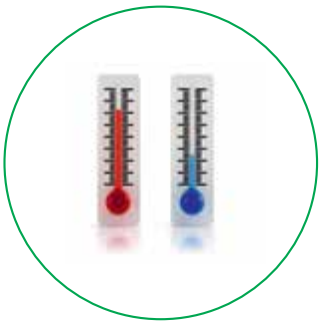
An overview of your advantages

High-density assemblies
In contrast to the classic cable gland, the **KES-R-FDA M** allows many cables, hoses and lines to be installed in a space-saving manner, even in cramped installation conditions.

Very precise
The piercing points are clearly marked so that cables and hoses can be centred precisely.

Snap-on assembly
The **KES-R-FDA M** are snapped directly from the outside into a round cut-out from M25 to M63 and thus achieve protection class IP54.

Screw-on assembly
If the wall is thicker, or if you need a tighter seal in accordance with protection class IP66, then you can also use a locknut to secure the entries from the inside of the panel. As the locknut is on the inside, black PA 6.6 is used here.



Can be used from -40°C to +80°C
Materials contain no halogen or silicone, suitable for many different applications.

IP54 | IP66 | RoHS compliant | Made in Germany | CAD

KES-R-FDA M
Round cable entries

Roundcable entries	KES-R M25/3	KES-R M25/4	KES-R M32/4	KES-R M32/4-2	KES-R M32/7
Type / colour	**KES-R-FDA M25/3 BU**	**KES-R-FDA M25/4 BU**	**KES-R-FDA M32/4 BU**	**KES-R-FDA M32/4-2 BU**	**KES-R-FDA M32/7 BU**
Cat. no. **Qty.**	*28930.5* **10**	*28931.5* **10**	*28932.5* **10**	*28933.5* **10**	*28934.5* **10**
Snap-on for wall thicknesses mm	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5
Screwed for wall thicknesses up to mm	11	11	11	11	11
Connection data					
Number of cables x cable diameter (mm)	1 x 3.2 – 6.5	4 x 3.2 – 5.2	3 x 3.2 – 6.5	2 x 3.2 – 6.5	7 x 3.2 – 6.5
	2 x 3.2 – 5.2		1 x 7.2 – 12.5	2 x 5.0 – 9.5	
Features					
Protection class snap-on	IP54	IP54	IP54	IP54	IP54
Protection class screwed	IP66	IP66	IP66	IP66	IP66
Accessories					
Locknut	**S/M 25X1.5 BK**	**S/M 25X1.5 BK**	**S/M 32X1.5 BK**	**S/M 32X1.5 BK**	**S/M 32X1.5 BK**
Cat. no. **Qty.**	*4143.4* **100**	*4143.4* **100**	*4144.4* **100**	*4144.4* **100**	*4144.4* **100**

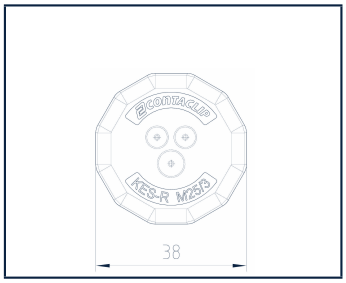
Round cable entries	KES-R M40/8	KES-R M50/8	KES-R M50/10	KES-R M50/12	KES-R M50/19
Type / colour	**KES-R-FDA M40/8 BU**	**KES-R-FDA M50/8 BU**	**KES-R-FDA M50/10 BU**	**KES-R-FDA M50/12 BU**	**KES-R-FDA M50/19 BU**
Cat. no. **Qty.**	*28935.5* **10**	*28936.5* **10**	*28937.5* **10**	*28938.5* **10**	*28939.5* **10**
Snap-on for wall thicknesses mm	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5
Screwed for wall thicknesses up to mm	11	11	11	11	11
Connection data					
Number of cables x cable diameter (mm)	2 x 3.2 – 5.2	5 x 5.0 – 10.2	7 x 3.2 – 6.5	4 x 3.2 – 6.5	19 x 3.2 – 6.5
	2 x 3.2 – 6.5	3 x 7.2 – 12.5	2 x 5.0 – 10.2	8 x 5.0 – 10.2	
	4 x 5.0 – 10.2		1 x 16.0 – 22.2		
Features					
Protection class snap-on	IP54	IP54	IP54	IP54	IP54
Protection class screwed	IP66	IP66	IP66	IP66	IP66
Accessories					
Locknut	**S/M 40X1.5 BK**	**S/M 50X1.5 BK**	**S/M 50X1.5 BK**	**S/M 50X1.5 BK**	**S/M 50X1.5 BK**
Cat. no. **Qty.**	*4145.4* **50**	*4146.4* **50**	*4146.4* **50**	*4146.4* **50**	*4146.4* **50**

Round cable entries	KES-R M50/68	KES-R M63/9	KES-R M63/13	KES-R M63/14	KES-R M63/35
Type / colour	**KES-R-FDA M50/68 BU**	**KES-R-FDA M63/9 BU**	**KES-R-FDA M63/13 BU**	**KES-R-FDA M63/14 BU**	**KES-R-FDA M63/35 BU**
Cat. no. **Qty.**	*28940.5* **10**	*28941.5* **10**	*28942.5* **10**	*28943.5* **10**	*28944.5* **10**
Snap-on for wall thicknesses mm	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5	1.0 – 2.5
Screwed for wall thicknesses up to mm	11	11	11	11	11
Connection data					
Number of cables x cable diameter (mm)	68 x 1.5 – 2.6	1 x 3.2 – 6.5	4 x 3.2 – 6.5	14 x 5.0 – 10.2	35 x 3.2 – 6.5
		3 x 5.0 – 10.2	4 x 5.0 – 10.2		
		4 x 9.0 – 16.2	5 x 9.0 – 16.2		
		1 x 16.0 – 22.2			
Features					
Protection class snap-on	IP54	IP54	IP54	IP54	IP54
Protection class screwed	IP66	IP66	IP66	IP66	IP66
Accessories					
Locknut	**S/M 50X1.5 BK**	**S/M 63X1.5 BK**	**S/M 63X1.5 BK**	**S/M 63X1.5 BK**	**S/M 63X1.5 BK**
Cat. no. **Qty.**	*4146.4* **50**	*4147.4* **50**	*4147.4* **50**	*4147.4* **50**	*4147.4* **50**

KES-R-FDA M

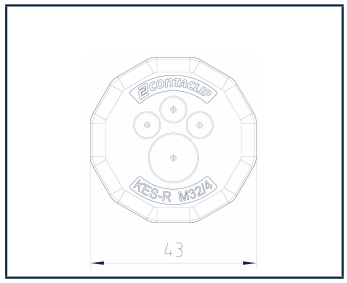
Round cable entries |
Dimensional diagrams / Mounting cut-outs

KES-R-FDA M25/3
Dimensional diagram

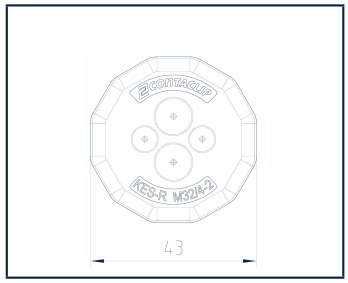


KES-R-FDA M25/4
Dimensional diagram

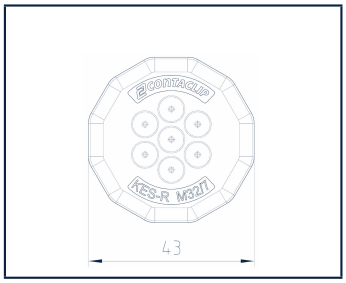
KES-R-FDA M32/4
Dimensional diagram



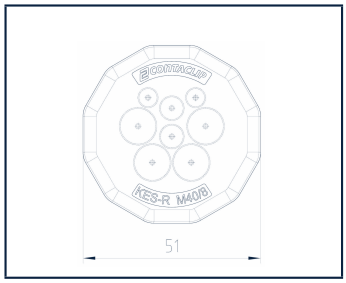
KES-R-FDA M32/4-2
Dimensional diagram



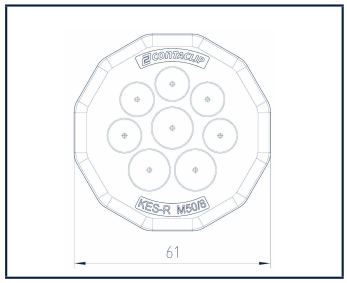
KES-R-FDA M32/7
Dimensional diagram



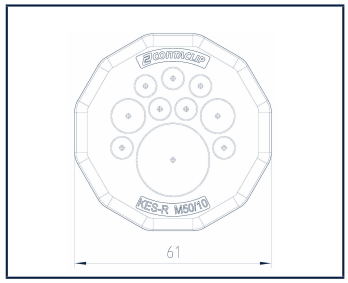
KES-R-FDA M40/8
Dimensional diagram



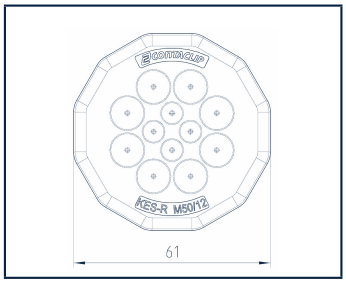
KES-R-FDA M50/8
Dimensional diagram



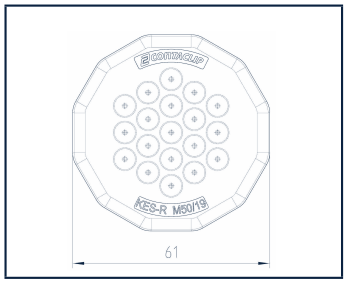
KES-R-FDA M50/10
Dimensional diagram



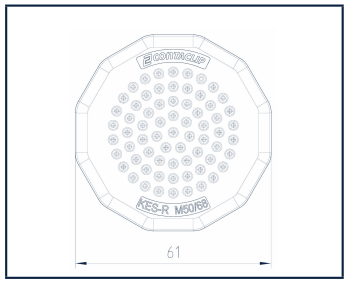
KES-R-FDA M50/12
Dimensional diagram



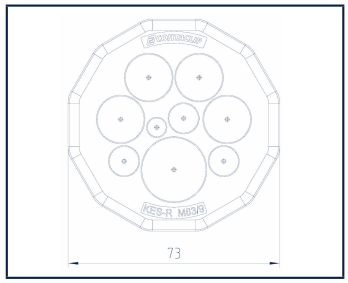
KES-R-FDA M50/19
Dimensional diagram



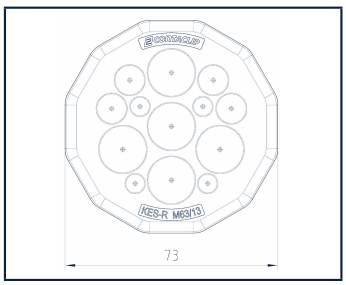
KES-R-FDA M50/68
Dimensional diagram



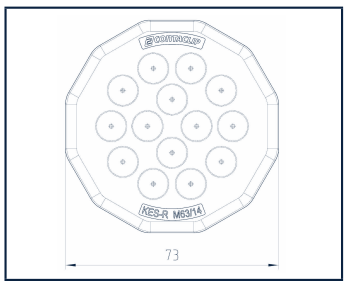
\KES-R-FDA M63/9
Dimensional diagram



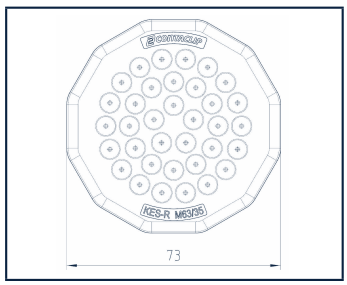
\KES-R-FDA M63/13
Dimensional diagram



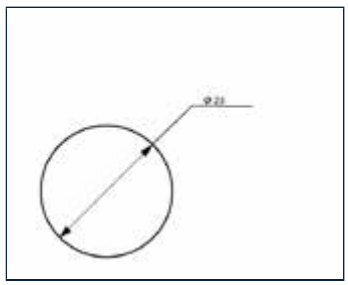
\KES-R-FDA M63/14
Dimensional diagram



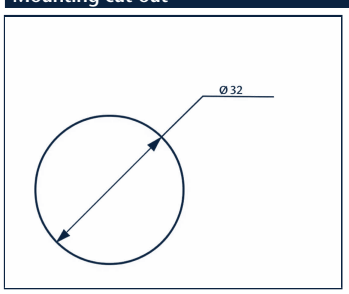
\KES-R-FDA M63/35
Dimensional diagram



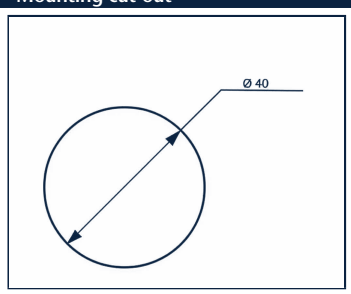
KES-R-FDA M25
Mounting cut-out



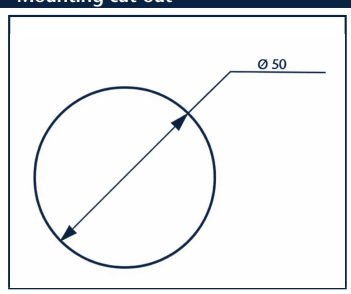
KES-R-FDA M32
Mounting cut-out



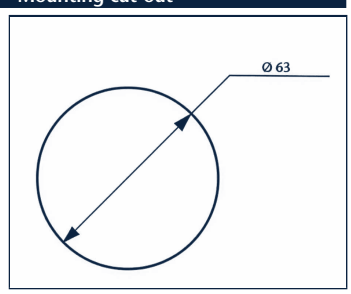
KES-R-FDA M40
Mounting cut-out



KES-R-FDA M50
Mounting cut-out



KES-R-FDA M63
Mounting cut-out



IP54 IP66 RoHS compliant Made in Germany CAD

KDS BW 1 actuating tool

Using the **KDS BW 1** actuating tool, the seals can be conveniently mounted in and dismantled from the frame.
The ergonomic grip and the special shape enable simple and precise installations, especially for cabling applications in confined spaces.

Actuating tool	KDS BW 1
Description	Actuating tool
Type	**KDS BW 1**
Cat. no. **Qty.**	*28622.0* **1**
Material	PA 6.6
Colour	Varies

KDSClick assortment box

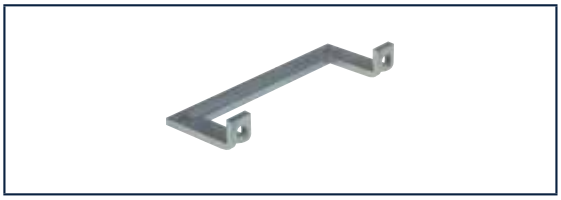
The **KDSClick assortment box** is perfect for installation/maintenance work as well as innovative developments. The large selection of seals and inlays makes it easy to configure all the KDSClick systems to meet your needs.

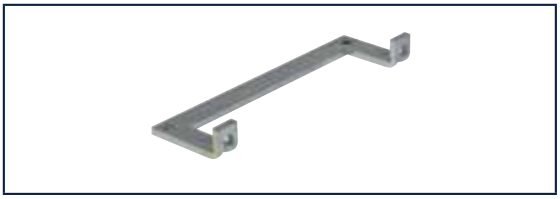
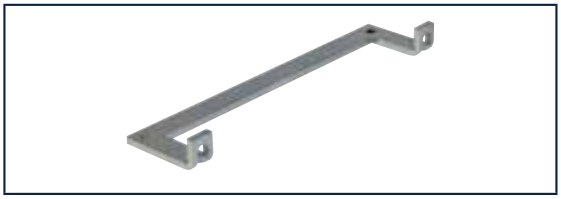
KDSClick assortment box	
Type	**KDSClick assortment box**
Cat. no. **Qty.**	*28764.0* **1**
Included in delivery	20 small dummy elements KDS-DE/B
	220 small seals KDS-DE 2-14 mm
	100 small multiple sealing elements KDS-DE 4 – 6.5 mm
	5 large dummy elements KDS-DEG/B
	20 large sealing elements KDS-DEG 14-21 mm
	7 universal cone sealing elements KDS-DE/K 2- 24 mm
	37 x inlays 1 to inlay 6
	1 actuating tool KDS BW 1
	1 plastic mini-calliper gauge
	1 plastic electrical cabinet key

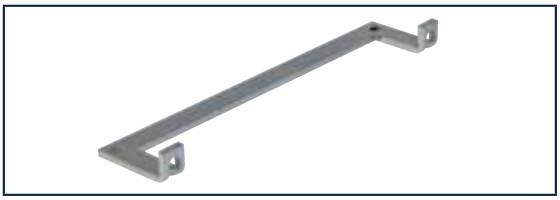
KDS-EMV-SAB shield-connection rails

The **KDS-EMV-SAB** shield-connection rails, when used together with our different shield-connection clips, enable cables to be shielded in a quick, practical and uncomplicated manner. The cables can be routed through the CONTA-CLIP cable entry systems into housing or electrical cabinets.

The **KDS-EMV-SAB** shield-connection rails are fastened on the inside of the electrical cabinet using screws, which are required for mounting the **KDS/KES** system. The appropriate shield clip (depending on the cable diameter) can then be snapped onto the shield-connection rail. The shield-connection brackets/clips are optionally available with a built-in strain relief function.

Shield-connection rails	KDS-EMV-SAB 1-4	KDS-EMV-SAB 6/10
		
Diagram		
Type	**KDS-EMV-SAB 1-4**	**KDS-EMV-SAB 6/10**
Cat. no. **Qty.**	*28623.0* **1**	*28624.0* **1**
Suitable for	KDS-SR 1-4 BK	KDS-SR 6/10 BK

Shield-connection rails	KDS-EMV-SAB 8/16	KDS-EMV-SAB 10/24
		
Diagram		
Type	**KDS-EMV-SAB 8/16**	**KDS-EMV-SAB 10/24**
Cat. no. **Qty.**	*28625.0* **1**	*28626.0* **1**
Suitable for	KDS-SR 8/16 BK	KDS-SR 10/24 BK KES…./24 KES-GB…/24

Shield-connection rails	KDS-FP-EMV-SAB 10/24
	
Diagram	
Type	**KDS-FP-EMV-SAB 10/24**
Cat. no. **Qty.**	*28627.0* **1**
Suitable for	KDS-FP 2X10/24 BK KDS-FP 3X10/24 BK

KDS-BP blanking plates

Blanking plates

The **KDS-BP** blanking plates provide a simple method for securely closing existing wall cut-outs for the **KDS** or **KES** system. They are made of glass-fibre reinforced PA 6.6 material which enables excellent impact resistance. An injected, all-round gasket made of TPE ensures a reliable IP66 protective seal.

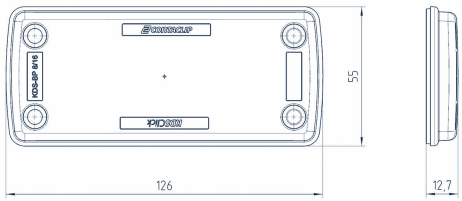
Type / colour		KDS-BP 8/16 BK		KDS-BP 10/24 BK	
Cat. no.	**Qty.**	*28508.4*	**10**	*28509.4*	**10**
Description		Blanking plate		Blanking plate	
Dimensions, mm					
Length x Width:		126 x 55		153 x 55	
Installation height		11.5		11.5	
Dimensions for mounting cut-out (mm)					
KDSClick		91 x 46		113.5 x 46	
Standard cut-outs		86 x 36		112 x 36	
Accessories					
Sheet-metal hole punch		**BL-VA KDS-SR 8/16**		**BL-VA KDS-SR 10/24**	
Cat. no.	**Qty.**	*28685.0*	**1**	*28686.0*	**1**

KDS-BP blanking plates

Dimensional diagrams / Mounting cut-out for cable entries

KDS-BP 8/16

Dimensional diagram



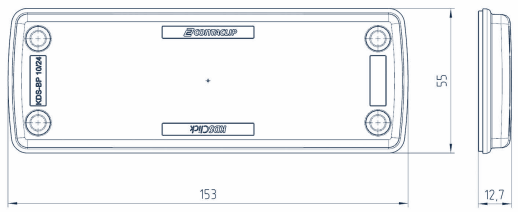
Mounting cut-out

Also suitable for the CONTA-CLIP standard 46 x 91 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

KDS-BP 10/24

Dimensional diagram



Mounting cut-out

Also suitable for the CONTA-CLIP standard 46 x 113.5 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

IP66

UL TYPE Rating 12

UL TYPE* Rating 4x

RoHS compliant

Made in Germany

CAD

Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40°C to +120°C
- Halogen-free, silicone-free
- Protection: IP66

* 4x is for indoor use only

KDS/KES-VS seal plugs for all KDS and KES systems

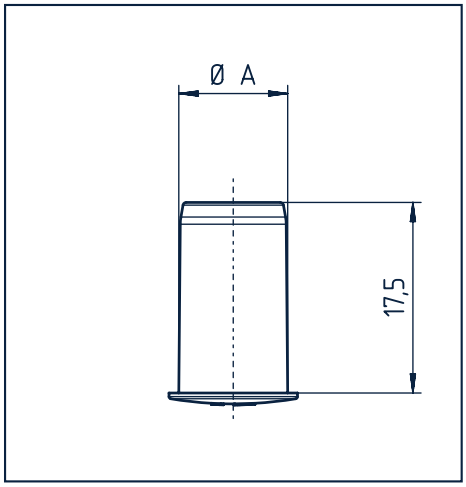
Seal plugs, screw frame

KDS-VS-SR BK seals the screw holes of the **KDS-SR** frames and reduces dirt-prone niches.

Typ	Cat. no.	Qty.	Diameter (Ø A), mm	Head diameter, mm
KDS-VS-SR BK	*28779.4*	100		

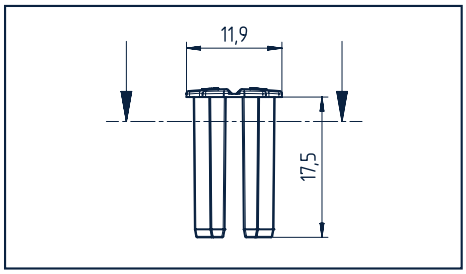
Seal plugs

The **KDS/KES-VS** seal plugs allow you to reseal unused holes in **KDS** seals or in already pierced **KES** cable entries. The geometry of the head prevents the ingress of splash water or dust from the outside.

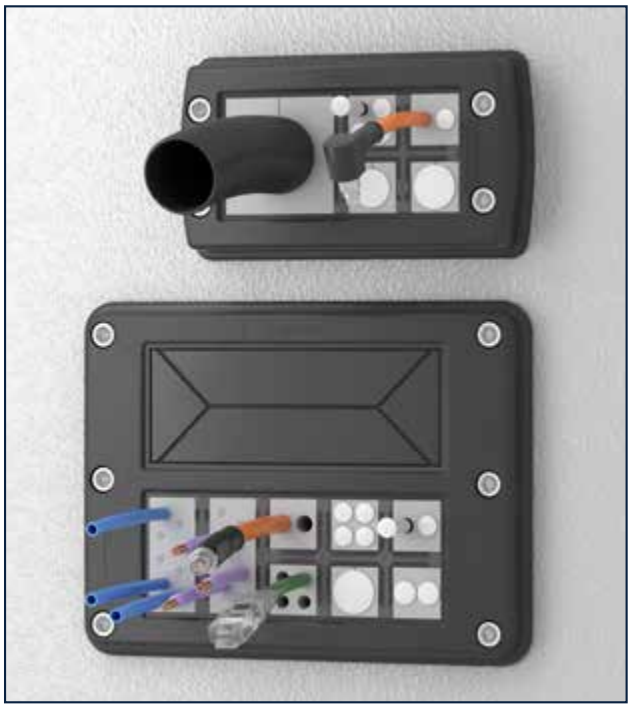


Typ	Cat. no.	Qty.	Diameter (Ø A), mm	Head diameter, mm
KDS/KES-VS 2 WH	*28781.7*	25	2	5
KDS/KES-VS 3 WH	*28782.7*	25	3	6
KDS/KES-VS 4 WH	*28783.7*	25	4	7
KDS/KES-VS 5 WH	*28784.7*	25	5	8
KDS/KES-VS 6 WH	*28785.7*	25	6	9
KDS/KES-VS 7 WH	*28786.7*	25	7	10
KDS/KES-VS 8 WH	*28787.7*	25	8	11
KDS/KES-VS 9 WH	*28788.7*	25	9	12
KDS/KES-VS 10 WH	*28789.7*	25	10	13
KDS/KES-VS 11 WH	*28790.7*	25	11	14
KDS/KES-VS 12 WH	*28791.7*	25	12	15
KDS/KES-VS 13 WH	*28792.7*	25	13	16
KDS/KES-VS 14 WH	*28793.7*	25	14	17
KDS/KES-VS 15 WH	*28794.7*	25	15	18
KDS/KES-VS 16 WH	*28795.7*	25	16	19
KDS/KES-VS 17 WH	*28796.7*	25	17	20
KDS/KES-VS 22 WH	*28797.7*	25	22	25

Seal plugs AS interface cables



Typ	Cat. no.	Qty.	Diameter (Ø A), mm	Head diameter, mm
KDS-VS ASI/2 WH	*28798.7*	*25*	ASI	



Features

- Material: polyamide PA 6.6
- Colour: white (KDS-VS-SR: black)
- Flammability: UL 94 V-0
- Temperature range: -40°C to +120°C
- Halogen-free, silicone-free

RoHS compliant

Made in Germany

CAD

Punching tools

The hydraulic hand pump, when used together with our hole punches, is perfectly suited for quickly producing precise chip-free cut-outs.

Rectangular sheet-metal hole punches are available for all **KDSClick** cable entry systems and for the **KES** cable entry system. The built-in punch-hole marking tip can be used to punch-mark the drill points clearly for screw-on attachments.

Sheet-metal hole punches are available in circular format for the sizes M20, M25, M32, M40, M50 and M63.

The hydraulic hand pump is also compatible with the hole punches from other popular manufacturers.

Hydraulic hand pump

Hydraulic hand pump

The hydraulic hand pump can be used to punch out openings for various cable entry and cable entry systems. The cylinder can be swivelled along 3 axes and rotated 360°, so that the break-outs can also be punched in inconvenient places.

Your advantages

- Easy-to-use format without a tube
- Cylinder can rotate 360° and swivel along 3 axes
- Lightweight aluminium version (weight: 2 kg)
- Can also be used for inconvenient hard-to-reach locations

Features

Punching functionality for max. material thickness

- Round holes 82.0 mm, steel 3 mm, VA 2 mm
- Square holes 68.0 x 68.0 mm, steel 3 mm, VA 2 mm
- Rectangular holes 36.0 x 112.0 mm, steel 3 mm, VA 2 mm

Hydraulic pump

Type	**Hydraulic hand pump for sheet-metal hole punch**
Cat. no.	*28679.0*
Qty.	**1**
Included in delivery	
1 hydraulic hand pump	
1 hydraulic screw 19.0 (3/4"-UNF) x 130 mm	
1 hydraulic screw 19.0 (3/4"-UNF) x 9.5 mm	
1 spacer bushing	
1 tube of anti-wear paste	
1 HSS co-boring drill	
Multi-step drill, steps: 8 – 10 – 11.5 – 12.5 (M12) – 14.5 – 17.5 – 21 mm	
1 transport box	

BL sheet-metal hole punch

The sheet-metal hole punch for the **KDS-SR, KDSI-SR**, **KDS-FP**, **KDS-FB**, **KDS-R/KDS-KV** cable entry systems and for the **KES** cable entry system. Using the sheet-metal hole punches, your desired cut-outs can be made in a few minutes without any burrs. The built-in punch-hole marking tip can be used to punch-mark the drill points clearly for screw-on attachments.
These sheet-metal hole punches are compatible with all common hydraulic pumps.

Assortment case

Punch, die, pulling axle and locknut in plastic case

Sheet metal hole punch sets		BL SET RECTANGLE Hyd.	BL SET M16-M63 Hyd.	BL-VA SET RECTANGLE Hyd.
Type		**BL SET RECTANGLE Hyd.**	**BL SET M16-M63 Hyd.**	**BL-VA SET RECTANGLE Hyd.**
Cat. no.	**Qty.**	*28761.0* **1**	*28766.0* **1**	*28760.0* **1**
Included in delivery		Hydraulic pump + 4 x BL KDS-SR	Hydraulic pump + 7 x BL M16-M63	Hydraulic pump + 4 x BL-VA KDS-SR

Sheet-metal hole punch		BL KDS-SR 1-4	BL KDS-SR 6/10	BL KDS-SR 8/16
Type		**BL KDS-SR 1-4**	**BL KDS-SR 6/10**	**BL KDS-SR 8/16**
Cat. no.	**Qty.**	*28674.0* **1**	*28675.0* **1**	*28676.0* **1**
Maximum wall thickness		2.0 mm with S 235 sheet metal	2.0 mm with S 235 sheet metal	2.0 mm with S 235 sheet metal
Dimensions of break-out hole		**46 x 46 mm**	**68.5 x 46 mm**	**91 x 46 mm**
Included in delivery		Punch, die, pulling axle, locknut, plastic case	Punch, die, pulling axle, locknut, plastic case	Punch, die, pulling axle, locknut, plastic case

VA sheet-metal hole punch		BL-VA KDS-SR 1-4	BL-VA KDS-SR 6/10	BL-VA KDS-SR 8/16
Type		**BL-VA KDS-SR 1-4**	**BL-VA KDS-SR 6/10**	**BL-VA KDS-SR 8/16**
Cat. no.	**Qty.**	*28683.0* **1**	*28684.0* **1**	*28685.0* **1**
Maximum wall thickness		2.0 mm with stainless steel sheet	2.0 mm with stainless steel sheet	2.0 mm with stainless steel sheet
Dimensions of break-out hole		**46 x 46 mm**	**68.5 x 46 mm**	**91 x 46 mm**
Included in delivery		Punch, die, pulling axle, locknut, plastic case	Punch, die, pulling axle, locknut, plastic case	Punch, die, pulling axle, locknut, plastic case

Sheet-metal hole punch		BL KES	BL KDS-FP2	BL KDS-KV M20
Type		**BL KES**	**BL KDS-FP2**	**BL KDS-KV M20**
Cat. no.	**Qty.**	*28744.0* **1**	*28745.0* **1**	*28746.0* **1**
Maximum wall thickness		2.0 mm with S 235 sheet metal	2.0 mm with S 235 sheet metal	2.0 mm with S 235 sheet metal
Dimensions of break-out hole		**112 x 36 mm**	**110 x 131 mm**	**20.4 mm**
Included in delivery		Punch, die, pulling axle, locknut, plastic case	Punch, die, pulling axle, locknut, plastic case	Punch, die

VA sheet-metal hole punch		BL-VA KES	BL-VA KDS-FP2	BL-VA KDS-KV M20
Type		**BL-VA KES**	**BL-VA KDS-FP2**	**BL-VA KDS-KV M20**
Cat. no.	**Qty.**	*28752.0* **1**	*28753.0* **1**	*28754.0* **1**
Maximum wall thickness		2.0 mm with stainless steel sheet	2.0 mm with stainless steel sheet	2.0 mm with stainless steel sheet
Dimensions of break-out hole		**112 x 36 mm**	**110 x 131 mm**	**20.4 mm**
Included in delivery		Punch, die, pulling axle, locknut, plastic case	Punch, die, pulling axle, locknut, plastic case	Punch, die

BL KDS-KV sheet-metal hole punch

Sheet metal hole punch for round cut-outs

BL KDS sheet-metal hole punch

Sheet metal hole punch for rectangular cut-outs

BL-VA SET M16-M63 Hyd.

BL-VA SET M16-M63 Hyd.
28765.0 **1**
Hydraulic pump
+ 7 x B-VAL M16-M63

BL KDS-SR 10/24

BL KDS-SR 10/24
28677.0 **1**
2.0 mm with S 235 sheet metal
113.5 x 46 mm
Punch, die, pulling axle, lock-nut, plastic case

BL KDS-FB1

BL KDS-FB1
28734.0 **1**
2.0 mm with S 235 sheet metal
46 x 24 mm
Punch, die, pulling axle, lock-nut, plastic case

BL KDS-FB2

BL KDS-FB2
28735.0 **1**
2.0 mm with S 235 sheet metal
68 x 24 mm
Punch, die, pulling axle, lock-nut, plastic case

BL KDS-FB3

BL KDS-FB3
28736.0 **1**
2.0 mm with S 235 sheet metal
89 x 24 mm
Punch, die, pulling axle, lock-nut, plastic case

BL KDS-FB4

BL KDS-FB4
28737.0 **1**
2.0 mm with S 235 sheet metal
111 x 24 mm
Punch, die, pulling axle, lock-nut, plastic case

BL-VA KDS-SR 10/24

BL-VA KDS-SR 10/24
28686.0 **1**
2.0 mm with stainless steel sheet
113.5 x 46 mm
Punch, die, pulling axle, lock-nut, plastic case

BL-VA KDS-FB1

BL-VA KDS-FB1
28729.0 **1**
2.0 mm with stainless steel sheet
46 x 24 mm
Punch, die, pulling axle, lock-nut, plastic case

BL-VA KDS-FB2

BL-VA KDS-FB2
28741.0 **1**
2.0 mm with stainless steel sheet
68 x 24 mm
Punch, die, pulling axle, lock-nut, plastic case

BL-VA KDS-FB3

BL-VA KDS-FB3
28742.0 **1**
2.0 mm with stainless steel sheet
89 x 24 mm
Punch, die, pulling axle, lock-nut, plastic case

BL-VA KDS-FB4

BL-VA KDS-FB4
28743.0 **1**
2.0 mm with stainless steel sheet
111 x 24 mm
Punch, die, pulling axle, lock-nut, plastic case

BL KDS-KV M25

BL KDS-KV M25
28747.0 **1**
2.0 mm with S 235 sheet metal
25.4 mm
Punch, die

BL KDS-KV M32

BL KDS-KV M32
28748.0 **1**
2.0 mm with S 235 sheet metal
32.5 mm
Punch, die

BL KDS-KV M40

BL KDS-KV M40
28749.0 **1**
2.0 mm with S 235 sheet metal
40.5 mm
Punch, die

BL KDS-KV M50

BL KDS-KV M50
28750.0 **1**
2.0 mm with S 235 sheet metal
50.5 mm
Punch, die

BL KDS-KV M63

BL KDS-KV M63
28751.0 **1**
2.0 mm with S 235 sheet metal
63.5 mm
Punch, die

BL-VA KDS-KV M25

BL-VA KDS-KV M25
28755.0 **1**
2.0 mm with stainless steel sheet
25.4 mm
Punch, die

BL-VA KDS-KV M32

BL-VA KDS-KV M32
28756.0 **1**
2.0 mm with stainless steel sheet
32.5 mm
Punch, die

BL-VA KDS-KV M40

BL-VA KDS-KV M40
28757.0 **1**
2.0 mm with stainless steel sheet
40.5 mm
Punch, die

BL-VA KDS-KV M50

BL-VA KDS-KV M50
28758.0 **1**
2.0 mm with stainless steel sheet
50.5 mm
Punch, die

BL-VA KDS-KV M63

BL-VA KDS-KV M63
28759.0 **1**
2.0 mm with stainless steel sheet
63.5 mm
Punch, die

SAB|SSAB|SABK shielding solutions

In the field of industrial process engineering, a high degree of interference immunity is required of electrical equipment. This is a critical factor affecting the availability of industrial measurement and control systems.

When constructing low-interference systems, both the cable shielding and the shielded ground are very important. The juncture where the cable shielding connects to the housing ground is a critical point. The connection should be low-ohm and should also feature minimal inductive resistance.

You should be certain that this connection can be established in a practical, simple and quick manner. **SAB/SSAB/SABK** shielding systems are one of the most comprehensive product portfolios on the market. They offer a perfect solution for any application.

Overview of installation types

Direct mounting

SAB…/D
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SABKM…/D
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C-rail mounting

SAB…/GWP
Page 221

Busbar mounting

SABKM…/SSCH/Z
Page 218

SABKMD…/SSCH/Z
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SAB
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SSAB
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DIN rail mountingl

SAB…/F
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SAB…/MF
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SABKM…/MF/35/Z
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SABK
Shield-connection bracket

The stripped cable is easily pushed into the **SABK** shield-connection bracket. The spring force in the clip then ensures that the shield has a consistently good contact.

The large contact areas ensure excellent dissipation of interference current.

The **SABK** can be used with the mounting feet for various mounting platforms (e.g. on DIN rail, busbar, or for direct mounting).

The **SABK** for the proper shield diameter is mounted by simply clipping it on (no tools required).

Your advantages

- The spring exerts continuous contact force on the cable shield
- High conductivity
- Very good dissipation of high-frequency interference current
- No tools are required: all sizes can be clipped onto the various mounting feet

Shield-connection bracket	SABK 3	SABK 6	SABK 8
Type	**SABK 3**	**SABK 6**	**SABK 8**
Cat. no. **Qty.**	*17970.0* **25**	*17971.0* **25**	*17972.0* **25**
Cable diameter Ø	1.5–3 mm	3–6 mm	6–8 mm
Material	Steel	Steel	Steel

Shield-connection bracket	SABK 11	SABK 16	SABK 30
Type **Qty.**	**SABK 11**	**SABK 16**	**SABK 30**
Cat. no.	*17973.0* **25**	*17974.0* **25**	*17997.0* **25**
Cable diameter Ø	8–11 mm	11–16 mm	17–30 mm
Material	Steel	Steel	Steel

SABKM
Shield-connection bracket Multi

The **SABKM** shield-connection bracket Multi differs from conventional shielding clips because of its two specially shaped clip legs.

These legs produce force on both sides so that a very large cable clamping range is attained. The stripped cable is easily pushed into the **SABKM**. The spring force in the clip then ensures that the shield has a consistently good contact.

The large contact surfaces ensure that any interference current is reliably dissipated.

The **SABKM** can be used with the mounting feet for various mounting platforms (e.g. on DIN rail, busbar, or for direct installation).

The **SABKM** for the proper shield diameter is mounted by simply clipping it on (no tools required).

Your advantages

- Fewer individual parts because of the large contact/ clamping range
- Consistently good contact force due to spring action
- High conductivity
- Very good dissipation of high-frequency interference current
- No tools are required: all sizes can be clipped onto the various mounting feet

Shield-connection bracket	SABKM 12	SABKM 18
Type	**SABKM 12**	**SABKM 18**
Cat. no. **Qty.**	*17975.0* **25**	*17976.0* **25**
Cable diameter Ø	3–12 mm	7–18 mm
Material	Steel	Steel

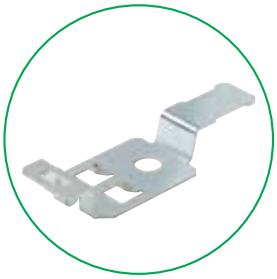
MF-SABK/D
Mounting foot for direct installation

The mounting foot for the **MF-SABK/D** shield-connection bracket serves as a universal carrier for the **SABK/SABKM** with clamping diameters from 1.5 mm to 30 mm. It can be installed directly (e.g. screwed directly onto a mounting plate).
The suitable **SABK** can then be snapped in and the cable shield can be pressed in.

Your advantages

- Direct mounting using M4 screw
- Universal holder for SABK/SABKM, with cable clamping range from 1.5 mm to 30 mm
- Variable assembly options leads to less product types
- Less parts in your warehouse
- Very compact construction
- Cable tie can be used for strain relief

Installation of the SABKM shield-connection bracket on the MF-SABK/D mounting foot



1. Screw on the mounting foot

2 Snap on your SABK

3. Press in the cable shield

4. Apply strain relief with cable ties

Mounting foot	MF/D M4/Z	MF/D M4
Mounting type	Direct mounting	Direct mounting
Description	With strain relief	Without strain relief
Type	**MF/D M4/Z**	**MF/D M4**
Cat. no. **Qty.**	*17977.0* **10**	*27217.0* **25**
Material	Steel	Steel

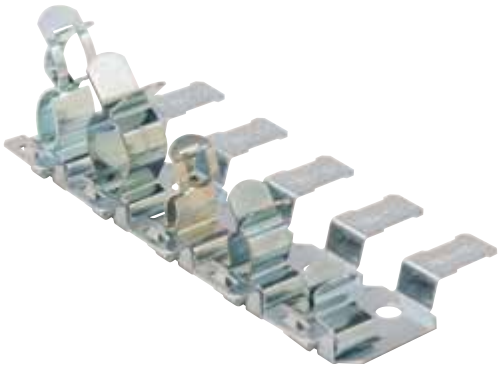
RMF/D/Z M4
Row-mounted foot for direct mounting

The **RMF/D/Z M4** row-mounted foot for direct mounting serves as a universal carrier for up to 12 shield-connection brackets with clamping diameters from 1.5 mm to 30 mm.
The row-mounted foot can be shortened to the desired length by breaking it at one of its breakage points. Either screws or rivets can be used to secure it in position.

Your advantages

- Up to 12 cable shields can be attached to a single row-mounted foot
- Space-saving installation on the mounting plate
- Universal holders for SABK/SABKM, with variable cable clamping ranges from 1.5 mm to 30 mm
- Breakage points permit versatile customization for your required number of cables
- Less parts in your warehouse
- Very compact construction
- Cable tie can be used for strain relief

Installation of the SABKM shield-connection bracket on the MF-SABK/D mounting foot



Shield-connection bracket	Row-mounted foot
Mounting type	Direct mounting
Description	With strain relief
Type	**RMF/D M4/Z**
Cat. no. **Qty.**	*17986.0* **10**
Material	Steel

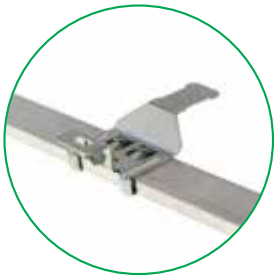
MF-SABK/SSCH
Mounting foot for busbar installation

The **MF-SABK/SSCH** mounting foot for busbar mounting serves as a universal carrier for shield-connection brackets with cable diameters from 1.5 mm to 30 mm. Simply slide the mounting foot onto the 10x3mm busbar. Then snap in the corresponding shield-connection bracket and press in the cable shield.

Your advantages

- Tool-free mounting onto busbars 10 x 3 mm
- For shield-connection brackets with a 1.5 mm – 30 mm clamping range
- Variable assembly options leads to less product types
- Less parts in your warehouse
- Very compact construction
- Cable tie can be used for strain relief

Installation of the SABKM shield-connection bracket on the MF-SABK/SSCH mounting foot

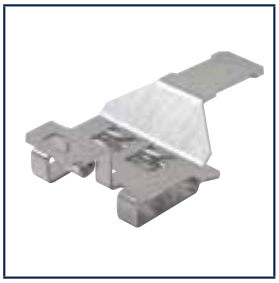


1. Slide on the mounting foot

2 Snap on your SABK

3. Press in the cable shield

4. Apply strain relief with cable ties

Mounting foot	MF-SABK/SSCH/Z	MF-SABK/SSCH
		
Mounting type	Busbar mounting	Busbar mounting
Description	With strain relief	Without strain relief
Type	**MF-SABK/SSCH/Z**	**MF-SABK/SSCH**
Cat. no. **Qty.**	*17979.0* **10**	*27218.0* **10**
Material	Steel	Steel

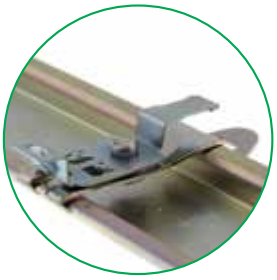
MF-SABK/35
Mounting foot for DIN rail installation

The **MF-SABK/35/Z** mounting foot for **TS 35** DIN rails serves as a universal carrier for shield-connection brackets with clamping diameters from 1.5 mm to 30 mm.
Simply snap the mounting foot on the DIN rail. The properly sized shield-connection bracket is then snapped on and the cable shield is pushed into the shield-connection bracket. The variant with a strain relief clip provides cable ties to relieve the strain.

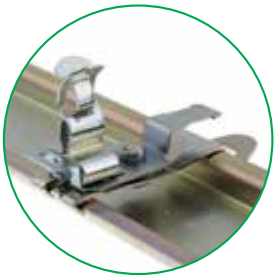
Your advantages

- Tool-free mounting on TS 35 DIN rail
- Universal holder for SABK/SABKM, with cable clamping range from 1.5 mm to 30 mm
- Variable assembly options leads to less product types
- Less parts in your warehouse
- Cable tie can be used for strain relief

Installation of the SABKM shield-connection bracket on the MF-SABK/35 mounting foot



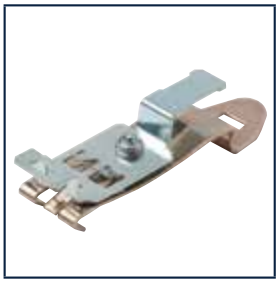
1. Snap on the mounting foot



2 Snap on your SABK

3. Press in the cable shield

4. Apply strain relief with cable ties

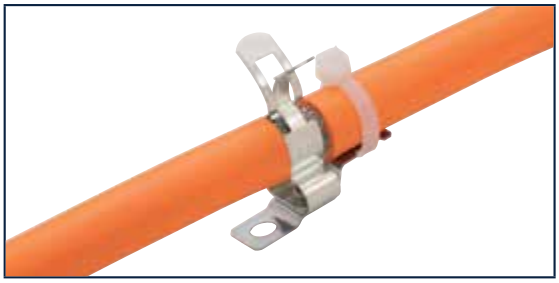
Mounting foot	MF-SABK/35/Z	MF-SABK/35
		
Mounting type	Mounting on the DIN rail	Mounting on the DIN rail
Description	With strain relief	Without strain relief
Type	**MF-SABK/35/Z**	**MF-SABK/35**
Cat. no. **Qty.**	*17978.0* **10**	*27261.0* **10**
Material	Steel	Steel

Multi SABKM.../D
Shield-connection bracket for direct mounting

The **SABKM.../D** shield-connection bracket Multi can be installed directly (e.g. screwed directly onto a mounting plate). The cable shield must only be pressed into the **SABKM** in order to establish a reliable contact. The strain relief clip can be used with a cable tie to elieve strain at the cable sheath.

Your advantages

- Direct mounting using M4 screw
- Very compact construction
- Reduced product types when the shield-connection bracket Multi is used
- Cable tie can be used for strain relief

Shield-connection bracket		SABKM.../D		SABKM.../D/Z		SABK.../D	
							
Mounting type		Direct mounting		Direct mounting		Direct mounting	
Description		Without strain relief		With strain relief		Without strain relief	
Type		**SABKM 12/D M4**		**SABKM 12/D M4/Z**		**SABK 3/D M4**	
Cat. no.	**Qty.**	*27246.0*	**10**	*17984.0*	**10**	*27263.0*	**10**
Cable diameter Ø		3–12 mm		3–12 mm		1.5–3 mm	
Drill hole diameter Ø		4.2 mm		4.2 mm		4.2 mm	
Material		Steel		Steel		Steel	
Type		**SABKM 18/D M4**		**SABKM 18/D M4/Z**			
Cat. no.	**Qty.**	*27247.0*	**10**	*17985.0*	**10**		
Cable diameter Ø		7–18 mm		7–18 mm			
Drill hole diameter Ø		4.2 mm		4.2 mm			
Material		Steel		Steel			
Type		**SABKM 30/D M4**		**SABKM 30/D M4/Z**			
Cat. no.	**Qty.**	*27248.0*	**10**	*27220.0*	**10**		
Cable diameter Ø		17–30 mm		17–30 mm			
Drill hole diameter Ø		4.2 mm		4.2 mm			
Material		Steel		Steel			
Type		**SABKM 35/D M4**					
Cat. no.	**Qty.**	*27256.0*	**5**				
Cable diameter Ø		16–35 mm					
Drill hole diameter Ø		4.2 mm					
Material		Steel					
Type		**SABKM 65/D M4**					
Cat. no.	**Qty.**	*27257.0*	**5**				
Cable diameter Ø		35–65 mm					
Drill hole diameter Ø		4.2 mm					
Material		Steel					

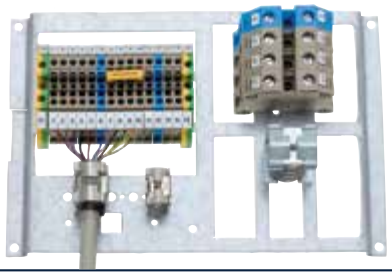
SAB.../D
Shield-connection clip for direct mounting

The **SAB.../D** shield-connection clip can be used for direct mounting installations. The force on the cable comes from a spring-pressure piece. This regulated pressure ensures a constant optimal contact. The **SAB.../D** can be installed with an M4 screw (included in delivery) directly to the mounting plate.

The **SAB 8/D M5** shield-connection clip comes with a special feature; it is equipped with a self-cutting M5 SW3 metal screw. As a result, less time is required to mount the clip on the mounting plate, since you only need to drill one 4.2-mm hole through the plate. The hole threads will then be cut into the plate by the screw.

Your advantages

- Quick snap-on or mounting of the shield-connection clip
- Different cable cross-sections can be accommodated by the elastic nature of the spring
- Easy to work with

Shield-connection clip		SAB.../D	
			
Mounting type		Direct mounting	
Type		**SAB 8/D**	
Cat. no.	**Qty.**	*1549.0*	**10**
Cable diameter Ø		3–8 mm	
Screw		M 4	
Material		Steel	
Type		**SAB 8/D/M5**	
Cat. no.	**Qty.**	*1526.0*	**10**
Cable diameter Ø		3–8 mm	
Screw		M 4	
Material		Steel	
Type		**SAB 13.5/D**	
Cat. no.	**Qty.**	*1550.0*	**10**
Cable diameter Ø		4–13.5 mm	
Screw		M 4	
Material		Steel	
Type		**SAB 20/D**	
Cat. no.	**Qty.**	*1551.0*	**10**
Cable diameter Ø		10–20 mm	
Screw		M 4	
Material		Steel	
Type		**SAB 32/D**	
Cat. no.	**Qty.**	*17361.0*	**10**
Cable diameter Ø		15–32 mm	
Screw		M 4	
Material		Steel	

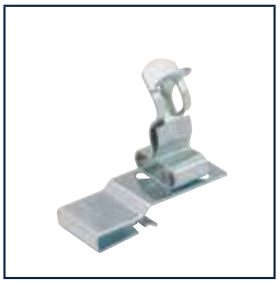
SABKM…/SSCH M4

Shield-connection bracket Multi
on mounting foot for busbars

The shield-connection bracket Multi on the **SABKM…/SSCH M4** mounting foot can be snapped onto a 10x3 mm busbar without any tools. The cable shield must only be pressed into the shield-connection bracket Multi in order to establish a reliable contact. The strain relief clip can be used with a cable tie to relieve strain.

Your advantages

- Tool-free mounting onto busbars 10 x 3 mm
- Extremely compact construction
- Cable tie can be used for strain relief

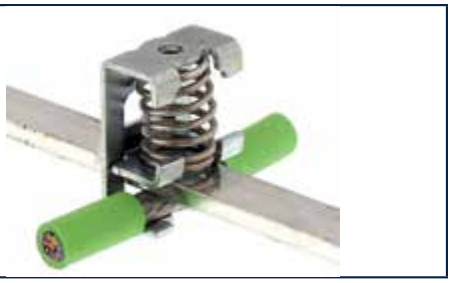
Shield-connection bracket		SABKM…/SSCH	SABKM…/SSCH/Z	SABKMD…/SSCH	SABKMD…/SSCH/Z
						
Mounting type		Busbar mounting	Busbar mounting	Busbar mounting	Busbar mounting
Description		Without strain relief	With strain relief	Without strain relief	With strain relief
Type		**SABKM 12/SSCH**	**SABKM 12/SSCH/Z**	**SABKD 1.5-3/SSCH**	**SABKD 1.5-3/SSCH/Z**
Cat. no.	**Qty.**	*27224.0* **10**	*17982.0* **10**	*27250.0* **10**	*27259.0* **10**
Cable diameter Ø		3–12 mm	3–12 mm	1.5–3 mm	1.5–3 mm
Material		Steel	Steel	Steel	Steel
Type		**SABKM 18/SSCH**	**SABKM 18/SSCH/Z**	**SABKD 3-6/SSCH**	**SABKD 3-6/SSCH/Z**
Cat. no.	**Qty.**	*27225.0* **10**	*17983.0* **10**	*27251.0* **10**	*27260.0* **10**
Cable diameter Ø		7–18 mm	7–18 mm	3–6 mm	3–6 mm
Material		Steel	Steel	Steel	Steel
Type		**SABKM 30/SSCH**	**SABKM 30/SSCH/Z**	**SABKD 6-8/SSCH**	**SABKD 6-8/SSCH/Z**
Cat. no.	**Qty.**	*27226.0* **10**	*27228.0* **10**	*27252.0* **10**	*27254.0* **10**
Cable diameter Ø		17–30 mm	17–30 mm	6–8 mm	6–8 mm
Material		Steel	Steel	Steel	Steel
Type				**SABKMD 3-12/SSCH**	**SABKMD 3-12/SSCH/Z**
Cat. no.	**Qty.**			*27253.0* **10**	*27255.0* **10**
Cable diameter Ø				3–12 mm	3–12 mm
Material				Steel	Steel

SAB
Shield-connection clip for busbar mounting

The **SAB** shield-connection clips enable busbar mounting. After connecting the wiring, the shield-connection clip is mounted by simply swivelling in the **SAB** clip onto the busbar. The force on the cable comes from a spring-pressure piece. This regulated pressure ensures a constant optimal contact. This makes the **SAB** shield-connection clip very convenient to wire. Depending on the length of the terminal blocks, two or more **SH/SAB** busbar holders should be used. These mechanically connect the front busbar with the DIN rail (support).

Your advantages

- Quick snap-on or mounting of the shield-connection clip
- Different cable cross-sections can be accommodated by the elastic nature of the spring
- Easy to work with

Shield-connection clip		SAB	
			
Mounting type		Busbar mounting	
Type		**SAB 8**	
Cat. no.	**Qty.**	*1527.0*	**10**
Cable diameter Ø		3–8 mm	
Material		Steel	
Type		**SAB 13.5**	
Cat. no.	**Qty.**	*1528.0*	**10**
Cable diameter Ø		4–13.5 mm	
Material		Steel	
Type		**SAB 20**	
Cat. no.	**Qty.**	*1529.0*	**10**
Cable diameter Ø		10–20 mm	
Material		Steel	
Type		**SAB 32**	
Cat. no.	**Qty.**	*17360.0*	**10**
Cable diameter Ø		15–32 mm	
Material		Steel	

SSAB
Shield-connection clip for busbar mounting

The **SSAB** shield-connection clips enable busbar mounting. After wiring the terminal block, the shield-connection clip is mounted by simply swivelling in and tightening the knurled thumb screw.
This makes the **SSAB** screw-shield-connection clip very convenient to wire. Depending on the length of the terminal blocks, two or more **SH/SAB** busbar holders should be used. These mechanically connect the front busbar with the DIN rail (support). The **SH1** busbar holders are used where a shield-connection system must be mounted directly onto a panel rather than a DIN rail. The 10x3mm busbars can be easily and quickly snapped on to these supports. In both cases, the contact with the earth or ground potential can be established with a **ZB** clamping yoke.

Your advantages

- Screw-on clip for simple retrofitting
- Knurled thumb screw, so no tools required
- Easy to work with
- Large shield surface
- Secure contact

Shield-connection clip for busbar mounting		SSAB	
Mounting type		Busbar mounting	
Type		**SSAB 5**	
Cat. no.	**Qty.**	*3694.0*	**10**
Cable diameter Ø		2–5 mm	
Torque		0.4 Nm	
Material		Steel	
Type		**SSAB 8**	
Cat. no.	**Qty.**	*3695.0*	**10**
Cable diameter Ø		3–8 mm	
Torque		0.6 Nm	
Material		Steel	
Type		**SSAB 14**	
Cat. no.	**Qty.**	*3696.0*	**10**
Cable diameter Ø		3–14 mm	
Torque		0.8 Nm	
Material		Steel	
Type		**SSAB 20**	
Cat. no.	**Qty.**	*3697.0*	**10**
Cable diameter Ø		3–20 mm	
Torque		0.8 Nm	
Material		Steel	
Type		**SSAB 28**	
Cat. no.	**Qty.**	*3698.0*	**10**
Cable diameter Ø		5–28 mm	
Torque		0.8 Nm	
Material		Steel	
Type		**SSAB 35**	
Cat. no.	**Qty.**	*3699.0*	**10**
Cable diameter Ø		20–35 mm	
Torque		1.8 Nm	
Material		Steel	

SAB…/GWP
Shield-connection clip for C-rail

The **SAB…/GWP** shield-connection clips enable mounting to a C-rail. The **SAB…/GWP** is attached to the threaded plate with an Allen (hex socket) screw. The force on the cable comes from a spring-pressure piece. This regulated pressure ensures a constant optimal contact with the DIN rail.

Your advantages

- Shield-connection clip is quickly mounted
- Different cable cross-sections can be accommodated by the elastic nature of the spring
- Easy to work with

Shield-connection clip for C-rail		SAB…/GWP	
Mounting type		C-rail mounting	
Type		**SAB 8/GWP**	
Cat. no.	**Qty.**	*17356.0*	**10**
Cable diameter Ø		3–8 mm	
Material		Steel	
Type		**SAB 13.5/GWP**	
Cat. no.	**Qty.**	*17357.0*	**10**
Cable diameter Ø		4–13.5 mm	
Material		Steel	
Type		**SAB 20/GWP**	
Cat. no.	**Qty.**	*17358.0*	**10**
Cable diameter Ø		10–20 mm	
Material		Steel	
Type		**SAB 32/GWP**	
Cat. no.	**Qty.**	*17359.0*	**10**
Cable diameter Ø		15–32 mm	
Material		Steel	

SABKM…/MF/35 Shield-connection bracket for mounting to DIN rail

The **SABKM.../MF/35** shield-connection bracket Multi on a mounting foot can be snapped onto a **TS 35** DIN rail without using any tools. The cable shield must only be pressed into the shield-connection bracket Multi in order to establish a reliable contact. The strain relief clip can be used with a cable tie to relieve strain.

Your advantages

- Simple tool-free installation
- Spring force provides consistently good contact to the cable shield
- Very good dissipation of high-frequency interference current
- Cable tie can be used for strain relief

Shield-connection bracket		SABK .../MF/35		SABK .../MF/35/Z	
Mounting type		Mounting on the DIN rail		Mounting on the DIN rail	
Description		Without strain relief		With strain relief	
Type		**SABK 3/MF/35**		**SABK 3/MF/35/Z**	
Cat. no.	**Qty.**	*27229.0*	**10**	*27240.0*	**10**
Cable diameter Ø		1.5–3 mm		1.5–3 mm	
Type		**SABK 6/MF/35**		**SABK 6/MF/35/Z**	
Cat. no.	**Qty.**	*27230.0*	**10**	*27241.0*	**10**
Cable diameter Ø		3–6 mm		3–6 mm	
Type		**SABK 8/MF/35**		**SABK 8/MF/35/Z**	
Cat. no.	**Qty.**	*27231.0*	**10**	*27242.0*	**10**
Cable diameter Ø		6–8 mm		6–8 mm	
Type		**SABK 11/MF/35**		**SABK 11/MF/35/Z**	
Cat. no.	**Qty.**	*27232.0*	**10**	*27243.0*	**10**
Cable diameter Ø		8–11 mm		8–11 mm	
Type		**SABK 16/MF/35**		**SABK 16/MF/35/Z**	
Cat. no.	**Qty.**	*27233.0*	**10**	*27244.0*	**10**
Cable diameter Ø		11–16 mm		11–16 mm	
Type		**SABK 30/MF/35**		**SABK 30/MF/35/Z**	
Cat. no.	**Qty.**	*27234.0*	**10**	*27245.0*	**10**
Cable diameter Ø		17–30 mm		17–30 mm	
Type		**SABKM 12/MF/35**		**SABKM 12/MF/35/Z**	
Cat. no.	**Qty.**	*27237.0*	**10**	*17980.0*	**10**
Cable diameter Ø		3–12 mm		3–12 mm	
Type		**SABKM 18/MF/35**		**SABKM 18/MF/35/Z**	
Cat. no.	**Qty.**	*27238.0*	**10**	*17981.0*	**10**
Cable diameter Ø		7–18 mm		7–18 mm	
Type		**SABKM 35/MF/35**			
Cat. no.	**Qty.**	*27239.0*	**5**		
Cable diameter Ø		16–35 mm			
Type		**SABKM 65/MF/35**			
Cat. no.	**Qty.**	*27258.0*	**5**		
Cable diameter Ø		35–65 mm			

SAB.../F
Shield-connection clip for mounting to DIN rail

The **SAB.../F** shield-connection clips enable mounting to the DIN rail. The force exerted on the cable is regulated by a spring-loaded thrust piece. This ensures optimum contact at all times. The **SAB../F** can be mounted directly to the **TS 35** DIN rail using the clamping foot and a mounting screw.

Your advantages

- Shield-connection clip is quickly mounted
- Different cable cross-sections can be accommodated by the elastic nature of the spring
- Easy to work with

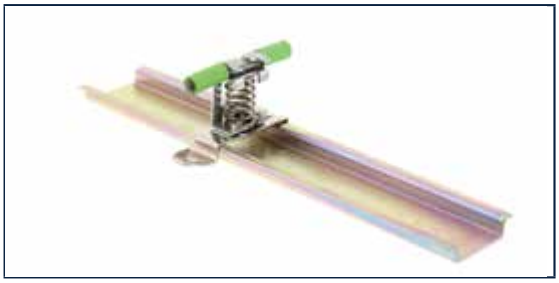
Shield-connection clip	SAB 8/F	SAB 13.5/F	SAB 20/F
Mounting type	Mounting on the DIN rail	Mounting on the DIN rail	Mounting on the DIN rail
Type	**SAB 8/F**	**SAB 13.5/F**	**SAB 20/F**
Cat. no. **Qty.**	*1571.0* **10**	*1572.0* **10**	*1573.0* **10**
Cable diameter Ø	3–8 mm	4–13.5 mm	10–20 mm
Size (L x W x H), mm	18.5 x 13 x 26.5	22 x 19.5 x 32.5	27 x 13 x 26.5
Material	Steel	Steel	Steel

SAB.../MF
Shield-connection clip for mounting to DIN rail

The **SAB.../MF/35** shield-connection clips enable mounting to the DIN rail. The **SAB.../MF/35** is snapped on directly via the internal-spring **MF/35** mounting foot without using any tools. The force exerted on the cable is regulated by a spring-loaded thrust piece. This ensures that optimal contact is maintained with the DIN rail at all times.

Your advantages

- Simple tool-free installation
- Different cable cross-sections can be accommodated by the elastic nature of the spring
- Easy to work with
- /S version can be rotated and fixed in position using the fastening screw

Shield-connection clip		SAB.../MF/35		SAB.../MF/35/S	
					
Mounting type		Mounting on the DIN rail		Mounting on the DIN rail	
Type		**SAB 8/MF/35**		**SAB 8/MF/35/S**	
Cat. no.	**Qty.**	*17038.0*	**10**	*17340.0*	**10**
Cable diameter Ø		3 – 8 mm		3 – 8 mm	
Size (L x W x H), mm		18.5 x 13 x 26.5		18.5 x 13 x 26.5	
Material		Steel		Steel	
Type		**SAB 13.5/MF/35**		**SAB 13.5/MF/35/S**	
Cat. no.	**Qty.**	*17039.0*	**10**	*17341.0*	**10**
Cable diameter Ø		4–13.5 mm		4–13.5 mm	
Size (L x W x H), mm		22 x 19.5 x 32.5		22 x 19.5 x 32.5	
Material		Steel		Steel	
Type		**SAB 20/MF/35**		**SAB 20/MF/35/S**	
Cat. no.	**Qty.**	*17040.0*	**10**	*17342.0*	**10**
Cable diameter Ø		10–20 mm		10–20 mm	
Size (L x W x H), mm		27 x 24.5 x 40.5		27 x 24.5 x 40.5	
Material		Steel		Steel	
Type		**SAB 32/MF/35**		**SAB 32/MF/35/S**	
Cat. no.	**Qty.**	*17363.0*	**10**	*17343.0*	**10**
Cable diameter Ø		15–32 mm		15–32 mm	
Size (L x W x H), mm		53.2 x 33 x 71.5		53.2 x 33 x 71.5	
Material		Steel		Steel	

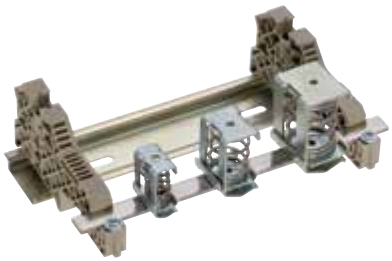
Busbar holder

Busbar holders are used for mounting all shield-connection clips with 10x3mm busbars. These can be mounted quickly and flexibly according to your requirements. The **SH1** busbar holders are used for freely positioning the shield-connection clips on the mounting plate or inside the control cabinet; the 10x3mm busbars can be easily and quickly snapped into place in it.

The **SH/SAB** busbar holders mechanically connect the preceding busbar with the DIN rail. Thus, the shield-connection clip can easily be extended directly to the terminal strip.

The **ES 35/K/ST** end support with its integrated receptacles enables you to easily mount 10x3mm busbars directly above a **TS 35** DIN rail.

Depending on the length, two or more holders can be used. In both cases, the contact with the earth or ground potential can be established with a **ZB** clamping yoke.

Busbar holder	SH 1	SH SAB	ES 35/K/ST
			
Type/colour	**SH 1 BG**	**SH SAB BG**	**ES 35/K/ST BG**
Cat. no. **Qty.**	*2318.2* **20**	*1530.2* **10**	*2828.0* **50**
Size (L x W x H), mm	24 x 24 x 23.7	50 x 9.5 x 98	50 x 9.5 x 44
Material of cap/holder	PA 6.6 V-2	PA 6.6 V-2	PA 6.6 V-2
Accessories			
Mounting screw BS	**BS M 4x8**		
Cat. no. **Qty.**	*2262.0* **20**		
Busbar Ssch Copper	**Ssch 10 x 3 CU**	**Ssch 10 x 3 CU**	**Ssch 10 x 3 CU**
Cat. no. **Qty.**	*2129.0* **1 m**	*2129.0* **1 m**	*2129.0* **1 m**
Busbar Ssch Brass	**Ssch 10 x 3 Ms**	**Ssch 10 x 3 Ms**	**Ssch 10 x 3 Ms**
Cat. no. **Qty.**	*2128.0* **1 m**	*2128.0* **1 m**	*2128.0* **1 m**

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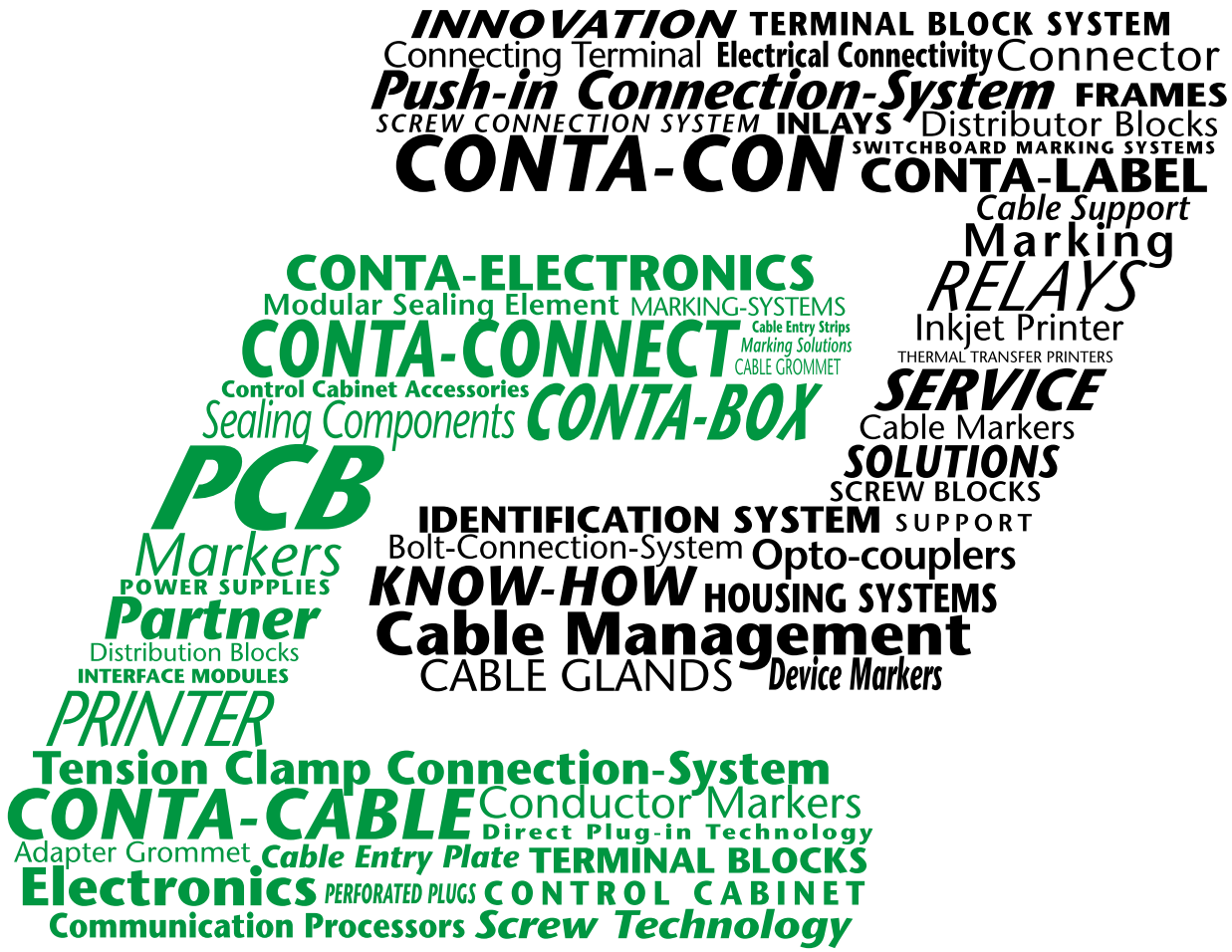
Experts for Electrical Connectivity



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