CONTACLIP

CONTA-ELECTRONICS

ELECTRONICS

CONTA-ELECTRONICS

Overview of the product line

CONTA-CLIP

Our company

Founded and kept in the family since 1977: **CONTA-CLIP** is an owner-operated company that is a mid-sized global player. Users of electrical and electronic connectivity components have come to trust us for our reliable products. They also trust in our wide-reaching competence within the market and industry which has evolved over many years. In the years since our company was founded, we have evolved from a manufacturer to an innovator.

Our employees are connectivity specialists coming from a wide variety of backgrounds. They understand the specific problems, requirements and challenges of our customers. This ensures communication among equals. We then invest our gains directly into maintaining a modern and efficient production process. This allows us to maintain the most modern machinery at our facilities. We develop and produce the tooling ourselves. We neither make nor accept any compromise in the quality of materials used in our products.

Our top-class products are supported by this interplay between top-class men and machinery. We have also designed our range of services to align with customer needs. We develop electronics, assemble terminal rails, take care of component labelling, and deliver completely populated housings when needed – totally customized and expedited.

Our passion and concern for our customers' challenges does not end after we've delivered our solution. **CONTA-CLIP** customer representatives are always ready to offer their support to the customer, because service and support are our top priorities.

CONTA-CLIP

Overview

Products from our **CONTA-CONNECT** (connection systems), **CONTA-ELECTRONICS** (electronics) and **CONTA-CON** (PCB connectors) lines are developed and optimized in close cooperation with the user community. They contribute to the smooth operation of a vast diversity of applications.

Quality management at **CONTA-CLIP** is conducted in compliance with DIN ISO 9001 and the certification of our suppliers is a top priority for us. Our products also comply with the relevant international standards. We work with materials that contain no hazardous substances and support regenerative heat recovery. **CONTA-CLIP** strives for the ideal synergy between environmental sustainability, process optimization and innovative products.

CONTA-CONNECT
[Connection Systems]

CONTA-ELECTRONICS
[Electronics]

CONTA-CON
[PCB Connectors]

CONTA-CLIP

On the internet

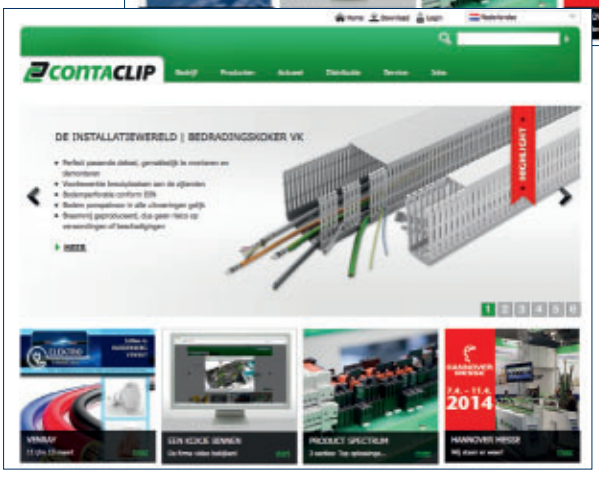
You can learn more about product innovations, trade fair dates, press releases, and more at our official **CONTA-CLIP** web site.

If you want to make sure you do not miss any news, subscribe with no obligation to our **CONTA-CLIP** newsletter by e-mail.

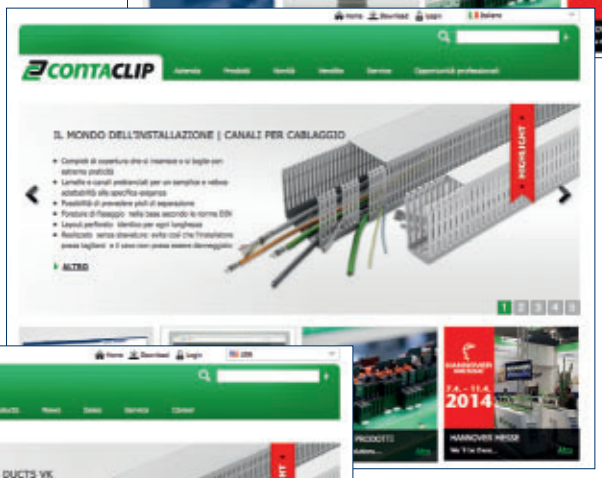
www.conta-clip.com

In Germany:
www.conta-clip.de

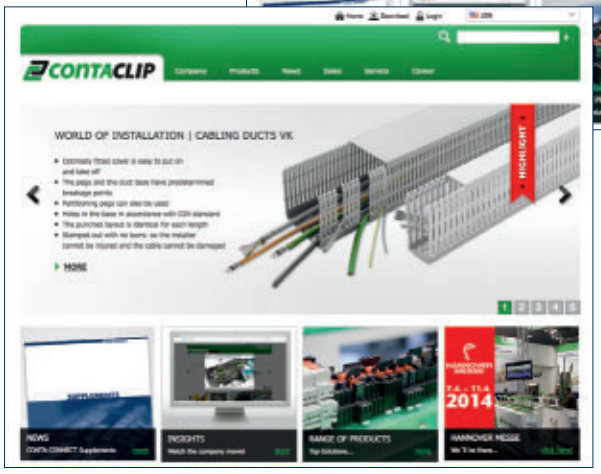
In France:
www.conta-clip.fr



In Holland:
www.conta-clip.nl



In Italy:
www.conta-clip.it



USA
www.contaclipinc.com

CONTA-ELECTRONICS

Product overview

DC Power Supplies Single-phase PSPM

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DC Power Supplies Single-phase PSPC

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DC power supplies Single-phase PSPI

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AC/DC rectifier modules GM

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AC/DC converter modules ACDCG

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DC/DC stabilized converter modules VSTAB

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Stabilized DC/DC converter modules CML-DCDC

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CONTA-PROTECT overvoltage arresters, type 1|2|3 (B|C|D)

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CONTA-PROTECT overvoltage arresters type 2 (C)

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CONTA-PROTECT overvoltage arresters type 3 (D)

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CONTA-PROTECT photovoltaic overvoltage arresters

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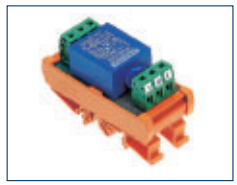
Interference-elimination link modules IF-OF



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Interface relay compact - IRCU relay terminal, 1 CO contact

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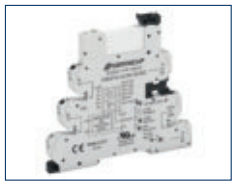
Interface relay compact - IRCPU relay terminal, 1 CO contact



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Interface relay compact - IRCIU relay terminal, 1 CO contact

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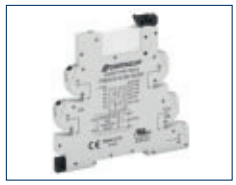
Interface relay compact - IRCOU relay terminal, 1 CO contact



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Interface relay compact - MFR IRCPU timing relay terminal, 1 CO contact

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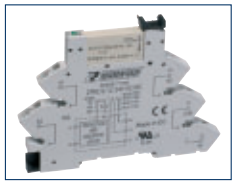
Plug relay compact - PRC 1 relay terminal, 1 CO contact



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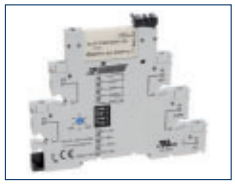
Plug relay compact - MFR PRC timing relay terminal, 1 CO contact



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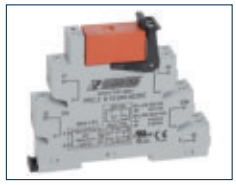
Plug relay compact - PRC 2 Relay terminal, 2 CO contacts



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Plug relay system PRS XT 1+2 CO contact / screw connection

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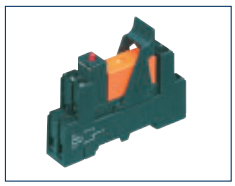
Plug relay system PRS 1 Screw-connection 1-CO relays



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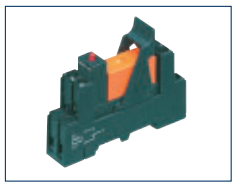
Plug relay system PRS 2 Screw-connection 2-CO relays



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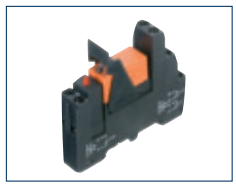
Plug relay system PRS 2 G Screw-connection 2-CO relays



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Product overview

CONTA-ELECTRONICS

Product overview

Plug solid-state compact PSC Solid-State terminals

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Solid-state relay unit CMS-SSR

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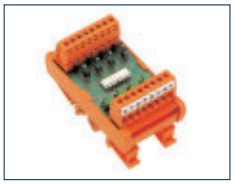
Opto-coupler modules OKI DC



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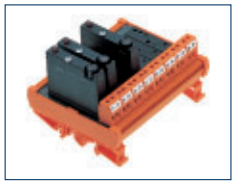
Solid-state output modules SSOIF



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Solid-state relays OPTO 22

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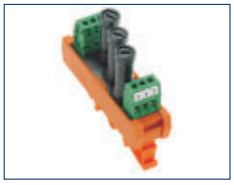
Fuse modules SM



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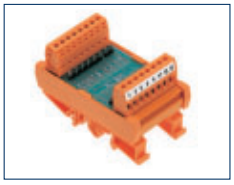
Component modules BSM



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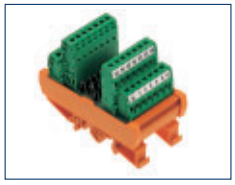
Diode modules DM



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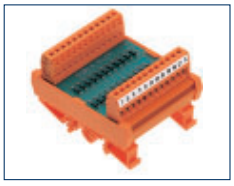
Lamp test modules LPM



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Interface modules RJ11-12

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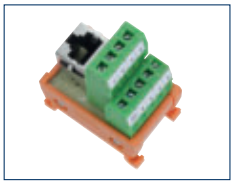
Interface modules RJ 45



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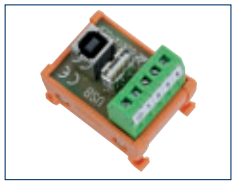
Interface modules USB



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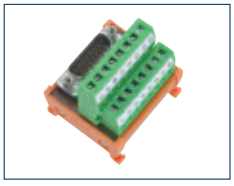
Interface modules SD... C



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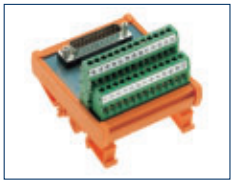
Interface modules SD



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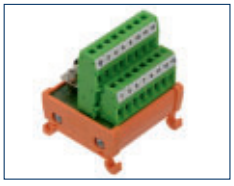
Interface modules SD-HD



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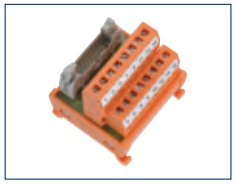
Interface modules FBK... C



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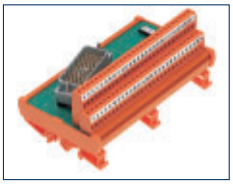
Interface modules OE-E



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Temperature converter units CML-PT100-UI

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Thermocouple / thermal sensor units CMS..UI

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Voltage and current transformer units CML-UI-UI

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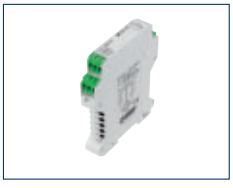
Multi-functional signal converter units CMS-UI-UI



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Multi-function high-current transformer unit CMS-I10A-UI

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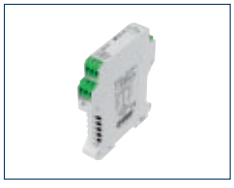
Multi-functional signal converter units CMS-UI-R



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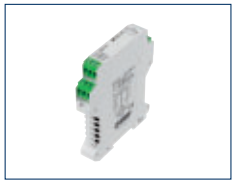
Multi-functional signal converter units CMS-F-UI



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Potentiometric converter units CML-POT-UI

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Multi-function converter units CMS-BS100

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Analogue signal converter modules without electrical isolation CAE

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Analogue signal converter modules with electrical isolation CAE

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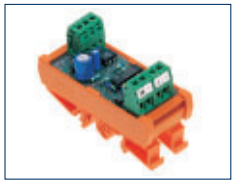
Potentiometric modules CAE/POT



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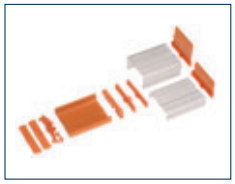
Locking-base system RS-SP



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Fuse cartridges SI

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DC Power Supplies

The 24 V DC control voltage has come to globally dominate in systems and machines in automation engineering, in the DC power supplies for encoders, input signals, actuators and electronic components. However the voltage range from 6 V DC to 60 V DC is also required for analogue and digital signals in various control schemes.

The functionality of an electronic control is largely dependent on the reliability of its corresponding power supply. A stable and safe power and voltage supply guarantees a trouble-free production process in systems and mechanical engineering.

CONTA-CLIP offers many different components: smoothed or un-smoothed transformers, unstabilized or stabilized mains power supplies, and also primary clocked power supplies.

Primary clocked DC power supplies

DC power supplies PSPM

PSPM DC power supplies are efficient switch-mode power supplies that are encased in slim plastic housings. They are lightweight and compact, yet still versatile and strong in the field. These multi-purpose power supplies can be used in various solar, measurement/control, industrial automation, and building automation applications.

They cover the needs of low- and mid-level power consumption ranging from 25 to 50 W. Many uses are possible: variants are available with 1 and 2 A of output current and an output voltage of 24 V. The output voltage can be easily adjusted using the potentiometer dial located on the front side of the housing.

The primary switch-mode regulators in use ensure that there are reliable connections everywhere to the public power grids. Installation is quick and safe with their DIN rail mounting and the push-in terminal connections.

DC power supplies PSPC

PSPC DC power supplies combine the basic functionality of an economic switch-mode power supply with the important additional features that ensure high system availability. They are lightweight and compact, yet still versatile and strong in the field. These multi-purpose power supplies can be used in various solar, measurement/control, industrial automation, and building automation applications.

They cover the needs of mid-level power consumption ranging from 120 to 240 W. Many uses are possible: variants are available with 1 and 10 A of output current and an output voltage of 24 V. The output voltage can be easily adjusted using the potentiometer dial located on the front side of the housing.

The primary switch-mode regulators in use ensure that there are reliable connections everywhere to the public power grids. Installation is quick and safe with their DIN rail mounting and the push-in terminal connections.

PSPI direct current power supplies

The installation-designed **PSPI DC power supplies** are a perfect supply solution for small controllers. Many uses are possible: variants are available with 1.3 A, 2.5 A and 4 A of output current and an output voltage of 24 V DC.

The output voltage can be easily adjusted using the potentiometer dial located on the front side of the housing. These all-purpose power supplies are strong and versatile, yet still small and lightweight. They are well suited for a variety of uses, including solar, measurement and control systems, industrial automation and building automation applications.

The primary switch-mode regulators in use ensure that there are reliable connections everywhere to the public power grids. The DIN rail mount and the tension-spring terminals ensure that they can be mounted quickly and safely.

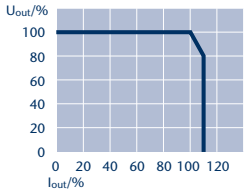
DC power supplies PSPM

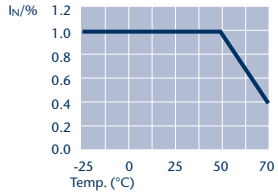
- Primary clocked DC power supply
- Easy to mount on a TS 35 DIN rail
- Wide-range input
- Adjustable output voltage
- No-load and short-circuit safe
- Thermal overload protection
- Ambient temperature: -25 to +70 °C
- IP 20 protection

PSPM 230/24-1A

PSPM 230/24-2A

Output characteristic curve





Type Cat. no.		PSPM 230/24-1A Qty. 16180.2 1	PSPM 230/24-2A Qty. 16181.2 1
Size (L x W x H) with TS 35 x 7.5 mm		22.5 x 90 x 97.5	45 x 90 x 97.5
Weight		130 g	210 g
Classification		Primary switch-mode power supply	Primary switch-mode power supply
Rail assembly		TS 35 acc. to EN 60715	TS 35 acc. to EN 60715
Connection type		Pressure-spring connection	Pressure-spring connection
Wire connect cross-section		Max. 2.5 mm²	Max. 2.5 mm²
Input data			
Nominal input voltage		100 to 240 Vac	100 to 240 Vac
Input voltage range		85 to 264 Vac (120 to 372 Vdc)*	85 to 264 Vac (120 to 372 Vdc)*
Input voltage derating		-2.5 %/Vac < 95 Vac	-2.5 %/Vac < 95 Vac
Nominal frequency range		47 Hz to 63 Hz / 0 Hz	47 Hz to 63 Hz / 0 Hz
Input rated current (rated load)		0.43 A (100 Vac) / 0.2 A (240 Vac)	0.73 A (100 Vac) / 0.37 A (240 Vac)
Inrush current limit		< 30 A, NTC	< 30 A, NTC
Switch-on time, after mains voltage is applied		2.3 s (100 Vac) / 0.74 s (230 Vac)	0.5 s (100 Vac) / 0.27 s (230 Vac)
Mains failure bridging (rated load)		20 / 120 ms (100 / 230 Vac)	20 / 120 ms (100 / 230 Vac)
Recommended power circuit breaker (characteristics)		6 A, 10 A, 16 A (B,C)	6 A, 10 A, 16 A (B,C)
Transient overvoltage protection	Varistor	√	√
Input connections		Push-In, max 2.5 mm²	Push-In, max 2.5 mm²
Output specifications			
Output rated voltage		24 Vdc ± 1%	24 Vdc ± 1%
Output voltage range		23 to 28.5 Vdc	23 to 28.5 Vdc
Output current		1 A	2 A
Output current limit	Constant current	1.1 A typ.	2.2 A typ.
Parallel wiring, Series wiring		√ √	√ √
Power loss for no load / rated load		< 1W / 4 W (230 Vac)	< 1W / 6 W (230 Vac)
Max. power loss		5 W (100 Vac / 24 V / 1 A)	7 W (100 Vac / 24 V / 2 A)
Efficiency		typ. 86 %	typ. 89 %
Residual ripple (rated load)		typ. 20 mVss	typ. 20 mVss
Feedback resistance		Max. 35 Vdc	Max. 35 Vdc
Internal overvoltage protection (OVP)		Max. 39 Vdc	Max. 37 Vdc
Output connections		Push-In, max 2.5 mm²	Push-In, max 2.5 mm²
Indicator			
"DC OK" status display	LED continuously lit green	Uout > 21.5 V	Uout > 21.5 V
"DC OK" signal output	Relay, contact closed:	Uout > 21.5 V max. 20 mA @ 24Vdc	Uout > 21.5 V max. 20 mA @ 24Vdc
Signal/indicator connections		Push-In, max 2.5 mm²	Push-In, max 2.5 mm²
Surroundings			
Storage temperature		-25 °C to +85 °C	-25 °C to +85 °C
Ambient temperature		-25 °C to +70 °C	-25 °C to +70 °C
Derating		-3 %/K > +50 °C	-3 %/K > +50 °C
Convection cooling		√	√
Air humidity	No condensation	max. 0.7 A	max. 1.3 A
Required minimum clearance (side)		---	---
Required minimum clearance (top/bottom)		50 mm	50 mm
General specifications			
Protection acc. to IEC 60529		IP 20	IP 20
Protection class acc. to EN 61140		II	II
Standards			
Safety		EN 61558-2-16, EN 60950-1	EN 61558-2-16, EN 60950-1
EMC		EN 61204-3	EN 61204-3
Protective low voltage (SELV/PELV)		IEC 60364-4-41 (DIN VDE 0100-410)	IEC 60364-4-41 (DIN VDE 0100-410)
CE acc. to 2004/108/EG and 2006/95/EG		√	√

* A suitable DC series fuse is required for the DC input voltage.

DC power supplies PSPC

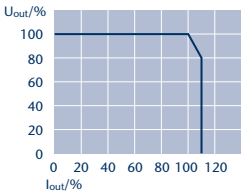
- Primary clocked DC power supply
- Easy to mount on a TS 35 DIN rail
- Wide-range input
- Adjustable output voltage
- No-load and short-circuit safe
- Thermal overload protection
- Ambient temperature: -25 to +70 °C
- IP 20 protection

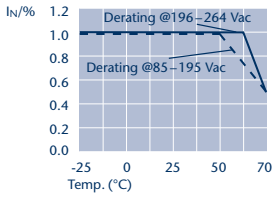
Standards: EN 61558-2-17, EN 60950 (safety); EN 61204-3 (EMC)

PSPC 230/24-5A

PSPC 230/24-10A

Output characteristic curve





Type Cat. no.		PSPC 230/24-5A Qty. 1 16183.2	PSPC 230/24-10A Qty. 1 16184.2
Size (L x W x H) with TS 35 x 7.5 mm		42 x 127 x 126	55 x 127 x 161
Weight		590 g	930 g
Classification		Primary switch-mode power supply	Primary switch-mode power supply
Rail assembly		TS 35 acc. to EN 60715	TS 35 acc. to EN 60715
Connection type		Pressure-spring connection	Pressure-spring connection
Wire connect cross-section		Max. 2.5 mm²	Max. 2.5 mm²
Input data			
Nominal input voltage		100 to 240 Vac	100 to 240 Vac
Input voltage range		85 to 264 Vac (120 to 372 Vdc)*	85 to 264 Vac (120 to 372 Vdc)*
Input voltage derating		-2.5 %/Vac < 97 Vac	-2.5 %/Vac < 100 Vac
Nominal frequency range		47 Hz to 63 Hz / 0 Hz	47 Hz to 63 Hz / 0 Hz
Input rated current (rated load)		2.25 A (100 Vac) / 1.2 A (230 Vac)	2.74 A (100 Vac) / 1.25 A (230 Vac)
Inrush current limit		< 30 A, NTC	< 30 A, NTC
Switch-on time, after mains voltage is applied		0.25 s (100 Vac) / 0.2 s (230 Vac)	1.3 s (100 Vac) / 0.25 s (230 Vac)
Mains failure bridging (rated load)		10 / 80 ms (100 / 230 Vac)	15 / 17 ms (100 / 230 Vac)
Recommended power circuit breaker (characteristics)		6 A, 10 A, 16 A (B,C)	10 A, 16 A (B,C)
Transient overvoltage protection	Varistor	√	√
Input connections		Push-In, max 2.5 mm²	Push-In, max 2.5 mm²
Output specifications			
Output rated voltage		24 Vdc ± 1%	24 Vdc ± 1%
Output voltage range		23 to 28.5 Vdc	23 to 28.5 Vdc
Output current		5 A	10 A
Output current limit	Constant current	5.5 A typ.	typ. 11 to 13 A
Parallel wiring, Series wiring		√ √	√ √
Power loss for no load / rated load		1.2 W / 14.6 W (230 Vac)	6.6 W / 24.4 W (230 Vac)
Max. power loss		19.4 W (100 Vac / 24 V / 5 A)	31.3 W (100 Vac / 24 V / 10 A)
Efficiency		typ. 89 %	typ. 91 %
Residual ripple (rated load)		typ. 30 mVss	typ. 50 mVss
Feedback resistance		Max. 35 Vdc	Max. 35 Vdc
Internal overvoltage protection (OVP)		Max. 41 Vdc	Max. 40 Vdc
Output connections		Push-In, max 2.5 mm²	Push-In, max 2.5 mm²
Indicator			
"DC OK" status display	LED continuously lit green	Uout > 21.5 V	Uout > 21.5 V
"DC OK" signal output	Relay, contact closed:	Uout > 21.5 V max. 30 V / 1 A	Uout > 21.5 V max. 30 V / 1 A
Signal/indicator connections		Push-In, max 2.5 mm²	Push-In, max 2.5 mm²
Surroundings			
Storage temperature		-25 °C to +85 °C	-25 °C to +85 °C
Ambient temperature		-25 °C to +70 °C	-25 °C to +70 °C
Derating		-5 %/K > +60 °C (196 to 264 Vac) 2.5 %/K > +50 °C (85 to 195 Vac)	-5 %/K > +60 °C (196 to 264 Vac) -2.5 %/K > +50 °C (85 to 195 Vac)
Convection cooling		√	√
Air humidity	No condensation	30 to 85%	30 to 85%
Required minimum clearance (side)		---	---
Required minimum clearance (top/bottom)		50 mm	50 mm
General specifications			
Protection acc. to IEC 60529		IP 20	IP 20
Protection class acc. to EN 61140		I	I
Standards			
Safety		EN 61558-2-16, EN 60950-1	EN 61558-2-16, EN 60950-1
EMC		EN 61204-3	EN 61204-3
Protective low voltage (SELV/PELV)		IEC 60364-4-41 (DIN VDE 0100-410)	IEC 60364-4-41 (DIN VDE 0100-410)
CE acc. to 2004/108/EG and 2006/95/EG		√	√

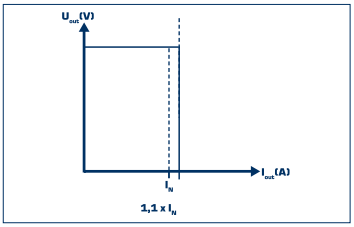
PSPI direct current power supplies

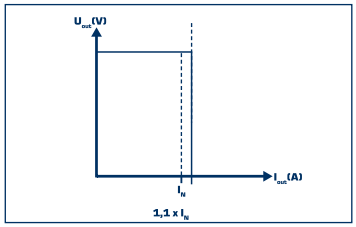
- Primary clocked switch-mode power supply
- Easy to mount on TS 35 DIN rail
- Wide-range input
- Adjustable output voltage
- No-load and short-circuit safe
- Thermal overload protection
- Ambient temperature: -25 to 55°C
- IP 20 protection
- Step-shaped profile is perfect for small distributor installations
- Standards: EN 61558-2-17, EN 60950 (safety); EN 61204-3 (EMC)

PSPI 230/24-1,3

PSPI 230/24-2,5

Output characteristic curve





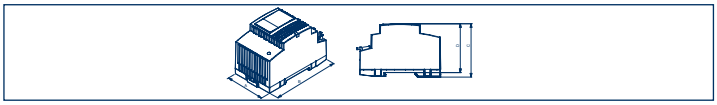
Type Cat. no.	PSPI 230/24-1.3 Qty. 16110.2 1	PSPI 230/24-2.5 Qty. 16111.2 1
Size (L x W x H) with TS 35 x 7.5 mm	89 x 54 x 62	89 x 72 x 62
Weight	170 g	240 g
Classification	Primary switch-mode power supply	Primary switch-mode power supply
Rail assembly	TS 35 acc. to EN 60715	TS 35 acc. to EN 60715
Connection type	Tension-spring connection	Tension-spring connection
Wire connect cross-section	Max. 2.5 mm²	Max. 2.5 mm²
Input data		
Nominal input voltage	100 to 240 V AC	100 to 240 V AC
Input voltage range	85 to 264 V AC (120 to 373 V DC)	85 to 264 V AC (120 to 373 V DC)
Nominal frequency range	44 to 66 Hz	44 to 66 Hz
Input current at nominal load (110 / 230 V AC)	0.7 / 0.5 A	1.4 / 0.6 A
Inrush current limit	< 30 A, NTC	< 30 A, NTC
Input fuse, internal	2 A (slow-acting)	2 A (slow-acting)
Recommended series fuse*	6 A, 10 A, 16 A; characteristics B,C	6 A, 10 A, 16 A; characteristics B,C
Mains failure bridging at nominal load (110 / 230 V AC)	10 / 80 ms	10 / 80 ms
Output specifications		
Output voltage	24 V DC ± 2%	24 V DC ± 2%
Output voltage range	22.8 to 26.4 V DC	22.8 to 26.4 V DC
Output current	1.3 A	2.5 A
Overload behaviour	Constant current (U/I char. curve)	Constant current (U/I char. curve)
Parallel wiring, Series wiring	√ √	√ √
Efficiency	typ. 82%	typ. 88%
Residual ripple (rated load)	typ. 100 mVss	typ. 100 mVss
Safety and protection		
Protection	IP 20	
Test voltage	4.2 kV DC	
Protection class	II (in a closed electrical cabinet)	
Connection cable	Use copper cable with min. 60 °C or 60/75 °C for connecting	
Intended use	For use in zones with contamination degree 2	
Resistance to feedback current	Max. 30 V DC	
Surroundings		
Indicator	green LED	green LED
Storage temperature	-25 to +80 °C	-25 to +80 °C
Ambient temperature	-25 to +55 °C	-25 to +55 °C
Derating	-3%/K > +45 °C	-3%/K > +45 °C
Mounting position	Horizontal for TS 35	Horizontal for TS 35
Permitted air humidity	30 to 85% relative humidity, no condensation permitted	30 to 85% relative humidity, no condensation permitted
Current capacity at any mounting position	max. 0.9 A	max. 1.6 A
Cooling	self-cooling	self-cooling
Distance from adjacent components	15 mm right/left, 70 mm top/bottom	15 mm right/left, 70 mm top/bottom
Standards	**EN 61558-2-17**	
Safety	EN 61558-2-17 EN 60950 (SELV)	EN 61558-2-17 EN 60950 (SELV)
EMC	EN 61204-3	EN 61204-3
UL approvals	Pending	Pending

PSPI direct current power supplies

- Primary clocked switch-mode power supply
- Easy to mount on TS35 DIN rail
- Wide-range input
- Adjustable output voltage
- No-load and short-circuit safe
- Thermal overload protection
- Ambient temperature: -25 to 55°C
- IP 20 protection
- Step-shaped profile is perfect for small distributor installations
- Standards: EN 61558-2-17, EN 60950 (safety); EN 61204-3 (EMC)

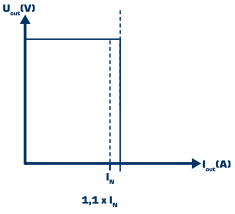
PSPI 230/24-4

Dimensional drawing



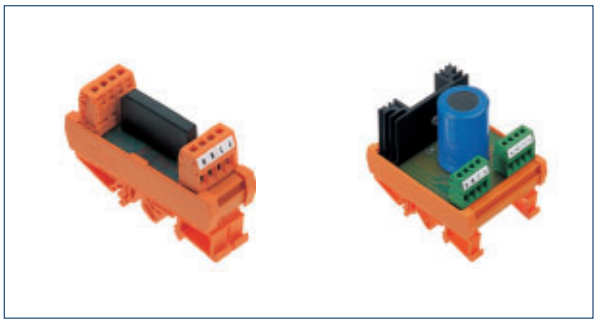
	A	B	C	D
PSPI 230/24-1,3	54	89	59	54
PSPI 230/24-2,5	72	89	59	54
PSPI 230/24-4,0	90	89	59	54

Output characteristic curve



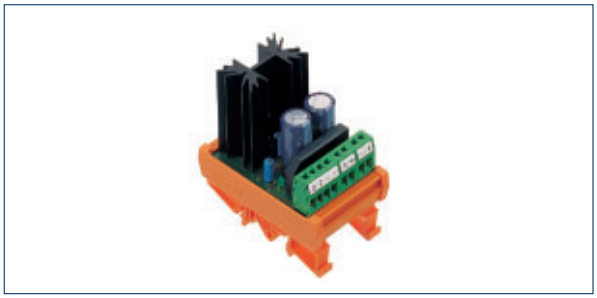
Type	PSPI 230/24-4	Qty.
Cat. no.	16112.2	1
Size (L x W x H) with TS 35 x 7.5 mm	89 x 90 x 62	
Weight	300 g	
Classification	Primary switch-mode power supply	
Rail assembly	TS 35 acc. to EN 60715	
Connection type	Tension-spring connection	
Wire connect cross-section	Max. 2.5 mm²	
Input data		
Nominal input voltage	100 to 240 V AC	
Input voltage range	85 to 264 V AC (120 to 373 V DC)	
Nominal frequency range	44 to 66 Hz	
Input current at nominal load (110 / 230 V AC)	1.6 / 0.9 A	
Inrush current limit	< 30 A, NTC	
Input fuse, internal	2 A (slow-acting)	
Recommended series fuse*	6 A, 10 A, 16 A; characteristics B,C	
Mains failure bridging at nominal load (110 / 230 V AC)	15 / 100 ms	
Output specifications		
Output voltage	24 V DC ± 2%	
Output voltage range	22.8 to 26.4 V DC	
Output current	4.0 A	
Overload behaviour	Constant current (U/I char. curve)	
Parallel wiring, Series wiring	√ √	
Efficiency	typ. 88%	
Residual ripple (rated load)	typ. 100 mVss	
Safety and protection		
Protection	IP 20	
Test voltage	4.2 kV DC	
Protection class	II (in a closed electrical cabinet)	
Connection cable	Use copper cable with min. 60 °C or 60/75 °C for connecting	
Intended use	For use in zones with contamination degree 2	
Resistance to feedback current	Max. 30 V DC	
Surroundings		
Indicator	green LED	
Storage temperature	-25 to +80 °C	
Ambient temperature	-25 to +55 °C	
Derating	-3%/K > +45 °C	
Mounting position	Horizontal for TS 35	
Permitted air humidity	30 to 85% relative humidity, no condensation permitted	
Current capacity at any mounting position	max. 2.4 A	
Cooling	self-cooling	
Distance from adjacent components	15 mm right/left, 70 mm top/bottom	
Standards		
Safety	EN 61558-2-17 EN 60950 (SELV)	
EMC	EN 61204-3	
UL approvals	Pending	

DC Power Supplies



AC/DC rectifier modules GM

Rectifier modules make possible the simple conversion of existing AC voltage into a buffered or unbuffered DC voltage.

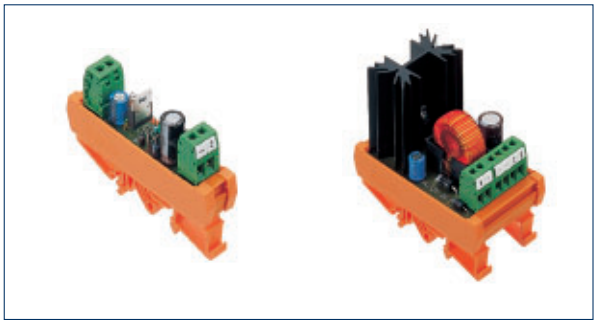


AC/DC converter modules ACDCG

The **ACDCG** power supply modules convert an input-side alternating or DC voltage into an output-side linear-stabilized DC voltage. All modules feature an output which is short-circuit proof. They are available in various output voltages – 5 V, 12 V, 15 V and 24 V – for every application.

VSTAB stabilized DC/DC converter modules

VSTAB power supply modules enable the conversion of a large AC voltage into a smaller one. An extra power supply is no longer necessary. All modules feature a stabilized alternating voltage for output. They are available in various output voltages – 5 V, 10 V, 12 V, 15 V and 24 V – for every application.



DC-DC stabilized DC/DC converter modules

DC/DC converter modules can be used to convert an existing larger DC voltage into a smaller DC voltage. An extra power supply is no longer necessary. All modules offer an output which is short-circuit proof. They are available in various output voltages – 5 V, 12 V, 15 V and 24 V – and also in various current strengths for every application.

DC Power Supplies

DC/DC converter units CML-DCDC

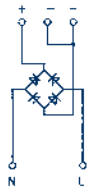
The **CML-DCDC** units can convert an input voltage of up to 65 V DC into a smaller stabilized DC voltage. This provides you with a simple and compact solution for operating sensors or component assemblies which require other operating voltages.

A variety of versions are available for covering different output voltages and also a multi-function unit with adjustable output voltage. All units are designed to be short-circuit safe on the output side. They also have a thermal shut-off feature during overloads. If the input voltage falls below the defined minimal value, then the output voltage is adjusted down to a lower value.

AC/DC rectifier modules GM

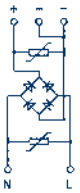
- Mounts on TS 32/TS 35
- Optional varistor circuitry in output and input circuits
- Output side: unbuffered DC voltage

Circuit diagram



1

Circuit diagram



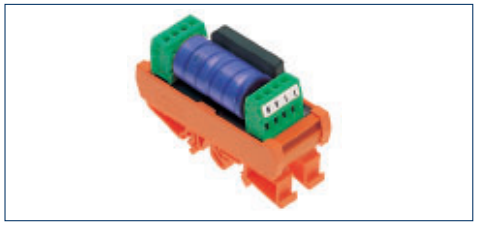
2

Type Cat. no./Qty.	GM 1-0 500 V AC 15668.2	GM 1-0 5738.2/1	GM 1-V/24 5758.2/1	GM 1-V/230 5759.2/1
Circuit diagram	1	1	2	2
Connection type	Screw connection	Screw connection	Screw connection	Screw connection
Size (L x W x H) with TS 35 x 7.5	87 x 28 x 57 mm	87 x 24 x 57 mm	87 x 24 x 57 mm	87 x 24 x 57 mm
Weight	60 g	46 g	50 g	50 g
General specifications				
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III
Operating temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Important notes				
Stripping length	7mm	7 mm	7mm	7mm
Wire connect cross-section	0.2-2.5mm^2/AWG 22-14	0.2-2.5mm^2/AWG 22-14	0.2-2.5mm^2/AWG 22-14	0.2-2.5mm^2/AWG 22-14
Input data				
Max. input voltage	500 V AC	230 V AC	24 V AC	230 V AC
Varistor	-	-	S 14 K 30	S 14 K 275
Output specifications				
Max. current	2 A	2 A	2 A	2A
Varistor	-	-	S 14 K 30	S 14 K 275

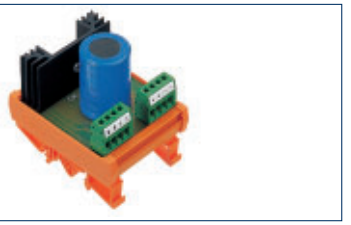
AC/DC rectifier modules GM

- Mounts on TS 32/TS 35
- 2A and 4A versions
- Buffer capacitor circuitry in output circuit
- Buffered DC output voltage

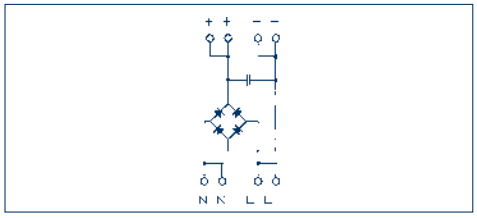
GM 1 A/C



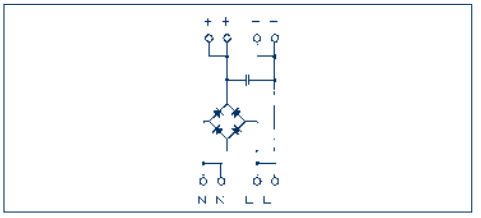
GM 1-4 A/C



Circuit diagram



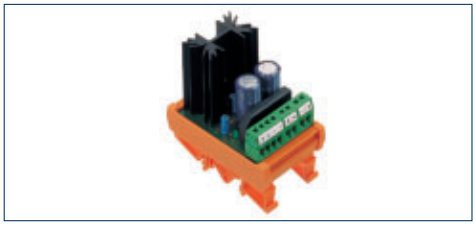
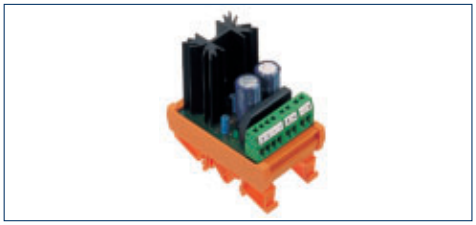
Circuit diagram



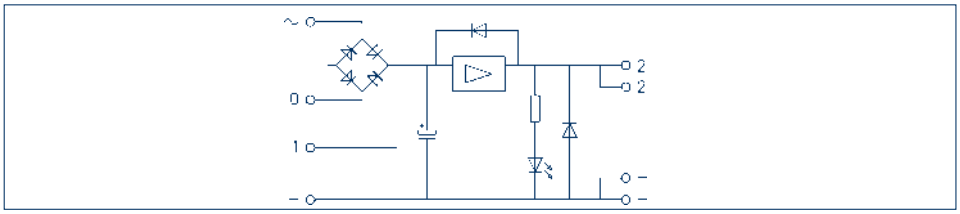
Type Cat. no./Qty.	GM 1 A/C 6144.2/1	GM 1-4 A/C 6999.0/1
Connection type	Screw connection	Screw connection
Size (L x W x H) with TS 35 x 7.5	87 x 30 x 57mm	87 x 65 x 105mm
Weight	84 g	186 g
General specifications		
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III
Operating temperature	-20 to +50 °C	-20 to +50 °C
Important notes		
Stripping length	7 mm	7 mm
Wire connect cross-section	0.2 to 2.5 mm^2/AWG 22 to 14	0.2 to 2.5 mm^2/AWG 22 to 14
Input data		
Max. input voltage	28 V AC	28 V AC
Output specifications		
Max. current	2 A	4 A
Buffer capacitor	4700 µF	10000 µF

AC/DC converter modules ACDCG

- Mounts on TS 32/TS 35
- Input: AC or DC
- Linear stabilized DC voltage on output side
- Short-circuit safe output
- Green LED indicator for displaying the operational status
- Other output voltages available on request

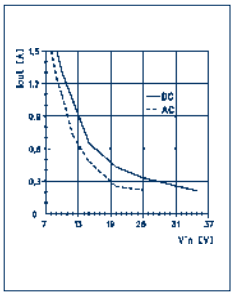
ACDCG/5-1.5	ACDCG/12-1.5	ACDCG/15-1.5	ACDCG/24-1.5
			

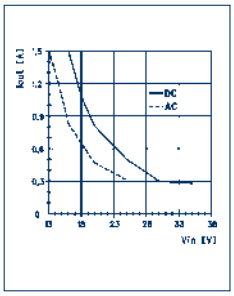
Circuit diagram

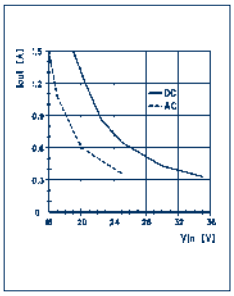


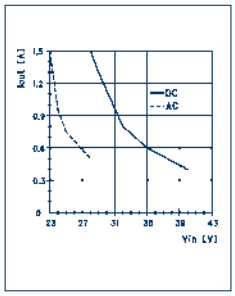
Type Cat. no./Qty.	ACDCG/5-1.5 15024.2/1	ACDCG/12-1.5 15025.2/1	ACDCG/15-1.5 15026.2/1	ACDCG/24-1.5 15027.2/1
Connection type	Screw connection	Screw connection	Screw connection	Screw connection
Size (L x W x H) with TS 35 x 7.5	87 x 54 x 87mm	87 x 54 x 87mm	87 x 54 x 87mm	87 x 54 x 87mm
Weight	150 g	150 g	150 g	150 g
General specifications				
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III
Operating voltage indicator (LED)	Green	Green	Green	Green
Operating temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Important notes				
Stripping length	7 mm	7 mm	7 mm	7 mm
Wire connect cross-section	0.2-2.5 mm²/AWG 22-14	0.2-2.5 mm²/AWG 22-14	0.2-2.5 mm²/AWG 22-14	0.2-2.5 mm²/AWG 22-14
Input data				
DC input voltage	7.5 to 35 V DC	14.5 to 35 V DC	17.5 to 35 V DC	26.5 to 35 V DC
AC input voltage	8 to 25 V AC	13 to 25 V AC	16 to 25 V AC	23 to 28 V AC
Rated power consumption	14 W @ 9 V DC 20 VA @ 8 V AC	25 W @ 16 V DC 31 VA @ 13 V AC	29 W @ 19 V DC 38 VA @ 16 V AC	43 W @ 28 V DC 55 VA @ 23 V AC
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Output specifications				
Output voltage, ± 5%	5 V DC	12 V DC	15 V DC	24 V DC
Max. output current	1.5 A, see diagram	1.5 A, see diagram	1.5 A, see diagram	1.5 A, see diagram
Residual ripple	< 50 mV	< 50 mV	< 50 mV	< 50 mV
Short-circuit resistant	yes	yes	yes	yes
Derating curve				

(Input voltage vs. output current)





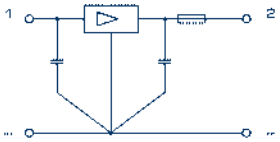




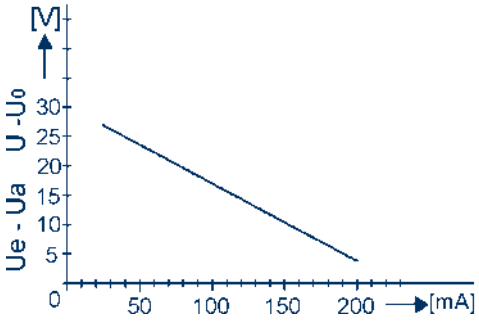
DC/DC stabilized converter modules VSTAB

- Mounts on TS 32/TS 35
- Compact design
- DC/DC power supply
- Output voltage: 5, 10, 15, and 24 V DC
- Other output voltages available on request
- VSTAB 24 also available with AC input voltage

Circuit diagram



Type Cat. no./Qty.	VSTAB 5 6139.2/1	VSTAB 10 6140.2/1	VSTAB 12 6141.2/1	VSTAB 15 6142.2/1	VSTAB 24 6143.2/1
Connection type	Screw connection	Screw connection	Screw connection	Screw connection	Screw connection
Size (L x W x H) with TS 35 x 7.5	87 x 24 x 57mm	87 x 24 x 57mm	87 x 24 x 57mm	87 x 24 x 57mm	87 x 24 x 57mm
Weight	45 g	45 g	45 g	45 g	45 g
General specifications					
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III, DIN VDE 0551
Operating temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Important notes					
Stripping length	7 mm	7 mm	7 mm	7 mm	7 mm
Wire connect cross-section	0.2-2.5 mm²/AWG 22-14	0.2-2.5 mm²/AWG 22-14	0.2-2.5 mm²/AWG 22-14	0.2-2.5 mm²/AWG 22-14	0.2-2.5 mm²/AWG 22-14
Input data					
Input voltage	8 to 35 V DC	13 to 35 V DC	15 to 35 V DC	18 to 35 V DC	27 to 35 V DC
Max. current	0.2 A	0.2 A	0.2 A	0.2 A	0.2 A
Voltage-current diagram					

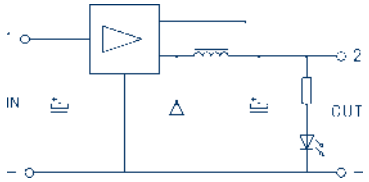


Output specifications					
Output voltage, ± 5%	5 V DC	10 V DC	12 V DC	15 V DC	24 V DC
Fuse	0.25 A slow-acting (5 x 20mm)	0.25 A slow-acting (5 x 20mm)	0.25 A slow-acting (5 x 20mm)	0.25 A slow-acting (5 x 20mm)	0.25 A slow-acting (5 x 20mm)
Residual ripple	< 50 mV	< 50 mV	< 50 mV	< 50 mV	< 50 mV
Max. output current	0.2 A	0.2 A	0.2 A	0.2 A	0.2 A
Short-circuit resistant	yes	yes	yes	yes	yes

Stabilized DC/DC converter modules DC-DC

- Mounts on TS 32/TS 35
- DC/DC converter
- Short-circuit safe output
- LED indicator for displaying operational status
- Version available with variable output voltage (DC/DC/ADJ-3) available upon request

Circuit diagram

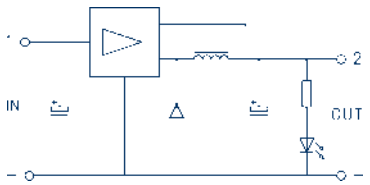


Type Cat. no./Qty.	DC-DC/5-0,5 7791.2/1	DC-DC/10-0,5 6810.0/1	DC-DC/12-0,5 7792.2/1	DC-DC/15-0,5 7793.2/1	DC-DC/24-0,5 1343.9/1
Connection type	Screw connection	Screw connection	Screw connection	Screw connection	Screw connection
Size (L x W x H) with TS 35 x 7.5	87 x 18 x 57mm	87 x 18 x 57mm	87 x 18 x 57mm	87 x 18 x 57mm	87 x 18 x 57mm
Weight	39 g	39 g	39 g	39 g	39 g
General specifications					
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Efficiency	75%	80%	80%	85%	85%
Switching frequency	50 kHz	50 kHz	50 kHz	50 kHz	50 kHz
Operating temperature	0 to +50 °C	0 to +50 °C	0 to +50 °C	0 to +50 °C	0 to +50 °C
Important notes					
Stripping length	7mm	7mm	7mm	7mm	7mm
Wire connect cross-section	0.2-2.5mm²/AWG 22-14	0.2-2.5mm²/AWG 22-14	0.2-2.5mm²/AWG 22-14	0.2-2.5 mm²/AWG 22-14	0.2-2.5mm²/AWG 22-14
Input data					
Input voltage	7.5 to 40 V DC	14.5 to 40 V DC	14.5 to 40 V DC	17.5 to 40 V DC	25.5 to 40 V DC
Neutral load current	5 mA	5 mA	5 mA	5 mA	5 mA
Input current with max. load	475 mA	480 mA	480 mA	485 mA	485 mA
Output specifications					
Output voltage	5 V DC ± 5%	10 V DC ± 5%	12 V DC ± 5%	15 V DC ± 5%	24 V DC ± 5%
Max. power	2.5 W	5 W	6 W	7.5 W	6 W
Max. current	500 mA	500 mA	500 mA	500 mA	250 mA
Short-circuit current	900 mA	900 mA	900 mA	900 mA	900 mA
Residual ripple	< 100 mV	< 100 mV	< 100 mV	< 100 mV	< 125 mV
Short-circuit resistant	yes	yes	yes	yes	yes

Stabilized DC/DC converter modules DC-DC

- Mounts on TS 32/TS 35
- DC/DC converter
- Short-circuit safe output
- LED indicator for displaying operational status
- Version available with variable output voltage (DC/DC/ADJ-3) available upon request

Circuit diagram



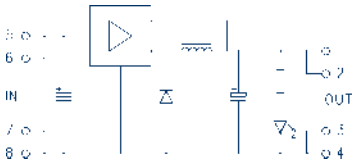
Type Cat. no./Qty.	DC-DC/5-3 7794.2/1	DC-DC/10-3 1373.9/1	DC-DC/12-3 7795.2/1	DC-DC/15-3 7796.2/1	DC-DC/24-3 6937.0/1
Connection type	Screw connection	Screw connection	Screw connection	Screw connection	Screw connection
Size (L x W x H) with TS 35 x 7.5	87 x 50 x 88mm	87 x 50 x 88mm	87 x 50 x 88mm	87 x 50 x 88mm	87 x 50 x 88mm
Weight	157 g	157 g	157 g	157 g	157 g
General specifications					
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Efficiency	75%	80%	80%	85%	85%
Switching frequency	50 kHz	50 kHz	50 kHz	50 kHz	50 kHz
Operating temperature	0 to +50 °C	0 to +50 °C	0 to +50 °C	0 to +50 °C	0 to +50 °C
Important notes					
Stripping length	7mm	7mm	7mm	7mm	7mm
Wire connect cross-section	0.2-2.5mm²/AWG 22-14	0.2-2.5mm²/AWG 22-14	0.2-2.5mm²/AWG 22-14	0.2-2.5mm²/AWG 22-14	0.2-2.5mm²/AWG 22-14
Input data					
Input voltage	7.5 to 40 V DC	12.5 to 40 V DC	14.5 to 40 V DC	17.5 to 40 V DC	27 to 40 V DC
Neutral load current	8 mA	25 mA	20 mA	25 mA	25 mA
Input current with max. load	2.9 A	2.9 A	2.9 A	2.9 A	2.9 A
Output specifications					
Output voltage	5 V DC ± 5%	10 V DC ± 5%	12 V DC ± 5%	15 V DC ± 5%	24 V DC ± 5%
Max. power	15 W	30 W	36 W	45 W	72 W
Max. current	3 A	3 A	3 A	3 A	3 A
Short-circuit current	5.3 A	5.3 A	5.3 A	5.3 A	5.3 A
Residual ripple	< 200 mV	< 250 mV	< 250 mV	< 250 mV	< 250 mV
Short-circuit resistant	yes	yes	yes	yes	yes

DC/DC stabilized converter modules CML

- Mounts on TS 35
- Compact design, width: 6.2 mm
- Screw connection
- Input voltage up to 65 V DC
- Output current up to 0.5 A
- Short-circuit safe output
- LED indicator for displaying operational status
- Output voltage is fixed or variable
- Output voltage adjustment mechanism is always accessible

CML DCDC/5-0.5 | **CML DCDC/10-0.5** | **CML DCDC/12-0.5**

Circuit diagram



Type Cat. no./Qty.	CML-DCDC/5-0.5 15914.2/1	CML-DCDC/10-0.5 15915.2/1	CML-DCDC/12-0.5 15916.2/1
Size (L x W x H) with TS 35 x 7.5	93.1 x 6.2 x 102.5 mm	93.1 x 6.2 x 102.5 mm	93.1 x 6.2 x 102.5 mm
Weight	66 g	66 g	66 g
Colour	grey	grey	grey
General specifications			
DIN-VDE specifications	DIN EN 50178:1997; DIN VDE 0110, contamination degree 2, overvoltage category III	DIN EN 50178:1997; DIN VDE 0110, contamination degree 2, overvoltage category III	DIN EN 50178:1997; DIN VDE 0110, contamination degree 2, overvoltage category III
Efficiency	70 %	80 %	81%
Switching frequency	315 kHz	510 kHz	575 kHz
Operating temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Connection type	**Screw connection**	**Screw connection**	**Screw connection**
Stripping length	12 mm	12 mm	12 mm
Conductor cross-section / Screw connection	0.2 to 2.5 mm^2/AWG 22 to 14	0.2 to 2.5 mm^2/AWG 22 to 14	0.2 to 2.5 mm^2/AWG 22 to 14
Input data			
Input voltage	10 to 65 V DC	15 to 65 V DC	18 to 65 V DC
Neutral load current	< 4 mA	< 5 mA	< 5 mA
Input current with max. load (40 V)	90 mA	155 mA	185 mA
Output specifications			
Output voltage	5 V DC ± 5%	10 V DC ± 5%	12 V DC ± 5%
Max. power	2.5 W	5 W	6 W
Max. current	0.5 A	0.5 A	0.5 A
Short-circuit current	0.7 A	0.7 A	0.7 A
Residual ripple	20 mV	25 mV	25 mV
Short-circuit resistant	yes	yes	yes
LED status display	green	green	green

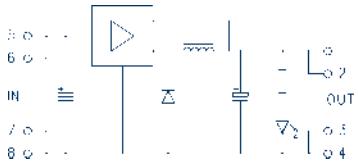
*The required input voltage is dependent on the set output voltage:
For minimum input voltage (Uout min) Uin = Uout + 5 V
For maximum output voltage (Uout max) Uin = Uout + 8 V

DC/DC stabilized converter modules CML

- Mounts on TS 35
- Compact design, width: 6.2 mm
- Screw connection
- Input voltage up to 65 V DC
- Output current up to 0.5 A
- Short-circuit safe output
- LED indicator for displaying operational status
- Output voltage is fixed or variable
- Output voltage adjustment mechanism is always accessible

CML DCDC/15-0.5 | **CML DCDC/24-0.5** | **CML DCDC/ADJ-0.5**

Circuit diagram



Type Cat. no./Qty.	CML-DCDC/15-0.5 **15917.2**/1	CML-DCDC/24-0.5 **15902.2**/1	CML-DCDC/ADJ-0.5 **15918.2**/1
Size (L x W x H) with TS 35 x 7.5	93.1 x 6.2 x 102.5 mm	93.1 x 6.2 x 102.5 mm	93.1 x 6.2 x 102.5 mm
Weight	66 g	66 g	66 g
Colour	grey	grey	grey
General specifications			
DIN-VDE specifications	DIN EN 50178:1997; DIN VDE 0110, contamination degree 2, overvoltage category III	DIN EN 50178:1997; DIN VDE 0110, contamination degree 2, overvoltage category III	DIN EN 50178:1997; DIN VDE 0110, contamination degree 2, overvoltage category III
Efficiency	83 %	85 %	63 to 80 %
Switching frequency	560 kHz	530 kHz	170 to 830 kHz
Operating temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Connection type	**Screw connection**	**Screw connection**	**Screw connection**
Stripping length	12 mm	12 mm	12 mm
Conductor cross-section / Screw connection	0.2 to 2.5 mm²/AWG 22 to 14	0.2 to 2.5 mm²/AWG 22 to 14	0.2 to 2.5 mm²/AWG 22 to 14
Input data			
Input voltage	22 to 65 V DC	32 to 65 V DC	Uout+(5– 8V)– 65 VDC*
Neutral load current	< 5 mA	< 5 mA	< 10 mA
Input current with max. load (40 V)	225 mA	350 mA	60 to 350 mA
Output specifications			
Output voltage	15 V DC ± 5%	24 V DC ± 5%	3 to 26 V DC
Max. power	7.5 W	12 W	13 W
Max. current	0.5 A	0.5 A	0.5 A
Short-circuit current	0.7 A	0.7 A	0.7 A
Residual ripple	25 mV	40 mV	100 mV
Short-circuit resistant	yes	yes	yes
LED status display	green	green	green

*The required input voltage is dependent on the set output voltage:
For minimum input voltage (Uout min) Uin = Uout + 5 V
For maximum output voltage (Uout max) Uin = Uout + 8 V

CONTA-PROTECT overvoltage protection

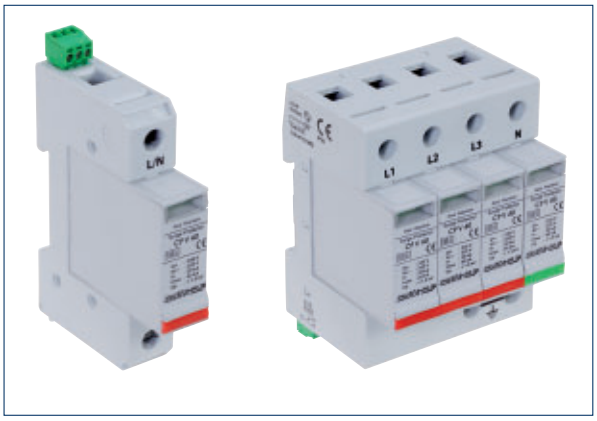
When choosing the correct device for overvoltage protection, it is important to consider the regulations VDE 110-1, IEC 61643-1, EN 61643-11 and VDE 0185 sect. 100. These deal with surge-voltage resistance, insulation, and lightning protection classes.

CONTA-CLIP protection components meet VDE and IEC requirements, and sometimes go beyond them. New solutions from **CONTA-CLIP** offer many advantages for our users.

CONTA-PROTECT overvoltage protection

Overvoltage arrester CP DS 250 VG

The **CP DS 250 VG** overvoltage arrester, from arrester class B|C|D (TYPE 1|2|3), enables reliable protection for electrical distributor facilities. The **CP DS 250 VG**, with its one-piece design, is available with remote signalling with a potential-free CO contact. The integrated monitoring unit signals when an overload occurs. The visible outer label field turns red, thus showing that it must be replaced as soon as possible. The **CP DS 250 VG** overvoltage arrester is equipped with a dual-function terminal. This allows it to be connected to live conductors or to comb rails.

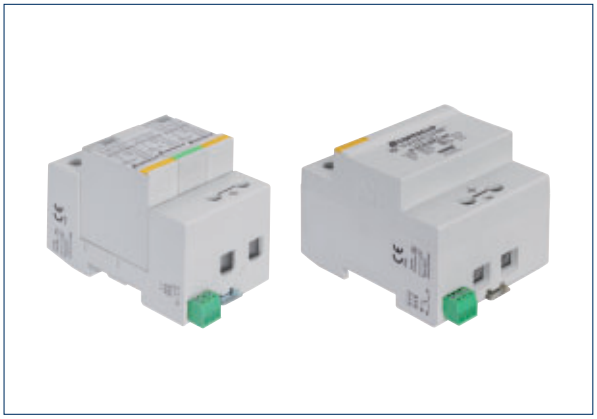


The CP V 40 and CP VH 40 overvoltage arresters

The **CP V 40** and **CP VH 40** overvoltage arresters, from arrester class 2 (C) are used to reliably protect electrical facilities. The **CP V 40**, with its two-piece design, is also available as the **CP VH 40** with remote signalling with a potential-free CO contact. The integrated monitoring unit signals when an overload occurs. The visible outer label field turns red, thus showing that it must be replaced as soon as possible. The **CP V 40** and **CP VH** 40 overvoltage arresters are equipped with a dual-function terminal. This allows them to be connected to live conductors or to comb rails. Two-pole and four-pole versions (e.g. for TT systems) are also available.

The CP V 10 and CDS VH 98 overvoltage arresters

The **CP V 10** and **CDS 98** overvoltage arresters, from arrester class 3 (D) provide reliable overvoltage protection for supply lines within switchgear and control cabinets. The **CDS 98** has a one-piece design. The **CP V 10** is two-piece. The integrated monitoring unit signals when an overload occurs. The visible outer label field of the **CP V 10** arrester turns red, thus showing that it must be replaced as soon as possible. The **CDS 98** overvoltage arrester signals the overload with an LED.



Overvoltage arresters CP VH 60 PV and CP VH 50 PV

The **CP VH 60 PV** and **CP VH 50 PV** overvoltage arresters (in arrester classes 1|2 (B|C)) are specially designed to protect photovoltaic facilities against overvoltages. They are designed for operating voltages up to 1000 V DC. Both of these arresters are equipped with remote signalling in the form of a potential-free CO contact. The integrated monitoring unit signals when an overload occurs. The visible outer label field turns red, thus showing that it must be replaced as soon as possible.

The protective circuitry consists of our proven VG technology with a gas-filled spark gap (GSG) and high-power varistors.
Accurate insulation measurements are made possible by the special design and shared circuitry of the components. Passive ageing is prevented since there are no operational or leakage currents. These arresters are also suitable for use in thin-film facilities because of their electrical isolation.

CONTA-PROTECT overvoltage protection

Overvoltage arresters for AC applications Type 1|2|3 (B|C|D)

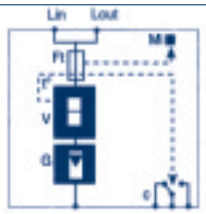
- Combi-arrester, Type 1|2|3, based on a gas-filled spark gap
- Iimp: 25 kA (waveform 10/350 µs)
- Does not generate (mains) secondary current
- Reduces energy costs
- Environmentally friendly
- Meets the special requirements for use in front of the electrical meter
- Active energy control
- Remote signalling
- Complies with EN 61643-11 and IEC 61643-1 standards

- Mounts on TS 35
- Screw connection

V : High-energy varistor block
G : Gas filled spark gap
Ft : Thermal fuse
C : Remote signalling contact
t° : Thermal separator
MI : Error display

CP DS 250 VG

Circuit diagram



1-pole type		**CP DS 250 VG**	**Qty.**
Cat. no./Qty.		**15617.2**	**1**
Size (L x W x H) with TS 35 x 7.5		90 x 36 x 68.4 mm	
Weight		238 g	
Arrester | Class		**Type 1|2|3 class B|C|D**	
Technical data			
Rated voltage	Un	230/400V	
Max. continuous voltage	Uc	255 V AC	
Rated frequency	fn	DC - 100 Hz	
Lightning surge current (10/350) µs	Iimp	25 kA	
Rated discharge surge current	Imax	70 kA	
Max. discharge current (8/20) µs	In	30 kA	
Combined pulse	Uoc	20 kV	
Protection level	Up	< 1.5 kV	
Residual voltage	Ures	< 0.8 kV	
Operating current	I_c	None	
Follow-on current	If	none	
Follow-on current suppression capability	Ifi	infinite	
Response time	t_A	< 20 ns	
TOV voltage L-N	U_T	450 V / 5 s	
TOV voltage N-PE	U_T	1200 V/300 A (200 ms)	
TOV voltage L-PE	U_T	1454 V/300 A (200 ms)	
Short-circuit resistance	I_p	25 kA	
Max. series fuse		315 A (gL/gG)	
Malfunction display		Mechanical, red	
Temperature range		-40 to +85 °C	
Wire connect cross-section		6 to 50 mm²	
Protection		IP20	
Rail assembly		TS 35 acc. to EN 60715	
Installation dimensions, TE		2 TE, DIN 43880	
Housing material		Thermo plastic PEI UL-94-5VA	
Testing standards			
DIN EN 61643-11	Germany	Combi-arrester type 1, 2, 3	
IEC 61643-1	International	Low voltage SPD - Class I, II and III test	
EN 61643-11	Europe	Low voltage SPD - Class I, II and III test	
UL1449 ed.2	USA	Low voltage TVSS	
Type of mains net			
		TNC, TNS	
Remote signalling			
Remote signalling		Potential-free CO contact	
Switching capacity		250 V / 0.5 A (AC) | 125 V/ 0.25 A (DC)	
Wire connect cross-section		max. 1.5 mm² single or stranded wire	
Accessories			**Qty.**
Earth bridges CP E	4-pole	CP 250 E-4	
Cat. no./Qty.		**15616.2**	1

CONTA-PROTECT overvoltage protection

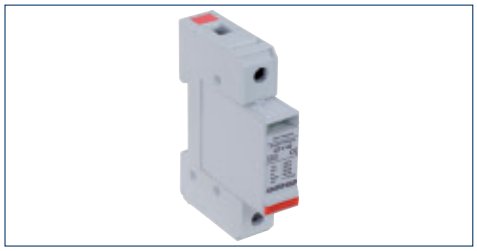
Overvoltage arresters for AC use Type 2 (C)

- Type 2 overvoltage protection
- Discharge capacity In = 20 kA; Imax= 40 kA
- Pluggable protective elements
- Remote signalling (optional)
- Complies with IEC 61643-1 and EN61643-11 standards

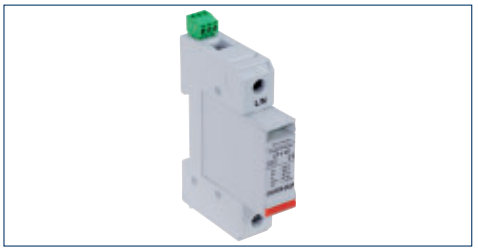
- Mounts on TS 35
- Screw connection

V: High-power varistor
Ft: Thermal fuse
C : Remote signalling contact
t°: Thermal separator
MI : disconnect display

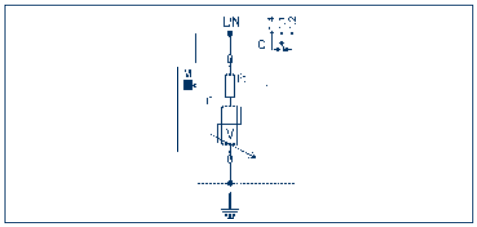
CP V 40-1



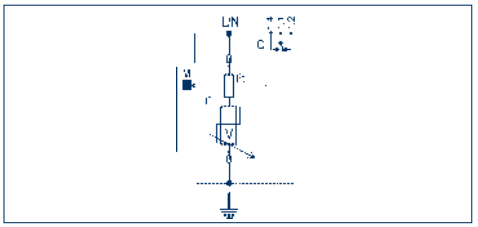
CP VH 40-1



Circuit diagram



Circuit diagram



1-pole type		**CP V 40-1**	**Qty.**	**CP VH 40-1**	**Qty.**
Cat. no./Qty.		**16002.2**	**1**	**16003.2**	**1**
Size (L x W x H) with TS 35 x 7.5		90 x 18 x 70 mm		100.6 x 18 x 70 mm	
Weight		100 g		108 g	
Arrester | Class		**Type 2 | class C**		**Type 2 | class C**	
Technical data					
Rated voltage	Un	230/400 V AC		230/400 V AC	
Max. continuous voltage	Uc	280 V AC		280 V AC	
Rated frequency	fn	50-60 Hz		50-60 Hz	
Rated discharge surge current (8/20) µs	Imax	20 kA		20 kA	
Max. discharge current (8/20) µs	In	40 kA		40 kA	
Protection level	Up	< 1.25 kV		< 1.25 kV	
Residual voltage (5 kA)	Ures	< 0.5 kV		< 0.5 kV	
Operating current	I_c	< 1 mA		< 1 mA	
Follow-on current	If	none		none	
Follow-on current suppression capability	Ifi	infinite		infinite	
Response time	t_A	< 25 ns		< 25 ns	
TOV voltage L-N	U_T	340 V / 5 s		340 V / 5 s	
TOV voltage N-PE	U_T	-		-	
Short-circuit resistance	I_p	25 kA		25 kA	
Max. series fuse		125 A gL		125 A gL	
Malfunction display		Mechanical, red		Mechanical, red	
Temperature range		-40 to +85 °C		-40 to +85 °C	
Wire connect cross-section	mm²	4-25		4-25	
Protection		IP 20		IP 20	
Rail assembly		TS 35 acc. to EN 60715		TS 35 acc. to EN 60715	
Installation dimensions, TE		1 TE, DIN 43880		1 TE, DIN 43880	
Housing material		Thermoplastic UL94-V0		Thermoplastic UL94-V0	
Testing standards					
DIN EN 61643-11	Germany	Arrester type 2		Arrester type 2	
IEC 61643-1	International	Low voltage SPD - Class II test		Low voltage SPD - Class II test	
EN 61643-11	Europe	Low voltage SPD - Class II test		Low voltage SPD - Class II test	
UL1449 ed.2	USA	Low voltage TVSS		Low voltage TVSS	
Type of mains net					
		TNC, TNS		TNC, TNS	
Remote signalling					
Remote signalling		-		Potential-free CO contact	
Switching capacity		-		250 V / 0.5 A (AC) | 30V/ 2A (DC)	
Wire connect cross-section		-		max. 1.5 mm² single or stranded wire	
Accessories			**Qty.**		**Qty.**
Replacement plug, L-N		CP V 40-S		CP V 40-S	
Cat. no./Qty.		**16007.2**	1	**16007.2**	1
Earth bridges CP E	2-pole	CP E-2		CP E-2	
Cat. no./Qty.		**6865.0**	1	**6865.0**	1
Earth bridges CP E	3-pole	CP E-3		CP E-3	
Cat. no./Qty.		**6866.0**	1	**6866.0**	1
Earth bridges CP E	4-pole	CP E-4		CP E-4	
Cat. no./Qty.		**6867.0**	1	**6867.0**	1

CONTA-PROTECT overvoltage protection

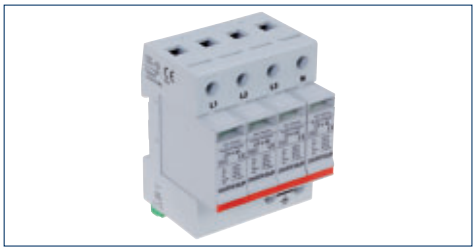
Overvoltage arresters, type 2 (C)

- Mounts on TS 35
- Screw connection
- Discharge currents: I_N: 20 kA/Imax: 40 kA
- Pluggable protective elements
- Remote signalling
- Complies with IEC 61643-1 and EN 61643-11 standards

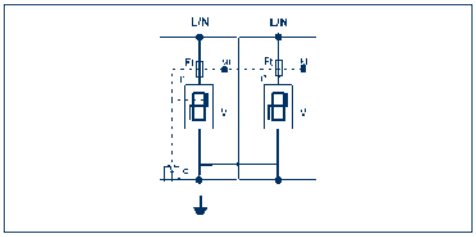
V: High-energy varistor block
Ft: Thermal fuse
C: Remote signalling contact
t°: Thermal separator
Mi: disconnect display

CP VH 40-2

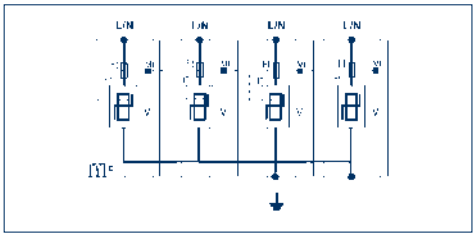
CP VH 40-4 TN



Circuit diagram



Circuit diagram



1-pole type **Cat. no.**/Qty.		**CP VH 40-2** **16004.2/1**	**CP VH 40-4 TN** **16005.2/1**
Size (L x W x H) with TS 35 x 7.5		100.6 x 36 x 70 mm	100.6 x 72 x 70 mm
Weight		182 g	323 g
Arrester | Class **Technical data**		**Type 2 | class C**	**Type 2 | class C**
Rated voltage	Un	230/400 V AC	230/400 V AC
Max. continuous voltage	Uc	280 V AC	280 V AC
Rated frequency	fn	50-60 Hz	50-60 Hz
Rated discharge surge current (8/20) µs	Imax	40 kA	80 kA
Max. discharge current (8/20) µs	In	80 kA	160 kA
Protection level	Up	< 1.25 kV	< 1.25 kV
Residual voltage (5 kA)	Ures	< 0.5 kV	< 0.5 kV
Operating current	I_c	< 1 mA	< 1 mA
Follow-on current	If	none	none
Follow-on current extinguishing capacity	Ifi	infinite	infinite
Response time	t_A	< 25 ns	< 25 ns
TOV voltage L-N	U_T	340 V / 5 s	340 V / 5 s
TOV voltage N-PE	U_T	-	-
Short-circuit resistance	I_p	25 kA	25 kA
Max. series fuse		125 A	125 A
Malfunction display		Mechanical, red	Mechanical, red
Temperature range		-40 to +85 °C	-40 to +85 °C
Wire connect cross-section	mm²	4 to 25 mm²	4 to 25 mm²
Protection		IP 20	IP 20
Rail assembly		TS 35 acc. to EN 60715	TS 35 acc. to EN 60715
Installation dimensions, TE		2 DIN 43880	4 DIN 43880
Housing material		Thermoplastic UL94-V0	Thermoplastic UL94-V0
Testing standards			
DIN EN 61643-11	Germany	Arrester type 2	Arrester type 2
IEC 61643-1	International	Low voltage SPD - Class II test	Low voltage SPD - Class II test
EN 61643-11	Europe	Low voltage SPD - Class II test	Low voltage SPD - Class II test
UL1449 ed.2	USA	Low voltage TVSS	Low voltage TVSS
Type of mains net			
		For TN systems (2+0)	For TN systems (4+0)
Remote signalling			
Remote signalling		Potential-free CO contact	Potential-free CO contact
Switching capacity		250 V / 0.5 A (AC) | 30V / 2A (DC)	250 V / 0.5 A (AC) | 30V / 2A (DC)
Wire connect cross-section		max. 1.5 mm²	max. 1.5 mm²
Accessories			
Replacement plug, L-N **Cat. no.**/Qty.		CP V 40-S **16007.2**/1	CP V 40-S **16007.2**/1
Earth bridges, CP E **Cat. no.**/Qty.			
Earth bridges, CP E **Cat. no.**/Qty.			
Earth bridges, CP E **Cat. no.**/Qty.			

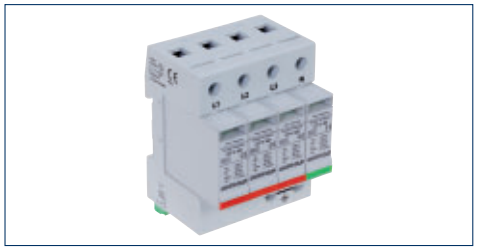
CONTA-PROTECT overvoltage protection

Overvoltage arresters, type 2 (C) and type 3 (D)

- Mounts on TS 35
- Screw connection
- Discharge currents: I_N: 20 kA/Imax: 40 kA
- Pluggable protective elements
- Remote signalling
- Complies with IEC 61643-1 and EN 61643-11 standards

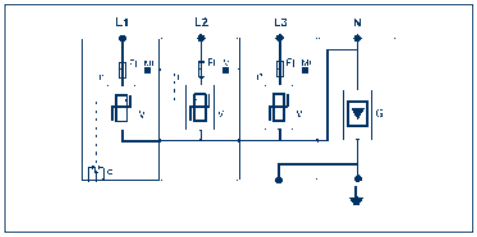
V: High-energy varistor block
Ft: Thermal fuse
C: Remote signalling contact
t°: Thermal separator
Mi: disconnect display
GDT: Gas-discharge arrester

CP VH 40-4 TT

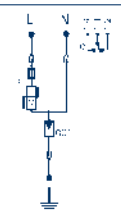


CP V 10-1

Circuit diagram



Circuit diagram



1-pole type **Cat. no.**/Qty.		**CP VH 40-4 TT** **16006.2/1**	**CP V 10-1** **16010.2/1**
Size (L x W x H) with TS 35 x 7.5		100.6 x 72 x 70 mm	90 x 18 x 70 mm
Weight		323 g	100 g
Arrester | Class **Technical data**		**Type 2 | class C**	**Type 3 | Class D**
Rated voltage	Un	230/400 V AC	230/400 V AC
Max. continuous voltage	Uc	280 V AC	250 V AC
Rated frequency	fn	50-60 Hz	50-60 Hz
Rated discharge surge current (8/20) µs	Imax	80 kA	10 kA
Max. discharge current (8/20) µs	In	150 kA	30 kA
Protection level	Up	< 1.25 kV	1.5 kV
Residual voltage (5 kA)	Ures	< 0.5 kV	-
Operating current	I_c	< 1 mA	< 1 mA
Follow-on current	If	none	none
Follow-on current extinguishing capacity	Ifi	infinite	infinite
Response time	t_A	< 25 ns	< 20 ns
TOV voltage L-N	U_T	340 V / 5 s	250 V / 5 s
TOV voltage N-PE	U_T	1200 V/200 ms/300 A	-
Short-circuit resistance	I_p	25 kA	10 kA
Max. series fuse		125 A	40 A
Malfunction display		Mechanical, red	Mechanical, red
Temperature range		-40 to +85 °C	-40 to +85 °C
Wire connect cross-section	mm²	4 to 25 mm²	L/N 1.5 to 10 mm² | PE 2.5 to 25 mm²
Protection		IP 20	IP 20
Rail assembly		TS 35 acc. to EN 60715	TS 35 acc. to EN 60715
Installation dimensions, TE		4 DIN 43880	1 DIN 43880
Housing material		Thermoplastic UL94-V0	Thermoplastic UL94-V0
Testing standards			
DIN EN 61643-11	Germany	Arrester type 2	Arrester type 3
IEC 61643-1	International	Low voltage SPD - Class II test	Low voltage SPD - Class II test
EN 61643-11	Europe	Low voltage SPD - Class II test	Low voltage SPD - Class II test
UL1449 ed.2	USA	Low voltage TVSS	Low voltage TVSS
Type of mains net			
		For TT systems (3+1)	TNC, TNS
Remote signalling			
Remote signalling		Potential-free CO contact	-
Switching capacity		250 V / 0.5 A (AC) | 30V / 2A (DC)	-
Wire connect cross-section		max. 1.5 mm²	-
Accessories			
Replacement plug, L-N **Cat. no.**/Qty.		CP V 40-S **16007.2**/1	CP V 10-S **16012.2**/1
Earth bridges N-PE **Cat. no.**/Qty.		CP V 40-S-N-PE **16008.2**/1	
Earth bridges, CP E **Cat. no.**/Qty.			CP E-2 **6865.0**/1
Earth bridges, CP E **Cat. no.**/Qty.			CP E-3 **6866.0**/1
Earth bridges, CP E **Cat. no.**/Qty.			CP E-4 **6867.0**/1

CONTA-PROTECT overvoltage protection

Overvoltage arresters, type 3 (D)

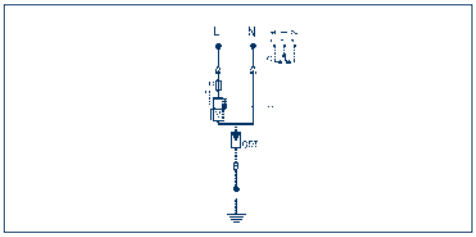
- Mounts on TS 35
- Screw connection
- Discharge currents: I_N: 20 kA/Imax: 40 kA
- Pluggable protective elements
- Remote signalling
- Complies with IEC 61643-1 and EN 61643-11 standards

V: High-energy varistor block
Ft: Thermal fuse
C: Remote signalling contact
t°: Thermal separator
Mi: disconnect display
GDT: Gas-discharge arrester

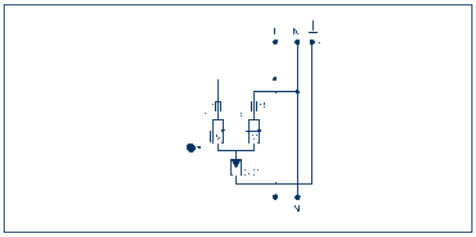
CP VH 10-1

CDS 98

Circuit diagram



Circuit diagram



1-pole type **Cat. no.**/Qty.		**CP VH 10-1** **16011.2/1**	**CDS 98** **6471.2/1**
Size (L x W x H) with TS 35 x 7.5		100.6 x 18 x 70 mm	90 x 18 x 61 mm
Weight		108 g	70 g
Arrester | Class **Technical data**		**Type 3 | Class D**	**Type 3 | Class D**
Rated voltage	Un	230/400 V AC	230/400 V AC
Max. continuous voltage	Uc	250 V AC	400 V AC
Rated frequency	fn	50-60 Hz	50-60 Hz
Rated discharge surge current (8/20) µs	Imax	10 kA	10 kA
Max. discharge current (8/20) µs	In	30 kA	20 kA
Protection level	Up	1.5 kV	1.5 kV
Residual voltage (5 kA)	Ures	-	-
Operating current	Ic	< 1 mA	< 1 mA
Follow-on current	If	none	none
Follow-on current extinguishing capacity	Ifi	infinite	infinite
Response time	t_A	< 20 ns	< 25 ns
TOV voltage L-N	U_T	250 V / 5 s	400 V / 5 s
TOV voltage N-PE	U_T	-	-
Short-circuit resistance	I_p	10 kA	10 kA
Max. series fuse		40 A	40 A
Malfunction display		Mechanical, red	red LED
Temperature range		-40 to +85 °C	-40 to +85 °C
Wire connect cross-section	mm²	L/N 1.5 to 10 mm² | PE 2.5 to 25 mm²	1.5 to 10 mm²
Protection		IP 20	IP 20
Rail assembly		TS 35 acc. to EN 60715	TS 35 acc. to EN 60715
Installation dimensions, TE		1 DIN 43880	1 DIN 43880
Housing material		Thermoplastic UL94-V0	Thermoplastic UL94-V0
Testing standards			
DIN EN 61643-11	Germany	Arrester type 2	Arrester type 3
IEC 61643-1	International	Low voltage SPD - Class III test	Low voltage SPD - Class III test
EN 61643-11	Europe	Low voltage SPD - Class III test	Low voltage SPD - Class III test
UL1449 ed.2	USA	Low voltage TVSS	Low voltage TVSS
Type of mains net			
		TNC, TNS	-
Remote signalling			
Remote signalling		Potential-free CO contact	-
Switching capacity		250 V / 0.5 A (AC) | 30V / 2A (DC)	-
Wire connect cross-section		max. 1.5 mm²	-
Accessories			
Replacement plug, L-N **Cat. no.**/Qty.		CP V 10-S **16012.2**/1	-
Earth bridges, CP E **Cat. no.**/Qty.		CP E-2 **6865.0**/1	
Earth bridges, CP E **Cat. no.**/Qty.		CP E-3 **6866.0**/1	
Earth bridges, CP E **Cat. no.**/Qty.		CP E-4 **6867.0**/1	

CONTA-PROTECT overvoltage protection

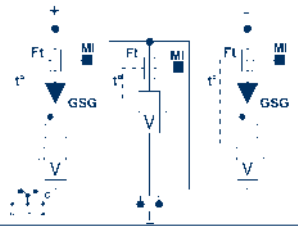
Overvoltage arresters for DC applications Type 1|2 (B|C)

- Combi-arrester, type 1+2, based on a gas-filled spark gap
- Double-safe separator
- Electrical isolation
- No ageing from operational or leakage currents
- Error-resistant star Y connection protected against polarity reversal
- Operates with no series fuse
- Remote signalling
- Complies with IEC 61643-1 and EN 61643-11 standards
- Complies with the VDE 0183-305 Part 3/ Sect. 5 standard: Lightning protection for photovoltaics
- Mounts on TS 35
- Screw connection

GSG: Gas filled spark gap
V : High-energy varistor block
Ft : Thermal fuse
C : Remote signalling contact
t° : Thermal separator
MI : Error display

CP VH 60 VGPV-1000

Circuit diagram



1-pole type **Cat. no.**/Qty.		**CP VH 60 VGPV-1000** **16045.2**	**Qty.** **1**
Size (L x W x H) with TS 35 x 7.5		99 x 72 x 75 mm	
Weight		522 g	
Arrester | Class **Technical data**		**Type 1|2 | Class B|C**	
Rated voltage (Uocstc)	Un DC	1000 V	
Max. continuous voltage (Ucpv)	Uc DC	1200 V	
Rated discharge surge current (8/20) µs	Imax	40 kA	
Max. discharge current (8/20) µs	In	20 kA	
Lightning surge current (10/350) µs	Iimp	12.5 kA	
Protection level	U_p	< 2.8 kV	
Protection level at 5 kA	U_p	< 2.3 kV	
Operating current	I_B	None	
Leakage current	I_c	None	
Follow-on current	If	none	
Follow-on current suppression capability	Ifi	infinite	
Response time	t_A	< 25 ns	
Short-circuit resistance	I_p	25 kA	
Malfunction display		Mechanical, red	
Temperature range		-40 to +85 °C	
Wire connect cross-section	mm²	4-35	
Protection		IP20	
Rail assembly		TS 35 acc. to EN 60715	
Installation dimensions, TE		4 TE, DIN 43880	
Housing material		Thermoplastic UL94-V0	
Testing standards			
DIN EN 61643-11	Germany	Arrester type 1 & 2	
IEC 61643-1	International	Low voltage SPD - Class I and II test	
EN 61643-11	Europe	Low voltage SPD - Class I and II test	
UL1449 ed.2	USA	Low voltage TVSS	
Type of mains net			
		-	
Remote signalling			
Remote signalling		Potential-free CO contact	
Switching capacity		250 V / 0.5 A (AC) - 125 V / 3 A (DC)	
Wire connect cross-section		max. 1.5 mm² single or stranded wire	

CONTA-PROTECT overvoltage protection

Overvoltage arresters for DC applications,Type 2 (C)

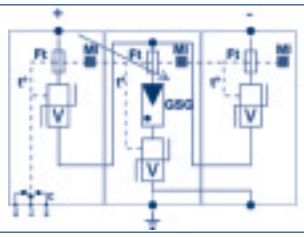
- Type 2 overvoltage protection for photovoltaics
- Discharge capacity per pole: In = 20 kA; Imax= 40 kA
- No ageing from leakage currents
- Error resistant Y (star) connection
- Connection protected against polarity reversal
- Does not influence the insulation measurement
- No damage in the event of insulation fault
- Pluggable protective elements
- Remote signalling
- Complies with IEC 61643-1 and EN 61643-11 standards

- Mounts on TS 35
- Screw connection

GSG: Gas filled spark gap
V : High-energy varistor block
Ft : Thermal fuse
C : Remote signalling contact
t° : Thermal separator
MI : Error display

CP VH 50 PV-1000/G

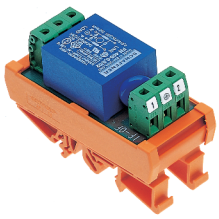
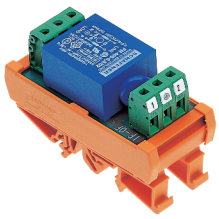
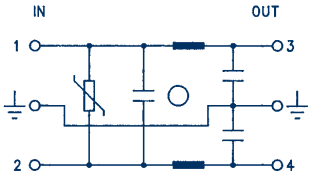
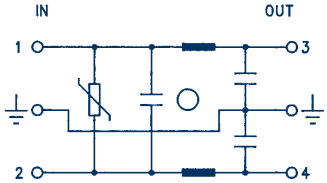
Circuit diagram



1-pole type		**CP VH 50 PV-1000/G**	**Qty.**
Cat. no./Qty.		**16043.2**	**1**
Size (L x W x H) with TS 35 x 7.5		99 x 54 x 68.4 mm	
Weight		522 g	
Arrester | Class		**Type 2 | class C**	
Technical data			
Rated voltage (Uocstc)	Un DC	1000 V	
Max. continuous voltage (Ucpv)	Uc DC	1060 V	
Rated discharge surge current (8/20) µs	Imax	40 kA	
Max. discharge current (8/20) µs	In	20 kA	
Protection level	U_p	< 3.6 kV	
Protection level at 5 kA	U_p	< 2.6 kV	
Protection level at 12.5 kA	U_p	< 3.1 kV	
Protection level at 20 kA	U_p	< 3.6 kV	
Protection level at Imax	U_p	< 4.5 kV	
Leakage current	I_c	None	
Follow-on current	If	none	
Follow-on current suppression capacity	Ifi	infinite	
Response time	t_A	< 25 ns	
Short-circuit resistance	I_p	25 kA	
Max. series fuse		160 A gL	
Malfunction display		Mechanical, red	
Temperature range		-40 to +85 °C	
Wire connect cross-section		4 to 25 mm²	
Protection		IP20	
Rail assembly		TS 35 acc. to EN 60715	
Installation dimensions, TE		3 TE, DIN 43880	
Housing material		Thermoplastic UL94-V0	
Testing standards			
DIN EN 61643-11	Germany	Arrester type 2	
IEC 61643-1	International	Low voltage SPD - Class II test	
EN 61643-11	Europe	Low voltage SPD - Class II test	
UL1449 ed.2	USA	Low voltage TVSS	
Type of mains net			
		-	
Remote signalling			
Remote signalling		Potential-free CO contact	
Switching capacity		250 V / 0.5 A (AC) - 30 V / 2 A (DC)	
Wire connect cross-section		max. 1.5 mm² single or stranded wire	
Accessories			**Qty.**
Replacement plug V		CP 50 PV-1000-S	
Cat. no./Qty.		**16044.2**	**1**
Replacement plug G		CP 50 PV-1000/G-S	
Cat. no./Qty.		**16046.2**	**1**

Interference-elimination link modules IF-OF

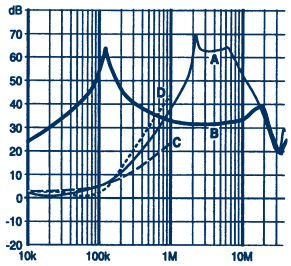
- Mounts on TS 35
- Screw connection
- Suppression of symmetrical and asymmetrical interference voltages originating from mains power grid
- Overvoltage protection via integrated varistor circuitry

	IF-OF/0,5 A	IF-OF/1 A	IF-OF/3 A	IF-OF/6 A
				
Circuit diagram				

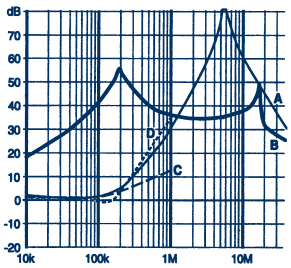
Type **Cat. no.**/Qty.	**IF-OF/0.5 A** **6149.2**/1	**IF-OF/1 A** **6150.2**/1	**IF-OF/3 A** **6151.2**/1	**IF-OF/6 A** **6152.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 40 x 60 mm	87 x 40 x 60 mm	87 x 40 x 60 mm	87 x 40 x 60 mm
Weight	89 g	89 g	89 g	89 g
General specifications				
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III, DIN VDE 0551
Operating temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Important notes				
Stripping length	7 mm	7 mm	7 mm	7 mm
Wire connect cross-section	0.2 to 2.5 mm^2	0.2 to 2.5 mm^2	0.2 to 2.5 mm^2	0.2 to 2.5 mm^2
Screw connection	AWG 22-14	AWG 22-14	AWG 22-14	AWG 22-14
Technical data				
Max. operating voltage	250 V	250 V	250 V	250 V
Max. operating frequency	400 Hz	400 Hz	400 Hz	400 Hz
Max. current	0.5 A	1 A	3 A	6 A
Throttle	24 mH	10 mH	2 mH	0.8 mH
Test voltage for earth phase and neutral earth	2KV/50Hz ≥ 2s	2KV/50Hz ≥ 2s	2KV/50Hz ≥ 2s	2KV/50Hz ≥ 2s
Leakage current	2 x 0.2 mA	2 x 0.2 mA	2 x 0.2 mA	2 x 0.2 mA
Throttling characteristic				

A = 50Ω/50Ω sym, B = 50Ω/50Ω asym, C = 0.1Ω/100Ω sym, D = 100Ω/0.1Ω sym

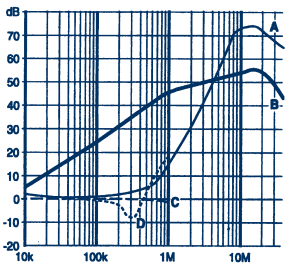
0.5 amp types



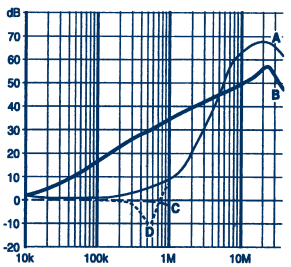
1 amp types



3 amp types



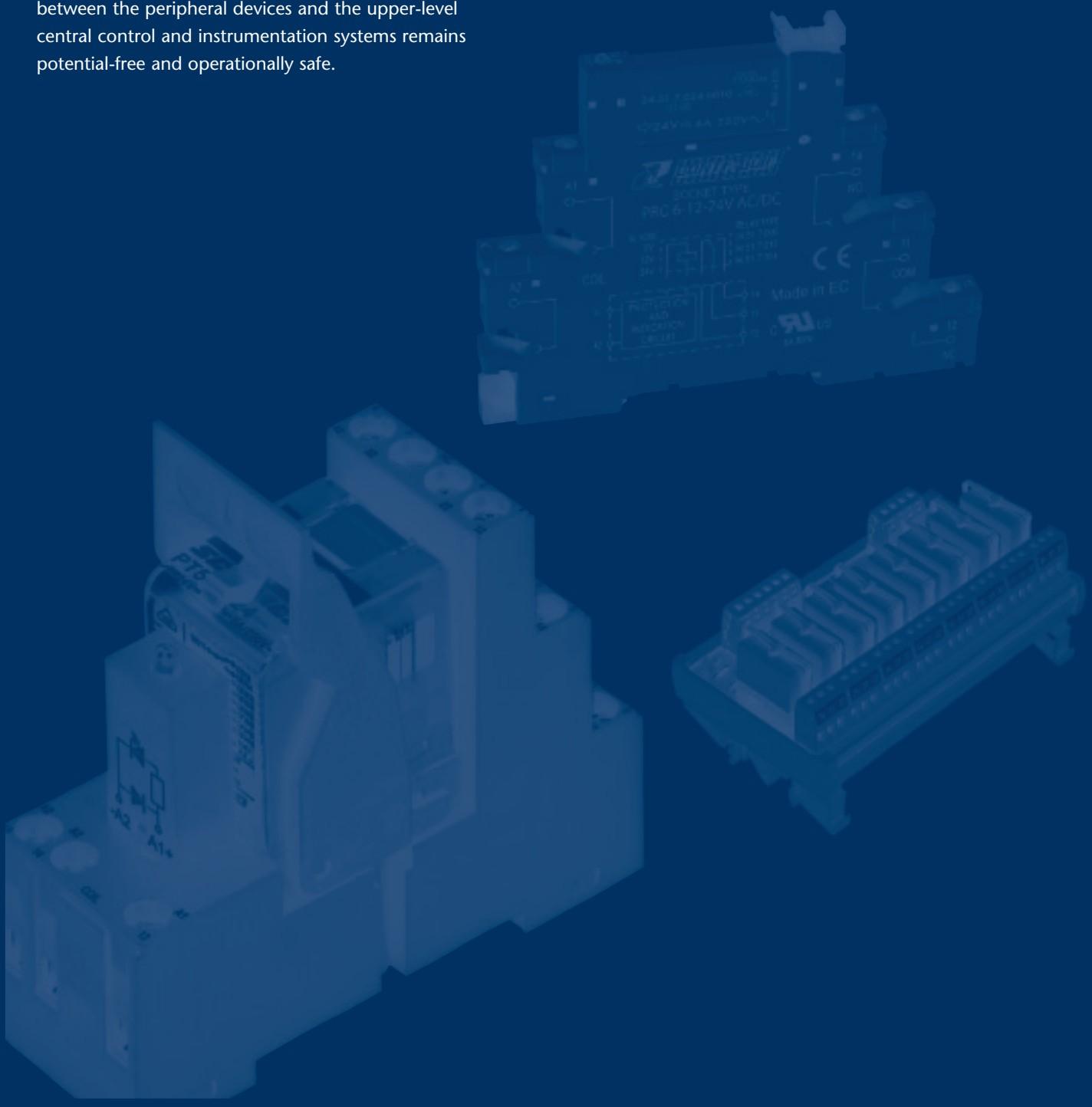
6 amp types



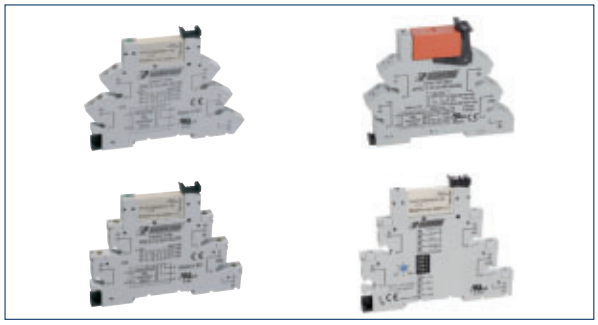
Relay systems

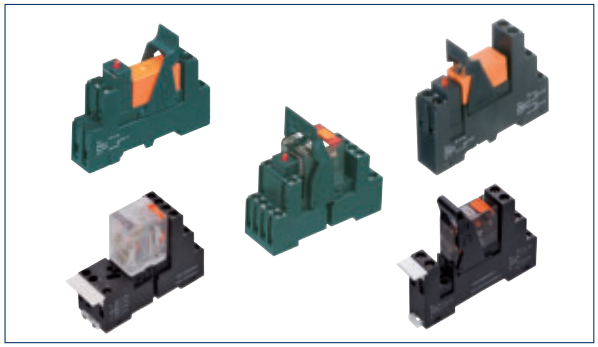
Relay technology continues to play a large role in the reliability of industrial control and automation solutions. Because of their thin design, relay couplers are suitable for use in rail-oriented control designs. CONTA-CLIP relay couplers have features which make them perfect for use in secure electrical isolation of circuits or for the multiplication of contacts.

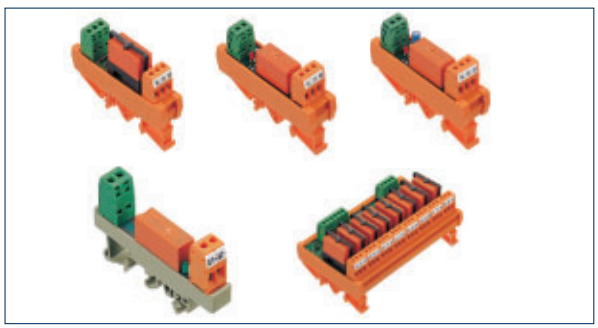
Whether for manufacturing, electrical machine and plant instrumentation, control engineering, building automation, or process engineering – it is always important to guarantee that the signal exchange between the peripheral devices and the upper-level central control and instrumentation systems remains potential-free and operationally safe.



Relay systems







Interface Relay Compact IRC, Multifunction Timing Relay MFR IRC

IRC relay couplers and **MFR-IRCP timing relays** embody a new strategy for 6.2 mm coupling relays. Our five different relay versions provide optimized use of space, simple installations, ease of use, and excellent functionality. They can be adapted for various application requirements because of the interchangeable mechanical relays and optocouplers (SSRs). The different coloured cross-connection combs help minimize the installation effort. The basic version of the **IRC** is the well-known coupling relay that can be used in all systems.

Similar to the basic version, the **IRCP** with the integrated **SM-IRC** fuse module can be used in all systems. It is unique in the way it meets the requirement that each coupling relay output must be protected by a replaceable 5x20 mm standard micro-fuse. This limits the effects of overcurrents (surges) – such as those caused by cable short circuits, short circuit to the controlled devices, blocked AC control valves, AC contactors or motors – to the area up to the fuse.

The **IRCPI** and **IRCPO** provide the advantage of an additional wire connection that can be cross-connected. All three wires of a sensor in a PLC input or all wires of an output-side power relay or contactor can be connected directly to the coupling relay. This saves space and provides for a clear, user-friendly installation.

The **MFR-IRCP** is a time-function coupler component with four time ranges and eight time functions. It features an innovative receptacle for holding additional 5x20 mm **SM-IRC** fuse modules. This component functions as a timer relay with a fuse, in a width of 6.2 mm.

All five types of relays in the **IRC relay system** are available with our innovative pressure spring connection system (Push-In) or the established screw connect system.

Plug relay compact PRC, Multifunction timing relay MFR-PRC

Our **PRC** relay couplers and **MFR-PRC** timing relays are distinguished by their compact shape in their terminal block design. With a width of only 6.2 mm (for 1 CO relay) and 14 mm (for 2 CO relays), they can be used in a wide variety of applications. The basis relay offers 28 versions, including screw and tension-spring connections, and available coil voltages from 6 to 24 VDC and from 12 to 240 VAC/DC. With the AQI cross-connection system, mutual potentials can be carried out over the coil or contact sides.

Plug relay system PRS

PRS relay couplers are available with one, two, or four CO contacts. The relay plug-in modules are designed for a rated voltage of 300 V. They can be combined with relays (in the coil-voltage range of 12 to 220 VDC and 12 to 230 VAC) and the appropriate insert modules or status displays.
In order to guarantee that the relay is mechanically snug in the frame, a relay holding clamp can be mounted. The switchable continuous current is 12 amps for the one- and two-CO versions, and 6 amps for the four-CO versions. The **PRS...G** types have electrical contacts which are designed so that the coil side and the contact side are arranged separately from another. The relay frame, relay insert module and holding clamp can be modularly assembled and combined.

Relay modules RM and RIM

The **RM** and **RIM** are relay interfaces which offer an advantage over the single-relay base systems. On a PCB, the circuit track can be pre-wired, such as the shared plus, minus, and neutral wire potentials on the coil side. The **RIM S** versions also feature a toggle switch in the input/coil circuit. This enables switching to MANUAL, OFF, or AUTOMATIC.

Interface Relay Compact IRC

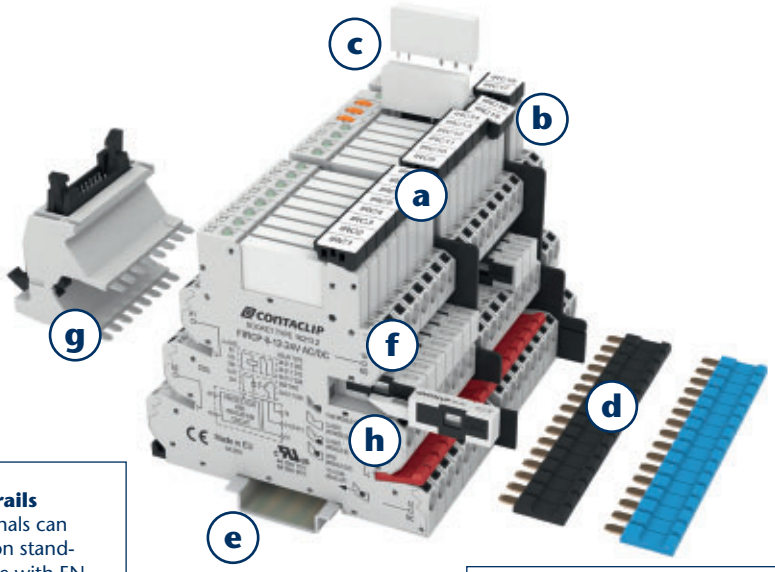
Relay terminals

1. Overview

a **Labelling | Marking**
The socket bases have a labelling surface which is optimally suited for our standard marking system **MC Maxi Card** (MC GS 6 x 12 R). **Conta-Clip** can also provide "just in time" labelling for you.

b **Using the mount/dismount lever**
The mounting and dismounting mechanism forms a reliable connection by latching the relay with the socket base. The fitted relay can be removed, easily and without force, from the socket base by using the dismount function of the lever!

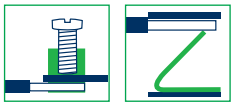
c **Pluggable relay**
Pluggable relays are also available with AgSNO and gold contacts, to fit with the many functions of your individual requirements!



d **Pluggable external cross-connections**
The AQI/IRC pluggable cross-connection system helps you to save time when distributing potentials. The AQI/IRC is constructed so that it is protected against accidental touch. It is available as a 16-pole unit, in either red, blue or black. The cross-connection can be shortened to fewer poles in order to fit the required interface. Insulation plating can be used to insulate the ends.

e **Mounts on TS 35 DIN rails**
CONTA-CLIP relay terminals can be arranged as required on standard TS 35 DIN rails in accordance with EN 60715.

f **Connection types**
All IRC relay terminals are optionally available with screw connections or pressure spring connection system.



g The **IRC/FCA adapter** connects eight IRC interface relays via a two-wire cable with 24 V operating voltage and with a 14-pole cable from the PLC.

h A version with fuse insert module is also available. Thus the coupling relay output can be protected using an individual, replaceable standard micro-fuse (5 x 20 mm) within the available width of 6.2 mm.

2. Relay types

IRCU and FRCU Basic
All-purpose use as coupling relay in the PLC input or in the PLC output for controlling actuators.

IRCPU and FRCPU Plus
All-purpose use as coupling relay in the PLC input or in the PLC output for controlling actuators. With the option for holding a micro-fuse (5x20) in the relay contact.

IRCIU and FRCIU Input
In addition to their well-known coupling relay functionality, these components also have an additional advantage: all three lines from a sensor can be connected in the input to the PLC, or the lines from the output-side power relay or contactor can be connected directly to the corresponding coupling relay. This saves space and provides for a clear, user-friendly installation.

IRCOU and FRCOU Output
In addition to their well-known coupling relay functionality, these components also have an additional advantage: the three lines from a sensor can be connected in the input to the PLC, or the lines from the output-side power relay or contactor can be connected to the corresponding coupling relay. This saves space and provides for a clear, user-friendly installation.

3. **Approvals** (details upon request)

Interface Relay Compact IRC

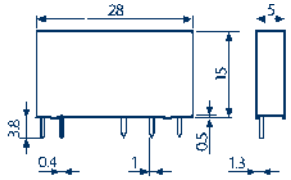
Relay terminals

4. Features:

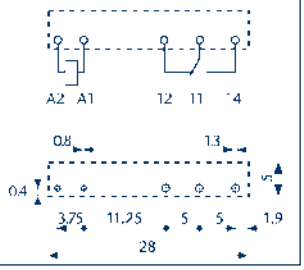
I. Relay

- 5 mm width, extremely narrow monitoring relay
- Sensitive DC coil, 170 mW
- Secure isolation between the coil and the contacts, according to VDE 0160/EN 50178
- 6 mm clearance and creepage distance
- 6 kV (1.2/50 µs)
- Protection class II, according to VDE 0631/EN 60730

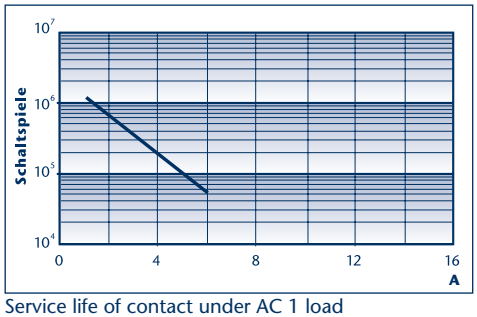
Relay - complete view



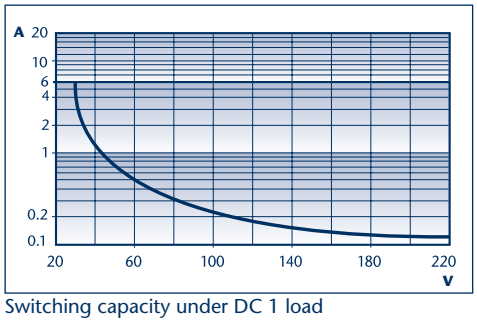
Connection diagram



5. Contact data



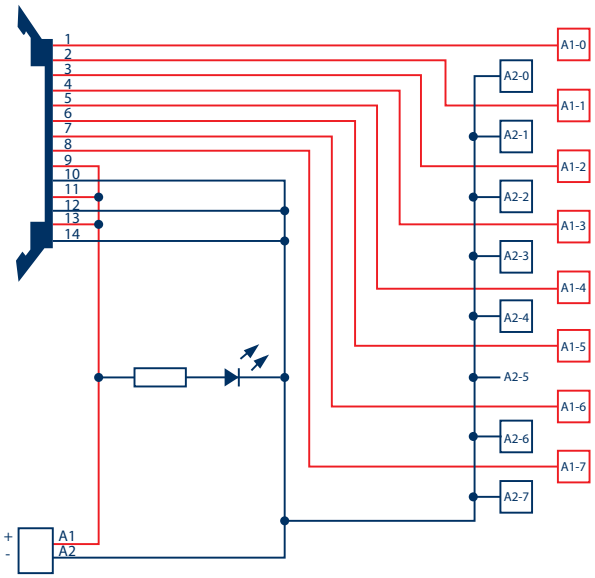
Service life of contact under AC 1 load



Switching capacity under DC 1 load

- Under resistive load (DC 1) and with an intersection of current and voltage that lies under the curve: this is an indication of an electrical service life greater or equal to 100,000 switching cycles.
- Under inductive load (DC 13), a free-wheel diode should be switched parallel to the load.
  Note: the return time increases.

Ratings for the FCA/IRC adapter	
Max. continuous current per signal	1A
Min. power rating for eight coupling relays	3W
Rated voltage (UN)	24V DC
Operating range	(0.8-1.1) Un
Control logic	Positive switching (+ at A1)
Connection for signal level: 24 V	
Connection type	Flat-ribbon cable plug-in connector, 14-poles acc. to IEC 60603-13
Connection for 24 V power supply	
Stripping length	9.5 mm
Torque	0.5 Nm
Max. wire cross-section, solid | finely stranded	1 x 4 mm² / 1 x 2.5 mm²
Max. wire cross-section, solid | finely stranded	1 x 12 AWG / 1 x 14 AWG



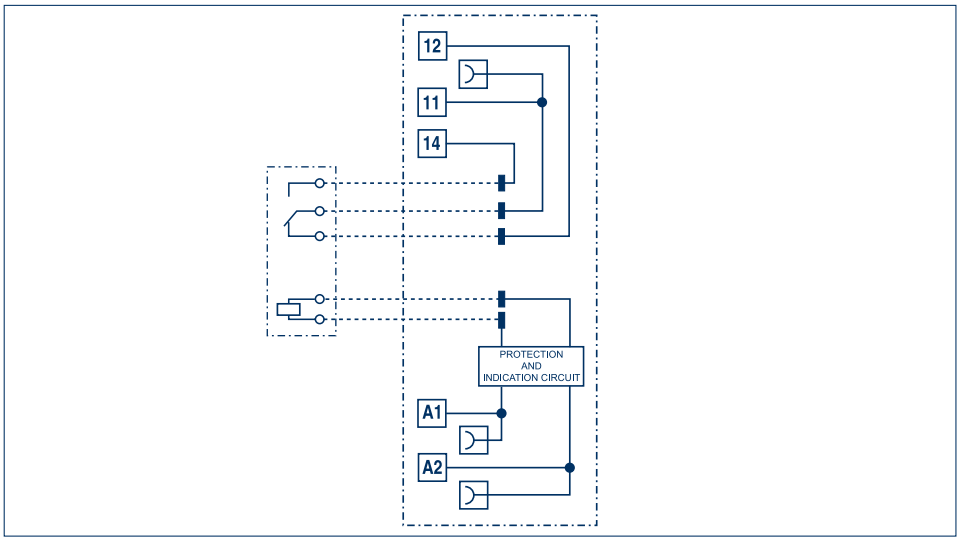
Interface Relay Compact IRC

IRC Basic series

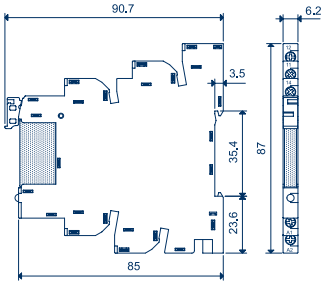
Consisting of:
- Base terminal and pluggable relay
- Mounts on TS 35

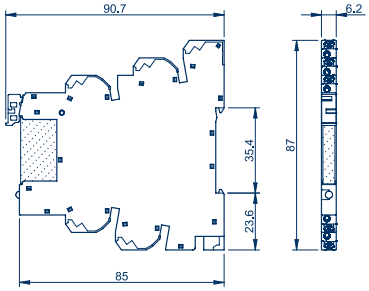
- All-purpose use as coupling relay at PLC input, or in the output of the PLC for controlling actuators
- Internal EMC coil circuitry and LED display
- Pluggable cross-connection (blue, black, red) makes installations easier
- Screw or pressure-spring connection

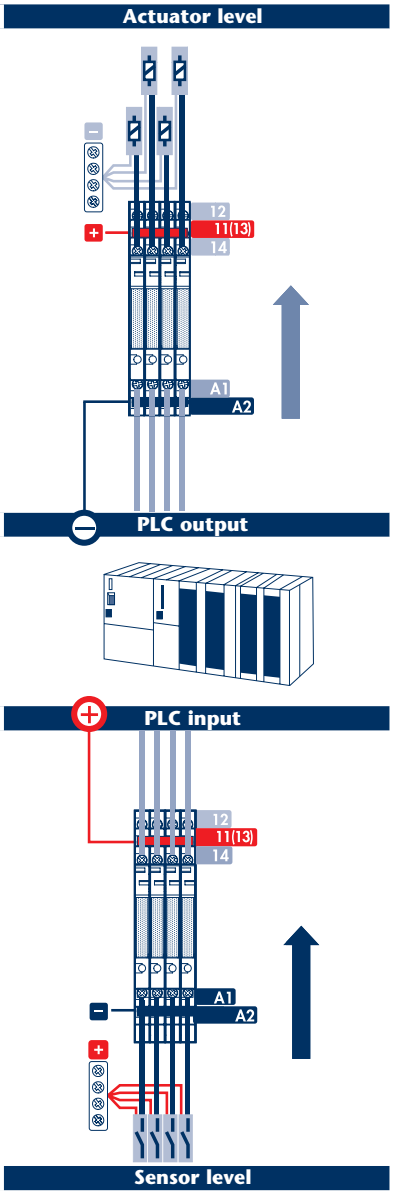
(F)IRCU



General specifications:			
Mech. service life AC/DC switching cycles	10×10^6		
Electrical service life AC 1 switching cycles	60×10^3		
Response time/Release time	5/6 ms		
Ambient temperature	- 40 °C – + 70 °C		
Relay protection type	IP 20		
Bounce time at the NO of the NO/NC contact	1 ms / 6 ms		
Vibration resistance (10-55) Hz NO/NC contact	10 g / 5 g		
Ambient heat dissipation without contact current	0.2 W (24 V) – 0.4 W (230 V)		
Ambient heat dissipation under continuous current	0.6 W (24 V) – 0.9 W (230 V)		
Insulation properties acc. to EN 61810-1			
Rated voltage of power supply system	230 / 400 V AC		
Rated insulation voltage / contamination degree	250 V AC / 3	400 V AC / 2	
Insulation between coil and contact set			
Overvoltage category	III		
Rated impulse voltage	6 kV (1.2/50 µs)		
Dielectric strength	4,000 V AC		
Insulation at open contact			
Dielectric strength	1,000 V AC / 1.5 kV (1.2/50 µs)		
EMC - interference immunity of the input circuit	**UN ≤ 60 V**	**UN = 125 V**	**UN = 230 V**
Burst (5/50 ns, 5 kHz) on A1 - A2 according to EN 61000-4-4	4 kV	4 kV	4 kV
Surge (1.2/50 µs) on A1 - A2 according to EN 61000-4-5 (differential mode)	0.8 kV	2 kV	4 kV
Rated data for the base	**Screw connection IRC**	**Pressure-spring connection**	
Stripping length	10 mm	8 mm	
Torque	0.5 Nm	-	
Max. wire cross-section, solid | finely stranded	1 x 2.5 | 1 x 2.5 mm²	1 x 2.5 | 1 x 2.5 mm²	
Min. wire cross-section, solid | finely stranded	1 x 0.2 | 1 x 2.5 mm²	1 x 0.2 | 1 x 2.5 mm²	
Max. wire cross-section, solid | finely stranded	1 x 14 AWG | 1 x 14 AWG	1 x 14 AWG | 1 x 14 AWG	
Min. wire cross-section, solid | finely stranded	1 x 24 AWG | 1 x 24 AWG	1 x 24 AWG | 1 x 24 AWG	



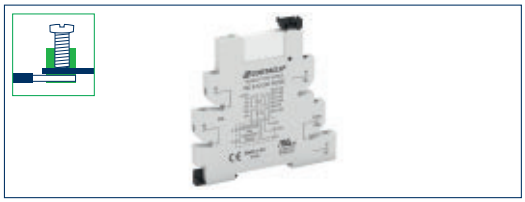




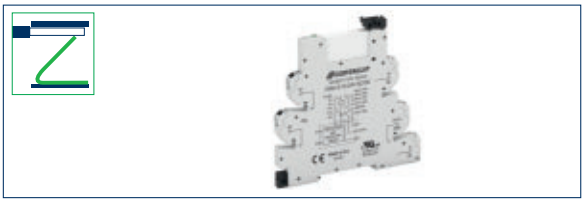
Interface Relay Compact IRC

IRC Basic series

IRCU



FIRCU



Screw connection Cat. no./Qty.	IRCU 1/6 V AC/DC 16230.2 / 10	IRCU 1/12 V AC 16231.2 / 10	IRCU 1/24 V AC/DC 16232.2 / 10	IRCU 1/125 V AC/DC 16233.2 / 10	IRCU 1/240V AC/DC 16234.2 / 10
Size (L x W x H) with TS35 x 7.5	87 x 6.2 x 95.4 mm	87 x 6.2 x 95.4 mm	87 x 6.2 x 95.4 mm	87 x 6.2 x 95.4 mm	87 x 6.2 x 95.4 mm
Weight	33 g	33 g	33 g	33 g	33 g
Operating voltage	6 V AC / DC	12 V AC / DC	24 V A C/ DC	125 V AC / DC	240 V AC
Input data					
Rated voltage (Un)	6 V AC / DC	12 V AC / DC	24 V AC / DC	110-125 V AC / DC	220-240 V AC (50/60 Hz)
Power rating AC / DC	0.2 VA / 0.2 W	0.2 VA / 0.2 W	0.25 VA / 0.25 W	0.7 VA / 0.7 W	1 VA / 0.4 W
Operating range	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Output specifications					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current | Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage | Max. switching voltage	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)
Standard contact material	AgNi	AgNi	AgNi	AgNi	AgNi
Component, screw socket base					
Type **Cat. no./Qty.**	**IRC 6-12-24 V AC/DC** **16190.2 / 10**	**IRC 6-12-24 V AC/DC** **16190.2 / 10**	**IRC 6-12-24 V AC/DC** **16190.2 / 10**	**IRC 110-125 V AC/DC** **16191.2 / 10**	**IRC 230-240 V AC** **16192.2 / 10**
Components, plug relays					
Type **Cat. no./Qty.**	**PRC 1/5 V DC** **15500.2 / 10**	**PRC 1/12 V DC** **15501.2 / 10**	**PRC 1/24 V DC** **15502.2 / 10**	**PRC 1/60 V DC** **15503.2 / 10**	**PRC 1/60 V DC** **15503.2 / 10**

Pressure-spring connection Cat. no./Qty.	FIRCU 1/6 V AC/DC 16260.2 / 10	FIRCU 1/12 V AC/DC 16261.2 / 10	FIRCU 1/24 V AC/DC 16262.2 / 10	FIRCU 1/125 V AC/DC 16263.2 / 10	FIRCU 1/240 V AC 16264.2 / 10
Size (L x W x H) with TS 35 x 7.5	87 x 6.2 x 95.4 mm	87 x 6.2 x 95.4 mm	87 x 6.2 x 95.4 mm	87 x 6.2 x 95.4 mm	87 x 6.2 x 95.4 mm
Weight	33 g	33 g	33 g	33 g	33 g
Operating voltage	6 V AC / DC	12 V AC / DC	24 V AC / DC	125 V AC / DC	240 V AC
Input data					
Rated voltage (Un)	6 V AC / DC	12 V AC / DC	24 V AC / DC	110-125 V AC / DC	220-240 V AC (50/60 Hz)
Power rating AC / DC	0.2 VA / 0.2 W	0.2 VA / 0.2 W	0.25 VA / 0.25 W	0.7 VA / 0.7 W	1 VA / 0.4 W
Operating range	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Output specifications					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current|Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage | Max. switching voltage	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)
Standard contact material	AgNi	AgNi	AgNi	AgNi	AgNi
Component, pressure-spring socket base					
Type **Cat. no./Qty.**	**FIRC 6-12-24 V AC/DC** **16210.2 / 10**	**FIRC 6-12-24 V AC/DC** **16210.2 / 10**	**FIRC 6-12-24 V AC/DC** **16210.2 / 10**	**FIRC 110-125 V AC/DC** **16211.2 / 10**	**FIRC 230-240 V AC** **16212.2 / 10**
Components, plug relays					
Type **Cat. no./Qty.**	**PRC 1/5 V DC** **15500.2 / 10**	**PRC 1/12 V DC** **15501.2 / 10**	**PRC 1/24 V DC** **15502.2 / 10**	**PRC 1/60 V DC** **15503.2 / 10**	**PRC 1/60 V DC** **15503.2 / 10**

Accessories	Type	Cat. no./Qty.
Partition plate	TW/IRC	16228.2 / 10
External cross-connector, blue	AQI/IRC/16 BU	16209.5 / 10
External cross-connector, black	AQI/IRC/16 BK	16209.4 / 10
External cross-connector, red	AQI/IRC/16 RD	16209.9 / 10
Ribbon cable adapter	FCA/IRC	16229.2 / 10
Tool / screwdriver	SDB 0.6 x 3.5	1086.0 / 10
Labelling/markers, blank	MC GS 6x12 R WH	3884.7 / 600
Labelling/markers, special print	MC GS 6x12 R So WH	3885.7 / 600

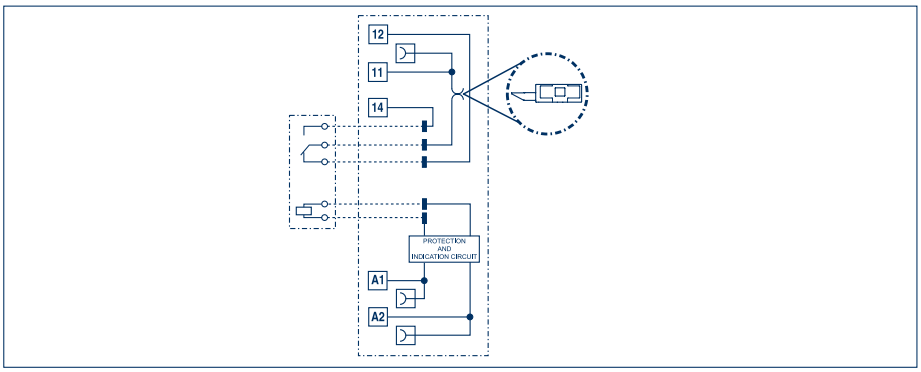
Interface Relay Compact IRC

IRC Plus series

Consisting of:
- Base terminal and pluggable relay
- Mounts on TS 35

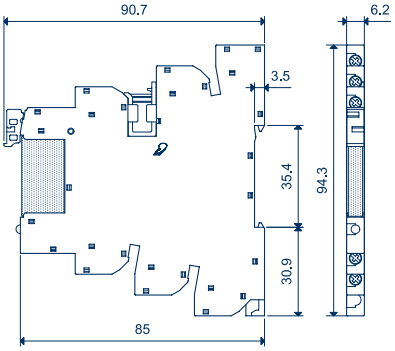
- All-purpose use as coupling relay at PLC input, or in the output of the PLC for controlling actuators
- Output fuse module for individual standard micro-fuse (5x20 mm) available as accessory
- Internal EMC coil circuitry and LED display
- LW version with internal AC residual current suppression and LED display
- Pluggable cross-connection (blue, black, red) makes installations easier
- Screw or pressure-spring connection

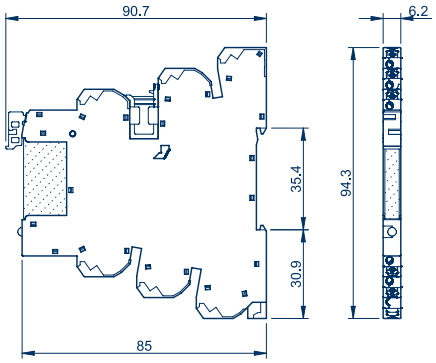
(F)IRCPU

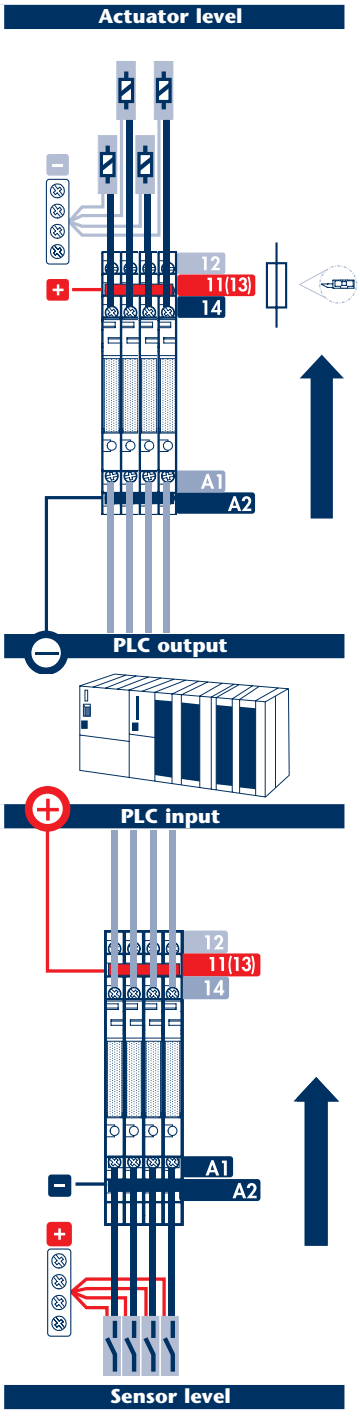


General specifications:			
Mech. service life AC/DC switching cycles	10×10^6		
Electrical service life AC 1 switching cycles	60×10^3		
Response time/Release time	5/6 ms		
Ambient temperature	- 40 °C – + 70 °C		
Relay protection type	IP 20		
Bounce time at the NO of the NO/NC contact	1 ms/6 ms		
Vibration resistance (10-55) Hz NO/NC contact	10 g / 5 g		
Ambient heat dissipation without contact current	0.2 W (24 V) – 0.4 W (230 V)		
Ambient heat dissipation under continuous current	0.6 W (24 V) – 0.9 W (230 V)		
Insulation properties acc. to EN 61810-1			
Rated voltage of power supply system	230 / 400 V AC		
Rated insulation voltage / contamination degree	250 V AC / 3	400 V AC / 2	
Insulation between coil and contact set			
Overvoltage category	III		
Rated impulse voltage	6 kV (1.2/50 µs)		
Dielectric strength	4,000 V AC		
Insulation at open contact			
Dielectric strength	1,000 V AC / 1.5 kV (1.2/50 µs)		
EMC - interference immunity of the input circuit	**UN ≤ 60 V**	**UN = 125 V**	**UN = 230 V**
Burst (5/50 ns, 5 kHz) on A1 - A2 acc. to EN 61000-4-4	4 kV	4 kV	4 kV
Surge (1.2/50 µs) on A1 - A2 according to EN 61000-4-5 (differential mode)	0.8 kV	2 kV	4 kV

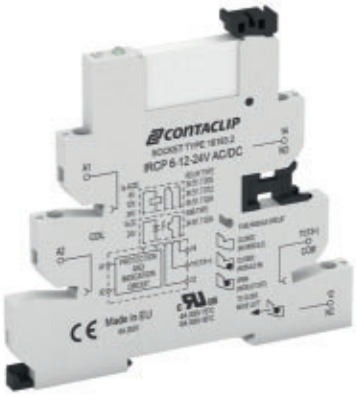
Rated data for the base	Screw connection IRC	Pressure-spring connection
Stripping length	10 mm	8 mm
Torque	0.5 Nm	-
Max. wire cross-section, solid | finely stranded	1 x 2.5 | 1 x 2.5 mm²	1 x 2.5 | 1 x 2.5 mm²
Min. wire cross-section, solid | finely stranded	1 x 0.2 | 1 x 2.5 mm²	1 x 0.2 | 1 x 2.5 mm²
Max. wire cross-section, solid | finely stranded	1 x 14 AWG | 1 x 14 AWG	1 x 14 AWG | 1 x 14 AWG
Min. wire cross-section, solid | finely stranded	1 x 24 AWG | 1 x 24 AWG	1 x 24 AWG | 1 x 24 AWG

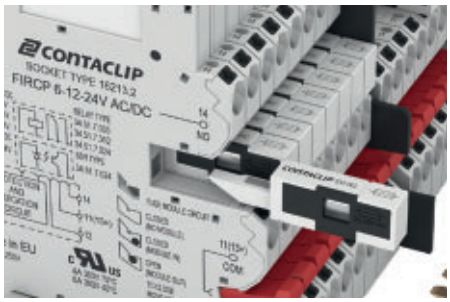




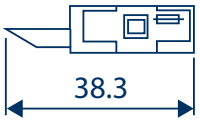


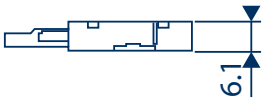
Interface Relay Compact IRC





Similar to the IRCU version, the IRCPU with the fuse insert module can be used in all systems. It is unique in the way it meets the requirement that each coupling relay output must be protected by a replaceable 5x20 mm standard micro-fuse within the available 6.2 mm width.

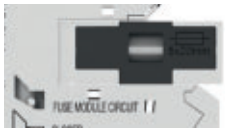




It is delivered with a dummy plug inserted in the frame. The connections for the fuse are bridged internally, so that it can be used without a fuse module. The indicator pin is not visible when the product is delivered.

The indicator pin is not visible when the product is delivered.

When the fuse module is plugged in with an inserted fuse (dummy plug has been removed), the fuse is in series with the CO of the output connection (11).

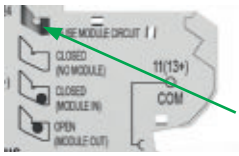


Status of the indicator pin

When the fuse module is pulled out (e.g. due to a failed fuse), the output remains cut off so that the cause of the blown fuse can be found (security logistics).

Status of the indicator pin

In order to reactivate the output, either the fuse module must be fitted with a functional fuse and plugged in again, or the indicator pin must be moved gently in the direction of the arrow, as shown initially.



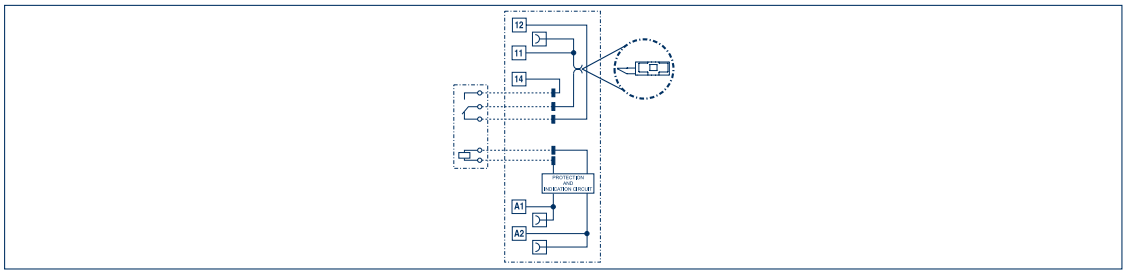
Moving the indicator pin

Rated data for the fuse module	
Size (L x W)	38.3 x 6.1 mm
Rated voltage of fuse	250 V
Rated current of fuse	6 A
Size of fuse	5 x 20 mm

Interface Relay Compact IRC

IRC Plus series

(F)IRCPU



Screw connection	IRCPU 1/6 V AC/DC	IRCPU 1/12 V AC/DC	IRCPU 1/24 V AC/DC	IRCPU 1/60 V AC/DC	IRCPU 1/125 V AC/DC
Cat. no./Qty.	**16235.2 / 10**	**16236.2 / 10**	**16237.2 / 10**	**16238.2 / 10**	**16239.2 / 10**
Size (LxWxH) with TS 35 x 7.5	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm
Weight	33 g	33 g	33 g	33 g	33 g
Operating voltage	6 V AC / DC	12 V AC / DC	24 V AC / DC	60 V AC / DC	125 V AC / DC
Input data					
Rated voltage (Un)	6 V AC / DC	12 V AC / DC	24 V AC / DC	60 V AC / DC	110-125 V AC / DC
Power rating AC / DC	0.2 VA / 0.2 W	0.2 VA / 0.2 W	0.25 VA / 0.25 W	0.35 VA / 0.35 W	0.7 VA / 0.7 W
Operating range	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Output specifications					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current|Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage | Max. switching voltage	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)
Standard contact material	AgNi	AgNi	AgNi	AgNi	AgNi

Component, screw socket base					
Type	**IRCP 6-12-24 V AC/DC**	**IRCP 6-12-24 V AC/DC**	**IRCP 6-12-24 V AC/DC**	**IRCP 60 V AC/DC**	**IRCP 110-125 V AC/DC**
Cat. no./Qty.	**16193.2 / 10**	**16193.2 / 10**	**16193.2 / 10**	**16194.2 / 10**	**16195.2 / 10**
Components, plug relays					
Type	**PRC 1/5 V DC**	**PRC 1/12 V DC**	**PRC 1/24 V DC**	**PRC 1/60 V DC**	**PRC 1/60 V DC**
Cat. no./Qty.	**15500.2 / 10**	**15501.2 / 10**	**15502.2 / 10**	**15503.2 / 10**	**15503.2 / 10**
Pressure-spring connection	**FIRCPU 1/6 V AC/DC**	**FIRCPU 1/12 V AC/DC**	**FIRCPU 1/24 V AC/DC**	**FIRCPU 1/60 V AC/DC**	**FIRCPU 1/125 V AC/DC**
Cat. no./Qty.	**16265.2 / 10**	**16266.2 / 10**	**16267.2 / 10**	**16268.2 / 10**	**16269.2 / 10**
Size (L x W x H) with TS 35 x 7.5	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm
Weight	33 g	33 g	33 g	33 g	33 g
Operating voltage	6 V AC / DC	12 V AC / DC	24 V AC / DC	60 V AC / DC	125 V AC / DC
Input data					
Rated voltage (Un)	6 V AC / DC	12 V AC / DC	24 V AC / DC	60 V AC / DC	110-125 V AC / DC
Power rating AC / DC	0.2 VA / 0.2 W	0.2 VA / 0.2 W	0.25 VA / 0.25 W	0.35 VA / 0.35 W	0.7 VA / 0.7 W
Operating range	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Output specifications					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current|Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage | Max. switching voltage	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)
Standard contact material	AgNi	AgNi	AgNi	AgNi	AgNi
Component, pressure-spring socket base					
Type	**FIRCP 6-12-24 V AC/DC**	**FIRCP 6-12-24 V AC/DC**	**FIRCP 6-12-24 V AC/DC**	**FIRCP 60 V AC/DC**	**FIRCP 110-125 V AC/DC**
Cat. no./Qty.	**16213.2 / 10**	**16213.2 / 10**	**16213.2 / 10**	**16214.2 / 10**	**16215.2 / 10**
Components, plug relays					
Type	**PRC 1/5 V DC**	**PRC 1/12 V DC**	**PRC 1/24 V DC**	**PRC 1/60 V DC**	**PRC 1/60 V DC**
Cat. no./Qty.	**15500.2 / 10**	**15501.2 / 10**	**15502.2 / 10**	**15503.2 / 10**	**15503.2 / 10**

Accessories	Type	Cat. no./Qty.
Partition plate	TW/IRC	16228.2 / 10
External cross-connector, blue	AQI/IRC/16 BU	16209.5 / 10
External cross-connector, black	AQI/IRC/16 BK	16209.4 / 10
External cross-connector, red	AQI/IRC/16 RD	16209.9 / 10
Ribbon cable adapter	FCA/IRC	16229.2 / 10
Fuse module	SM-IRC	16208.2 / 10
Tool / screwdriver	SDB 0.6 x 3.5	1086.0 / 10
Labelling/markers, blank	MC GS 6x12 R WH	3884.7 / 600
Labelling/markers, special print	MC GS 6x12 R So WH	3885.7 / 600

Interface Relay Compact IRC

IRCPU

FIRCPU

Screw connection Cat. no./Qty.	IRCPU 1/240 V AC 16240.2 / 10	IRCPU 1/125 V DC 16241.2 / 10	IRCPU 1/220 V DC 16242.2 / 10	IRCPU LW 1/125 V AC/DC 16243.2 / 10	IRCPU LW 1/240 V AC 16244.2 / 10
Size (L x W x H) with TS35 x 7.5	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm
Weight	33 g	33 g	33 g	33 g	33 g
Operating voltage	240 V AC	125 V DC	220 V DC	125 V AC / DC	240 V AC
Input data					
Rated voltage (Un)	220-240 V AC (50/60 Hz)	125 V DC	220 V DC	110-125 V AC / DC	220-240 V AC (50/60 Hz)
Power rating AC / DC	1 VA / 0.4 W	- / 0.6 W	- / 0.6 W	1.1 VA / 1 W	1.4 VA / 0.5 W
Operating range	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.3 Un	0.3 Un
Output specifications					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current|Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage | Max. switching voltage	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)
Standard contact material	AgNi	AgNi	AgNi	AgNi	AgNi
Component, screw socket base					
Type Cat. no./Qty.	IRCP 230-240 V AC 16196.2 / 10	IRCP 110-125 V DC 16197.2 / 10	IRCP 220 V DC 16198.2 / 10	IRCP LW 110-125 V AC/DC 16199.2 / 10	IRCP LW 230-240 V AC 16200.2 / 10
Components, plug relays					
Type Cat. no./Qty.	PRC 1/60 V DC 15503.2 / 10	PRC 1/60 V DC 15503.2 / 10	PRC 1/60 V DC 15503.2 / 10	PRC 1/60 V DC 15503.2 / 10	PRC 1/60 V DC 15503.2 / 10

Pressure-spring connection Cat. no./Qty.	FIRCPU 1/240 V AC 16270.2 / 10	FIRCPU 1/125 V DC 16271.2 / 10	FIRCPU 1/220 V DC 16272.2 / 10	FIRCPU LW 1/125 V AC/DC 16273.2 / 10	FIRCPU LW 1/240 V AC 16274.2 / 10
Size (L x W x H) with TS 35 x 7.5	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm
Weight	33 g	33 g	33 g	33 g	33 g
Operating voltage	240 V AC	125 V DC	220 V DC	125 V AC / DC	240 V AC
Input data					
Rated voltage (Un)	220-240 V AC (50/60 Hz)	125 V DC	220 V DC	110-125 V AC / DC	220-240 V AC (50/60 Hz)
Power rating AC / DC	1 VA / 0.4 W	- / 0.6 W	- / 0.6 W	1.1 VA / 1 W	1.4 VA / 0.5 W
Operating range	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.3 Un	0.3 Un
Output specifications					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current|Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage | Max. switching voltage	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)
Standard contact material	AgNi	AgNi	AgNi	AgNi	AgNi
Component, pressure-spring socket base					
Type Cat. no./Qty.	FIRCP 230-240 V AC 16216.2 / 10	FIRCP 110-125 V DC 16217.2 / 10	FIRCP 220 V DC 16218.2 / 10	FIRCP LW 110-125 V AC/DC 16219.2 / 10	FIRCP LW 230-240 V AC 16220.2 / 10
Components, plug relays					
Type Cat. no./Qty.	PRC 1/60 V DC 15503.2 / 10	PRC 1/60 V DC 15503.2 / 10	PRC 1/60 V DC 15503.2 / 10	PRC 1/60 V DC 15503.2 / 10	PRC 1/60 V DC 15503.2 / 10

Accessories	Type	Cat. no./Qty.
Partition plate	TW/IRC	16228.2 / 10
External cross-connector, blue	AQI/IRC/16 BU	16209.5 / 10
External cross-connector, black	AQI/IRC/16 BK	16209.4 / 10
External cross-connector, red	AQI/IRC/16 RD	16209.9 / 10
Ribbon cable adapter	FCA/IRC	16229.2 / 10
Fuse module	SM-IRC	16208.2 / 10
Tool / screwdriver	SDB 0.6 x 3.5	1086.0 / 10
Labelling/markers, blank	MC GS 6x12 R WH	3884.7 / 600
Labelling/markers, special print	MC GS 6x12 R So WH	3885.7 / 600

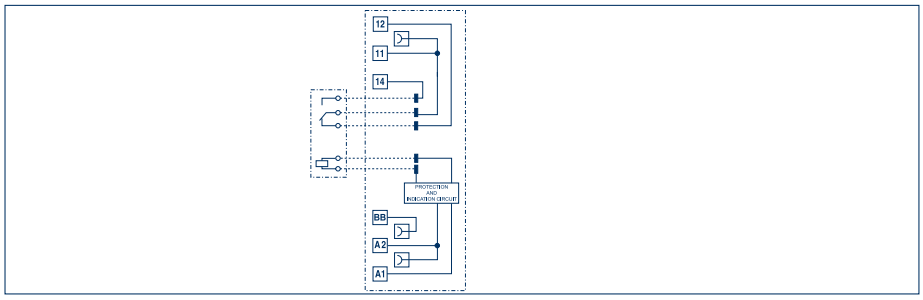
Interface Relay Compact IRC

IRC Input series

Consisting of:
- Base terminal and pluggable relay
- Mounts on TS 35

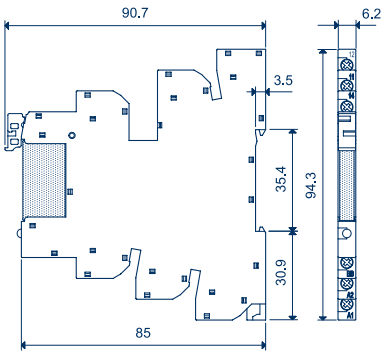
- Advantageous for connecting sensors to the PLC input, and the sensor power supply can be connected to the same coupling relay
- Internal EMC coil circuitry and LED display
- Pluggable cross-connection (blue, black, red) makes installations easier
- Screw or pressure-spring connection

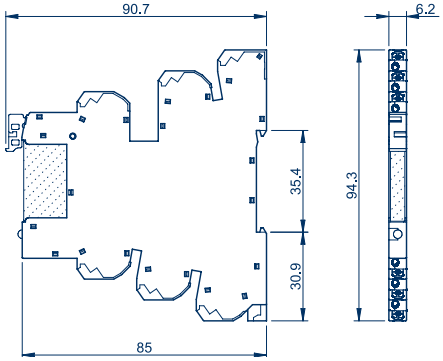
(F)IRCIU

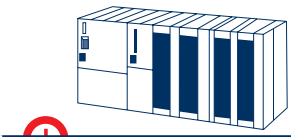


General specifications:			
Mech. service life AC/DC switching cycles	10×10^6		
Electrical service life AC 1 switching cycles	60×10^3		
Response time/Release time	5/6 ms		
Ambient temperature	- 40 °C – + 70 °C		
Relay protection type	IP 20		
Bounce time at the NO of the NO/NC contact	1 ms/6 ms		
Vibration resistance (10-55) Hz NO/NC contact	10 g / 5 g		
Ambient heat dissipation without contact current	0.2 W (24 V) – 0.4 W (230 V)		
Ambient heat dissipation under continuous current	0.6 W (24 V) – 0.9 W (230 V)		
Insulation properties acc. to EN 61810-1			
Rated voltage of power supply system	230 / 400 V AC		
Rated insulation voltage / contamination degree	250 V AC / 3	400 V AC / 2	
Insulation between coil and contact set			
Overvoltage category	III		
Rated impulse voltage	6 kV (1.2/50 µs)		
Dielectric strength	4,000 V AC		
Insulation at open contact			
Dielectric strength	1,000 V AC / 1.5 kV (1.2/50 µs)		
EMC - interference immunity of the input circuit	**UN ≤ 60 V**	**UN = 125 V**	**UN = 230 V**
Burst (5/50 ns, 5 kHz) on A1 - A2 according to EN 61000-4-4	4 kV	4 kV	4 kV
Surge (1.2/50 µs) on A1 - A2 according to EN 61000-4-5 (differential mode)	0.8 kV	2 kV	4 kV

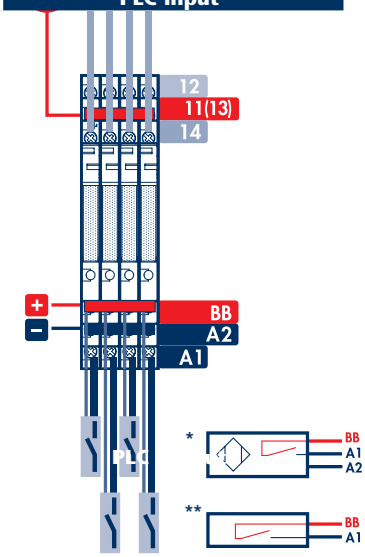
Rated data for the base	Screw connection IRC	Pressure-spring connection
Stripping length	10 mm	8 mm
Torque	0.5 Nm	-
Max. wire cross-section, solid | finely stranded	1 x 2.5 | 1 x 2.5 mm²	1 x 2.5 | 1 x 2.5 mm²
Min. wire cross-section, solid | finely stranded	1 x 0.2 | 1 x 2.5 mm²	1 x 0.2 | 1 x 2.5 mm²
Max. wire cross-section, solid | finely stranded	1 x 14 AWG | 1 x 14 AWG	1 x 14 AWG | 1 x 14 AWG
Min. wire cross-section, solid | finely stranded	1 x 24 AWG | 1 x 24 AWG	1 x 24 AWG | 1 x 24 AWG







PLC input



Sensor level

For sensors with 2 connections or for control via the NO contact:

BB = + (plus) for multiple sensors / NO contact is bridgeable
A1 = individual sensor/ NO-contact output

For sensors with 3 connections:

BB = + (plus) for multiple sensors Bridgeable
A2 = - (minus) for multiple sensors Bridgeable
A1 = individual sensor output/

* Sensor with 3 connections (PNP output)
** Sensor with 2 connections or for control via NO contact

Interface Relay Compact IRC

IRCIU

FIRCIU

Screw connection Cat. no./Qty.	IRCIU 1/6 V AC/DC 16245.2 / 10	IRCIU 1/12 V AC/DC 16246.2 / 10	IRCIU 1/24 V AC/DC 16247.2 / 10	IRCIU 1/125 V AC/DC 16248.2 / 10	IRCIU 1/240 V AC 16249.2 / 10
Size (L x W x H) with TS 35 x 7.5	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm
Weight	33 g	33 g	33 g	33 g	33 g
Operating voltage	6 V AC / DC	12 V AC / DC	24 AC / DC	125 V AC / DC	240 V AC
Input data					
Rated voltage (Un)	6 V AC / DC	12 V AC / DC	24 AC / DC	110-125 V AC / DC	220-240 V AC (50/60 Hz)
Power rating AC / DC	0.2 VA / 0.2 W	0.2 VA / 0.2 W	0.25 VA / 0.25 W	0.7 VA / 0.7 W	1 VA / -
Operating range	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Output specifications					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO 1 CO contact
Max. continuous current|Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage | Max. switching voltage	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	50 mW (5 V / 2 mA)	50 mW (5 V / 2 mA)	50 mW (5 V / 2 mA)	50 mW (5 V / 2 mA)	50 mW (5 V / 2 mA)
Standard contact material	AgNi + Au	AgNi + Au	AgNi + Au	AgNi + Au	AgNi + Au
Component, screw socket base					
Type Cat. no./Qty.	IRCI 6-12-24 V AC/DC 16201.2 / 10	IRCI 6-12-24 V AC/DC 16201.2 / 10	IRCI 6-12-24 V AC/DC 16201.2 / 10	IRCI 110-125 V AC/DC 16202.2 / 10	IRCI 230-240 V AC 16203.2 / 10
Components, plug relays					
Type Cat. no./Qty.	PRC 1/5 V DC Au 15557.2 / 10	PRC 1/12 V DC Au 15558.2 / 10	PRC 1/24 V DC Au 15559.2 / 10	PRC 1/60 V DC Au 15568.2 / 10	PRC 1/60 V DC Au 15568.2 / 10

Pressure-spring connection Cat. no./Qty.	FIRCIU 1/6 V AC/DC 16275.2 / 10	FIRCIU 1/12 V AC/DC 16276.2 / 10	FIRCIU 1/24 V AC/DC 16277.2 / 10	FIRCIU 1/125 V AC/DC 16278.2 / 10	FIRCIU 1/240 V AC 16279.2 / 10
Size (L x W x H) with TS 35 x 7.5	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm
Weight	33 g	33 g	33 g	33 g	33 g
Operating voltage	6 V AC / DC	12 V AC / DC	24 AC / DC	125 V AC / DC	240 V AC
Input data					
Rated voltage (Un)	6 V AC / DC	12 V AC / DC	24 AC / DC	110-125 V AC / DC	220-240 V AC (50/60 Hz)
Power rating AC / DC	0.2 VA / 0.2 W	0.2 VA / 0.2 W	0.25 VA / 0.25 W	0.7 VA / 0.7 W	1 VA / -
Operating range	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Output specifications					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current|Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage | Max. switching voltage	250/400 VAC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	50 mW (5 V / 2 mA)	50 mW (5 V / 2 mA)	50 mW (5 V / 2 mA)	50 mW (5 V / 2 mA)	50 mW (5 V / 2 mA)
Standard contact material	AgNi + Au	AgNi + Au	AgNi + Au	AgNi + Au	AgNi + Au
Component, pressure-spring socket base					
Type Cat. no./Qty.	FIRCI 6-12-24 V AC/DC 16221.2 / 10	FIRCI 6-12-24 V AC/DC 16221.2 / 10	FIRCI 6-12-24 V AC/DC 16221.2 / 10	FIRCI 110-125 V AC/DC 16222.2 / 10	FIRCI 230-240 V AC 16223.2 / 10
Components, plug relays					
Type Cat. no./Qty.	PRC 1/5 V DC Au 15557.2 / 10	PRC 1/12 V DC Au 15558.2 / 10	PRC 1/24 V DC Au 15559.2 / 10	PRC 1/60 V DC Au 15568.2 / 10	PRC 1/60 V DC Au 15568.2 / 10

Accessories	Type	Cat. no./Qty.
Partition plate	TW/IRC	16228.2 / 10
External cross-connector, blue	AQI/IRC/16 BU	16209.5 / 10
External cross-connector, black	AQI/IRC/16 BK	16209.4 / 10
External cross-connector, red	AQI/IRC/16 RD	16209.9 / 10
Ribbon cable adapter	FCA/IRC	16229.2 / 10
Tool / screwdriver	SDB 0.6 x 3.5	1086.0 / 10
Labelling/markers, blank	MC GS 6x12 R WH	3884.7 / 600
Labelling/markers, special print	MC GS 6x12 R So WH	3885.7 / 600

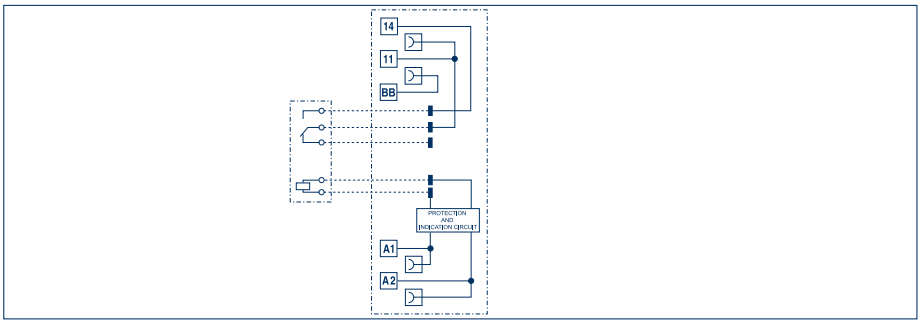
Interface Relay Compact IRC

IRC output series

Consisting of:
- Base terminal and pluggable relay
- Mounts on TS 35

- Advantageous for connecting actuators to the PLC output
- Control and power supply for the actuator can be connected to the same coupling relay
- Internal EMC coil circuitry and LED display
- Pluggable cross-connection (blue, black, red) makes installations easier
- Screw or pressure-spring connection

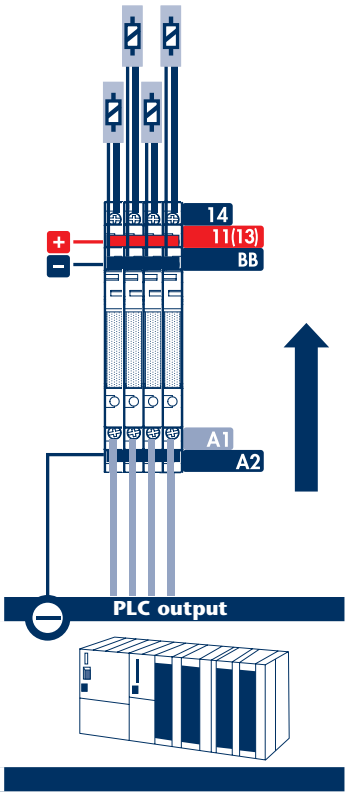
(F)IRCOU



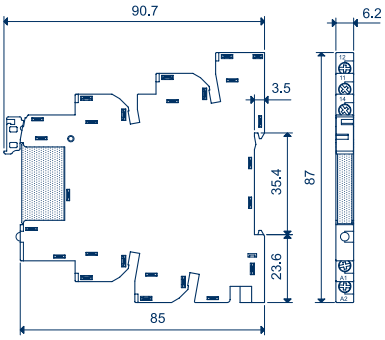
General specifications:			
Mech. service life AC/DC switching cycles	10×10^6		
Electrical service life AC 1 switching cycles	60×10^3		
Response time/Release time	5/6 ms		
Ambient temperature	- 40 °C – + 70 °C		
Relay protection type	IP 20		
Bounce time at the NO of the NO/NC contact	1 ms/6 ms		
Vibration resistance (10-55) Hz NO/NC contact	10 g / 5 g		
Ambient heat dissipation without contact current	0.2 W (24 V) – 0.4 W (230 V)		
Ambient heat dissipation under continuous current	0.6 W (24 V) – 0.9 W (230 V)		
Insulation properties acc. to EN 61810-1			
Rated voltage of power supply system	230 / 400 V AC		
Rated insulation voltage / contamination degree	250 V AC / 3		
Insulation between coil and contact set			
Overvoltage category	III		
Rated impulse voltage	6 kV (1.2/50 µs)		
Dielectric strength	4,000 V AC		
Insulation at open contact			
Dielectric strength	1,000 V AC / 1.5 kV (1.2/50 µs)		
EMC - interference immunity of the input circuit	**UN ≤ 60 V**	**UN = 125 V**	**UN = 230 V**
Burst (5/50 ns, 5 kHz) on A1 - A2 according to EN 61000-4-4	4 kV	4 kV	4 kV
Surge (1.2/50 µs) on A1 - A2 according to EN 61000-4-5 (differential mode)	0.8 kV	2 kV	4 kV

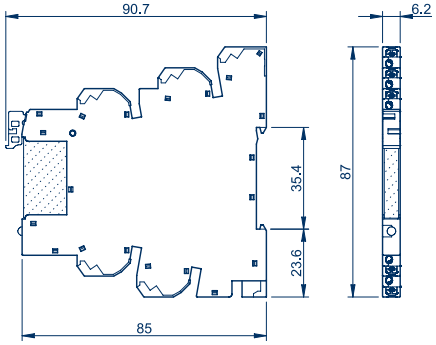
Rated data for the base	Screw connection IRC	Pressure-spring connection
Stripping length	10 mm	8 mm
Torque	0.5 Nm	-
Max. wire cross-section, solid | finely stranded	1 x 2.5 | 1 x 2.5 mm²	1 x 2.5 | 1 x 2.5 mm²
Min. wire cross-section, solid | finely stranded	1 x 0.2 | 1 x 2.5 mm²	1 x 0.2 | 1 x 2.5 mm²
Max. wire cross-section, solid | finely stranded	1 x 14 AWG | 1 x 14 AWG	1 x 14 AWG | 1 x 14 AWG
Min. wire cross-section, solid | finely stranded	1 x 24 AWG | 1 x 24 AWG	1 x 24 AWG | 1 x 24 AWG

Actuator level



Apply the operating voltage for actuators to
BB - 11 (polarity insensitive)
BB = bridgeable for multiple actuators
11 = bridgeable for multiple actuators
14 = individual control of the actuators





Interface Relay Compact IRC

IRCOU

FIRCOU

Screw connection Cat. no./Qty.	IRCOU 1/6 V AC/DC 16250.2 / 10	IRCOU 1/12 V AC/DC 16251.2 / 10	IRCOU 1/24 V AC/DC 16252.2 / 10	IRCOU 1/125 V AC/DC 16253.2 / 10	IRCOU 1/240 V AC 16254.2 / 10
Size (L x W x H) with TS 35 x 7.5	87 x 6.2 x 95.4 mm	87 x 6.2 x 95.4 mm	87 x 6.2 x 95.4 mm	87 x 6.2 x 95.4 mm	87 x 6.2 x 95.4 mm
Weight	33 g	33 g	33 g	33 g	33 g
Operating voltage	6 V AC / DC	12 V AC / DC	24 AC / DC	125 V AC / DC	240 V AC
Input data					
Rated voltage (Un)	6 V AC / DC	12 V AC / DC	24 AC / DC	110-125 V AC / DC	220-240 V AC (50/60 Hz)
Power rating AC / DC	0.2 VA / 0.2 W	0.2 VA / 0.2 W	0.25 VA / 0.25 W	0.7 VA / 0.7 W	1 VA / -
Operating range	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Output specifications					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current|Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage | Max. switching voltage	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)
Standard contact material	AgNi	AgNi	AgNi	AgNi	AgNi
Component, screw socket base					
Type Cat. no./Qty.	IRCO 6-12-24 V AC/DC 16204.2 / 10	IRCO 6-12-24 V AC/DC 16204.2 / 10	IRCO 6-12-24 V AC/DC 16204.2 / 10	IRCO 110-125 V AC/DC 16205.2 / 10	IRCO 230-240 V AC 16206.2 / 10
Components, plug relays					
Type Cat. no./Qty.	PRC 1/5 V DC 15500.2 / 10	PRC 1/12 V DC 15501.2 / 10	PRC 1/24 V DC 15502.2 / 10	PRC 1/60 V DC 15503.2 / 10	PRC 1/60 V DC 15503.2 / 10

Pressure-spring connection Cat. no./Qty.	FIRCOU 1/6 V AC/DC 16280.2 / 10	FIRCOU 1/12 V AC/DC 16281.2 / 10	FIRCOU 1/24 V AC/DC 16282.2 / 10	FIRCOU 1/125 V AC/DC 16283.2 / 10	FIRCU 1/240 V AC 16284.2 / 10
Size (L x W x H) with TS 35 x 7.5	87 x 6.2 x 90.7 mm	87 x 6.2 x 90.7 mm	87 x 6.2 x 90.7 mm	87 x 6.2 x 90.7 mm	87 x 6.2 x 90.7 mm
Weight	33 g	33 g	33 g	33 g	33 g
Operating voltage	6 V AC / DC	12 V AC / DC	24 AC / DC	125 V AC / DC	240 V AC
Input data					
Rated voltage (Un)	6 V AC / DC	12 V AC / DC	24 AC / DC	110-125 V AC / DC	220-240 V AC (50/60 Hz)
Power rating AC / DC	0.2 VA / 0.2 W	0.2 VA / 0.2 W	0.25 VA / 0.25 W	0.7 VA / 0.7 W	1 VA / -
Operating range	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Output specifications					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current|Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage | Max. switching voltage	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)
Standard contact material	AgNi	AgNi	AgNi	AgNi	AgNi
Component, pressure-spring socket base					
Type Cat. no./Qty.	FIRCO 6-12-24 V AC/DC 16224.2 / 10	FIRCO 6-12-24 V AC/DC 16224.2 / 10	FIRCO 6-12-24 V AC/DC 16224.2 / 10	FIRCO 110-125 V AC/DC 16225.2 / 10	FIRCO 230-240 V AC 16226.2 / 10
Components, plug relays					
Type Cat. no./Qty.	PRC 1/5 V DC 15500.2 / 10	PRC 1/12 V DC 15501.2 / 10	PRC 1/24 V DC 15502.2 / 10	PRC 1/60 V DC 15503.2 / 10	PRC 1/60 V DC 15503.2 / 10

Accessories	Type	Cat. no./Qty.
Partition plate	TW/IRC	16228.2 / 10
External cross-connector, blue	AQI/IRC/16 BU	16209.5 / 10
External cross-connector, black	AQI/IRC/16 BK	16209.4 / 10
External cross-connector, red	AQI/IRC/16 RD	16209.9 / 10
Ribbon cable adapter	FCA/IRC	16229.2 / 10
Tool / screwdriver	SDB 0.6 x 3.5	1086.0 / 10
Labelling/markers, blank	MC GS 6x12 R WH	3884.7 / 600
Labelling/markers, special print	MC GS 6x12 R So WH	3885.7 / 600

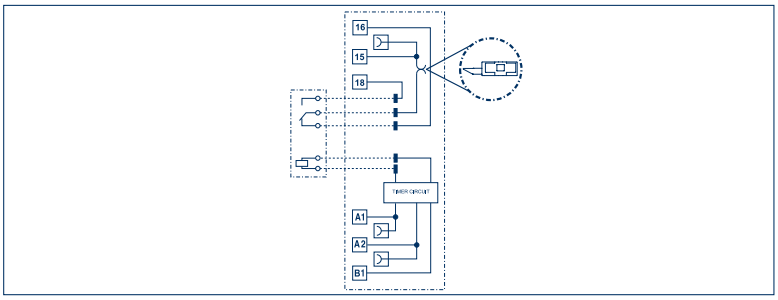
Multifunction timing relay compact MFR-IRCPU

MFR IRCPU series

Consisting of:
- Base terminal and pluggable relay
- Mounts on TS 35

- Multifunction timing relay with eight time functions and four time ranges – configurable with DIP switch up to six hours
- Output fuse module for individual standard micro-fuse (5x20 mm) available as accessory
- Internal EMC coil circuitry and LED display
- Pluggable cross-connection (blue, black, red) makes installations easier
- Screw or pressure-spring connection

MFR (F)IRCPU circuit diagram



General specifications:	
Mech. service life AC/DC switching cycles	10 x 10^6
Electrical service life AC 1 switching cycles	60 x 10^3
Response time/Release time	5/6 ms
Relay protection type	IP 20
Bounce time at the NO of the NO/NC contact	1 ms/6 ms
Vibration resistance (10 – 55 Hz) NO/NC contact	10 g / 5 g
Ambient heat dissipation without contact current	0.2 W (24 V) – 0.4 W (230 V)
Ambient heat dissipation under continuous current	0.6 W (24 V) – 0.9 W (230 V)

Time delay range

Control without a control contact

(A) ON delay

The start is triggered by applying the operating voltage (U). The relay switches to the working position after the adjustable time delay.

(GI) Fixed pulse (0.5 s) delayed

When the operating voltage (U) is applied and the set delay time has expired, the relay switches for 0.5 seconds in the working position.

(DI) ON pulse

The start is triggered by applying the operating voltage (U). The relay switches immediately to the working position. The relay switches to the rest position after the adjustable wipe time interval.

(SW) Blinker ON beginning

The relay switches to the working position when the operating voltage (U) is applied. The relay switches to the rest position after the pulse time interval, and then switches back to the working position (pulse time = pause time).

Control with a control contact

(BE) OFF delay with control contact

The operating voltage (U) is connected. The relay switches immediately to the working position when the start contact (S) is closed. The adjustable OFF delay begins when the start contact opens.

(DE) Impulse-ON with control contact

The operating voltage (U) is connected. The relay switches immediately to the working position when the start contact (S) is closed. The adjustable Impulse-ON time begins when the start contact closes.

(CE) ON and OFF delay with control contact

The operating voltage (U) is connected. The start contact (S) closes.
The relay switches to the working position after the adjustable time delay. The relay switches to the rest position after the start contact opens and the delay time has expired.

(EE) Impulse-OFF via opened start contact

The operating voltage (U) is connected.
The relay switches immediately to the working position when the start contact (S) opens. The adjustable impulse-OFF time begins when the start contact opens.

EMC specifications Standard	Test		Voltage
EN 61000-4-2	Electrostatic discharge	Contact discharge Air discharge	4 kV 8 kV
EN 61000-4-3	Radio frequency, electromagnetic field (80-1000 MHz)		10 V/m
	Radio frequency, electromagnetic field (1400-2700 MHz)		10 V/m
EN 61000-4-4	Quick transients (bursts) (5-50 nS, 5 kHz) at input terminals		4 kV
EN 61000-4-5	Surge (1.2/50 µs) on input terminals	common mode differential mode	2 kV 0.8 kV
EN 61000-4-6	Radio frequency common mode (0.15 ÷ 80 MHz at input terminals)		10 V
EN 55022	Emissions class		Class B

Refer to page 38 for further functional descriptions of the IRC series.

Interface Relay Compact IRC

MFR IRCPU

MFR FIRCPU

Type	MFR IRCPU 1/12 V AC/DC	MFR IRCPU 1/ 24 V AC/DC	MFR FIRCPU 1/12 V AC/DC	MFR FIRCPU 1/ 24 V AC/DC
Cat. no./Qty.	**16255.2 / 10**	**16256.2 / 10**	**16285.2 / 10**	**16286.2 / 10**
Size (L x W x H) with TS 35 x 7.5	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm
Weight	33 g	33 g	33 g	33 g
Operating voltage	12 V AC / DC	24 V AC / DC	12 V AC / DC	24 V AC / DC
Input data				
Rated voltage (Un)	12 V AC / DC	24 V AC / DC	12 V AC / DC	24 V AC / DC
Power rating AC / DC	0.3 VA / 0.2 W	0.4 VA / 0.3 W	0.3 VA / 0.2 W	0.4 VA / 0.3 W
Operating range	(0.8 to 1.1) Un	(0.8 to 1.1) Un	(0.8 to 1.1) Un	(0.8 to 1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Functions				
	AI: ON delay		AI: ON delay	
	DI: ON pulse		DI: ON pulse	
	GI: Fixed pulse (0.5 s) delayed		GI: Fixed pulse (0.5 s) delayed	
	SW: Blinker ON beginning		SW: Blinker ON beginning	
	BE: OFF delay with control contact		BE: OFF delay with control contact	
	CE: ON and OFF delay with control contact		CE: ON and OFF delay with control contact	
	DE: Impulse-ON with control contact		DE: Impulse-ON with control contact	
	EE: Impulse-OFF with control contact		EE: Impulse-OFF with control contact	
Time delay range				
	(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h		(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h	
Displays				
	LED = Position of output relay		LED = Position of output relay	
Connection data				
Connection type	Screw connection		Pressure-spring connection	
Stripping length	10 mm		8 mm	
Torque	0.5 Nm		-	
Max. wire cross-section, solid | finely stranded	1 x 2.5 | 1 x 2.5 mm²		1 x 2.5 | 1 x 2.5 mm²	
Min. wire cross-section, solid | finely stranded	1 x 0.2 | 1 x 2.5 mm²		1 x 0.2 | 1 x 2.5 mm²	
Max. wire cross-section, solid | finely stranded	1 x 14 AWG | 1 x 14 AWG		1 x 14 AWG | 1 x 14 AWG	
Min. wire cross-section, solid | finely stranded	1 x 24 AWG | 1 x 24 AWG		1 x 24 AWG | 1 x 24 AWG	
Technical data				
Time delay range	(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h		(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h	
Repeat accuracy	± 1 %		± 1 %	
Recovery time	< 50 ms		< 50 ms	
Setting tolerance to end value	± 5 %		± 5 %	
Ambient temperature	-40 to +50 °C		-40 to +50 °C	
Output specifications				
Number of contacts	1 CO contact		1 CO contact	
Max. continuous current | Max. inrush current	6/10 A		6/10 A	
Rated voltage | Max. switching voltage	250/400 V AC		250/400 V AC	
Max. switching capacity AC 1	1,500 VA		1,500 VA	
Max. switching capacity AC 15 (230 V AC)	300 VA		300 VA	
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW		0.185 kW	
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A		6/0.2/0.12 A	
Min. switching load	500 mW (12 V / 10 mA)		500 mW (12 V / 10 mA)	
Standard contact material	AgNi		AgNi	
Components, socket base				
Type	**MFR IRCP 12-24 V AC/DC**	**MFR IRCP 12-24 V AC/DC**	**MFR FIRCP 12-24 V AC/DC**	**MFR FIRCP 12-24 V AC/DC**
Cat. no./Qty.	**16207.2 / 10**	**16207.2 / 10**	**16227.2 / 10**	**16227.2 / 10**
Components, plug relays				
Type	**PRC 1/12 V DC**	**PRC 1/24 V DC**	**PRC 1/12 V DC**	**PRC 1/24 V DC**
Cat. no./Qty.	**15501.2 / 10**	**15502.2 / 10**	**15501.2 / 10**	**15502.2 / 10**

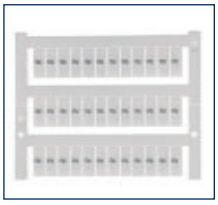
Accessories	Type	Cat. no./Qty.
Partition plate	TW/IRC	16228.2 / 10
External cross-connector, blue	AQI/IRC/16 BU	16209.5 / 10
External cross-connector, black	AQI/IRC/16 BK	16209.4 / 10
External cross-connector, red	AQI/IRC/16 RD	16209.9 / 10
Ribbon cable adapter	FCA/IRC	16229.2 / 10
Fuse modules	SM-IRC	16208.2 / 10
Tool / screwdriver	SDB 0.6 x 3.5	1086.0 / 10
Labelling/markers, blank	MC GS 6x12 R WH	3884.7 / 600
Labelling/markers, special print	MC GS 6x12 R So WH	3885.7/ 600

Plug relay compact PRC

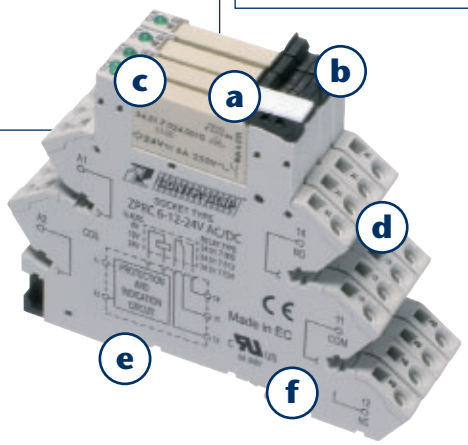
Relay terminals with 1 CO relay

1. Overview

a **Labelling | Marking**
The socket bases have a labelling surface which is optimally suited for our **PMC Pocket-Maxicard (PMC BSTR 6/30)** standard marking systems. In addition to our large variety of standard labels, **CONTA-CLIP** can also provide "just-in-time" individual labelling for you.

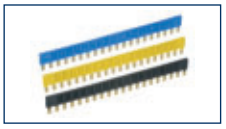


b **Using the mount/dismount lever**
The mounting and dismounting mechanism forms a reliable connection by latching the relay with the socket base. The fitted relay can be removed, easily and without force, from the socket base by using the dismount function of the lever!



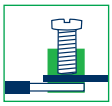
c **Pluggable relay**
Pluggable relays are also available with AgSNO and gold contacts, to fit with the many functions of your individual requirements!

d **Pluggable external cross-connections**
The AQI/PRC pluggable cross-connection system enables a time-saving distribution of potentials. The AQI/PRC is constructed so that it is protected against accidental touch. It is available as a 20-pole unit, in either yellow, blue or black. The cross-connection can be shortened to fewer poles in order to fit the required interface. Insulation plating can be used to insulate the ends.



e **Mounts on standard TS 35 rail**
CONTA-CLIP relay terminals can be arranged as required on standard TS 35 DIN rails in accordance with EN 60715.

f **Connection types**
All of our relay terminals are optionally available with screw or tension-spring connection systems.

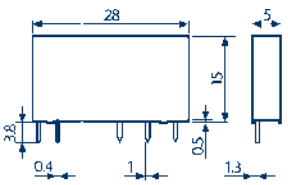


2. Approvals (details upon request)

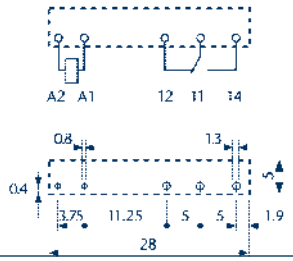
3. Features

I. Relay
- 5 mm width, extremely narrow monitoring relay
- Sensitive DC coil, 170 mW
- Secure isolation between the coil and the contacts, according to VDE 0160/ EN 50178
- 6 mm clearance distance, 8 mm creepage distance
- 6 kV (1.2/50 µs)
- Protection class II, according to VDE 0631/EN 60730

Relay - complete view



Connection diagram



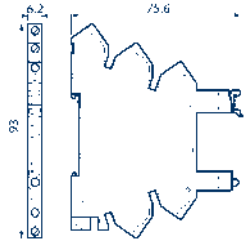
Plug relay compact PRC

Relay terminals with 1 CO relay

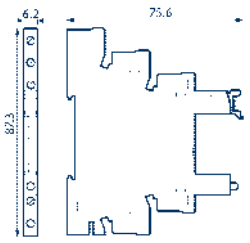
II. Socket base

- Mounts on TS 35
- Very versatile and modular construction of individual relay bases
- User-friendly, because the relays can be easily replaced
- High-quality connection terminals (Tension-spring or screw connection system)
- Integrated EMC coil circuitry, and LED
- High-quality innovative mount/dismount lever
- All versions are optionally available with screw or tension-spring connection system

Tension-spring connection



Screw connection



4. General specifications

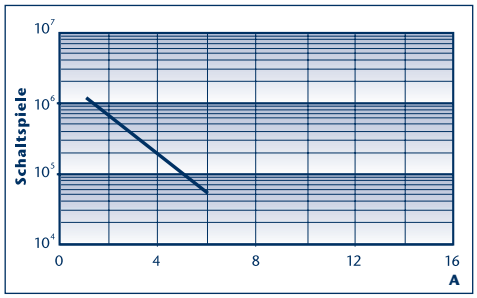
Electro-mechanical relay

Insulation properties		
Insulation coordination, according to EN 61810-1, VDE 0435 T 201.	Rated insulation voltage	250
	Rated surge voltage, kV	4
	Contamination degree	3
	Overvoltage category	III

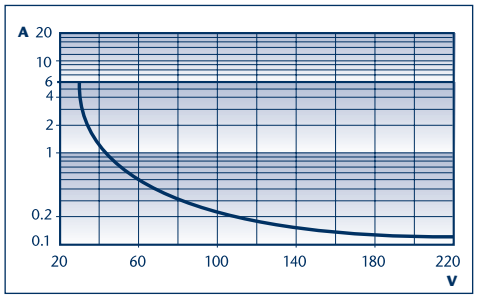
EMC - interference immunity of the control circuit (coil)		
BURST (5 to 50) ns, 5 kHz, on A 1-A 2	EN 61000-4-4	Class 4 (4 kV)
SURGE (1.2/50) µs on A 1-A 2 (differential mode)	EN 61000-4-5	Class 3 (2 kV)

Additional data			
Bounce time at close of the NO/NC contact		ms	1/6
Resistance to vibration (10 to 55 Hz, max. ± 1mm):			
	NO/NC contact	g/g	10/5 flux density
Ambient heat dissipation	without contact current	W	0.2 (12 V) to 0.9 (240 V)
	with continuous current	W	0.5 (12 V) to 1.5 (240 V)

5. Contact data



Service life of contact under AC 1 load



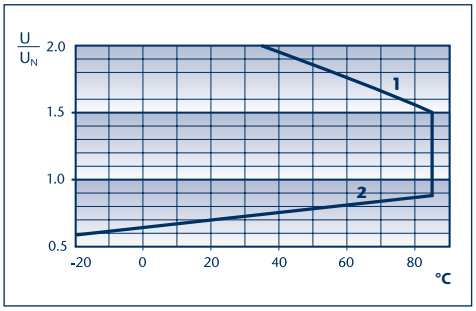
Switching capacity under DC 1 load

- Under resistive load (DC 1) and with an intersection of current and voltage that lies under the curve: this is an indication of an electrical lifespan greater or equal to 100,000 switching cycles.
- Under inductive load (DC 13), a free-wheel diode should be switched parallel to the load. Note: the return time increases.

6. Coil data

DC version

Rated U_N V	Operating range U_{min} V	U_{max} V	Resistance R Ω	Rated voltage current I mA
5	3.5	7.5	130	38.4
12	8.4	18	840	14.2
24	16.8	36	3,350	7.1
48	33.6	72	12,300	3.9
60	42	90	19,700	3



Reliable range of operating voltage

1 Max. permitted coil voltage

2 Response voltage, when coil temperature is equal to ambient temperature

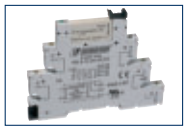
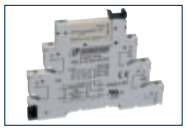
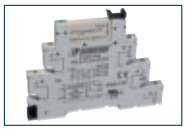
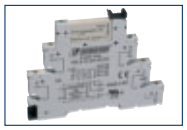
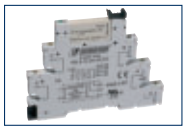
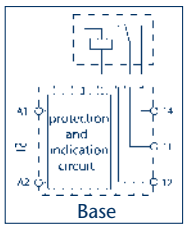
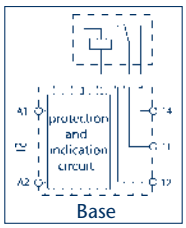
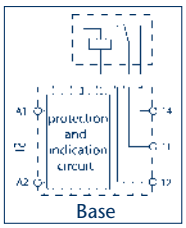
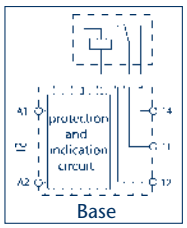
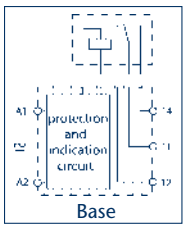
Plug relay compact PRC

Screw-connection relay terminals

- Consisting of:
  Base terminal and pluggable relay
- Mounts on TS 35

Connection diagram

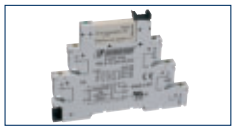
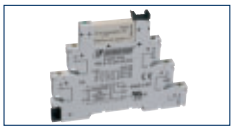
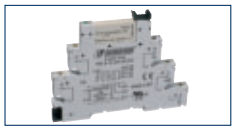
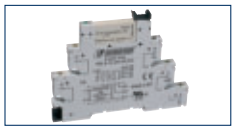
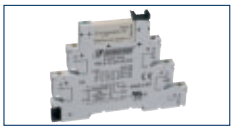
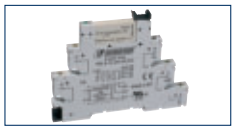
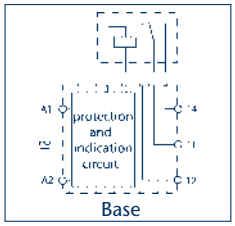
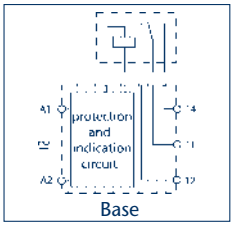
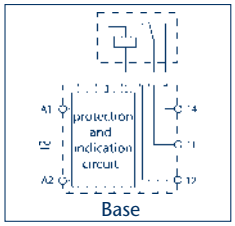
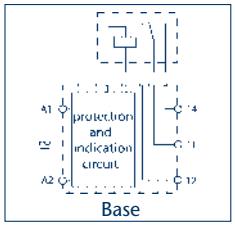
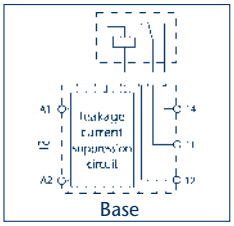
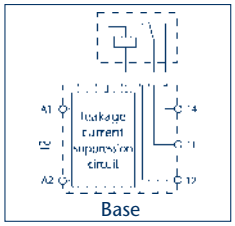
- Internal EMC coil circuitry and LED display
- LW version:
  Internal AC residual current suppression and LED display

	PRCU 1/6V DC	PRCU 1/12V DC	PRCU 1/24V DC	PRCU 1/12V AC/DC	PRCU 1/24V AC/DC
					
					
Type	**PRCU 1/6 V DC**	**PRCU 1/12 V DC**	**PRCU 1/24 V DC**	**PRCU 1/12 V AC/DC**	**PRCU 1/24 V AC/DC**
Cat. no./Qty. Type/Colour grey (RAL 7032)	**15513.2**/10	**15514.2**/10	**15515.2**/10	**15569.2**/10	**15508.2**/10
Size (L x W x H) with TS 35 x 7.5	87.3 x 6.2 x 79.9 mm	87.3 x 6.2 x 79.9 mm	87.3 x 6.2 x 79.9 mm	87.3 x 6.2 x 79.9 mm	87.3 x 6.2 x 79.9 mm
Weight	36 g	36 g	36 g	36 g	36 g
Rated operating voltage	6 V DC	12 V DC	24 V DC	12 V AC/DC	24 V AC/DC
General specifications					
Mech. lifespan AC/DC switching cycles	–/10 x 10^6	–/10 x 10^6	–/10 x 10^6	10 x 10^6/10 x 10^6	10 x 10^6/10 x 10^6
Electrical lifespan AC 1 switching cycles	60 x 10^3	60 x 10^3	60 x 10^3	60 x 10^3	60 x 10^3
Response time/Release time	5/6 ms	5/6 ms	5/6 ms	5/6 ms	5/6 ms
Insulation coordination, EN 61810-5	4 kV/3	4 kV/3	4 kV/3	4 kV/3	4 kV/3
Dielectric strength coil/contacts (1.2/50 µs)	6 kV	6 kV	6 kV	6 kV	6 kV
Dielectric strength of open contacts	1,000 V AC	1,000 V AC	1,000 V AC	1,000 V AC	1,000 V AC
Ambient temperature	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
Relay protection type	RT II	RT II	RT II	RT II	RT II
Ratings for socket base					
Ambient temperature	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
Stripping length	10 mm	10 mm	10 mm	10 mm	10 mm
Max. wire cross-section, solid | finely stranded	1x2.5 | 1x2.5 mm^2	1x2.5 | 1x2.5 mm^2	1x2.5 | 1x2.5 mm^2	1x2.5 | 1x2.5 mm^2	1x2.5 | 1x2.5 mm^2
	1x14 | 1x14 AWG	1x14 | 1x14 AWG	1x14 | 1x14 AWG	1x14 | 1x14 AWG	1x14 | 1x14 AWG
Ratings for plug-relays combined with socket base **Contacts**					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current | Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage | Max. switching voltage	250/400 VAC*	250/400 VAC*	250/400 VAC*	250/400 VAC*	250/400 VAC*
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)
Standard contact material	AgNi	AgNi	AgNi	AgNi	AgNi
Coil					
Rated voltage (U_N)	5 V DC | – AC	12 V DC | – AC	24 V DC | – AC	12 V DC | 12 AC	24 V DC | 24 AC
Power rating AC/DC	0.2 W	0.2 W	0.2 W	0.2 W	0.2 W
Operating range	-	-	-	(0.8 to 1.1) U_N AC (50/60 Hz)	(0.8 to 1.1) U_NAC (50/60 Hz)
	(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC
Holding current	0.6 U_NDC	0.6 U_NDC	0.6 U_NDC	0.6 U_NAC/0.6 U_NDC	0.6 U_NAC/0.6 U_NDC
Drop-out voltage	0.05 U_NDC	0.05 U_NDC	0.05 U_NDC	0.1 U_NAC/0.05 U_NDC	0.1 U_NAC/0.05 U_NDC

Components, socket base					
Type/Colour grey (RAL 7032)	**PRC 6-12-24V DC**	**PRC 6-12-24V DC**	**PRC 6-12-24V DC**	**PRC 6-12-24V AC/DC**	**PRC 6-12-24V AC/DC**
Cat. no./Qty.	15490.2/10	15490.2/10	15490.2/10	15488.2/10	15488.2/10
Components, plug relays					
Type/Rated voltage	**PRC 1/5V DC**	**PRC 1/24V DC**	**PRC 1/24V DC**	**PRC 1/12V DC**	**PRC 1/24V DC**
Cat. no./Qty.	**15500.2**/10*3	**15501.2**/10*3	**15502.2**/10*3	**15501.2**/10*3	**15502.2**/10*3
Accessories for AQI/PRC ext. insulated cross-connection	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**
Cat. no./Qty. yellow	**15545.8**/1	**15545.8**/1	**15545.8**/1	**15545.8**/1	**15545.8**/1
Cat. no./Qty. blue	**15545.5**/1	**15545.5**/1	**15545.5**/1	**15545.5**/1	**15545.5**/1
Cat. no./Qty. black	**15545.4**/1	**15545.4**/1	**15545.4**/1	**15545.4**/1	**15545.4**/1
Partition plate TW/PRC	**TW/PRC**	**TW/PRC**	**TW/PRC**	**TW/PRC**	**TW/PRC**
Cat. no./Qty.	**15546.2**/1	**15546.2**/1	**15546.2**/1	**15546.2**/1	**15546.2**/1
Labelling/markers PMC	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**
Cat. no./Qty. standard print, see catalogue	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT
Cat. no./Qty. blank	**9106.7**/300	**9106.7**/300	**9106.7**/300	**9106.7**/300	**9106.7**/300
Cat. no./Qty. special print	**9107.7**/300	**9107.7**/300	**9107.7**/300	**9107.7**/300	**9107.7**/300
Screwdriver SDB	**SDB 0.6 x 3.5**	**SDB 0.6 x 3.5**	**SDB 0.6 x 3.5**	**SDB 0.6 x 3.5**	**SDB 0.6 x 3.5**
Cat. no./Qty.	**1086.0**/1	**1086.0**/1	**1086.0**/1	**1086.0**/1	**1086.0**/1

* The conditions of contamination degree 2 are fulfilled at 400 V.
*1 In order for the relay to de-energise, the residual current can be suppressed/controlled via the SPS-230V semiconductor outputs, long control lines (LW), thyristors, and an inductive proximity switch!
*2 Since this relay is only produced for DC at a max. 60 V, the adjustment to the operating voltage occurs via the internal resistance and bridge rectifiers!
*3 Relay available with gold contact upon request!

Plug relay compact PRC

PRCU 1/48V AC/DC	PRCU 1/60V AC/DC	PRCU 1/125V AC/DC	PRCU 1/240V AC/DC	PRCU LW 1/125V AC/DC	PRCU LW 1/240V AC
					
					
PRCU 1/48 V AC/DC	**PRCU 1/60 V AC/DC**	**PRCU 1/125 V AC/DC**	**PRCU 1/240 V AC/DC**	**PRCU LW 1/125 V AC/DC**	**PRCU LW 1/240 V AC**
15509.2/10	**15510.2**/10	**15511.2**/10*2	**15512.2**/10*2	**15553.2**/10*2	**15554.2**/10*2
87.3 x 6.2 x 79.9 mm	87.3 x 6.2 x 79.9 mm	87.3 x 6.2 x 79.9	87.3 x 6.2 x 79.9 mm	87.3 x 6.2 x 79.9 mm	87.3 x 6.2 x 79.9 mm
36 g	36 g	36 g	36 g	36 g	36 g
48 V AC/DC	60 V AC/DC	125 V AC/DC	230 V AC/DC	125 V AC/DC	230 V AC
10 x 10^6/10 x 10^6	10 x 10^6/10 x 10^6	10 x 10^6/10 x 10^6	10 x 10^6/10 x 10^6	10 x 10^6/10 x 10^6	10 x 10^6/10 x 10^6
60 x 10^3	60 x 10^3	60 x 10^3	60 x 10^3	60 x 10^3	60 x 10^3
5/6 ms	5/6 ms	5/6 ms	5/6 ms	5/6 ms	5/6 ms
4 kV/3	4 kV/3	4 kV/3	4 kV/3	4 kV/3	4 kV/3
6 kV	6 kV	6 kV	6 kV	6 kV	6 kV
1,000 V AC	1,000 V AC	1,000 V AC	1,000 V AC	1,000 V AC	1,000 V AC
-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
RT II	RT II	RT II	RT II	RT II	RT II
-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
10 mm	10 mm	10 mm	10 mm	10 mm	10 mm
1x2.5 | 1x2.5 mm^2	1x2.5 | 1x2.5 mm^2	1x2.5 | 1x2.5 mm^2	1x2.5 | 1x2.5 mm^2	1x2.5 | 1x2.5 mm^2	1x2.5 | 1x2.5 mm^2
1x14 | 1x14 AWG	1x14 | 1x14 AWG	1x14 | 1x14 AWG	1x14 | 1x14 AWG	1x14 | 1x14 AWG	1x14 | 1x14 AWG
1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
6/10 A	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
250/400 VAC*	250/400 VAC*	250/400 VAC*	250/400 VAC*	250/400 VAC*	250/400 VAC*
1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
300 VA	300 VA	300 VA	300 VA	300 VA	300 VA
0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)
AgNi	AgNi	AgNi	AgNi	AgNi	AgNi
48 V DC | 48 AC	60 V DC | 60 AC	110 to 125 V DC | 110 to 125 AC	220 to 240 V DC | 220 to 240 AC	110 to 125 V DC | 110 to 125 AC	– V DC | 220 to 240 VAC
0.2 W	0.2 W	0.2 W	0.2 W	1.0 W	0.5 W
(0.8 to 1.1) U_NAC (50/60 Hz)	(0.8 to 1.1) U_NAC (50/60 Hz)	(0.8 to 1.1) U_NAC (50/60 Hz)	(0.8 to 1.1) U_NAC (50/60 Hz)	(0.8 to 1.1) U_NAC (50/60 Hz)	(0.8 to 1.1) U_NAC (50/60 Hz)
(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC
0.6 U_NAC/0.6 U_NDC	0.6 U_NAC/0.6 U_NDC	0.6 U_NAC/0.6 U_NDC	0.6 U_NAC/0.6 U_NDC	0.6 U_NAC/0.6 U_NDC	0.6 U_NAC/- U_NDC
0.1 U_NAC/0.05 U_NDC	0.1 U_NAC/0.05 U_NDC	0.1 U_NAC/0.05 U_NDC	0.1 U_NAC/0.05 U_NDC	0.1 U_NAC/0.05 U_NDC	0.1 U_NAC/- U_NDC
PRC 48-60V AC/DC	**PRC 48-60V AC/DC**	**PRC 110... 125V AC/DC**	**PRC 220... 240V AC/DC**	**PRC LW 110... 125V AC/DC**	**PRC LW 220... 240V AC**
15496.2/10	**15496.2/10**	**15497.2/10**	**15489.2/10**	**15555.2/10**	**15491.2/10**
PRC 1/48V DC	**PRC 1/60V DC**	**PRC 1/60V DC**	**PRC 1/60V DC**	**PRC 1/60V DC**	**PRC 1/60V DC**
15547.2/10*3	**15503.2**/10*3	**15503.2**/10*3	**15503.2**/10*3	**15503.2**/10*	**15503.2**/10*3
AQI/PRC/20	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**
15545.8/1	**15545.8**/1	**15545.8**/1	**15545.8**/1	15545.8/1	15545.8/1
15545.5/1	**15545.5**/1	**15545.5**/1	**15545.5**/1	**15545.5**/1	**15545.5**/1
15545.4/1	**15545.4**/1	**15545.4**/1	**15545.4**/1	**15545.4**/1	**15545.4**/1
TW/PRC	**TW/PRC**	**TW/PRC**	**TW/PRC**	**TW/PRC**	**TW/PRC**
15546.2/1	**15546.2**/1	**15546.2**/1	**15546.2**/1	**15546.2**/1	**15546.2**/1
PMC BSTR 6/30	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**
CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT
9106.7/300	**9106.7**/300	**9106.7**/300	**9106.7**/300	**9106.7**/300	**9106.7**/300
9107.7/300	**9107.7**/300	**9107.7**/300	**9107.7**/300	**9107.7**/300	**9107.7**/300
SDB 0.6 x 3.5	**SDB 0.6 x 3.5**	**SDB 0.6 x 3.5**	**SDB 0.6 x 3.5**	**SDB 0.6 x 3.5**	**SDB 0.6 x 3.5**
1086.0/1	**1086.0**/1	**1086.0**/1	**1086.0**/1	**1086.0**/1	**1086.0**/1

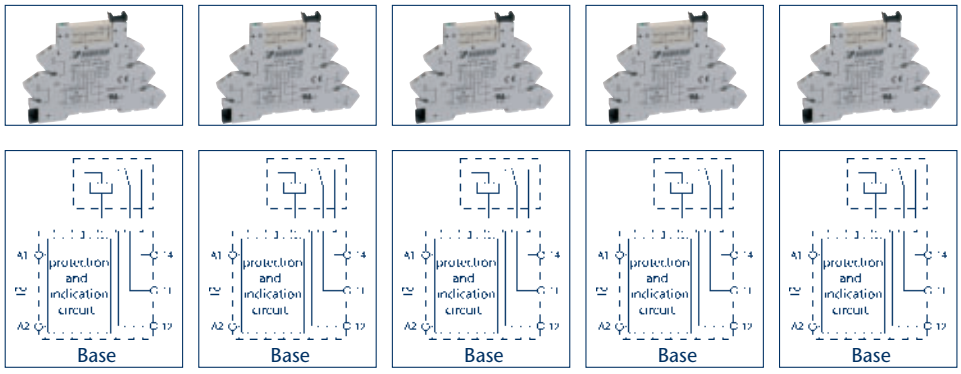
Plug relay compact PRC

Tension-spring relay terminals

- Consisting of:
  Base terminal and pluggable relay
- Mounts on TS 35

Connection diagram

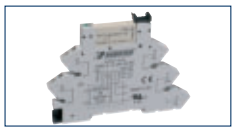
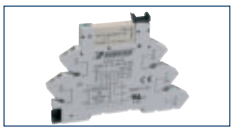
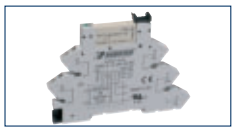
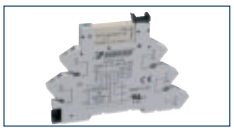
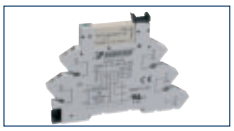
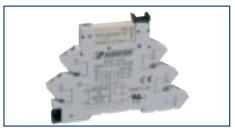
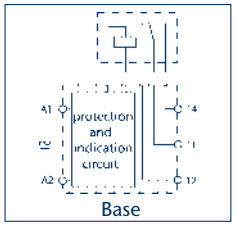
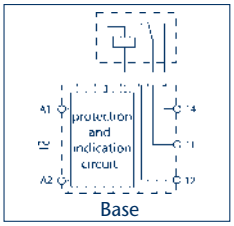
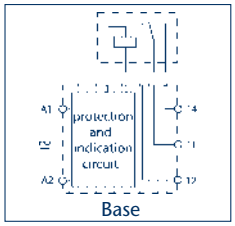
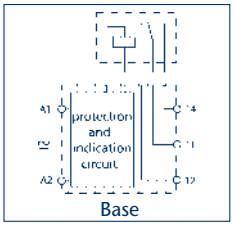
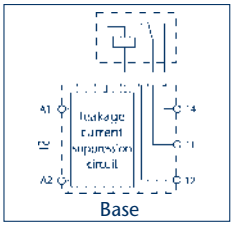
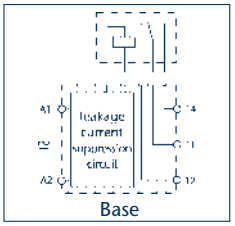
- Internal EMC coil circuitry and LED display
- LW version:
  Internal AC residual current suppression and LED display



Type	ZPRCU 1/6V DC	ZPRCU 1/12V DC	ZPRCU 1/24V DC	ZPRCU 1/12V AC/DC	ZPRCU 1/24V AC/DC
Cat. no./Qty. Type/Colour grey (RAL 7032)	**15524.2**/10	**15525.2**/10	**15526.2**/10	**15518.2**/10	**15519.2**/10
Size (L x W x H) with TS 35 x 7.5	93 x 6.2 x 79.9 mm	93 x 6.2 x 79.9 mm	93 x 6.2 x 79.9 mm	93 x 6.2 x 79.9 mm	93 x 6.2 x 79.9 mm
Weight	36 g	36 g	36 g	36 g	36 g
Rated operating voltage	6 V DC	12 V DC	24 V DC	12 V AC/DC	24 V AC/DC
General specifications					
Mech. lifespan AC/DC Switching cycles	–/10 x 10^6	–/10 x 10^6	–/10 x 10^6	10 x 10^6/10 x 10^6	10 x 10^6/10 x 10^6
Electrical lifespan AC 1 Switching cycles	60 x 10^3	60 x 10^3	60 x 10^3	60 x 10^3	60 x 10^3
Response time/Release time	5/6 ms	5/6 ms	5/6 ms	5/6 ms	5/6 ms
Insulation coordination, EN 61810-5	4 kV/3	4 kV/3	4 kV/3	4 kV/3	4 kV/3
Dielectric strength coil/contacts (1.2/50 µs)	6 kV	6 kV	6 kV	6 kV	6 kV
Dielectric strength of open contacts	1,000 V AC	1,000 V AC	1,000 V AC	1,000 V AC	1,000 V AC
Ambient temperature	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
Relay protection type	RT II	RT II	RT II	RT II	RT II
Ratings for socket base					
Ambient temperature	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
Stripping length	10 mm	10 mm	10 mm	10 mm	10 mm
Max. wire cross-section, solid | finely stranded mm^2	1x2.5/2x1.5 | 1x2.5/2x1.5	1x2.5/2x1.5 | 1x2.5/2x1.5	1x2.5/2x1.5 | 1x2.5/2x1.5	1x2.5/2x1.5 | 1x2.5/2x1.5	1x2.5/2x1.5 | 1x2.5/2x1.5
AWG	1x14/2x16 | 1x14/2x16	1x14/2x16 | 1x14/2x16	1x14/2x16 | 1x14/2x16	1x14/2x16 | 1x14/2x16	1x14/2x16 | 1x14/2x16
Ratings for plug-relays combined with socket base					
Contacts					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current | Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage | Max. switching voltage	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)
Standard contact material	AgNi	AgNi	AgNi	AgNi	AgNi
Coil					
Rated voltage (U_N)	5 V DC | – AC	12 V DC | – AC	24 V DC | – AC	12 V DC | 12 AC	24 V DC | 24 AC
Power rating AC/DC	0.2 W	0.2 W	0.2 W	0.2 W	0.2 W
Operating range	-	-	-	(0.8 to 1.1) U_N AC (50/60 Hz)	(0.8 to 1.2) U_N AC (50/60 Hz)
	(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC
Holding current	0.6 U_NDC	0.6 U_NDC	0.6 U_NDC	0.6 U_N AC/0.6 U_N DC	0.6 U_N AC/0.6 U_N DC
Drop-out voltage	0.05 U_NDC	0.05 U_NDC	0.05 U_NDC	0.1 U_N AC/0.05 U_N DC	0.1 U_N AC/0.05 U_N DC
Components, socket base					
Type/Colour grey (RAL 7032)	**ZPRC 6-12-24V DC**	**ZPRC 6-12-24V DC**	**ZPRC 6-12-24V DC**	**ZPRC 6-12-24V AC/DC**	**ZPRC 6-12-24V AC/DC**
Cat. no./Qty.	**15494.2**/10	**15494.2**/10	**15494.2**/10	**15492.2**/10	**15492.2**/10
Components, plug relays					
Type/Rated voltage	**PRC 1/5V DC**	**PRC 1**/12V DC	**PRC 1/24V DC**	**PRC 1**/12V DC	**PRC 1/24V DC**
Cat. no./Qty.	**15500.2**/10*3	**15501.2**/10*3	**15502.2**/10*3	**15501.2**/10*3	**15502.2**/10*3
Accessories for AQI/PRC ext. insulated cross-connection	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**
Cat. no./Qty. yellow	**15545.8**/1	**15545.8**/1	**15545.8**/1	**15545.8**/1	**15545.8**/1
Cat. no./Qty. blue	**15545.5**/1	**15545.5**/1	**15545.5**/1	**15545.5**/1	**15545.5**/1
Cat. no./Qty. black	**15545.4**/1	**15545.4**/1	**15545.4**/1	**15545.4**/1	**15545.4**/1
Partition plate TW/PRC	**TW/PRC**	**TW/PRC**	**TW/PRC**	**TW/PRC**	**TW/PRC**
Cat. no./Qty.	**15546.2**/1	**15546.2**/1	**15546.2**/1	**15546.2**/1	**15546.2**/1
Labelling/markers PMC	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**
Cat. no./Qty. standard print, see catalogue	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT
Cat. no./Qty. blank	**9106.7**/300	**9106.7**/300	**9106.7**/300	**9106.7**/300	**9106.7**/300
Cat. no./Qty. special print	**9107.7**/300	**9107.7**/300	**9107.7**/300	**9107.7**/300	**9107.7**/300
Metal actuating tool BWMA	**BWMA 1**	**BWMA 1**	**BWMA 1**	**BWMA 1**	**BWMA 1**
Cat. no./Qty.	**3808.0**/1	**3808.0**/1	**3808.0**/1	**3808.0**/1	**3808.0**/1

* The conditions of contamination degree 2 are fulfilled at 400 V.
*1 In order for the relay to de-energise, the residual current can be suppressed/controlled via the SPS-230V semiconductor outputs, long control lines (LW), thyristors, and an inductive proximity switch!
*2 Since this relay is only produced for DC at a max. 60 V, the adjustment to the operating voltage occurs via the internal resistance and bridge rectifiers!
*3 Relay available with gold contact upon request!

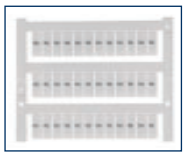
Plug relay compact PRC

ZPRCU 1/48V AC/DC	ZPRCU 1/60V AC/DC	ZPRCU 1/125V AC/DC	ZPRCU 1/240V AC/DC	ZPRCU LW 1/125V AC/DC	ZPRCU LW 1/240V AC
					
					
ZPRCU 1/48V AC/DC	**ZPRCU 1/60V AC/DC**	**ZPRCU 1/125V AC/DC**	**ZPRCU 1/240V AC/DC**	**ZPRCU LW 1/125V AC/DC**	**ZPRCU LW 1/240V AC**
15520.2/10	**15521.2**/10	**15522.2**/10*2	**15523.2**/10*2	**15551.2**/10*2	**15552.2**/10*2
93 x 6.2 x 79.9 mm	93 x 6.2 x 79.9 mm	93 x 6.2 x 79.9 mm	93 x 6.2 x 79.9 mm	93 x 6.2 x 79.9 mm	93 x 6.2 x 79.9 mm
36 g	36 g	36 g	36 g	36 g	36 g
48 V AC/DC	60 V AC/DC	125 V AC/DC	230 V AC/DC	125 V AC/DC	230 V AC
10 x 10^6/10 x 10^6	10 x 10^6/10 x 10^6	10 x 10^6/10 x 10^6	10 x 10^6/10 x 10^6	10 x 10^6/10 x 10^6	10 x 10^6/10 x 10^6
60 x 10^3	60 x 10^3	60 x 10^3	60 x 10^3	60 x 10^3	60 x 10^3
5/6 ms	5/6 ms	5/6 ms	5/6 ms	5/6 ms	5/6 ms
4 kV/3	4 kV/3	4 kV/3	4 kV/3	4 kV/3	4 kV/3
6 kV	6 kV	6 kV	6 kV	6 kV	6 kV
1,000 V AC	1,000 V AC	1,000 V AC	1,000 V AC	1,000 V AC	1,000 V AC
-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
RT II	RT II	RT II	RT II	RT II	RT II
-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
10 mm	10 mm	10 mm	10 mm	10 mm	10 mm
1x2.5/2x1.5 | 1x2.5/2x1.5	1x2.5/2x1.5 | 1x2.5/2x1.5	1x2.5/2x1.5 | 1x2.5/2x1.5	1x2.5/2x1.5 | 1x2.5/2x1.5	1x2.5/2x1.5 | 1x2.5/2x1.5	1x2.5/2x1.5 | 1x2.5/2x1.5
1x14/2x16 | 1x14/2x16	1x14/2x16 | 1x14/2x16	1x14/2x16 | 1x14/2x16	1x14/2x16 | 1x14/2x16	1x14/2x16 | 1x14/2x16	1x14/2x16 | 1x14/2x16
1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
6/10 A	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
300 VA	300 VA	300 VA	300 VA	300 VA	300 VA
0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)
AgNi	AgNi	AgNi	AgNi	AgNi	AgNi
48 V DC | 48 AC	60 V DC | 60 AC	110 to 125 V DC | 110 to 125 AC	220 to 240 V DC | 220 to 240 AC	110 to 125 V DC | 110 to 125 AC	– V DC | 220 to 240 AC
0.2 W	0.2 W	0.2 W	0.2 W	1.0 W	0.5 W
(0.8 to 1.1) U_N AC (50/60 Hz)	(0.8 to 1.1) U_N AC (50/60 Hz)	(0.8 to 1.1) U_N AC (50/60 Hz)	(0.8 to 1.1) U_N AC (50/60 Hz)	(0.8 to 1.1) U_N AC (50/60 Hz)	(0.8 to 1.1) U_N AC (50/60 Hz)
(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC	(0.8 to 1.2) U_NDC
0.6 U_N AC/0.6 U_N DC	0.6 U_N AC/0.6 U_N DC	0.6 U_N AC/0.6 U_N DC	0.6 U_N AC/0.6 U_N DC	0.6 U_N AC/0.6 U_N DC	0.6 U_N AC/- U_N DC
0.1 U_N AC/0.05 U_N DC	0.1 U_N AC/0.05 U_N DC	0.1 U_N AC/0.05 U_N DC	0.1 U_N AC/0.05 U_N DC	0.1 U_N AC/0.05 U_N DC	0.1 U_N AC/- U_N DC
ZPRC 48-60V AC/DC	**ZPRC 48-60V AC/DC**	**ZPRC 110...125V AC/DC**	**ZPRC 220...240V AC/DC**	**ZPRC LW 110...125 V AC/DC**	**ZPRC LW 220...240V A**
15498.2/10	**15498.2**/10	**15499.2**/10	**15493.2**/10	**15556.2**/10	**15495.2**/10
PRC 1/48V DC	**PRC 1/60V DC**	**PRC 1/60V DC**	**PRC 1/60V DC**	**PRC 1/60V DC**	**PRC 1/60V DC**
15547.2/10*3	**15503.2**/10*3	**15503.2**/10*3	**15503.2**/10*3	**15503.2**/10*3	**15503.2**/10*3
AQI/PRC/20	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**
15545.8/1	**15545.8**/1	**15545.8**/1	**15545.8**/1	**15545.8**/1	**15545.8**/1
15545.5/1	**15545.5**/1	**15545.5**/1	**15545.5**/1	**15545.5**/1	**15545.5**/1
15545.4/1	**15545.4**/1	**15545.4**/1	**15545.4**/1	**15545.4**/1	**15545.4**/1
TW/PRC	**TW/PRC**	**TW/PRC**	**TW/PRC**	**TW/PRC**	**TW/PRC**
15546.2/1	**15546.2**/1	**15546.2**/1	**15546.2**/1	**15546.2**/1	**15546.2**/1
PMC BSTR 6/30	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**
CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT
9106.7/300	**9106.7**/300	**9106.7**/300	**9106.7**/300	**9106.7**/300	**9106.7**/300
9107.7/300	**9107.7**/300	**9107.7**/300	**9107.7**/300	**9107.7**/300	**9107.7**/300
BWMA 1	**BWMA 1**	**BWMA 1**	**BWMA 1**	**BWMA 1**	**BWMA 1**
3808.0/1	**3808.0**/1	**3808.0**/1	**3808.0**/1	**3808.0**/1	**3808.0**/1

Multi-function timing relay terminal MFR-PRC

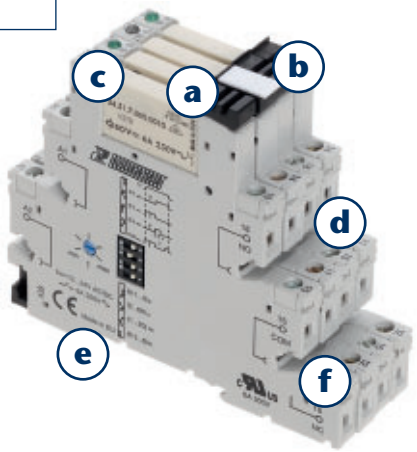
The narrow housing of the new **MFR-PRC** timing relays allows them to be used in very confined spaces. With their minimal width of only 6.2 mm, they open up new possibilities in designing control schemes. Their relay-terminal design makes them very versatile and gives you enormous potential for savings. The bases are compatible with the **PRC** relay system and can thus be easily integrated. Furthermore, they can be combined with familiar accessories such as jumpers and partitions, and they can be conveniently labelled with the **PMC BSTR** marking system from **CONTA-CLIP**.

a **Labelling | Marking**
The socket bases have a labelling surface which is optimally suited for our **PMC Pocket-Maxicard (PMC BSTR 6/30)** standard marking systems. In addition to our large variety of standard labels, **CONTA-CLIP** can also provide "just-in-time" individual labelling for you.

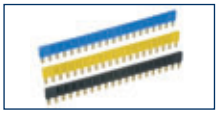


b **Using the mount/dismount lever**
The mount/dismount clamp forms a reliable connection by latching the relay with the socket base. The fitted relay can be removed, easily and without force, from the socket base by using the dismount function of the lever!

c **Pluggable relay**
Pluggable relays are also available with AgSNO and gold contacts as well as solid-state modules with a variety of voltage inputs and outputs, to fit with the many functions of your individual requirements!

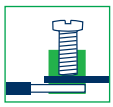


d **Pluggable outer cross-connections**
The **AQI/PRC** pluggable cross-connection system enables a time-saving distribution of potentials. The **AQI/PRC** is constructed so that it is protected against accidental touch. It is available as a 20-pole unit, in either yellow, blue or black. The cross-connection can be shortened to fewer poles in order to fit the required interface. Insulation plating can be used to insulate the ends.



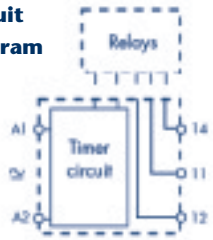
e **Mounts on standard TS 35 rail**
CONTA-CLIP relay terminals can be arranged as required on standard TS 35 DIN rails in accordance with EN 60715.

f **Connection type**
Screw connection system

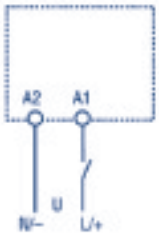


Dimensions

Circuit diagram



Connection diagram

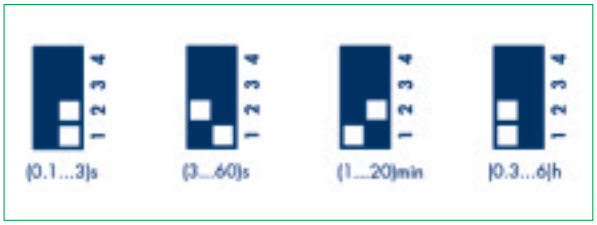


EMC specification

Standard	Test		Voltage
EN 61000-4-2	Electrostatic discharge	Contact discharge	4 kV
		Air discharge	8 kV
EN 61000-4-3	Radio frequency electromagnetic field (80 ÷ 1000 MHz)		10 V/m
EN 61000-4-4	Quick transients (bursts) (5-50 nS, 5 kHz) at input terminals		2 kV
EN 61000-4-5	Surge (1.2/50 µs) on input terminals	common mode	2 kV
		differential mode	1 kV
EN 61000-4-6	Radio frequency common mode (0,15 ÷ 80 MHz at input terminals)		10 V
EN 55022	Emissions class		Class B

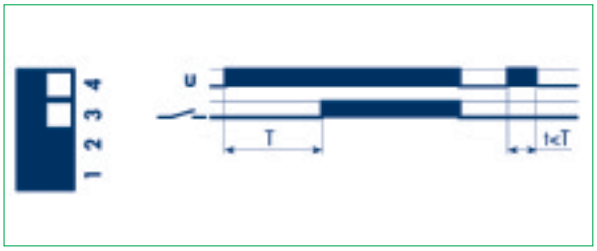
Multi-function timing relay terminal MFR-PRC

Time delay range

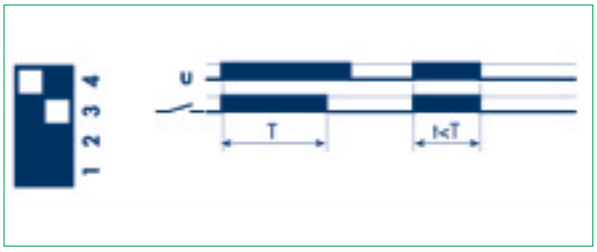


LED	U	Output contact
OFF	OFF	Open
OFF	ON	Open (time running)
ON	ON	Closed

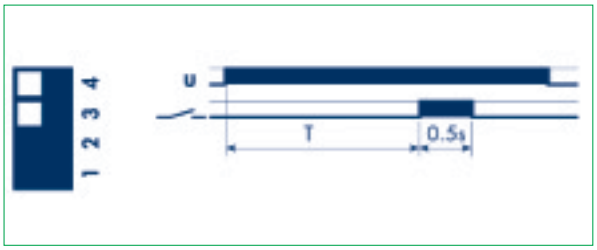
Functions



AI: ON delay
Apply operating voltage to timing relay. The output contacts switch after the set time has expired. Reset takes place after the operating voltage is removed.

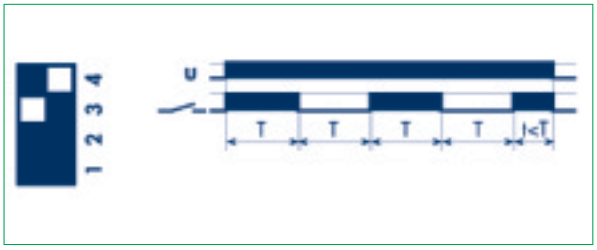


DI: ON pulse
Apply operating voltage to timing relay. The output contacts switch immediately. After the set time, the output contacts switch back.



GI: Fixed pulse (0.5 s) delayed

Apply operating voltage to timing relay. The output contacts switch after the set time has expired. Reset takes place after a fixed time of 0.5 s.



SW: Blinker ON beginning
Apply operating voltage to timing relay. The output contacts switch on immediately and flash at a defined interval until the input voltage is turned off.
The time interval is 1:1 (time on = time off).

U = supply voltage

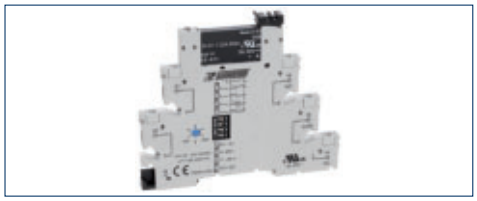
= output contact

Multi-function timing relay terminal MFR-PRC

Screw-connection relay terminals	**MFR PRCU 1/12 V AC/DC**	**MFR PRCU 1/24 V AC/DC**
consisting of: · Base terminal and pluggable relay · Mounts on TS 35		
Type	**MFR PRCU 1/12 V AC/DC**	**MFR PRCU 1/24 V AC/DC**
Cat. no./Qty.	**15952.2**/1	**15953.2**/1
Size (L x W x H) TS 35	93 x 6.2 x 79.9 mm	93 x 6.2 x 79.9 mm
Weight	36 g	36 g
Operating voltage	12 V AC/DC	24 V AC/DC
Components		
Socket base		
Type	**MFR PRC 12-24 V AC/DC**	**MFR PRC 12-24 V AC/DC**
Cat. no./Qty.	**15951.2**/10	**15951.2**/10
Weight	30 g	30 g
Mounting foot for DIN rails	TS 35	TS 35
Functions		
	AI: ON delay DI: ON pulse GI: Fixed pulse (0.5 s) delayed SW: Blinker (ON beginning)	AI: ON delay DI: ON pulse GI: Fixed pulse (0.5 s) delayed SW: Blinker (ON beginning)
Time delay range		
	(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h	(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h
Displays		
	LED = Position of output relay	LED = Position of output relay
Connection data		
Connection type	Screw connection	Screw connection
Stripping length	10 mm	10 mm
Torque	0.5 Nm	0.5 Nm
Max. wire cross-section, solid | finely stranded	1x2.5/2x1.5 | 1x2.5/2x1.5 mm^2	1x2.5/2x1.5 | 1x2.5/2x1.5 mm^2
Screw connection	1x14/2x16 | 1x14/2x16 AWG	1x14/2x16 | 1x14/2x16 AWG
Input data		
Rated operating voltage	12 V AC/DC	24 V AC/DC
Rated output	0.5 W	0.5 W
Operating voltage range	9.6 to 26.4 V AC/DC	9.6 to 26.4 V AC/DC
Power loss		
without contact current	0.1 W	0.1 W
With rated contact current	0.6 W	0.6 W
Technical data		
Time delay range	(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h	(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h
Repeat accuracy	± 1 %	± 1 %
Recovery time	< 50 ms	< 50 ms
Setting tolerance to end value	± 5 %	± 5 %
Ambient temperature	-40 to +70 °C (EMR) / -40 to +55 °C (SSR)	-40 to +70 °C (EMR) / -40 to +55 °C (SSR)
Relay		
Type	**PRC 1/12 V DC**	**PRC 1/24 V DC**
Cat. no./Qty.	**15501.2**/10	**15502.2**/10
Weight	6 g	6 g
Ratings for plug-relays combined with socket base		
Contacts		
Number of contacts	1 CO contact	1 CO contact
Max. continuous current | Max. inrush current	6/10 A	6/10 A
Rated voltage | Max. switching voltage	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 AA
Min. switching load	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)
Standard contact material	AgNi	AgNi
Coil		
Rated voltage (UN)	12 V AC/DC	24 V AC/DC
Power rating AC/DC	0.2 W	0.2 W
Accessories for AQI/PRC ext. insulated cross-connection	**AQI/PRC/20**	**AQI/PRC/8**
Cat. no./Qty. yellow	**15545.8**/1	**15545.8**/1
Cat. no./Qty. blue	**15545.5**/1	**15545.5**/1
Cat. no./Qty. black	**15545.4**/1	**15545.4**/1
Partition plate TW/PRC	**TW/PRC**	**TW/PRC**
Cat. no./Qty.	**15546.2**/1	**15546.2**/1
Labelling/markers PMC	**MC BSTR 6/30**	**MC BSTR 6/30**
Cat. no./Qty. standard print, see catalogue	CONTA-CONNECT	CONTA-CONNECT
Cat. no./Qty. blank	**9106.7**/300	**9106.7**/300
Cat. no./Qty. special print	**9107.7**/300	**9107.7**/300
Actuating tool / Screwdriver SDB	**SDB 0.6 x 3.5**	**SDB 0.6 x 3.5**
Cat. no./Qty.	**1086.0**/1	**1086.0**/1

*The conditions of contamination degree 2 are fulfilled at 400 V.

Multi-function timing relay terminal MFR-PSC

Solid-state terminal, screw connection	**MFR PSCU 1/24 V DC/24 V DC**	**MFR PSCU 1/24 V DC/240 V DC**
consisting of: · A base terminal and a pluggable solid state module · Mounts on TS 35		

Type **Cat. no.**/Qty.	**MFR PSCU 1/24 V DC/24 V DC** **15954.2**/1	**MFR PSCU 1/24 V DC/240 V DC** **15955.2**/1
Size (L x W x H) TS 35	93 x 6.2 x 79.9 mm	93 x 6.2 x 79.9 mm
Weight	36 g	36 g
Operating voltage	24 V AC/DC	24 V AC/DC
Components		
Socket base		
Type **Cat. no.**/Qty.	**MFR PRC 12-24 V AC/DC** **15951.2**/10	**MFR PRC 12-24 V AC/DC** **15951.2**/10
Weight	30 g	30 g
Mounting foot for DIN rails	TS 35	TS 35
Functions		
	AI: ON delay DI: ON pulse GI: Fixed pulse (0.5 s) delayed SW: Blinker (ON beginning)	AI: ON delay DI: ON pulse GI: Fixed pulse (0.5 s) delayed SW: Blinker (ON beginning)
Time delay range		
	(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h	(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h
Displays		
	LED = Position of output relay	LED = Position of output relay
Connection data		
Connection type	Screw connection	Screw connection
Stripping length	10 mm	10 mm
Torque	0.5 Nm	0.5 Nm
Max. wire cross-section, solid | finely stranded	1x2.5/2x1.5 | 1x2.5/2x1.5 mm^2	1x2.5/2x1.5 | 1x2.5/2x1.5 mm^2
Screw connection	1x14/2x16 | 1x14/2x16 AWG	1x14/2x16 | 1x14/2x16 AWG
Input data		
Rated operating voltage	12 V AC/DC	24 V AC/DC
Rated output	0.5 W	0.5 W
Operating voltage range	9.6 to 26.4 V AC/DC	9.6 to 26.4 V AC/DC
Power loss		
without contact current	0.1 W	0.1 W
With rated contact current	0.5 W	0.5 W
Technical data		
Time delay range	(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h	(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h
Repeat accuracy	± 1 %	± 1 %
Recovery time	< 50 ms	< 50 ms
Setting tolerance to end value	± 5 %	± 5 %
Ambient temperature	-40 to +70 °C (EMR) / -40 to +55 °C (SSR)	-40 to +70 °C (EMR) / -40 to +55 °C (SSR)
Solid-state module		
Type **Cat. no.**/Qty.	**PSC 1/24 V DC-24 V/2 A/DC** **15505.2**/10	**PSC 1/24 V DC-240 V/2 A/AC** **15504.2**/10
Weight	6 g	6 g
Ratings for solid-state module combined with socket base		
Output circuit		
Output	1 NO contact	1 NO contact
Max. continuous current | Max. inrush current (10 ms)	2/20 A	2/40 A
Rated voltage | Max. reverse voltage	(24/33) V AC DC	(240/275) V AC
Switching load-voltage range	1.5 to 24 V DC	12 to 240 V AC
Min. switching current	1 mA	22 mA
Max. residual current at 55 °C	0.001 mA	1.5 mA
Max. voltage drop at 20 °C and rated current	0.12 V	1.6 V

Accessories for AQI/PRC external insulated cross-connection	**AQI/PRC/20**	**AQI/PRC/20**
Cat. no./Qty. yellow	**15545.8**/1	**15545.8**/1
Cat. no./Qty. blue	**15545.5**/1	**15545.5**/1
Cat. no./Qty. black	**15545.4**/1	**15545.4**/1
Partition plate TW/PRC	**TW/PRC**	**TW/PRC**
Cat. no./Qty.	**15546.2**/1	**15546.2**/1
Labelling/markers PMC	**MC BSTR 6/30**	**MC BSTR 6/30**
Cat. no./Qty. standard print, see catalogue	CONTA-CONNECT	CONTA-CONNECT
Cat. no./Qty. blank	**9106.7**/300	**9106.7**/300
Cat. no./Qty. special print	**9107.7**/300	**9107.7**/300
Actuating tool / Screwdriver SDB	**SDB 0.6 x 3.5**	**SDB 0.6 x 3.5**
Cat. no./Qty.	**1086.0**/1	**1086.0**/1

Plug relay compact PRC

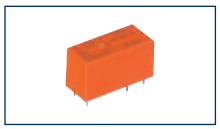
Relay terminals with 2 CO relay

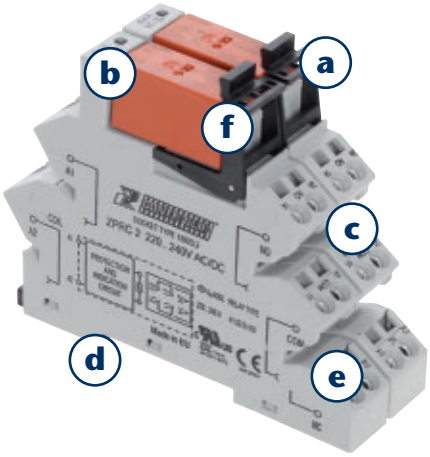
The new **PRC 2W** relay bases enable the integration of relays with two CO contacts into our proven **PRC** relay system. This base also features the well-known advantages of this system, including simple bridging with jumpers and a thin design. They are available either with tension-spring or screw connection. Dependable functionality is ensured because of this combination with our established line of PRS relays.

1. Overview

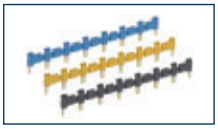
a **Using the mount/dismount lever**
The mounting and dismounting mechanism forms a reliable connection by latching the relay with the socket base. The fitted relay can be removed, easily and without force, from the socket base by using the dismount function of the lever!

b **Pluggable relay**
Pluggable relays are also available with AgSNO and gold contacts, to fit with the many functions of your individual requirements!





c **Pluggable external cross-connections**
The **AQI/PRC** pluggable cross-connection system enables a time-saving distribution of potentials. The **AQI/PRC** is constructed so that it is protected against accidental touch. It is available as a 8-pole unit, in either yellow, blue or black. The cross-connection can be shortened to fewer poles in order to fit the required interface. Insulation plating can be used to insulate the ends.



d **Mounts on standard TS 35 rail**
CONTA-CLIP relay terminals can be arranged as required on standard TS 35 DIN rails in accordance with EN 60715.

e **Connection types**
All of our relay terminals are optionally available with screw or tension-spring connection systems.

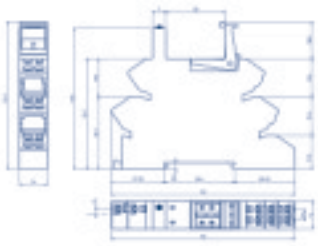
f **Labelling | Marking**
The socket bases have a labelling surface which is optimally suited for our MC Maxicard standard marking systems (**MC GS 6x12 R**). **CONTA-CLIP** will custom-label your markers for "just in time" delivery.

2. Approvals (details upon request)

3. Features

I. Socket base
- Mounts on TS 35
- Very versatile and modular construction of individual relay bases
- User-friendly, because the relays can be easily replaced
- High-quality connection terminals (Tension-spring or screw connection system)
- Integrated EMC coil circuitry, and LED
- High-quality innovative mount/dismount lever
- All versions are optionally available with screw or tension-spring connection system

Tension-spring connection



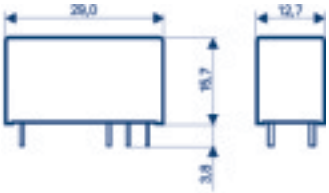
Screw connection

Plug relay compact PRC

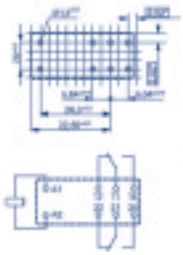
Relay terminals with 2 CO relay

II. Relay
- **PLUG RELAY SYSTEM relay 2 CO contacts**
- Load-independent switching
- Direct control via the PLC outputs
- High interference immunity
- Electrical isolation of control and load circuits
- Minimal contact resistance, and high insulation resistance

Relay - complete view



Pin layout | circuit diagram

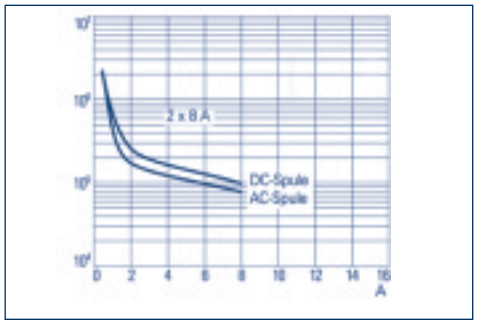


4. General specifications

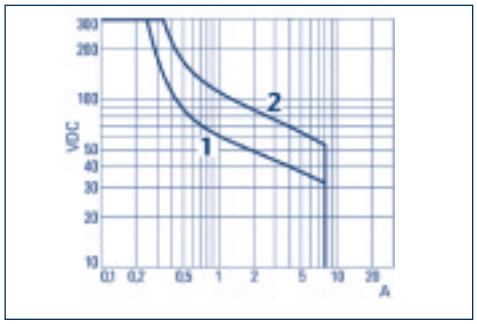
Insulation data		
Dielectric strength	Coil - contact	5000 Veff
	Opened contact	1000 Veff
	Adjacent contacts	2500 Veff
Clearance / creepage distances	Coil - contact	≤ 10 / 10 mm
	Adjacent contacts	≤ 3 / 4 mm
Insulating material group		≤ IIIa
Creep resistance of carrier		PTI 250 V
Insulation acc. to IEC 60664-1		
Type of insulation	Coil - contact	Strengthened insul.
	Opened contact	Functional insul.
	Adjacent contacts	Basic insul.
Rated voltage		250 V
Contamination degree		3
Nom. voltage of the supply system		240/400 V
Overvoltage category		III

Flammability class per UL94	V0
Ambient temperature range	-40 to +85 °C
Response/release time of DC coil	typ. 7 / 2 ms
Bounce time of DC spool, NO/NC	typ. 1 / 3 ms
Fatigue strength (functional), NO/NC	20 / 5 g, 30 to 500 Hz
Shock resistance (destructive)	100 g
Protection	RTII
Mounting interval	0 mm, densely packaged
Weight	14 g

5. Contact data



Contact lifespan under 250 V AC resistive load

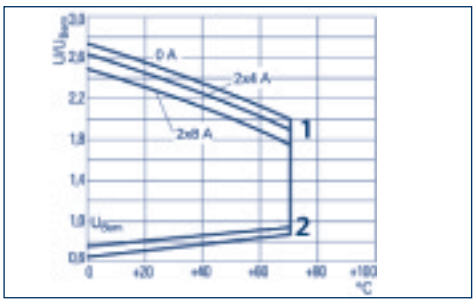


Switching capacity under DC load
Resistive load
1 One contact
2 Two contacts in series

6. Coil data

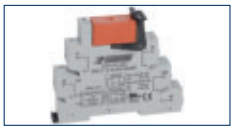
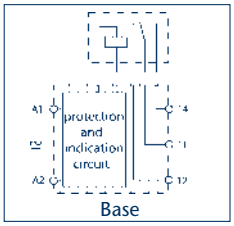
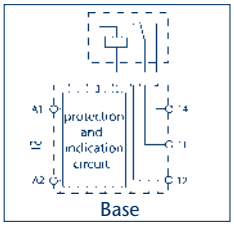
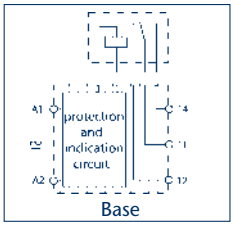
DC version

Rated	Operating range		Resistance	Rated voltage current
U_N V	U_{min} V	U_{max} V	R Ω	I mA
5	3.5	0.5	62 ± 10%	403
6	4.20	0.6	90 ± 10%	400
12	8.4	1.2	360 ± 10%	400
24	16.80	2.4	1440 ± 10%	400
48	33.60	4.8	5520 ± 10%	417
60	42.00	6.0	8570 ± 12%	420
110	77.0	11.0	28800 ± 13%	420

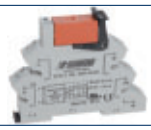
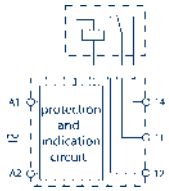
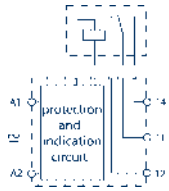
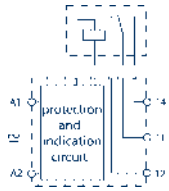


Reliable range of operating voltage
1 Max. permitted coil voltage
2 Response voltage, when coil temperature is equal to ambient temperature

Plug relay compact PRC

Relay terminal screw/tension-spring connection	PRCU 2/12V AC/DC	PRCU 2/24V AC/DC	PRCU 2/240V AC/	
consisting of: · Base terminal and pluggable relay · Mounts on TS 35				
Connection diagram · Internal EMC coil circuitry and LED display				
Type **Cat. no.**/Qty.	**PRCU 2/12V AC/DC** **15924.2**/1	**PRCU 2/24V AC/DC** **15925.2**/1	**PRCU 2/240V AC/DC** **15926.2**/1	
Size (L x W x H) with TS 35	92 x 14 x 82 mm	92 x 14 x 82 mm	92 x 14 x 82 mm	
Weight	68 g	68 g	68 g	
Type **Cat. no.**/Qty.	**PRS 2/12 V DC** **6482.2**/1	**PRS 2/24 V DC** **6483.2**/1	**PRS 2/110 V DC** **15541.2**/1	
Weight	15 g	15 g	15 g	
General specifications				
DIN-VDE specifications	Insulation IEC 664/VDE 0110, rated voltage 250 V, contamination degree 3, overvoltage category III, flammability class UL 94 V-0			
Test voltage coil/contact	5 kV	5 kV	5 kV	
Pinning	5 mm	5 mm	5 mm	
Operating temperature	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	
Input data				
Input voltage	12 V DC	24 V DC	110 V DC	
Power consumption	0.40 W	0.40 W	0.40 W	
Output specifications				
Contacts	2 CO contact	2 CO contact	2 CO contact	
Switching voltage/Max. Switching voltage	240 V AC/400 V AC	240 V AC/400 V AC	240 V AC/400 V AC	
Max. continuous current/inrush current	8 A / 15 A	8 A / 15 A	8 A / 15 A	
Typical response time/release time	7 ms/2 ms	7 ms/2 ms	7 ms/2 ms	
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	
Electrical lifespan	1.5×10^5	1.5×10^5	1.5×10^5	
at contact load	4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC	
Mechanical lifespan	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$	
Type **Cat. no.**/Qty.	**PRC 2 6-12-24V AC/DC** **15920.2**/10	**PRC 2 6-12-24V AC/DC** **15920.2**/10	**PRC 2 220 to 240V AC/DC** **15921.2**/10	
Weight	53 g	53 g	53 g	
General				
Mounting foot for DIN rails	TS 35	TS 35	TS 35	
Plug-in base for	5 mm pinning	5 mm pinning	5 mm pinning	
Connection type	Screw connection	Screw connection	Screw connection	
Technical data				
Rated current	10 A	10 A	10 A	
Rated voltage	250 V	250 V	250 V	
Dielectric strength coil/contact	6 kv (1.2/50 µs)	6 kv (1.2/50 µs)	6 kv (1.2/50 µs)	
Ambient temperature	-40 to +70 °C	-25 to +70 °C	-40 to +55 °C	
Protection degree, enclosure	IP 20	IP 20	IP 20	
Flammability class UL 94	V-0	V-0	V-0	
Torque	0.5 Nm	0.5 Nm	0.5 Nm	
Connection cross-section, solid, max.	1 x 6/2 x 2.5 mm^2| 1 x 10/2 x 14 AWG	1 x 6/2 x 2.5 mm^2| 1 x 10/2 x 14 AWG	1 x 6/2 x 2.5 mm^2| 1 x 10/2 x 14 AWG	
Connection cross-section, stranded, max.	1 x 4/2 x 2.5 mm^2| 1 x 12/2 x 14 AWG	1 x 4/2 x 2.5 mm^2| 1 x 12/2 x 14 AWG	1 x 4/2 x 2.5 mm^2| 1 x 12/2 x 14 AWG	
Stripping length	8 mm	8 mm	8 mm	
Approvals	UL/CUL	UL/CUL	UL/CUL	
Accessories for AQI/PRC ext. insulated cross-connection	**AQI/PRC/8**	**AQI/PRC/8**	**AQI/PRC/8**	
Cat. no./Qty. yellow	**15930.8**/1	**15930.8**/1	**15930.8**/1	
Cat. no./Qty. blue	**15930.5**/1	**15930.5**/1	**15930.5**/1	
Cat. no./Qty. black	**15930.4**/1	**15930.4**/1	**15930.4**/1	
Partition plate TW/PRC	**TW/PRC**	**TW/PRC**	**TW/PRC**	
Cat. no./Qty.	**15546.2**/1	**15546.2**/1	**15546.2**/1	
Tool/screwdriver	**SDB 0.6 x 3.5**	**SDB 0.6 x 3.5**	**SDB 0.6 x 3.5**	
Cat. no./Qty.	**1086.0**/1	**1086.0**/1	**1086.0**/1	
Labelling/markers MC	**MC GS 6x12 R**	**MC GS 6x12 R**	**MC GS 6x12 R**	
Cat. no./Qty. blank	**3884.7**/600	**3884.7**/600	**3884.7**/600	
Cat. no./Qty. special print	**3885.7**/600	**3885.7**/600	**3885.7**/600	

Plug relay compact PRC

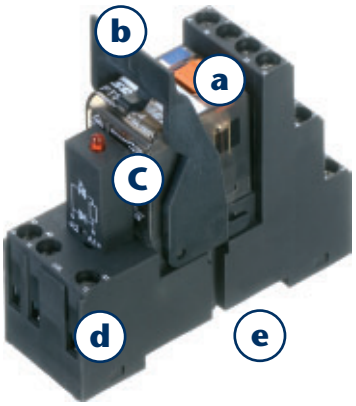
ZPRCU 2/12V AC/DC	ZPRCU 2/24V AC/DC	ZPRCU 2/240V AC/DC			
					
 Base	 Base	 Base			
ZPRCU 2/12V AC/DC	**ZPRCU 2/24V AC/DC**	**ZPRCU 2/240V AC/DC**			
15927.2/1	**15928.2**/1	**15929.2**/1			
93 x 14 x 82 mm	93 x 14 x 82 mm	93 x 14 x 82 mm			
63 g	63 g	63 g			
PRS 2/12 V DC	**PRS 2/24 V DC**	**PRS 2/110 V DC**			
6482.2/1	**6483.2**/1	**15541.2**/1			
15 g	15 g	15 g			
Insulation IEC 664/VDE 0110, Rated voltage 250 V, contamination degree 3, overvoltage category III, flammability class UL 94 V-0					
5 kV	5 kV	5 kV			
5 mm	5 mm	5 mm			
-40 to +70 °C	-40 to +70 °C	-40 to +70 °C			
12 V DC	24 V DC	110 V DC			
0.40 W	0.40 W	0.40 W			
2 CO contact	2 CO contact	2 CO contact			
240 V AC/400 V AC	240 V AC/400 V AC	240 V AC/400 V AC			
8 A / 15 A	8 A / 15 A	8 A / 15 A			
7 ms/2 ms	7 ms/2 ms	7 ms/2 ms			
AgNi 90/10	AgNi 90/10	AgNi 90/10			
1.5 x 10^5	1.5 x 10^5	1.5 x 10^5			
4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC			
> 30 x 10^6	> 30 x 10^6	> 30 x 10^6			
ZPRC 2 6-12-24V AC/DC	**ZPRC 2 6-12-24V AC/DC**	**ZPRC 2 220–240V AC/DC**			
15922.2/10	**15922.2**/10	**15923.2**/10			
48 g	48 g	48 g			
TS 35	TS 35	TS 35			
5 mm pinning	5 mm pinning	5 mm pinning			
Tension-spring connection	Tension-spring connection	Tension-spring connection			
10 A	10 A	10 A			
250 V	250 V	250 V			
6 kv (1.2/50 µs)	6 kv (1.2/50 µs)	6 kv (1.2/50 µs)			
-40 to +70 °C	-40 to +70 °C	-40 to +55 °C			
IP 20	IP 20	IP 20			
V-0	V-0	V-0			
-	-	-			
1 x 2.5 mm^2|	1 x 2.5 mm^2|	1 x 2.5 mm^2|			
1 x 14 AWG	1 x 14 AWG	1 x 14 AWG			
1 x 2.5 mm^2|	1 x 2.5 mm^2	1 x 2.5 mm^2|			
1 x 14 AWG	1 x 14 AWG	1 x 14 AWG			
8 mm	8 mm	8 mm			
UL/CUL	UL/CUL	UL/CUL			
AQI/PRC/8	**AQI/PRC/8**	**AQI/PRC/8**			
15930.8/1	**15930.8**/1	**15930.8**/1			
15930.5/1	**15930.5**/1	**15930.5**/1			
15930.4/1	**15930.4**/1	**15930.4**/1			
TW/PRC	**TW/PRC**	**TW/PRC**			
15546.2/1	**15546.2**/1	**15546.2**/1			
BWMA 1	**BWMA 1**	**BWMA 1**			
3808.0/1	**3808.0**/1	**3808.0**/1			
MC GS 6x12 R	**MC GS 6x12 R**	**MC GS 6x12 R**			
3884.7/600	**3884.7**/600	**3884.7**/600			
3885.7/600	**3885.7**/600	**3885.7**/600			

Plug relay system PRS

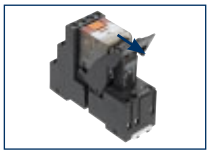
Screw connection

1. Overview

a **Pluggable relay**
Pluggable relays are also available with AgSNO and gold contacts, to fit with the many functions of your individual requirements!



b **Using the mount/dismount lever**
The mounting and dismounting mechanism forms a reliable connection by latching the relay with the socket base. The fitted relay can be removed, easily and without force, from the socket base by using the dismount function of the lever!



c **Pluggable LED and protective modules**
Pluggable modules allow easy insertion into the base, with reverse-connect protection. The module circuitry is effective in parallel to the coil of the deployed relay.

d **AQI/PRS external cross-connection**
The AQI/PRS external cross-connection system enables a time-saving distribution of potentials. With this system, you can save time when coupling multiple relay components.

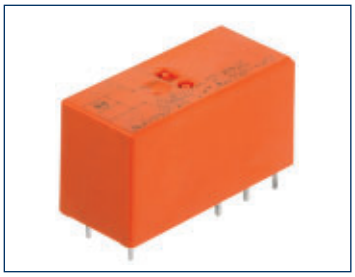
e **Mounts on standard TS 35 DIN rails**
CONTA-CLIP relay bases can be mounted as needed on standard TS 35 DIN rails, according to EN 50035 and EN 50022.

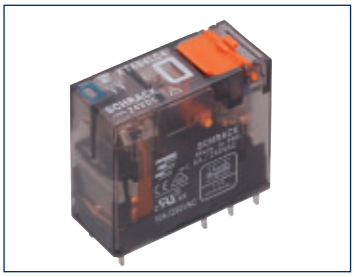
2. Features

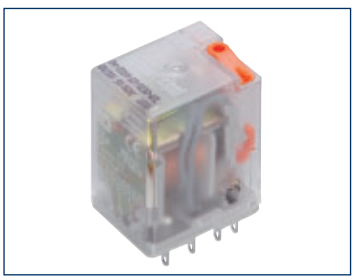
I. Relay

- **PLUG RELAY SYSTEM** (Relay with 1, 2 or 4 CO contacts)
- Load-independent switching
- Direct control via the PLC outputs
- High interference immunity
- Electrical isolation of control and load circuits
- Minimal contact resistance, and high insulation resistance
- The PRS XT relay features a switch/button for MANUAL/AUTOMATIC switching, and an integrated LED for signalling the switching status
- The PRS 4 relay with a switch/button for MANUAL/AUTOMATIC switching
- The PRS 4 eco relay features switch/button for MANUAL/AUTOMATIC switching, and an integrated LED for signalling the switching status DC relay with integrated free-wheel diode.

Technical data for the available relays can be found on the following product pages.





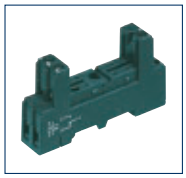
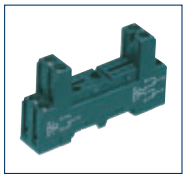


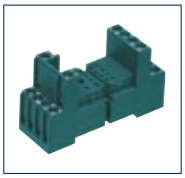
Plug relay system PRS

Screw connection

II. Socket base

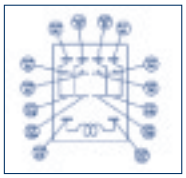
- Mounts on TS 35
- Very versatile and modular construction of individual relay bases
- User-friendly, because the relays can be easily replaced
- High-quality connection terminals
- Wire strands protected against false insertion
- Terminal screws retention prevents loss
- Pluggable LED display with additional protective circuitry
- Holding clamp made of high-quality plastic







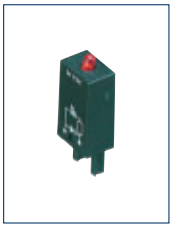


Type	PRS 1	PRS 2	PRS 2 G	PRS 4	PRS 4 G
Cat. no./Qty.	**15135.2**/1	**15136.2**/1	**15320.2**/1	**15137.2**/1	**15324.2**/1
Size (L x W x H) with TS 35	76 x 15.7 x 46 mm	76 x 15.7 x 46 mm	76 x 15.7 x 65 mm	76 x 27.1 x 47 mm	76 x 27.1 x 66 mm
Size with holding clamp (L x W x H) with TS 35	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm	76 x 27.1 x 85 mm	76 x 27.1 x 87 mm
Weight	33 g	38 g	43 g	63 g	65 g
General					
Mounting foot for DIN rails	TS 35	TS 35	TS 35	TS 35	TS 35
Plug-in base for	3.5 mm pinning	5 mm pinning	5 mm pinning	2.8 mm Faston	2.8 mm Faston
Connection type	Screw connection	Screw connection	Screw connection	Screw connection	Screw connection
Technical data					
Rated current	12 A	10 A	10 A	10 A	10 A
Rated voltage	300 V	300 V	300 V	300 V	300 V
Dielectric strength coil/contact	4000 Veff	4000 Veff	4000 Veff	2400 Veff	2400 Veff
Insulation group (VDE 0110 b)	C/250 V	C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4	VBG 4
Wire connect cross-section	2 x 2.5 mm²	2 x 2.5 mm²	2 x 2.5 mm²	2 x 2.5 mm²	2 x 2.5 mm²
With ferrules	2 x 1.5 mm²	2 x 1.5 mm²	2 x 1.5 mm²	2 x 1.5 mm²	2 x 1.5 mm²
Screw torque	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm
Approvals	UL/CSA	UL/CSA	UL/CSA	UL/CSA	UL/CSA

III. Insert modules

- Plugs simply into the base, reverse-connect protection
- Circuitry parallel to coil

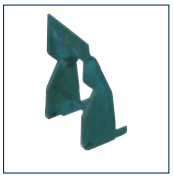
Cat. no./Qty.	Type	Voltage range	
15141.2/1	PRS LED(RD) 24 V DC	12 to 24 V DC	Status display with free-wheel diode
15142.2/1	PRS LED(RD) 230 V DC	110 to 230 V AC	Status display
15175.2/1	PRS LED(RD) 24 V DC	12 to 48 V AC/DC	Status display
15422.2/1	PRS LED(RD) 110 V DC	60 to 110 V DC	Status display with free-wheel diode
15810.2/1	PRS LED(RD) 230 V UC Var.	230 V AC/DC	Status display with varistor
16070.2/1	PRS LED(GN) 24 V UC Var.	24 V AC/DC	Status display with varistor
15808.2/1	PRS RC 24 V AC	24 V AC	Plug-in module with RC element
15809.2/1	PRS RC 240 V AC	240 V AC	Plug-in module with RC element



IV. Holding clamp

The mount/dismount clamp forms a reliable connection by latching the relay with the socket base. The fitted relay can be removed, easily and without force, from the socket base by using the dismount function of the lever.

Cat. no./Qty.	Type	Weight
15138.2/1	PRS C 1/C 2	2 g
15140.2/1	PRS C 4	4 g
15628.2/1	PRS C 4 eco	4 g
16016.2/1	PRSXT C1/2	4 g

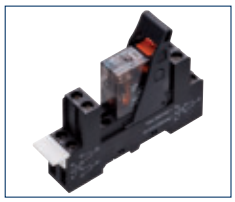
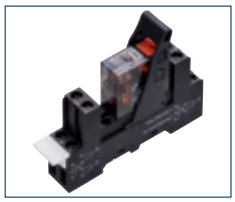



V. Contact bridge

- A simple and quick bridge to multiple relay blocks

Cat. no./Qty.	Type		Weight
15778.2/1	AQI PRS/5	A contact bridge, for bridging of five PRS 4 4 CO frames	4 g
15779.2/1	AQI PRS/8	A contact bridge, for bridging of 8 PRS 1 or PRS 2 1 and 2 CO frames	4 g

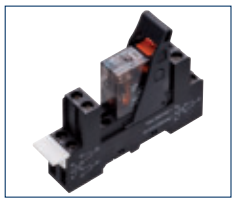
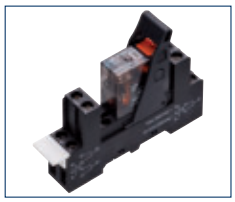

Relay 1-CO PRS 1 XT

Complete unit, screw connection	**PRSUXT 1/24V DC**	**PRSUXT 1/24V AC**	**PRSUXT 1/230V AC**	**PRSUXT 1G/24V DC**
consisting of: · Relay · Socket base · Holding clamp				
Type **Cat. no.**/Qty.	**PRSUXT 1/24V DC** **16086.2**/1	**PRSUXT 1/24V AC** **16087.2**/1	**PRSUXT 1/230V AC** **16088.2**/1	**PRSUXT 1G/24V DC** **16089.2**/1
Size (L x W x H) with TS 35 x 7.5	76 x 15.7 x 76 mm	76 x 15.7 x 76 mm	76 x 15.7 x 76 mm	76 x 15.7 x 76 mm
Weight	56 g	56 g	56 g	56 g
Components				
Relay 1W, open design, with switch and status display				
Type **Cat. no.**/Qty.	**PRSXT 1/24V DC** **16083.2**/1	**PRSXT 1/24V AC** **16084.2**/1	**PRSXT 1/230V AC** **16085.2**/1	**PRSXT 1/24V DC** **16083.2**/1
Size (L x W x H)	29 x 13 x 30.55 mm	29 x 13 x 30.55 mm	29 x 13 x 30.55 mm	29 x 13 x 30.55 mm
Weight	16 g	16 g	16 g	16 g
General specifications				
DIN-VDE specifications	Insulation IEC 664/VDE 0110, Rated voltage 250 V, contamination degree 3, overvoltage category III, flammability class UL 94 V-0			
Test voltage coil/contact	2.5 KV	2.5 KV	2.5 KV	2.5 KV
Operating temperature	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
Lockable test button	yes	yes	yes	yes
Indicators	red LED	red LED	red LED	red LED
Mechanical indicator	yes	yes	yes	yes
Free-wheel diode	yes	no	no	yes
Input data				
Input voltage	24 V DC	24 V AC	230 V AC	24 V DC
Power consumption	0.4 W	0.76 VA	0.74 VA	0.4 W
Frequency	-	50 / 60 Hz	50 / 60 Hz	-
Output specifications				
Contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Switching voltage/Max. Switching voltage	240 V AC/400 V AC	240 V AC/400 V AC	240 V AC/400 V AC	240 V AC/400 V AC
Max. continuous current	16 A / 240 V AC	16 A / 240 V AC	16 A / 240 V AC	16 A / 240 V AC
Max. inrush current 4s / 30 ms	30 A / 300 A	30 A / 300 A	30 A / 300 A	30 A / 300 A
Max. contact load	4000 VA	4000 VA	4000 VA	4000 VA
Min. suggested contact load	12 V at 10 mA	12 V at 10 mA	12 V at 10 mA	12 V at 10 mA
Voltage drop	30 mV at 100 mA/6 VDC	30 mV at 100 mA/6 VDC	30 mV at 100 mA/6 VDC	30 mV at 100 mA/6 VDC
Max. switching frequency at operating load	360 cycles per hour	360 cycles per hour	360 cycles per hour	360 cycles per hour
Max. switching frequency without load	36000 cycles per hour	36000 cycles per hour	36000 cycles per hour	36000 cycles per hour
Typical response time/release time	8 ms / 6 ms	8 ms / 6 ms	8 ms / 6 ms	8 ms / 6 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
Electrical lifespan	50 x 10^3	50 x 10^3	50 x 10^3	50 x 10^3
Mechanical lifespan	10 x 10^6	5 x 10^6	5 x 10^6	10 x 10^6
Socket base				
Type **Cat. no.**/Qty.	**PRS 2** **15136.2**/1	**PRS 2** **15136.2**/1	**PRS 2** **15136.2**/1	**PRS 2 G** **15320.2**/1
General				
Mounting foot for DIN rails	TS 35	TS 35	TS 35	TS 35
Plug-in base for	5 mm pinning	5 mm pinning	5 mm pinning	5 mm pinning
Connection type	Screw connection	Screw connection	Screw connection	Screw connection
Technical data				
Rated current	10 A	10 A	10 A	10 A
Rated voltage	300 V	300 V	300 V	300 V
Dielectric strength	4000 Veff	4000 Veff	4000 Veff	4000 Veff
Insulation group (VDE 0110b)	C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4
Wire connect cross-section	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2
With ferrules	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2
Screw torque	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm
Stripping length	7 mm	7 mm	7 mm	7 mm
Approvals	UL/CSA	UL/CSA	UL/CSA	UL/CSA
Holding clamp				
Type **Cat. no.**/Qty.	**PRSXT C1/2** **16016.2**/20	**PRSXT C1/2** **16016.2**/20	**PRSXT C1/2** **16016.2**/20	**PRSXT C1/2** **16016.2**/20

Relay 1-CO PRS 1 XT

PRSUXT 1G/24V AC	PRSUXT 1G/230V AC				
					
PRSUXT 1G/24V AC 16090.2 /1	**PRSUXT 1G/230V AC 16091.2**/1				
76 x 15.7 x 76 mm	76 x 15.7 x 76 mm				
56 g	56 g				
PRSXT 1/24V AC 16084.2/1	**PRSXT 1/230V AC 16085.2**/1				
29 x 13 x 30.55 mm	29 x 13 x 30.55 mm				
16 g	16 g				
Insulation IEC 664/VDE 0110, rated voltage 250 V, contamination degree 3, overvoltage category III, flammability class UL 94 V-0					
2.5 KV	2.5 KV				
-40 to +70 °C	-40 to +70 °C				
yes	yes				
red LED	red LED				
yes	yes				
no	no				
24 V AC	230 V AC				
0.76 VA	0.74 VA				
50 / 60 Hz	50 / 60 Hz				
1 CO contact	1 CO contact				
240 V AC/400 V AC	240 V AC/400 V AC				
16 A / 240 V AC	16 A / 240 V AC				
30 A / 300 A	30 A / 300 A				
4000 VA	4000 VA				
12 V at 10 mA	12 V at 10 mA				
30 mV at 100 mA/6 VDC	30 mV at 100 mA/6 VDC				
360 cycles per hour	360 cycles per hour				
36000 cycles per hour	36000 cycles per hour				
8 ms / 6 ms	8 ms / 6 ms				
AgNi 90/10	AgNi 90/10				
50 x 10^3	50 x 10^3				
5 x 10^6	5 x 10^6				
PRS 2 G 15320.2/1	**PRS 2 G 15320.2**/1				
TS 35	TS 35				
5 mm pinning	5 mm pinning				
Screw connection	Screw connection				
10 A	10 A				
300 V	300 V				
4000 Veff	4000 Veff				
C/250 V	C/250 V				
-25 to +80 °C	-25 to +80 °C				
IP 20	IP 20				
V-0	V-0				
VBG 4	VBG 4				
2 x 2.5 mm^2	2 x 2.5 mm^2				
2 x 1.5 mm^2	2 x 1.5 mm^2				
max. 0.8 Nm	max. 0.8 Nm				
7 mm	7 mm				
UL/CSA	UL/CSA				
PRSXT C1/2 16016.2/20	**PRSXT C1/2 16016.2**/20				

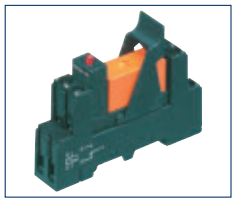
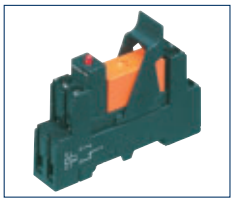
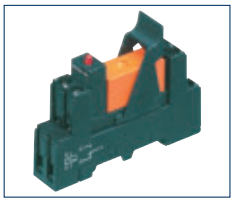
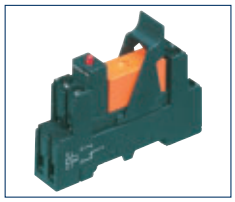
Relay 2-CO PRS 2 XT

Complete unit, screw connection	**PRSUXT 2/24V DC**	**PRSUXT 2/24V AC**	**PRSUXT 2/230V AC**	**PRSUXT 2G/24V DC**
consisting of: · Relay · Socket base · Holding clamp				
Type **Cat. no.**/Qty.	**PRSUXT 2/24V DC** **16017.2**/1	**PRSUXT 2/24V AC** **16018.2/1**	**PRSUXT 2/230V AC** **16019.2**/1	**PRSUXT 2G/24V DC** **16020.2**/1
Size (L x W x H) with TS 35 x 7.5	76 x 15.7 x 76 mm	76 x 15.7 x 76 mm	76 x 15.7 x 76 mm	76 x 15.7 x 76 mm
Weight	56 g	56 g	56 g	56 g
Components				
Relay 2W, open design, with switch and status display				
Type **Cat. no.**/Qty.	**PRSXT 2/24V DC** **16013.2**/1	**PRSXT 2/24V AC** **16014.2**/1	**PRSXT 2/230V AC** **16015.2**/1	**PRSXT 2/24V DC** **16013.2**/1
Size (L x W x H)	29 x 13 x 30.55 mm	29 x 13 x 30.55 mm	29 x 13 x 30.55 mm	29 x 13 x 30.55 mm
Weight	16 g	16 g	16 g	16 g
General specifications				
DIN-VDE specifications	Insulation IEC 664/VDE 0110, Rated voltage 250 V, contamination degree 3, overvoltage category III, flammability class UL 94 V-0			
Test voltage coil/contact	2.5 KV	2.5 KV	2.5 KV	2.5 KV
Operating temperature	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
Lockable test button	yes	yes	yes	yes
Indicators	red LED	red LED	red LED	red LED
Mechanical indicator	yes	yes	yes	yes
Free-wheel diode	yes	no	no	yes
Input data				
Input voltage	24 V DC	24V AC	230V AC	24 V DC
Power consumption	0.4 W	0.76 VA	0.74 VA	0.4W
Frequency	-	50 / 60 Hz	50 / 60 Hz	-
Output specifications				
Contacts	2 CO contact	2 CO contact	2 CO contact	2 CO contact
Switching voltage/Max. Switching voltage	240 V AC/400 V AC	240 V AC/400 V AC	240 V AC/400 V AC	240 V AC/400 V AC
Max. continuous current	8 A / 240 V AC	8 A / 240 V AC	8 A / 240 V AC	8 A / 240 V AC
Max. inrush current 4s / 30 ms	15 A / 300 A	15 A / 300 A	15 A / 300 A	15 A / 300 A
Max. contact load	2000 VA	2000 VA	2000 VA	2000 VA
Min. suggested contact load	12 V at 10 mA	12 V at 10 mA	12 V at 10 mA	12 V at 10 mA
Voltage drop	30 mV at 100 mA/6 VDC	30 mV at 100 mA/6 VDC	30 mV at 100 mA/6 VDC	30 mV at 100 mA/6 VDC
Max. switching frequency at operating load	360 cycles per hour	360 cycles per hour	360 cycles per hour	360 cycles per hour
Max. switching frequency without load	36000 cycles per hour	36000 cycles per hour	36000 cycles per hour	36000 cycles per hour
Typical response time/release time	10 ms / 5 ms	10 ms / 5 ms	10 ms / 5 ms	10 ms / 5 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
Electrical lifespan	50 x 10^3	50 x 10^3	50 x 10^3	50 x 10^3
Mechanical lifespan	10 x 10^6	5 x 10^6	5 x 10^6	10 x 10^6
Socket base				
Type **Cat. no.**/Qty.	**PRS 2** **15136.2**/1	**PRS 2** **15136.2**/1	**PRS 2** **15136.2**/1	**PRS 2 G** **15320.2**/1
General				
Mounting foot for DIN rails	TS 35	TS 35	TS 35	TS 35
Plug-in base for	5 mm pinning	5 mm pinning	5 mm pinning	5 mm pinning
Connection type	Screw connection	Screw connection	Screw connection	Screw connection
Technical data				
Rated current	10 A	10 A	10 A	10 A
Rated voltage	300 V	300 V	300 V	300 V
Dielectric strength	4000 Veff	4000 Veff	4000 Veff	4000 Veff
Insulation group (VDE 0110b)	C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4
Wire connect cross-section	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2
With ferrules	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2
Screw torque	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm
Stripping length	7 mm	7 mm	7 mm	7 mm
Approvals	UL/CSA	UL/CSA	UL/CSA	UL/CSA
Holding clamp				
Type **Cat. no.**/Qty.	**PRSXT C1/2** **16016.2**/20	**PRSXT C1/2** **16016.2**/20	**PRSXT C1/2** **16016.2**/20	**PRSXT C1/2** **16016.2**/20

Relay 2-CO PRS 2 XT

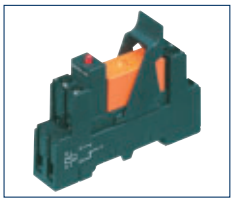
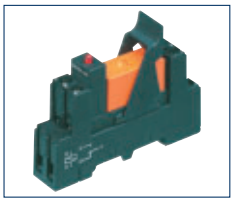
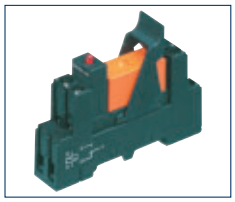
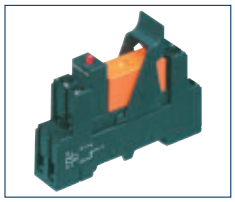
PRSUXT 2G/24V AC	PRSUXT 2G/230V AC				
					
PRSUXT 2G/24V AC 16021.2/1	**PRSUXT 2G/230V AC 16022.2**/1				
76 x 15.7 x 76 mm	76 x 15.7 x 76 mm				
56 g	56 g				
PRSXT 2/24V AC 16014.2/1	**PRSXT 2/230V AC 16015.2**/1				
29 x 13 x 30.55 mm	29 x 13 x 30.55 mm				
16 g	16 g				
Insulation IEC 664/VDE 0110, rated voltage 250 V, contamination degree 3, overvoltage category III, flammability class UL 94 V-0					
2.5 KV	2.5 KV				
-40 to +70 °C	-40 to +70 °C				
yes	yes				
red LED	red LED				
yes	yes				
no	no				
24 V AC	230 V AC				
0.76 VA	0.74 VA				
50 / 60 Hz	50 / 60 Hz				
2 CO contact	2 CO contact				
240 V AC/400 V AC	240 V AC/400 V AC				
8 A / 240 V AC	8 A / 240 V AC				
15 A / 300 A	15 A / 300 A				
2000 VA	2000 VA				
12 V at 10 mA	12 V at 10 mA				
30 mV at 100 mA/6 VDC	30 mV at 100 mA/6 VDC				
360 cycles per hour	360 cycles per hour				
36000 cycles per hour	36000 cycles per hour				
10 ms / 5 ms	10 ms / 5 ms				
AgNi 90/10	AgNi 90/10				
50 x 10^3	50 x 10^3				
5 x 10^6	5 x 10^6				
PRS 2 G 15320.2/1	**PRS 2 G 15320.2**/1				
TS 35	TS 35				
5 mm pinning	5 mm pinning				
Screw connection	Screw connection				
10 A	10 A				
300 V	300 V				
4000 Veff	4000 Veff				
C/250 V	C/250 V				
-25 to +80 °C	-25 to +80 °C				
IP 20	IP 20				
V-0	V-0				
VBG 4	VBG 4				
2 x 2.5 mm^2	2 x 2.5 mm^2				
2 x 1.5 mm^2	2 x 1.5 mm^2				
max. 0.8 Nm	max. 0.8 Nm				
7 mm	7 mm				
UL/CSA	UL/CSA				
PRSXT C1/2 16016.2/20	**PRSXT C1/2 16016.2**/20				

Relay with 1 CO PRS 1

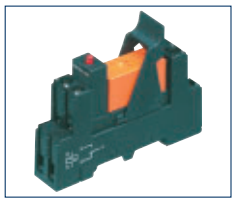
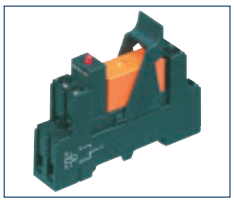
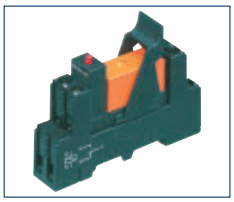
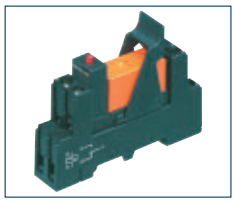
Complete unit, screw connection	PRSU 1/12 V DC	PRSU 1/24 V DC	PRSU 1/60 V DC	PRSU 1/110 V DC
consisting of: · Relay · Insert module · Socket base · Holding clamp				

Type	PRSU 1/12 V DC **15163.2**/1	PRSU 1/24 V DC **15169.2**/1	PRSU 1/60 V DC **15720.2**/1	PRSU 1/110 V DC **15721.2**/1
Size (L x W x H) with TS 35 x 7.5	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm
Weight	55 g	55 g	55 g	55 g
Components				
Relay 1 W, encapsulated construction				
Type	**PRS 1/12 V DC 6996.0**/1	**PRS 1/24 V DC 6804.0**/1	**PRS 1/60 V DC 15539.2**/1	**PRS 1/110 V DC 15540.2**/1
Weight	15 g	15 g	15 g	15 g
General specifications				
DIN-VDE specifications	Insulation IEC 664/VDE 0110, Rated voltage 250 V, contamination degree 3, overvoltage category III, flammability class UL 94 V-0			
Test voltage coil/contact	5 kV	5 kV	5 kV	5 kV
Pinning	3.5 mm	3.5 mm	3.5 mm	3.5 mm
Operating temperature	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
Important notes	-	-	-	-
Input data				
Input voltage	12 V DC	24 V DC	60 V DC	110 V DC
Power consumption	0.40 W	0.40 W	0.42 W	0.42 W
Output specifications				
Contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Switching voltage/Max. Switching voltage	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC
Max. continuous current/inrush current	12 A / 25 A	12 A / 25 A	12 A / 25 A	12 A / 25 A
Typical response time/release time	7 ms/3 ms	7 ms/3 ms	7 ms/3 ms	7 ms/3 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
Electrical lifespan	1.2×10^3	1.2×10^3	1.2×10^3	1.2×10^3
at contact load	4 A @ 250 V AC	4 A @ 250 V AC	4 A @ 250 V AC	4 A @ 250 V AC
Mechanical lifespan	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$
Insert module				
Type **Cat. no.**/Qty.	**PRS LED 24 V DC 15141.2**/1	**PRS LED 24 V DC 15141.2**/1	**PRS LED 110 V DC 15422.2**/1	**PRS LED 110 V DC 15422.2**/1
protected against polarity reversal	Status display with free-wheel diode	Status display with free-wheel diode	Status display with free-wheel diode	Status display with free-wheel diode
in parallel to coil	12 to 24 V DC	12 to 24 V DC	60 to 110 V DC	60 to 110 V DC
Socket base				
Type **Cat. no.**/Qty.	**PRS 1 15135.2**/1	**PRS 1 15135.2**/1	**PRS 1 15135.2**/1	**PRS 1 15135.2**/1
General				
Mounting foot for DIN rails	TS 35	TS 35	TS 35	TS 35
Plug-in base for	3.5 mm pinning	3.5 mm pinning	3.5 mm pinning	3.5 mm pinning
Connection type	Screw connection	Screw connection	Screw connection	Screw connection
Technical data				
Rated current	12 A	12 A	12 A	12 A
Rated voltage	300 V	300 V	300 V	300 V
Dielectric strength	4000 Veff	4000 Veff	4000 Veff	4000 Veff
Insulation group (VDE 0110 b)	C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4
Wire connect cross-section	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2
With ferrules	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2
Screw torque	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm
Approvals	UL/CSA	UL/CSA	UL/CSA	UL/CSA
Holding clamp				
Type **Cat. no.**/Qty.	**PRS C 1/2 15138.2**/1	**PRS C 1/2 15138.2**/1	**PRS C 1/2 15138.2**/1	**PRS C 1/2 15138.2**/1

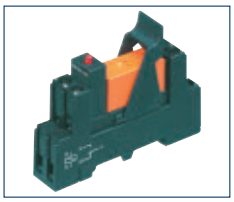
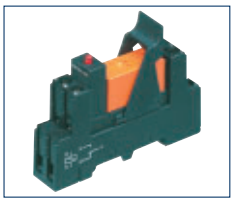
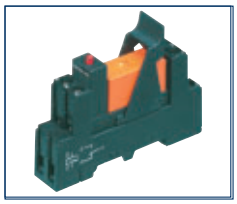
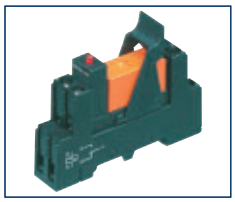
Relay with 1 CO PRS 1

PRSU 1 L/24 V DC	PRSU 1/24 V AC	PRSU 1/115 V AC	PRSU 1/230 V AC		
					
PRSU 1 L/24 V DC 15419.2/1	**PRSU 1/24 V AC 15164.2**/1	**PRSU 1/115 V AC 15418.2**/1	**PRSU 1/230 V AC 15170.2**/1		
76 x 15.7 x 71 mm	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm		
60 g	55 g	55 g	55 g		
PRS 1 L/24 V DC 6940.0/1	**PRS 1/24 V AC 6480.2**/1	**PRS 1/115 V AC 15228.2**/1	**PRS 1/230 V AC 6481.2**/1		
15 g	15 g	15 g	15 g		
Insulation IEC 664/VDE 0110, Rated voltage 250 V, contamination degree 3, overvoltage category III, flammability class UL 94 V-0					
4 kV	5 kV	5 kV	5 kV		
5 mm	3.5 mm	3.5 mm	3.5 mm		
-20 to +50 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C		
Inductive loads	-	-	-		
24 V DC	24 V AC	115 V AC	230 V AC		
0.50 W	0.75 VA	0.75 VA	0.75 VA		
1 CO contact	1 CO contact	1 CO contact	1 CO contact		
250 V AC	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC		
16 A/80 A (20 ms)	12 A / 25 A	12 A / 25 A	12 A / 25 A		
10 ms/10 ms	7 ms/3 ms	7 ms/3 ms	7 ms/3 ms		
Ag Sn 02	AgNi 90/10	AgNi 90/10	AgNi 90/10		
1 x 10^5	1.2 x 10^3	1.2 x 10^3	1.2 x 10^3		
16 A @ 250 V AC	4 A @ 250 V AC	4 A @ 250 V AC	4 A @ 250 V AC		
> 30 x 10^6	> 30 x 10^6	> 30 x 10^6	> 30 x 10^6		
PRS LED 24 V UC 15141.2/1	**PRS LED 24 V UC 15175.2**/1	**PRS LED 230 V AC 15142.2**/1	**PRS LED 230 V AC 15142.2**/1		
Status display with free-wheel diode	Status display	Status display	Status display		
12 to 24 V/DC	12 to 48 V AC/DC	110 to 230 V/AC	110 to 230 V/AC		
PRS 2 15136.2/1	**PRS 1 15135.2**/1	**PRS 1 15135.2**/1	**PRS 1 15135.2**/1		
TS 35	TS 35	TS 35	TS 35		
5 mm pinning	3.5 mm pinning	3.5 mm pinning	3.5 mm pinning		
Screw connection	Screw connection	Screw connection	Screw connection		
10 A	12 A	12 A	12 A		
300 V	300 V	300 V	300 V		
4000 Veff	4000 Veff	4000 Veff	4000 Veff		
C/250 V	C/250 V	C/250 V	C/250 V		
-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C		
IP 20	IP 20	IP 20	IP 20		
V-0	V-0	V-0	V-0		
VBG 4	VBG 4	VBG 4	VBG 4		
2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2		
2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2		
max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm		
UL/CSA	UL/CSA	UL/CSA	UL/CSA		
PRS C 1/2 15138.2/1	**PRS C 1/2 15138.2**/1	**PRS C 1/2 15138.2**/1	**PRS C 1/2 15138.2**/1		

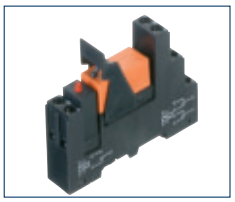
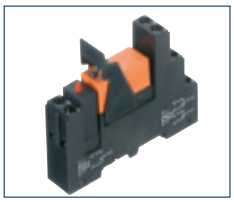
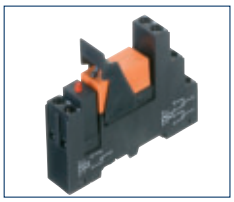
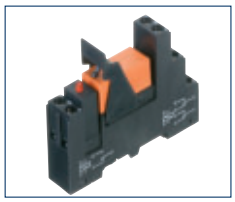
Relay with 2 CO PRS 2

Complete unit, screw connection	PRSU 2/12 V DC	PRSU 2/24 V DC	PRSU 2/48 V DC	PRSU 2/60 V DC
consisting of: · Relay · Insert module · Socket base · Holding clamp				
Type **Cat. no.**/Qty.	**PRSU 2/12 V DC** **15165.2**/1	**PRSU 2/24 V DC** **15171.2**/1	**PRSU 2/48 V DC** **15411.2**/1	**PRSU 2/60 V DC** **15412.2**/1
Size (L x W x H) with TS 35 x 7.5	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm
Weight	60 g	60 g	60 g	60 g
Components				
Relay 2 W, encapsulated construction				
Type **Cat. no.**/Qty.	**PRS 2/12 V DC** **6482.2**/1	**PRS 2/24 V DC** **6483.2**/1	**PRS 2/48 V DC** **15334.2**/1	**PRS 2/60 V DC** **15335.2**/1
Weight	15 g	15 g	15 g	15 g
General specifications				
DIN-VDE specifications	Insulation IEC 664/VDE 0110, Rated voltage 250 V, contamination degree 3, overvoltage category III, flammability class UL 94 V-0			
Test voltage coil/contact	5 kV	5 kV	5 kV	5 kV
Pinning	5 mm	5 mm	5 mm	5 mm
Operating temperature	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
Input data				
Input voltage	12 V DC	24 V DC	48 V DC	60 V DC
Power consumption	0.40 W	0.40 W	0.40 W	0.40 W
Output specifications				
Contacts	2 CO contact	2 CO contact	2 CO contact	2 CO contact
Switching voltage/Max. Switching voltage	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC
Max. continuous current/inrush current	8 A / 15 A	8 A / 15 A	12 A / 25 A	8 A / 15 A
Typical response time/release time	7 ms/2 ms	7 ms/2 ms	7 ms/2 ms	7 ms/2 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
Electrical lifespan	1.5 x 10^5	1.5 x 10^5	1.5 x 10^5	1.5 x 10^5
at contact load	4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC
Mechanical lifespan	> 30 x 10^6	> 30 x 10^6	> 30 x 10^6	> 30 x 10^6
Insert module				
Type **Cat. no.**/Qty.	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 110 V DC** **15422.2**/1	**PRS LED 110 V DC** **15422.2**/1
protected against polarity reversal	Status display with free-wheel diode	Status display with free-wheel diode	Status display with free-wheel diode	Status display with free-wheel diode
in parallel to coil	12 to 24 V DC	12 to 24 V DC	60 to 110 V DC	60 to 110 V DC
Socket base				
Type **Cat. no.**/Qty. **General**	**PRS 2** **15136.2**/1	**PRS 2** **15136.2**/1	**PRS 2** **15136.2**/1	**PRS 2** **15136.2**/1
Mounting foot for DIN rails	TS 35	TS 35	TS 35	TS 35
Plug-in base for	5 mm pinning	5 mm pinning	5 mm pinning	5 mm pinning
Connection type	Screw connection	Screw connection	Screw connection	Screw connection
Technical data				
Rated current	10 A	10 A	10 A	10 A
Rated voltage	300 V	300 V	300 V	300 V
Dielectric strength	4000 Veff	4000 Veff	4000 Veff	4000 Veff
Insulation group (VDE 0110 b)	C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4
Wire connect cross-section	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2
With ferrules	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2
Screw torque	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm
Approvals	UL/CSA	UL/CSA	UL/CSA	UL/CSA
Holding clamp				
Type **Cat. no.**/Qty.	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1

Relay with 2 CO PRS 2

PRSU 2/110 V DC	PRSU 2/24 V AC	PRSU 2/115 V AC	PRSU 2/230 V AC		
					
PRSU 2/110 V DC **15722.2**/1	**PRSU 2/24 V AC** **15166.2**/1	**PRSU 2/115 V AC** **15413.2**/1	**PRSU 2/230 V AC** **15172.2**/1		
76 x 15.7 x 71 mm	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm		
60 g	60 g	60 g	60 g		
PRS 2/110 V DC **15541.2**/1	**PRS 2/24 V AC** **6484.2** /1	**PRS 2/115 V AC** **15229.2**/1	**PRS 2/230 V AC** **6485.2**/1		
15 g	15 g	15 g	15 g		
Insulation IEC 664/VDE 0110, Rated voltage 250 V, contamination degree 3, overvoltage category III, flammability class UL 94 V-0					
5 kV	5 kV	5 kV	5 kV		
5 mm	5 mm	5 mm	5 mm		
-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C		
110 V DC	24 V AC	115 V AC	230 V AC		
0.40 W	0.75 VA	0.75 VA	0.75 VA		
2 CO contact	2 CO contact	2 CO contact	2 CO contact		
250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC		
8 A / 15 A	8 A / 15 A	8 A / 15 A	8 A / 15 A		
7 ms/2 ms	7 ms/2 ms	7 ms/2 ms	7 ms/2 ms		
AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10		
1.5 x 10^5	1.5 x 10^5	1.5 x 10^5	1.5 x 10^5		
4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC		
> 30 x 10^6	> 5 x 10^6	> 5 x 10^6	> 5 x 10^6		
PRS LED 24 V UC **15175.2** /1	**PRS LED 24 V UC** **15175.2**/1	**PRS LED 230 V AC** **15142.2**/1	**PRS LED 230 V AC** **15142.2**/1		
Status display	Status display	Status display	Status display		
12 to 48 V AC/DC	12 to 48 V AC/DC	110 to 230 V AC/DC	110 to 230 V AC/DC		
PRS 2 **15136.2**/1	**PRS 2** **15136.2**/1	**PRS 2** **15136.2**/1	**PRS 2** **15136.2**/1		
TS 35	TS 35	TS 35	TS 35		
5 mm pinning	5 mm pinning	5 mm pinning	5 mm pinning		
Screw connection	Screw connection	Screw connection	Screw connection		
10 A	10 A	10 A	10 A		
300 V	300 V	300 V	300 V		
4000 Veff	4000 Veff	4000 Veff	4000 Veff		
C/250 V	C/250 V	C/250 V	C/250 V		
-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C		
IP 20	IP 20	IP 20	IP 20		
V-0	V-0	V-0	V-0		
VBG 4	VBG 4	VBG 4	VBG 4		
2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2		
2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2		
max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm		
UL/CSA	UL/CSA	UL/CSA	UL/CSA		
PRS C 1/2 **15138.2**/1	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1		

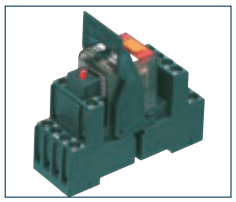
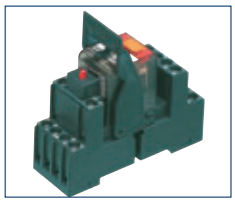
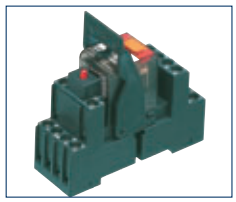
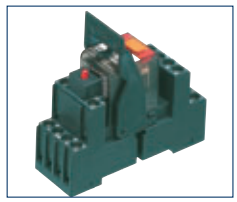
Relay 2 CO contact, PRS 2 G

Complete unit, screw connection	PRSU 2 G/12 V DC	PRSU 2 G/24 V DC	PRSU 2 G/48 V DC	PRSU 2 G/60 V DC
consisting of: · Relay · Insert module · Socket base · Holding clamp				
Type **Cat. no.**/Qty.	**PRSU 2 G/12 V DC** **15414.2**/1	**PRSU 2 G/24 V DC** **15233.2**/1	**PRSU 2 G/48 V DC** **15415.2**/1	**PRSU 2 G/60 V DC** **15416.2**/1
Size (L x W x H) with TS 35	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm
Weight	60 g	60 g	60 g	60 g
Components				
Relay 2 W, encapsulated construction				
Type **Cat. no.**/Qty.	**PRS 2/12 V DC** **6482.2**/1	**PRS 2/24 V DC** **6483.2**/1	**PRS 2/48 V DC** **15334.2**/1	**PRS 2/60 V DC** **15335.2**/1
Weight	15 g	15 g	15 g	15 g
General specifications				
DIN-VDE specifications	Insulation IEC 664/VDE 0110, rated voltage 250 V, contamination degree 3, overvoltage category III, flammability class UL 94 V-0			
Test voltage coil/contact	5 kV	5 kV	5 kV	5 kV
Pinning	5 mm	5 mm	5 mm	5 mm
Operating temperature	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
Input data				
Input voltage	12 V DC	24 V DC	48 V DC	60 V DC
Power consumption	0.40 W	0.40 W	0.40 W	0.40 W
Output specifications				
Contacts	2 CO contact	2 CO contact	2 CO contact	2 CO contact
Switching voltage/Max. Switching voltage	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC
Max. continuous current/inrush current	8 A / 15 A	8 A / 15 A	8 A / 15 A	8 A / 15 A
Typical response time/release time	7 ms/2 ms	7 ms/2 ms	7 ms/2 ms	7 ms/2 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
Electrical lifespan	1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5
at contact load	4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC
Mechanical lifespan	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$
Insert module				
Type **Cat. no.**/Qty.	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 110 V DC** **15422.2**/1	**PRS LED 110 V DC** **15422.2**/1
protected against polarity reversal	Status display with free-wheel diode	Status display with free-wheel diode	Status display with free-wheel diode	Status display with free-wheel diode
in parallel to coil	12 to 24 V DC	12 to 24 V DC	60 to 110 V DC	60 to 110 V DC
Socket base				
Type **Cat. no.**/Qty.	**PRS 2 G** **15320.2**/1	**PRS 2 G** **15320.2**/1	**PRS 2 G** **15320.2**/1	**PRS 2 G** **15320.2**/1
General				
Mounting foot for DIN rails	TS 35	TS 35	TS 35	TS 35
Plug-in base for	5 mm pinning	5 mm pinning	5 mm pinning	5 mm pinning
Connection type	Screw connection	Screw connection	Screw connection	Screw connection
Technical data				
Rated current	10 A	10 A	10 A	10 A
Rated voltage	300 V	300 V	300 V	300 V
Dielectric strength	4000 Veff	4000 Veff	4000 Veff	4000 Veff
Insulation group (VDE 0110 b)	C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4
Wire connect cross-section	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2
With ferrules	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2
Screw torque	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm
Approvals	UL/CSA	UL/CSA	UL/CSA	UL/CSA
Holding clamp				
Type **Cat. no.**/Qty.	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1

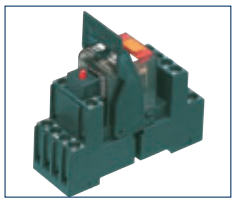
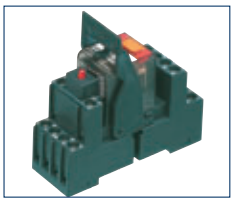
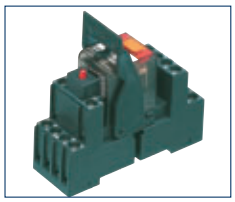
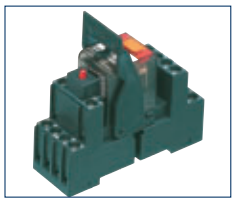
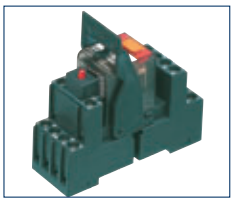
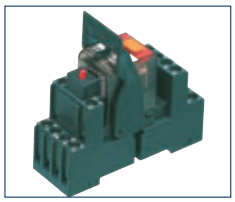
Relay 2 CO contact, PRS 2 G

PRSU 2 G/110 V DC	PRSU 2 G/24 V AC	PRSU 2 G/115 V AC	PRSU 2 G/230 V AC		
					
PRSU 2 G/110 V DC 15723.2/1	**PRSU 2 G/24 V AC 15385.2**/1	**PRSU 2 G/115 V AC 15417.2**/1	**PRSU 2 G/230 V AC 15236.2**/1		
76 x 15.7 x 71 mm	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm		
60 g	60 g	60 g	60 g		
PRS 2/110 V DC 15541.2/1	**PRS 2/24 V AC 6484.2**/1	**PRS 2/115 V AC 15229.2**/1	**PRS 2/230 V AC 6485.2**/1		
15 g	15 g	15 g	15 g		
Insulation IEC 664/VDE 0110, rated voltage 250 V, contamination degree 3, overvoltage category III, flammability class UL 94 V-0					
5 kV	5 kV	5 kV	5 kV		
5 mm	5 mm	5 mm	5 mm		
-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C		
110 V DC	24 V AC	115 V AC	230 V AC		
0.40 W	0.75 VA	0.75 VA	0.75 VA		
2 CO contact	2 CO contact	2 CO contact	2 CO contact		
250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC		
8 A / 15 A	8 A / 15 A	8 A / 15 A	8 A / 15 A		
7 ms/2 ms	7 ms/2 ms	7 ms/2 ms	7 ms/2 ms		
AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10		
1.5 x 10^5	1.5 x 10^5	1.5 x 10^5	1.5 x 10^5		
4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC		
> 30 x 10^6	> 5 x 10^6	> 5 x 10^6	> 5 x 10^6		
PRS LED 110 V DC 15422.2/1	**PRS LED 24 V UC 15175.2**/1	**PRS LED 230 V AC 15142.2**/1	**PRS LED 230 V AC 15142.2**/1		
Status display with free-wheel diode	Status display	Status display	Status display		
60 to 110 V DC	12 to 48 V AC/DC	110 to 230 V AC	110 to 230 V AC		
PRS 2 G 15320.2/1	**PRS 2 G 15320.2**/1	**PRS 2 G 15320.2**/1	**PRS 2 G 15320.2**/1		
TS 35	TS 35	TS 35	TS 35		
5 mm pinning	5 mm pinning	5 mm pinning	5 mm pinning		
Screw connection	Screw connection	Screw connection	Screw connection		
10 A	10 A	10 A	10 A		
300 V	300 V	300 V	300 V		
4000 Veff	4000 Veff	4000 Veff	4000 Veff		
C/250 V	C/250 V	C/250 V	C/250 V		
-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C		
IP 20	IP 20	IP 20	IP 20		
V-0	V-0	V-0	V-0		
VBG 4	VBG 4	VBG 4	VBG 4		
2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2		
2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2		
max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm		
UL/CSA	UL/CSA	UL/CSA	UL/CSA		
PRS C 1/2 15138.2/1	**PRS C 1/2 15138.2**/1	**PRS C 1/2 15138.2**/1	**PRS C 1/2 15138.2**/1		

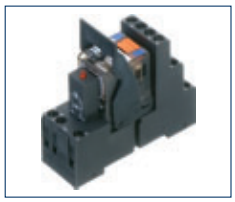
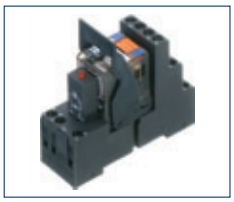
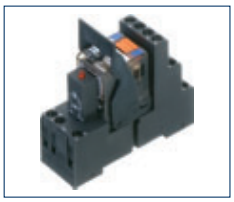
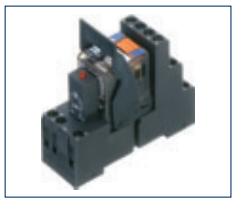
Relay with 4 CO PRS 4

Complete unit, screw connection	**PRSU 4/12 V DC**	**PRSU 4/24 V DC**	**PRSU 4/48 V DC**	**PRSU 4/60 V DC**
consisting of: · Relay · Insert module · Socket base · Holding clamp				
Type **Cat. no.**/Qty.	**PRSU 4/12 V DC** **15167.2**/1	**PRSU 4/24 V DC** **15173.2**/1	**PRSU 4/48 V DC** **15724.2**/1	**PRSU 4/60 V DC** **15725.2**/1
Size (L x W x H) with TS 35 x 7.5	76 x 27.1 x 85 mm	76 x 27.1 x 85 mm	76 x 27.1 x 85 mm	76 x 27.1 x 85 mm
Weight	95 g	95 g	95 g	95 g
Components				
Relay 4 W, open construction with switch				
Type **Cat. no.**/Qty.	**PRS 4/12 V DC** **6486.2**/1	**PRS 4/24 V DC** **6487.2**/1	**PRS 4/48 V DC** **15461.2**/1	**PRS 4/60 V DC** **15336.2**/1
Weight	30 g	30 g	30 g	30 g
General specifications				
DIN-VDE specifications	Insulation IEC 664/VDE 0110, Rated voltage 250 V, contamination degree 3, overvoltage category III			
Test voltage coil/contact	2.5 kV	2.5 kV	2.5 kV	2.5 kV
Operating temperature	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
Input data				
Input voltage	12 V DC	24 V DC	48 V DC	60 V DC
Power consumption	0.75 W	0.75 W	0.75 W	0.75 W
Output specifications				
Contacts	4 CO contact	4 CO contact	4 CO contact	4 CO contact
Switching voltage/Max. Switching voltage	250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC
Max. continuous current/inrush current	6 A / 12 A	6 A / 12 A	6 A / 12 A	6 A / 12 A
Typical response time/release time	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
Electrical lifespan	1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5
at contact load	6 A @ 250 V AC	6 A @ 250 V AC	6 A @ 250 V AC	6 A @ 250 V AC
Mechanical lifespan	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$
Insert module				
Type **Cat. no.**/Qty.	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 110 V DC** **15422.2**/1	**PRS LED 110 V DC** **15422.2**/1
protected against polarity reversal	Status display with free-wheel diode	Status display with free-wheel diode	Status display with free-wheel diode	Status display with free-wheel diode
in parallel to coil	12 to 24 V DC	12 to 24 V DC	60 to 110 V DC	60 to 110 V DC
Socket base				
Type **Cat. no.**/Qty. **General**	**PRS 4** **15137.2**/1	**PRS 4** **15137.2**/1	**PRS 4** **15137.2**/1	**PRS 4** **15137.2**/1
Mounting foot for DIN rails	TS 35	TS 35	TS 35	TS 35
Plug-in base for	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston
Connection type	Screw connection	Screw connection	Screw connection	Screw connection
Technical data				
Rated current	10 A	10 A	10 A	10 A
Rated voltage	300 V	300 V	300 V	300 V
Dielectric strength	2400 Veff	2400 Veff	2400 Veff	2400 Veff
Insulation group (VDE 0110 b)	C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4
Wire connect cross-section	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2
With ferrules	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2
Screw torque	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm
Approvals	UL/CSA	UL/CSA	UL/CSA	UL/CSA
Holding clamp				
Type **Cat. no.**/Qty.	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1

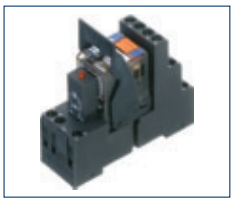
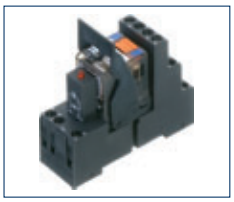
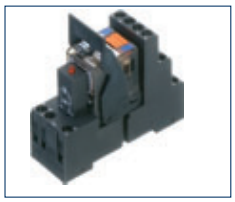
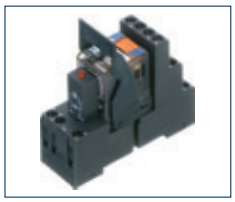
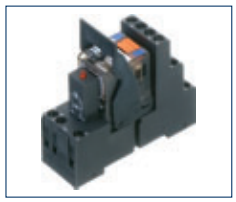
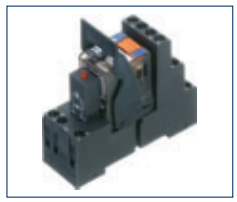
Relay with 4 CO PRS 4

PRSU 4/110 V DC	PRSU 4/220 V DC	PRSU 4/12 V AC	PRSU 4/24 V AC	PRSU 4/115 V AC	PRSU 4/230 V AC
					
PRSU 4/110 V DC 15726.2/1	**PRSU 4/220 V DC 15727.2**/1	**PRSU 4/12 V AC 15392.2**/1	**PRSU 4/24 V AC 15168.2**/1	**PRSU 4/115 V AC 15728.2**/1	**PRSU 4/230 V AC 15174.2**/1
76 x 27.1 x 85 mm	76 x 27.1 x 85 mm	76 x 27.1 x 85 mm	76 x 27.1 x 85 mm	76 x 27.1 x 85 mm	76 x 27.1 x 85 mm
95 g	95 g	95 g	95 g	95 g	95 g
PRS 4/110 V DC 15542.2/1	**PRS 4/220 V DC 15368.2**/1	**PRS 4/12 V AC 15393.2**/1	**PRS 4/24 V AC 6488.2**/1	**PRS 4/115 V AC 15257.2**/1	**PRS 4/230 V AC 6489.2**/1
30 g	30 g	30 g	30 g	30 g	30 g
Insulation IEC 664/VDE 0110, Rated voltage 250 V, contamination degree 3, overvoltage category III					
2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV
-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
110 V DC	220 V DC	12 V AC	24 V AC	115 V AC	230 V AC
0.75 W	0.75 W	1.0 VA	1.0 VA	1.0 VA	1.0 VA
4 CO contact	4 CO contact	4 CO contact	4 CO contact	4 CO contact	4 CO contact
250 V/250 V AC	250 V/250 V AC	250 V/250 V AC	250 V/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC
6 A / 12 A	6 A / 12 A	6 A / 12 A	6 A / 12 A	6 A / 12 A	6 A / 12 A
15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms
AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
1.5 x 10^5	1.5 x 10^5	1.5 x 10^5	1.5 x 10^5	1.5 x 10^5	1.5 x 10^5
6 A, 250 V A	6 A @ 250 V AC	6 A @ 250 V AC	6 A @ 250 V AC	6 A @ 250 V AC	6 A @ 250 V AC
> 30 x 10^6	> 30 x 10^6	> 20 x 10^6	> 20 x 10^6	> 20 x 10^6	> 20 x 10^6
PRS LED 110 V DC 15422.2/1	**PRS LED 230 V AC 15142.2**/1	**PRS LED 24 V UC 15175.2**/1	**PRS LED 24 V UC 15175.2**/1	**PRS LED 230 V AC 15142.2**/1	**PRS LED 230 V AC 15142.2**/1
Status display with free-wheel diode	Status display	Status display	Status display	Status display	Status display
60 to 110 V DC	110 to 230 V DC	12 to 48 V AC/DC	12 to 48 V AC/DC	110 to 230 V AC/DC	110 to 230 V AC
PRS 4 15137.2/1	**PRS 4 15137.2**/1	**PRS 4 15137.2**/1	**PRS 4 15137.2**/1	**PRS 4 15137.2**/1	**PRS 4 15137.2**/1
TS 35	TS 35	TS 35	TS 35	TS 35	TS 35
2.8 mm Faston	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston
Screw connection	Screw connection	Screw connection	Screw connection	Screw connection	Screw connection
10 A	10 A	10 A	10 A	10 A	10 A
300 V	300 V	300 V	300 V	300 V	300 V
2400 Veff	2400 Veff	2400 Veff	2400 Veff	2400 Veff	2400 Veff
C/250 V	C/250 V	C/250 V	C/250 V	C/250 V	C/250 V
-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C
IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
V-0	V-0	V-0	V-0	V-0	V-0
VBG 4	VBG 4	VBG 4	VBG 4	VBG 4	VBG 4
2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2
2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2
max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm
UL/CSA	UL/CSA	UL/CSA	UL/CSA	UL/CSA	UL/CSA
PRS C 4 15140.2/1	**PRS C 4 15140.2**/1	**PRS C 4 15140.2**/1	**PRS C 4 15140.2**/1	**PRS C 4 15140.2**/1	**PRS C 4 15140.2**/1

Relay 4 CO contact, PRS 4 G

Complete unit, screw connection	**PRSU 4 G/12 V DC**	**PRSU 4 G/24 V DC**	**PRSU 4 G/48 V DC**	**PRSU 4 G/60 V DC**
consisting of: · Relay · Insert module · Socket base · Holding clamp				
Type **Cat. no.**/Qty.	**PRSU 4 G/12 V DC** **15421.2**/1	**PRSU 4 G/24 V DC** **15332.2**/1	**PRSU 4 G/48 V DC** **15729.2**/1	**PRSU 4 G/60 V DC** **15730.2**/1
Size (L x W x H) with TS 35 x 7.5	76 x 27.1 x 87 mm	76 x 27.1 x 87 mm	76 x 27.1 x 87 mm	76 x 27.1 x 87 mm
Weight	95 g	95 g	95 g	95 g
Components				
Relay 4 W, open construction with switch				
Type **Cat. no.**/Qty.	**PRS 4/12 V DC** **6486.2**/1	**PRS 4/24 V DC** **6487.2**/1	**PRS 4/48 V DC** **15461.2**/1	**PRS 4/60 V DC** **15336.2**/1
Weight	30 g	30 g	30 g	30 g
General specifications				
DIN-VDE specifications	Insulation IEC 664/VDE 0110, rated voltage 250 V, contamination degree 3, overvoltage category III			
Test voltage coil/contact	2.5 kV	2.5 kV	2.5 kV	2.5 kV
Operating temperature	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
Input data				
Input voltage	12 V DC	24 V DC	48 V DC	60 V DC
Power consumption	0.75 W	0.75 W	0.75 W	0.75 W
Output specifications				
Contacts	4 CO contact	4 CO contact	4 CO contact	4 CO contact
Switching voltage/Max. Switching voltage	250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC
Max. continuous current/inrush current	6 A / 12 A	6 A / 12 A	6 A / 12 A	6 A / 12 A
Typical response time/release time	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
Electrical lifespan	1.5 x 10^5	1.5 x 10^5	1.5 x 10^5	1.5 x 10^5
at contact load	6 A @ 250 V AC	6 A @ 250 V AC	6 A @ 250 V AC	6 A, 250 V AC
Mechanical lifespan	> 30 x 10^6	> 30 x 10^6	> 30 x 10^6	> 30 x 10^6
Insert module				
Type **Cat. no.**/Qty.	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 110 V DC** **15422.2**/1	**PRS LED 110 V DC** **15422.2**/1
protected against polarity reversal	Status display with free-wheel diode	Status display with free-wheel diode	Status display with free-wheel diode	Status display with free-wheel diode
in parallel to coil	12 to 24 V DC	12 to 24 V DC	60 to 110 V DC	60 to 110 V DC
Socket base				
Type **Cat. no.**/Qty.	**PRS 4 G** **15324.2**/1	**PRS 4 G** **15324.2**/1	**PRS 4 G** **15324.2**/1	**PRS 4 G** **15324.2**/1
General				
Mounting foot for DIN rails	TS 35	TS 35	TS 35	TS 35
Plug-in base for	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston
Connection type	Screw connection	Screw connection	Screw connection	Screw connection
Technical data				
Rated current	10 A	10 A	10 A	10 A
Rated voltage	300 V	300 V	300 V	300 V
Dielectric strength	2400 Veff	2400 Veff	2400 Veff	2400 Veff
Insulation group (VDE 0110 b)	C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4
Wire connect cross-section	2 x 2.5mm²	2 x 2.5 mm²	2 x 2.5 mm²	2 x 2.5 mm²
With ferrules	2 x 1.5 mm²	2 x 1.5 mm²	2 x 1.5 mm²	2 x 1.5 mm²
Screw torque	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm
Approvals	UL/CSA	UL/CSA	UL/CSA	UL/CSA
Holding clamp				
Type **Cat. no.**/Qty.	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1

Relay 4 CO contact, PRS 4 G

PRSU 4 G/110 V DC	PRSU 4 G/220 V DC	PRSU 4 G/12 V AC	PRSU 4 G/24 V AC	PRSU 4 G/115 V AC	PRSU 4 G/230 V AC
					
PRSU 4 G/110 V DC 15731.2/1	**PRSU 4 G/220 V DC 15732.2**/1	**PRSU 4 G/12 V AC 15420.2**/1	**PRSU 4 G/24 V AC 15371.2**/1	**PRSU 4 G/115 V AC 15733.2**/1	**PRSU 4 G/230 V AC 15372.2**/1
76 x 27.1 x 87 mm	76 x 27.1 x 87 mm	76 x 27.1 x 87 mm	76 x 27.1 x 87 mm	76 x 27.1 x 87 mm	76 x 27.1 x 87 mm
95 g	95 g	95 g	95 g	95 g	95 g
PRS 4 /110 V DC 15542.2/1	**PRS 4 /220 V DC 15368.2**/1	**PRS 4 /12 V AC 15393.2**/1	**PRS 4 /24 V AC 6488.2**/1	**PRS 4 /115 V AC 15257.2**/1	**PRS 4 /230 V AC 6489.2**/1
30 g	30 g	30 g	30 g	30 g	30 g
Insulation IEC 664/VDE 0110, Rated voltage 250 V, contamination degree 3, overvoltage category III					
2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV
-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
110 V DC	220 V DC	12 V AC	24 V AC	115 V AC	230 V AC
0.75 W	0.75 W	1.0 VA	1.0 VA	1.0 VA	1.0 VA
4 CO contact	4 CO contact	4 CO contact	4 CO contact	4 CO contact	4 CO contact
250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC
6 A / 12 A	6 A / 12 A	6 A / 12 A	6 A / 12 A	6 A / 12 A	6 A / 12 A
15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms
AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5
6 A @ 250 V AC	6 A @ 250 V AC	6 A @ 250 V AC	6 A @ 250 V AC	6 A @ 250 V AC	6 A @ 250 V AC
$> 30 \times 10^6$	$> 30 \times 10^6$	$> 20 \times 10^6$	$> 20 \times 10^6$	$> 20 \times 10^6$	$> 20 \times 10^6$
PRS LED 110 V DC 15422.2/1	**PRS LED 230 V AC 15142.2**/1	**PRS LED 24 V UC 15175.2**/1	**PRS LED 24 V UC 15175.2**/1	**PRS LED 230 V AC 15142.2**/1	**PRS LED 230 V AC 15142.2**/1
Status display with free-wheel diode	Status display	Status display	Status display	Status display	Status display
60 to 110 V DC	110 to 230 V AC	12 to 48 V AC/DC	12 to 48 V AC/DC	110 to 230 V AC	110 to 230 V AC
PRS 4 G 15324.2/1	**PRS 4 G 15324.2**/1	**PRS 4 G 15324.2**/1	**PRS 4 G 15324.2**/1	**PRS 4 G 15324.2**/1	**PRS 4 G 15324.2**/1
TS 35	TS 35	TS 35	TS 35	TS 35	TS 35
2.8 mm Faston	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston
Screw connection	Screw connection	Screw connection	Screw connection	Screw connection	Screw connection
10 A	10 A	10 A	10 A	10 A	10 A
300 V	300 V	300 V	300 V	300 V	300 V
2400 Veff	2400 Veff	2400 Veff	2400 Veff	2400 Veff	2400 Veff
C/250 V	C/250 V	C/250 V	C/250 V	C/250 V	C/250 V
-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C
IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
V-0	V-0	V-0	V-0	V-0	V-0
VBG 4	VBG 4	VBG 4	VBG 4	VBG 4	VBG 4
2 x 2.5mm²	2 x 2.5mm²	2 x 2.5mm²	2 x 2.5mm²	2 x 2.5mm²	2 x 2.5mm²
2 x 1.5mm²	2 x 1.5mm²	2 x 1.5mm²	2 x 1.5mm²	2 x 1.5mm²	2 x 1.5mm²
max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm
UL/CSA	UL/CSA	UL/CSA	UL/CSA	UL/CSA	UL/CSA
PRS C 4 15140.2/1	**PRS C 4 15140.2**/1	**PRS C 4 15140.2**/1	**PRS C 4 15140.2**/1	**PRS C 4 15140.2**/1	**PRS C 4 15140.2**/1

Relay 4 CO PRS 4 eco

Complete unit, screw or tension-spring connection (Z)		PRSU 4/24 V DC eco	PRSU 4/24 V AC eco	PRSU 4/230 V AC eco	PRSU 4G/24V DC eco
consisting of: · Relay · Socket base					
Type **Cat. no.**/Qty.		**PRSU 4/24 V DC eco** **15619.2**/1	**PRSU 4/24 V AC eco** **15620.2**/1	**PRSU 4/230 V AC eco** **15621.2**/1	**PRSU 4G/24 V DC eco** **15622.2**/1
Size (L x W x H) with TS 35 x 7.5		76 x 27.1 x 68 mm	76 x 27.1 x 68 mm	76 x 27.1 x 68 mm	78 x 27.1 x 70 mm
Weight		98 g	98 g	98 g	100 g
Components					
Relay 4W, open design, with switch and status display					
Type **Cat. no.**/Qty.		**PRS 4/24 V DC eco** **15591.2**/1	**PRS 4/24 V AC eco** **15592.2**/1	**PRS 4/230 V AC eco** **15593.2**/1	**PRS 4/24 V DC eco** **15591.2**/1
Weight		35 g	35 g	35 g	35 g
General specifications					
DIN-VDE specifications		Insulation IEC 664/VDE 0110, Rated voltage 250V, contamination degree 2, overvoltage category II			
Test voltage coil/contact		2.5 KV	2.5 KV	2.5 KV	2.5 KV
Operating temperature		-25 to +70 °C	-25 to +55 °C	-25 to +55 °C	-25 to +70 °C
Lockable test button		yes	yes	yes	yes
Indicators		red LED	red LED	red LED	red LED
Mechanical indicator		yes	yes	yes	yes
Free-wheel diode		yes	no	no	yes
Input data					
Input voltage		24 V DC	24 V AC	230 V AC	24 V DC
Power consumption		0.9 W	1.6 VA	1.6 VA	0.9 W
Frequency		-	50 / 60 Hz	50 / 60 Hz	-
Output specifications					
Contacts		4 CO contact	4 CO contact	4 CO contact	4 CO contact
Max. Switching voltage AC / DC		250 V / 250 V	250 V / 250 V	250 V / 250 V	250 V / 250 V
Min. switching voltage		5 V	5 V	5 V	5 V
Max. continuous current	AC 1	6 A / 250 V AC	6 A / 250 V AC	6 A / 250 V AC	6 A / 250 V AC
	DC 1	6 A / 24 V DC	6 A / 24 V DC	6 A / 24 V DC	6 A / 24 V DC
Max. inrush current		12 A	12 A	12 A	12 A
Contact load	AC 1	1500 VA	1500 VA	1500 VA	1500 VA
Min. contact load		0.3 W	0.3 W	0.3 W	0.3 W
Contact resistance		≤ 100 mΩ	≤ 100 mΩ	≤ 100 mΩ	≤ 100 mΩ
Max. switching frequency at operating load		1200 cycles per hour	1200 cycles per hour	1200 cycles per hour	1200 cycles per hour
Max. switching frequency without load		18000 cycles per hour	18000 cycles per hour	18000 cycles per hour	18000 cycles per hour
Typical response time/release time		13 ms / 3 ms	13 ms / 3 ms	13 ms / 3 ms	13 ms / 3 ms
Contact material		AgNi	AgNi	AgNi	AgNi
Electrical lifespan	AC 1	≥ 1 x 10^5	≥ 1 x 10^5	≥ 1 x 10^5	≥ 1 x 10^5
Mechanical lifespan		≥ 2 x 10^7	≥ 2 x 10^7	≥ 2 x 10^7	≥ 2 x 10^7
Socket base					
Type **Cat. no.**/Qty.		**PRS 4** **15137.2**/1	**PRS 4** **15137.2**/1	**PRS 4** **15137.2**/1	**PRS 4 G** **15324.2**/1
General					
Mounting foot for DIN rails		TS 35	TS 35	TS 35	TS 35
Plug-in base for		2.8 mm Faston	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston
Connection type		Screw connection	Screw connection	Screw connection	Screw connection
Technical data					
Rated current		10 A	10 A	10 A	10 A
Rated voltage		300 V	300 V	300 V	300 V
Dielectric strength		2400 Veff	2400 Veff	2400 Veff	2400 Veff
Insulation group (VDE 0110b)		C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature		-25 to +80 °C	-25 to +80 °C	-25 to +80 °C	-25 to +80 °C
Protection degree, enclosure		IP 20	IP 20	IP 20	IP 20
Flammability class UL 94		V-0	V-0	V-0	V-0
Touch protection, acc. to		VBG 4	VBG 4	VBG 4	VBG 4
Wire connect cross-section		2 x 2.5 mm²	2 x 2.5 mm²	2 x 2.5 mm²	2 x 2.5 mm²
With ferrules		2 x 1.5 mm²	2 x 1.5 mm²	2 x 1.5 mm²	2 x 1.5 mm²
Screw torque		max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm
Stripping length		7 mm	7 mm	7 mm	7 mm
Approvals		UL/CSA	UL/CSA	UL/CSA	UL/CSA
Accessory: Holding clamp (optional)					
Type **Cat. no.**/Qty.		**PRS C4 eco** **15628.2**/1	**PRS C4 eco** **15628.2**/1	**PRS C4 eco** **15628.2**/1	**PRS C4 eco** **15628.2**/1

Relay 4 CO PRS 4 eco

PRSU 4 G/24 V AC eco	PRSU 4 G/230 V AC eco	PRSU 4 Z/24 V DC eco	PRSU 4 Z/24 V AC eco	PRSU 4 Z/230 V AC eco	
					
PRSU 4 G/24 V AC eco 15623.2/1	**PRSU 4 G/230 V AC eco 15624.2/1**	**PRSU 4 Z/24 V DC eco 15625.2/1**	**PRSU 4 Z/24V AC eco 15626.2/1**	**PRSU 4 Z/230 V AC eco 15627.2/1**	
78 x 27.1 x 70 mm	78 x 27.1 x 70 mm	98 x 31 x 69.2 mm	98 x 31 x 69.2 mm	98 x 31 x 69.2 mm	
100 g	100 g	109 g	109 g	109 g	
PRS 4/24 V AC eco 15592.2/1	**PRS 4/230 V AC eco 15593.2/1**	**PRS 4/24 V DC eco 15591.2/1**	**PRS 4/24 V AC eco 15592.2/1**	**PRS 4/230 V AC eco 15593.2/1**	
35 g	35 g	35 g	35 g	35 g	
Insulation IEC 664/VDE 0110, Rated voltage 250V, contamination degree 2, overvoltage category II					
2.5 KV	2.5 KV	2.5 KV	2.5 KV	2.5 KV	
-25 to +55 °C	-25 to +55 °C	-25 to +70 °C	-25 to +55 °C	-25 to +55 °C	
yes	yes	yes	yes	yes	
red LED	red LED	red LED	red LED	red LED	
yes	yes	yes	yes	yes	
no	no	yes	no	no	
24 V AC	230 V AC	12 V DC	24 V AC	230 V AC	
1.6 VA	1.6 VA	0.9 W	1.6 VA	1.6 VA	
50 / 60 Hz	50 / 60 Hz	-	50 / 60 Hz	50 / 60 Hz	
4 CO contact	4 CO contact	4 CO contact	4 CO contact	4 CO contact	
250 V / 250 V	250 V / 250 V	250 V / 250 V	250 V / 250 V	250 V / 250 V	
5 V	5 V	5 V	5 V	5 V	
6 A / 250 V AC	6 A / 250 V AC	6 A / 250 V AC	6 A / 250 V AC	6 A / 250 V AC	
6 A / 24 V DC	6 A / 24 V DC	6 A / 24 V DC	6 A / 24 V DC	6 A / 24 V DC	
12 A	12 A	12 A	12 A	12 A	
1500 VA	1500 VA	1500 VA	1500 VA	1500 VA	
0.3 W	0.3 W	0.3 W	0.3 W	0.3 W	
≤ 100 mΩ	≤ 100 mΩ	≤ 100 mΩ	≤ 100 mΩ	≤ 100 mΩ	
1200 cycles per hour	1200 cycles per hour	1200 cycles per hour	1200 cycles per hour	1200 cycles per hour	
18000 cycles per hour	18000 cycles per hour	18000 cycles per hour	18000 cycles per hour	18000 cycles per hour	
13 ms / 3 ms	13 ms / 3 ms	13 ms / 3 ms	13 ms / 3 ms	13 ms / 3 ms	
AgNi	AgNi	AgNi	AgNi	AgNi	
≥ 1 x 10^5	≥ 1 x 10^5	≥ 1 x 10^5	≥ 1 x 10^5	≥ 1 x 10^5	
≥ 2 x 10^7	≥ 2 x 10^7	≥ 2 x 10^7	≥ 2 x 10^7	≥ 2 x 10^7	
PRS 4 G 15324.2/1	**PRS 4 G 15324.2/1**	**PRS 4 Z 15431.2/1**	**PRS 4 Z 15431.2/1**	**PRS 4 Z 15431.2/1**	
TS 35	TS 35	TS 35	TS 35	TS 35	
2.8 mm Faston	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston	
Screw connection	Screw connection	Tension-spring connection	Tension-spring connection	Tension-spring connection	
10 A	10 A	12 A	12 A	12 A	
300 V	300 V	300 V	300 V	300 V	
2400 Veff	2400 Veff	> 2500 Veff	> 2500 Veff	> 2500 Veff	
C/250 V	C/250 V	C/250 V	C/250 V	C/250 V	
-25 to +80 °C	-25 to +80 °C	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C	
IP 20	IP 20	IP 20	IP 20	IP 20	
V-0	V-0	V-0	V-0	V-0	
VBG 4	VBG 4	VBG 4	VBG 4	VBG 4	
2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 0.2 - 1.5 mm^2	2 x 0.2 - 1.5 mm^2	2 x 0.2 - 1.5 mm^2	
2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 0.2 - 0.75 mm^2	2 x 0.2 - 0.75 mm^2	2 x 0.2 - 0.75 mm^2	
max. 0.8 Nm	max. 0.8 Nm	-	-	-	
7 mm	7 mm	7 mm	7 mm	7 mm	
UL/CSA	UL/CSA	UL/CSA	UL/CSA	UL/CSA	
PRS C4 eco 15628.2/1	**PRS C4 eco 15628.2/1**	**PRS C4 eco 15628.2/1**	**PRS C4 eco 15628.2/1**	**PRS C4 eco 15628.2/1**	

Plug relay system PRS

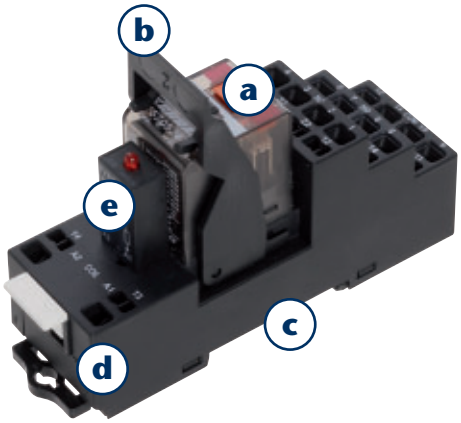
Tension-spring connection

The **PRS Z** relay bases extend the PRS plug-relay system with their widespread tension-spring wire connection mechanism. Each of the base's wire connections is doubled in order to allow for a simple double potential pick-off (test point). The well-known advantages of the **PRS** relay system also apply to this base. The entire line of accessories with which you are already familiar are compatible and can be used with the bases. So you can make use of the same illuminated displays and holding clamps that are used with the screw connection mechanism. Dependable functionality is ensured because of this combination with our established line of PRS relays.

1. Overview

a **Pluggable relay**
Pluggable relays are also available with AgSNO and gold contacts, to fit with the many functions of your individual requirements!

c **Mounts on standard TS 35 rail**
CONTA-CLIP relay bases can be mounted as needed on standard TS 35 DIN rails, according to EN 50035 and EN 50022.



d **AQI/PRS external cross-connection**
The AQI/PRS external cross-connection system enables a time-saving distribution of potentials. You can save time when coupling multiple relay components with this system.

b **Using the mount/dismount lever**
The mount/dismount clamp forms a reliable connection by latching the relay with the socket base. The fitted relay can be removed, easily and without force, from the socket base by using the dismount function of the lever!

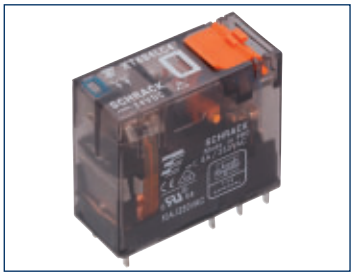
e **Pluggable LED and protective modules**
Pluggable modules allow easy insertion into the base, with reverse-connect protection. The module circuitry is effective in parallel to the coil of the deployed relay.

2. Features

I. Relay

- **PLUG RELAY SYSTEM** (Relay with 1, 2 or 4 CO contacts)
- Load-independent switching
- Direct control via the PLC outputs
- High interference immunity
- Electrical isolation of control and load circuits
- Minimal contact resistance, and high insulation resistance
- The PRS XT relay features switch/button for MANUAL/AUTOMATIC switching and an integrated LED for signalling the switching status
- The PRS 4 relay with a switch/button for MANUAL/AUTOMATIC switching
- The PRS 4 eco relay features switch/button for MANUAL/AUTOMATIC switching, and an integrated LED for signalling the switching status DC relay with integrated free-wheel diode.

Technical data for the available relays can be found on the following product pages.

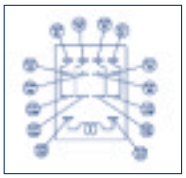


Plug relay system PRS

Tension-spring connection

II. Socket base

- Mounts on TS 35
- Very versatile and modular construction of individual relay bases
- User-friendly, because the relays can be easily replaced
- High-quality connection terminals
- Doubled connections
- Pluggable LED display with additional protective circuitry
- Holding clamp made of high-quality plastic

	PRS 1 Z	PRS 2 Z	PRS 4 Z		
					
					
Type **Cat. no.**/Qty.	**PRS 1 Z** **15780.2**/1	**PRS 2 Z** **15789.2**/1	**PRS 4 Z** **15431.2**/1		
Size (L x W x H) with TS 35	98 x 16.3 x 47.5 mm	98 x 16.3 x 47.5 mm	98 x 31 x 47.5 mm		
Size with holding clamp (L x W x H) with TS 35	98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm	98 x 31 x 69.2 mm		
Weight	42 g	44 g	74 g		
General					
Mounting foot for DIN rails	TS 35	TS 35	TS 35		
Plug-in base for	3.5 mm pinning	5 mm pinning	2.8 mm Faston		
Connection type	Tension-spring connection	Tension-spring connection	Tension-spring connection		
Technical data					
Rated current	12 A	10 A	12 A		
Rated voltage	300 V	300 V	300 V		
Dielectric strength coil/contact	> 2500 Veff	> 2500 Veff	> 2500 Veff		
Insulation group (VDE 0110 b)	C/250 V	C/250 V	C/250 V		
Ambient temperature	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C		
Protection degree, enclosure	IP 20	IP 20	IP 20		
Flammability class UL 94	V-0	V-0	V-0		
Touch protection, acc. to	VBG 4	VBG 4	VBG 4		
Wire connect cross-section	2 x 0.2 to 1.5 mm²	2 x 0.2 to 1.5 mm²	2 x 0.2 to 1.5 mm²		
With ferrules	2 x 0.2 to 0.75 mm²	2 x 0.2 to 0.75 mm²	2 x 0.2 to 0.75 mm²		
Stripping length	7 mm	7 mm	7 mm		
Approvals	UL/CSA	UL/CSA	UL/CSA		

III. Insert modules

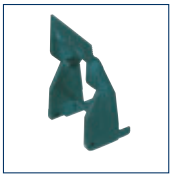
- Plugs simply into the base, reverse-connect protection
- Circuitry parallel to coil

Cat. no./Qty.	**Type**	**Voltage range**	
15141.2/1	PRS LED(RD) 24 V DC	12 to 24 V DC	Status display with free-wheel diode
15142.2/1	PRS LED(RD) 230 V DC	110 to 230 V AC	Status display
15175.2/1	PRS LED(RD) 24 V DC	12 to 48 V AC/DC	Status display
15422.2/1	PRS LED(RD) 110 V DC	60 to 110 V DC	Status display with free-wheel diode
15810.2/1	PRS LED(RD) 230 V UC Var.	230 V AC/DC	Status display with varistor
16070.2/1	PRS LED(GN) 24 V UC Var.	24 V AC/DC	Status display with varistor
15808.2/1	PRS RC 24 V AC	24 V AC	Plug-in module with RC element
15809.2/1	PRS RC 240 V AC	240 V AC	Plug-in module with RC element

IV. Holding clamp

The mount/dismount clamp forms a reliable connection by latching the relay with the socket base. The fitted relay can be removed, easily and without force, from the socket base by using the dismount function of the lever.

Cat. no./Qty.	**Type**	**Weight**
15138.2/1	PRS C 1/C 2	2 g
15140.2/1	PRS C 4	4 g
15628.2/1	PRS C 4 eco	4 g
16016.2/1	PRSXT C1/2	4 g



Relay 1-CO PRS 1 XT

Complete unit, tension-spring connection	**PRSUXT 1Z/24 V DC**	**PRSUXT 1Z/24 V AC**	**PRSUXT 1Z/230 V AC**	
consisting of: · Relay · Socket base · Holding clamp				
Type **Cat. no.**/Qty.	**PRSUXT 1Z/24 V DC** **16092.2**/1	**PRSUXT 1Z/24 V AC** **16093.2**/1	**PRSUXT 1Z/230 V AC** **16094.2**/1	
Size (L x W x H) with TS 35 x 7.5	98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm	
Weight	60 g	60 g	60 g	
Components				
Relay 1W, open design, with switch and status display				
Type **Cat. no.**/Qty.	**PRSXT 1/24 V DC** **16083.2**/1	**PRSXT 1/24 V AC** **16084.2**/1	**PRSXT 1/230 V AC** **16085.2**/1	
Size (L x W x H)	29 x 13 x 30.55 mm	29 x 13 x 30.55 mm	29 x 13 x 30.55 mm	
Weight	16g	16g	16g	
General specifications				
DIN-VDE specifications	Insulation IEC 664/VDE 0110, Rated voltage 250 V, contamination degree 3, Overvoltage category III, flammability class UL 94 V-0			
Test voltage coil/contact	2.5 KV	2.5 KV	2.5 KV	
Operating temperature	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	
Lockable test button	yes	yes	yes	
Indicators	red LED	red LED	red LED	
Mechanical indicator	yes	yes	yes	
Free-wheel diode	yes	no	no	
Input data				
Input voltage	24 V DC	24 V AC	230 V AC	
Power consumption	0.4 W	0.76 VA	0.74 VA	
Frequency	-	50 / 60 Hz	50 / 60 Hz	
Output specifications				
Contacts	1 CO contact	1 CO contact	1 CO contact	
Switching voltage/Max. Switching voltage	240 V AC/400 V AC	240 V AC/400 V AC	240 V AC/400 V AC	
Max. continuous current	16 A / 240 V AC	16 A / 240 V AC	16 A / 240 V AC	
Max. inrush current 4s / 30 ms	30 A / 300 A	30 A / 300 A	30 A / 300 A	
Max. contact load	4000 VA	4000 VA	4000 VA	
Min. suggested contact load	12 V at 10 mA	12 V at 10 mA	12 V at 10 mA	
Voltage drop	30 mV at 100 mA/6 VDC	30 mV at 100 mA/6 VDC	30 mV at 100 mA/6 VDC	
Max. switching frequency at operating load	360 cycles per hour	360 cycles per hour	360 cycles per hour	
Max. switching frequency without load	36000 cycles per hour	36000 cycles per hour	36000 cycles per hour	
Typical response time/release time	8 ms / 6 ms	8 ms / 6 ms	8 ms / 6 ms	
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	
Electrical lifespan	50 x 10^3	50 x 10^3	50 x 10^3	
Mechanical lifespan	10 x 10^6	5 x 10^6	5 x 10^6	
Socket base				
Type **Cat. no.**/Qty.	**PRS 2 Z** **15789.2**/1	**PRS 2 Z** **15789.2**/1	**PRS 2 Z** **15789.2**/1	
General				
Mounting foot for DIN rails	TS 35	TS 35	TS 35	
Plug-in base for	5 mm pinning	5 mm pinning	5 mm pinning	
Connection type	Tension-spring connection	Tension-spring connection	Tension-spring connection	
Technical data				
Rated current	10 A	10 A	10 A	
Rated voltage	300 V	300 V	300 V	
Dielectric strength	> 2500 Veff	> 2500 Veff	> 2500 Veff	
Insulation group (VDE 0110b)	C/250 V	C/250 V	C/250 V	
Ambient temperature	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C	
Protection degree, enclosure	IP 20	IP 20	IP 20	
Flammability class UL 94	V-0	V-0	V-0	
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	
Wire connect cross-section	2 x 0.2 - 1.5 mm^2	2 x 0.2 - 1.5 mm^2	2 x 0.2 - 1.5 mm^2	
With ferrules	2 x 0.2 - 0.75 mm^2	2 x 0.2 - 0.75 mm^2	2 x 0.2 - 0.75 mm^2	
Stripping length	7 mm	7 mm	7 mm	
Approvals	UL/CSA	UL/CSA	UL/CSA	
Holding clamp				
Type **Cat. no.**/Qty.	**PRSXT C1/2** **16016.2**/20	**PRSXT C1/2** **16016.2**/20	**PRSXT C1/2** **16016.2**/20	

Relay 2-CO PRS 2 XT

Complete unit, tension-spring connection	PRSUXT 2Z/24 V DC	PRSUXT 2Z/24 V AC	PRSUXT 2Z/230 V AC	
consisting of: · Relay · Socket base · Holding clamp				
Type **Cat. no.**/Qty.	**PRSUXT 2Z/24 V DC** **16023.2**/1	**PRSUXT 2Z/24 V AC** **16024.2**/1	**PRSUXT 2Z/230 V AC** **16025.2**/1	
Size (L x W x H) with TS 35 x 7.5	98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm	
Weight	60 g	60 g	60 g	
Components				
Relay 2W, open design, with switch and status display				
Type **Cat. no.**/Qty.	**PRSXT 2/24 V DC** **16013.2**/1	**PRSXT 2/24 V AC** **16014.2**/1	**PRSXT 2/230 V AC** **16015.2**/1	
Size (L x W x H)	29 x 13 x 30.55 mm	29 x 13 x 30.55 mm	29 x 13 x 30.55 mm	
Weight	16 g	16 g	16 g	
General specifications				
DIN-VDE specifications	Insulation IEC 664/VDE 0110, rated voltage 250 V, contamination degree 3, overvoltage category III, flammability class UL 94 V-0			
Test voltage coil/contact	2.5 KV	2.5 KV	2.5 KV	
Operating temperature	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	
Lockable test button	yes	yes	yes	
Indicators	red LED	red LED	red LED	
Mechanical indicator	yes	yes	yes	
Free-wheel diode	yes	no	no	
Input data				
Input voltage	24 V DC	24 V AC	230 V AC	
Power consumption	0.4 W	0.76 VA	0.74 VA	
Frequency	-	50 / 60 Hz	50 / 60 Hz	
Output specifications				
Contacts	2 CO contact	2 CO contact	2 CO contact	
Switching voltage/Max. Switching voltage	240 V AC/400 V AC	240 V AC/400 V AC	240 V AC/400 V AC	
Max. continuous current	8 A / 240 V AC	8 A / 240 V AC	8 A / 240 V AC	
Max. inrush current 4s / 30 ms	15 A / 300 A	15 A / 300 A	15 A / 300 A	
Max. contact load	2000 VA	2000 VA	2000 VA	
Min. suggested contact load	12 V at 10 mA	12 V at 10 mA	12 V at 10 mA	
Voltage drop	30 mV at 100 mA/6 VDC	30 mV at 100 mA/6 VDC	30 mV at 100 mA/6 VDC	
Max. switching frequency at operating load	360 cycles per hour	360 cycles per hour	360 cycles per hour	
Max. switching frequency without load	36000 cycles per hour	36000 cycles per hour	36000 cycles per hour	
Typical response time/release time	10 ms / 5 ms	10 ms / 5 ms	10 ms / 5 ms	
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	
Electrical lifespan	50 x 10^3	50 x 10^3	50 x 10^3	
Mechanical lifespan	10 x 10^6	5 x 10^6	5 x 10^6	
Socket base				
Type **Cat. no.**/Qty.	**PRS 2 Z** **15789.2**/1	**PRS 2 Z** **15789.2**/1	**PRS 2 G** **15320.2**/1	
General				
Mounting foot for DIN rails	TS 35	TS 35	TS 35	
Plug-in base for	5 mm pinning	5 mm pinning	5 mm pinning	
Tension-spring connection	Tension-spring connection	Tension-spring connection	Tension-spring connection	
Technical data				
Rated current	10 A	10 A	10 A	
Rated voltage	300 V	300 V	300 V	
Dielectric strength	> 2500 Veff	> 2500 Veff	> 2500 Veff	
Insulation group (VDE 0110b)	C/250 V	C/250 V	C/250 V	
Ambient temperature	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C	
Protection degree, enclosure	IP 20	IP 20	IP 20	
Flammability class UL 94	V-0	V-0	V-0	
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	
Wire connect cross-section	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	
With ferrules	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2	
Stripping length	7 mm	7 mm	7 mm	
Approvals	UL/CSA	UL/CSA	UL/CSA	
Holding clamp				
Type **Cat. no.**/Qty.	**PRSXT C1/2** **16016.2**/20	**PRSXT C1/2** **16016.2**/20	**PRSXT C1/2** **16016.2**/20	

Relay 1 CO contacts, PRS 1 Z

Complete unit, tension-spring connection	**PRSU 1Z/12 V DC**	**PRSU 1Z/24 V DC**	**PRSU 1Z/60 V DC**	**PRSU 1Z/110 V DC**
consisting of: · Relay · Insert module · Socket base · Holding clamp				
Type **Cat. no.**/Qty.	**PRSU 1Z/12V DC** **15781.2**/1	**PRSU 1Z/24V DC** **15782.2**/1	**PRSU 1Z/60V DC** **15783.2**/1	**PRSU 1Z/110V DC** **15784.2**/1
Size (L x W x H) with TS 35	98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm
Weight	59 g	59 g	59 g	59 g
Components				
Relay 1 W, encapsulated construction				
Type **Cat. no.**/Qty.	**PRS 1/12 V DC** **6996.0**/1	**PRS 1/24 V DC** **6804.0**/1	**PRS 1/60 V DC** **15539.2**/1	**PRS 1/110 V DC** **15540.2**/1
Weight	15 g	15 g	15 g	15 g
General specifications				
DIN-VDE specifications	Insulation IEC 664/VDE 0110, Rated voltage 250 V, contamination degree 3, Overvoltage category III, Flammability class UL 94 V-0			
Test voltage coil/contact	5 kV	5 kV	5 kV	5 kV
Pinning	3.5 mm	3.5 mm	3.5 mm	3.5 mm
Operating temperature	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
Important notes	-	-	-	-
Input data				
Input voltage	12 V DC	24 V DC	60 V DC	110 V DC
Power consumption	0.40 W	0.40 W	0.42 W	0.42 W
Output specifications				
Contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Switching voltage/Max. Switching voltage	240 V AC/400 V AC	240 V AC/400 V AC	240 V AC/400 V AC	240 V AC/400 V AC
Max. continuous current/inrush current	12 A / 25 A	12 A / 25 A	12 A / 25 A	12 A / 25 A
Typical response time/release time	7 ms/3 ms	7 ms/3 ms	7 ms/3 ms	7 ms/3 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
Electrical lifespan	1.2×10^3	1.2×10^3	1.2×10^3	1.2×10^3
at contact load	4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC
Mechanical lifespan	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$
Insert module				
Type **Cat. no.**/Qty.	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 110 V DC** **15422.2**/1	**PRS LED 110 V DC** **15422.2**/1
Protected against polarity reversal	Status display with free-wheel diode	Status display with free-wheel diode	Status display with free-wheel diode	Status display with free-wheel diode
in parallel to coil	12 to 24 V DC	12 to 24 V DC	60 to 110 V DC	60 to 110 V DC
Socket base				
Type **Cat. no.**/Qty.	**PRS 1 Z** **15780.2**/1	**PRS 1 Z** **15780.2**/1	**PRS 1 Z** **15780.2**/1	**PRS 1 Z** **15780.2**/1
General				
Mounting foot for DIN rails	TS 35	TS 35	TS 35	TS 35
Plug-in base for	3.5 mm pinning	3.5 mm pinning	3.5 mm pinning	3.5 mm pinning
Connection type	Tension-spring connection	Tension-spring connection	Tension-spring connection	Tension-spring connection
Technical data				
Rated current	12 A	12 A	12 A	12 A
Rated voltage	300 V	300 V	300 V	300 V
Dielectric strength coil/contact	> 2500 Veff	> 2500 Veff	> 2500 Veff	> 2500 Veff
Insulation group (VDE 0110 b)	C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4
Wire connect cross-section	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2
With ferrules	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2
Stripping length	7 mm	7 mm	7 mm	7 mm
Approvals	UL/CSA	UL/CSA	UL/CSA	UL/CSA
Holding clamp				
Type **Cat. no.**/Qty.	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1

Relay 1 CO contacts, PRS 1 Z

PRSU 1LZ/24 V DC	PRSU 1Z/24 V AC	PRSU 1Z/115 V AC	PRSU 1Z/230 V AC		
					
PRSU 1LZ/24 V DC **15788.2**/1	**PRSU 1Z/24 V AC** **15785.2**/1	**PRSU 1Z/115 V AC** **15786.2**/1	**PRSU 1Z/230 V AC** **15787.2**/1		
98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm		
59 g	59 g	59 g	59 g		
Components					
Relay 1 W, encapsulated construction					
PRS 1L/24 V DC **6940.0**/1	**PRS 1/24 V AC** **6480.2**/1	**PRS 1/115 V AC** **15228.2**/1	**PRS 1/230 V AC** **6481.2**/1		
15 g	15 g	15 g	15 g		
Insulation IEC 664/VDE 0110, Rated voltage 250 V, contamination degree 3, overvoltage category III, Flammability class UL 94 V-0					
4 kV	5 kV	5 kV	5 kV		
5 mm	3.5 mm	3.5 mm	3.5 mm		
-20 to +50 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C		
Inductive loads	-	-	-		
24 V DC	24 V AC	115 V AC	230 V AC		
0.50 W	0.75 VA	0.75 VA	0.75 VA		
1 CO contact	1 CO contact	1 CO contact	1 CO contact		
240 V AC	240 V AC/400 V AC	240 V AC/400 V AC	240 V AC/400 V AC		
16 A/80 A (20 ms)	12 A / 25 A	12 A / 25 A	12 A / 25 A		
10 ms/10 ms	7 ms/3 ms	7 ms/3 ms	7 ms/3 ms		
AgSn O2	AgNi 90/10	AgNi 90/10	AgNi 90/10		
1 x 10^5	1.2 x 10^3	1.2 x 10^3	1.2 x 10^3		
16 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC		
> 30 x 10^6	> 10 x 10^6	> 10 x 10^6	> 10 x 10^6		
Insert module					
PRS LED 24 V DC **15141.2**/1	**PRS LED 24 V UC** **15175.2**/1	**PRS LED 230 V AG** **15142.2**/1	**PRS LED 230 V AG** **15142.2**/1		
Status display with free-wheel diode	Status display	Status display	Status display		
12 to 24 V DC	12 to 48 V AC/DC	110 to 230 V AC	110 to 230 V AC		
Socket base					
PRS 2 Z **15789.2**/1	**PRS 1 Z** **15780.2**/1	**PRS 1 Z** **15780.2**/1	**PRS 1 Z** **15780.2**/1		
TS 35	TS 35	TS 35	TS 35		
5 mm pinning	3.5 mm pinning	3.5 mm pinning	3.5 mm pinning		
Tension-spring connection	Tension-spring connection	Tension-spring connection	Tension-spring connection		
10 A	12 A	12 A	12 A		
300 V	300 V	300 V	300 V		
> 2500 Veff	> 2500 Veff	> 2500 Veff	> 2500 Veff		
C/250 V	C/250 V	C/250 V	C/250 V		
-25 to +70 °C	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C		
IP 20	IP 20	IP 20	IP 20		
V-0	V-0	V-0	V-0		
VBG 4	VBG 4	VBG 4	VBG 4		
2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2		
2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2		
7 mm	7 mm	7 mm	7 mm		
UL/CSA	UL/CSA	UL/CSA	UL/CSA		
Holding clamp					
PRS C 1/2 **15138.2**/1	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1		

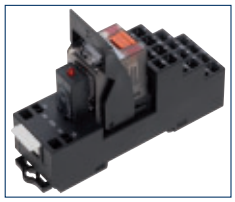
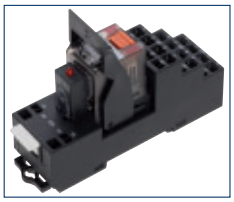
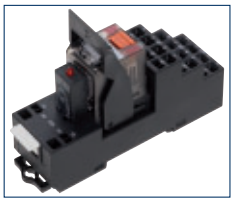
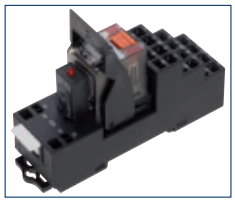
Relay 2 CO contacts, PRS 2 Z

Complete unit, tension-spring connection	PRSU 2Z/12 V DC	PRSU 2Z/24 V DC	PRSU 2Z/48 V DC	PRSU 2Z/60 V DC
consisting of: · Relay · Insert module · Socket base · Holding clamp				
Type **Cat. no.**/Qty.	**PRSU 2Z/12 V DC** **15790.2**/1	**PRSU 2Z/24 V DC** **15791.2**/1	**PRSU 2Z/48 V DC** **15792.2**/1	**PRSU 2Z/60 V DC** **15793.2**/1
Size (L x W x H) with TS 35	98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm
Weight	61 g	61 g	61 g	61 g
Components				
Relay 2 W, encapsulated construction				
Type **Cat. no.**/Qty.	**PRS 2/12 V DC** **6482.2**/1	**PRS 2/24 V DC** **6483.2**/1	**PRS 2/48 V DC** **15334.2**/1	**PRS 2/60 V DC** **15335.2**/1
Weight	15 g	15 g	15 g	15 g
General specifications				
DIN-VDE specifications	Insulation IEC 664/VDE 0110, Rated voltage 250 V, contamination degree 3, overvoltage category III, flammability class UL 94 V-0			
Test voltage coil/contact	5 kV	5 kV	5 kV	5 kV
Pinning	5 mm	5 mm	5 mm	5 mm
Operating temperature	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
Input data				
Input voltage	12 V DC	24 V DC	48 V DC	60 V DC
Power consumption	0.40 W	0.40 W	0.40 W	0.40 W
Output specifications				
Contacts	2 CO contact	2 CO contact	2 CO contact	2 CO contact
Switching voltage/Max. Switching voltage	240 V AC/400 V AC	240 V AC/400 V AC	240 V AC/400 V AC	240 V AC/400 V AC
Max. continuous current/inrush current	8 A / 15 A	8 A / 15 A	8 A / 15 A	8 A / 15 A
Typical response time/release time	7 ms/2 ms	7 ms/2 ms	7 ms/2 ms	7 ms/2 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
Electrical lifespan	1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5
at contact load	4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC
Mechanical lifespan	> 30×10^6	> 30×10^6	> 30×10^6	> 30×10^6
Insert module				
Type **Cat. no.**/Qty.	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 24 V UC** **15175.2**/1	**PRS LED 110 V DC** **15422.2**/1
Protected against polarity reversal	Status display with free-wheel diode	Status display with free-wheel diode	Status display	Status display with free-wheel diode
in parallel to coil	12 to 24 V DC	12 to 24 V DC	12 to 48 V AC/DC	60 to 110 V DC
Socket base				
Type **Cat. no.**/Qty.	**PRS 2 Z** **15789.2**/1	**PRS 2 Z** **15789.2**/1	**PRS 2 Z** **15789.2**/1	**PRS 2 Z** **15789.2**/1
General				
Mounting foot for DIN rails	TS 35	TS 35	TS 35	TS 35
Plug-in base for	5 mm pinning	5 mm pinning	5 mm pinning	5 mm pinning
Connection type	Tension-spring connection	Tension-spring connection	Tension-spring connection	Tension-spring connection
Technical data				
Rated current	10 A	10 A	10 A	10 A
Rated voltage	300 V	300 V	300 V	300 V
Dielectric strength coil/contact	> 2500 Veff	> 2500 Veff	> 2500 Veff	> 2500 Veff
Insulation group (VDE 0110 b)	C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4
Wire connect cross-section	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2
With ferrules	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2
Stripping length	7 mm	7 mm	7 mm	7 mm
Approvals	UL/CSA	UL/CSA	UL/CSA	UL/CSA
Holding clamp				
Type **Cat. no.**/Qty.	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1

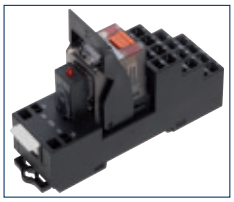
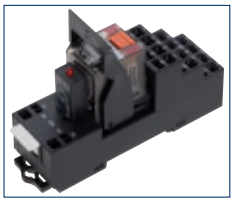
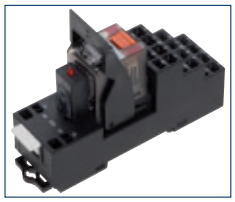
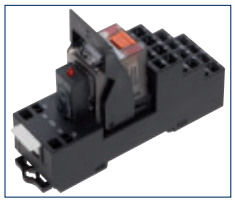
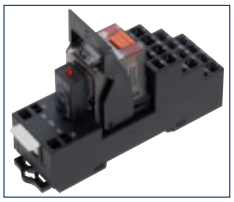
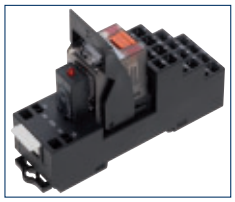
Relay 2 CO contacts, PRS 2 Z

PRSU 2Z/110 V DC	PRSU 2Z/24 V AC	PRSU 2Z/48 V AC	PRSU 2Z/115 V AC	PRSU 2Z/230 V AC	
					
PRSU 2Z/110 V DC 15794.2/1	**PRSU 2Z/24 V AC 15795.2**/1	**PRSU 2Z/48 V AC 15950.2**/1	**PRSU 2Z/115V AC 15796.2**/1	**PRSU 2Z/230V AC 15797.2**/1	
98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm	98 x 16.3 x 69.2 mm	
61 g	61 g	61 g	61 g	61 g	
Components					
Relay 2 W, encapsulated construction					
PRS 2/110 V DC 15541.2/1	**PRS 2/24 V AC 6484.2**/1	**PRS 2/48 V AC 15947.2**/1	**PRS 2/115V AC 15229.2**/1	**PRS 2/230 V AC 6485.2**/1	
15 g	15 g	15 g	15 g	15 g	
Insulation IEC 664/VDE 0110, Rated voltage 250 V, contamination degree 3, overvoltage category III, flammability class UL 94 V-0					
5 kV	5 kV	5 kV	5 kV	5 kV	
5 mm	5 mm	5 mm	5 mm	5 mm	
-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	
110 V DC	24 V AC	48 V AC	115 V AC	230 V AC	
0.40 W	0.75 VA	0.75 VA	0.75 VA	0.75 VA	
2 CO contact	2 CO contact	2 CO contact	2 CO contact	2 CO contact	
240 V AC/400 V AC	240 V AC/400 V AC	240 V AC/400 V AC	240 V AC/400 V AC	240 V AC/400 V AC	
8 A / 15 A	8 A / 15 A	8 A / 15 A	8 A / 15 A	8 A / 15 A	
7 ms/2 ms	7 ms/2 ms	7 ms/2 ms	7 ms/2 ms	7 ms/2 ms	
AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10	
1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5	
4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC	
$> 30 \times 10^6$	$> 5 \times 10^6$	$> 5 \times 10^6$	$> 5 \times 10^6$	$> 5 \times 10^6$	
Insert module					
PRS LED 110 V DC 15422.2/1	**PRS LED 24 V UC 15175.2**/1	**PRS LED 24 V UC 15175.2**/1	**PRS LED 230 V AC 15142.2**/1	**PRS LED 230 V AC 15142.2**/1	
Status display with free-wheel diode	Status display	Status display	Status display	Status display	
60 to 110 V DC	12 to 48 V AC/DC	12 to 48 V AC/DC	110 to 230 V AC	110 to 230 V AC	
Socket base					
PRS 2 Z 15789.2/1	**PRS 2 Z 15789.2**/1	**PRS 2 Z 15789.2**/1	**PRS 2 Z 15789.2**/1	**PRS 2 Z 15789.2**/1	
TS 35	TS 35	TS 35	TS 35	TS 35	
5 mm pinning	5 mm pinning	5 mm pinning	5 mm pinning	5 mm pinning	
Tension-spring connection	Tension-spring connection	Tension-spring connection	Tension-spring connection	Tension-spring connection	
10 A	10 A	10 A	10 A	10 A	
300 V	300 V	300 V	300 V	300 V	
> 2500 Veff	> 2500 Veff	> 2500 Veff	> 2500 Veff	> 2500 Veff	
C/250 V	C/250 V	C/250 V	C/250 V	C/250 V	
-25 to +70 °C	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C	
IP 20	IP 20	IP 20	IP 20	IP 20	
V-0	V-0	V-0	V-0	V-0	
VBG 4	VBG 4	VBG 4	VBG 4	VBG 4	
2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	
2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2	
7 mm	7 mm	7 mm	7 mm	7 mm	
UL/CSA	UL/CSA	UL/CSA	UL/CSA	UL/CSA	
Holding clamp					
PRS C 1/2 15138.2/1	**PRS C 1/2 15138.2**/1	**PRS C 1/2 15138.2**/1	**PRS C 1/2 15138.2**/1	**PRS C 1/2 15138.2**/1	

Relay 4 CO contacts, PRS 4 Z

Complete unit, tension-spring connection	**PRSU 4Z/12 V DC**	**PRSU 4Z/24 V DC**	**PRSU 4Z/48 V DC**	**PRSU 4Z/60 V DC**
consisting of: · Relay · Insert module · Socket base · Holding clamp				
Type **Cat. no.**/Qty.	**PRSU 4Z/12 V DC** **15798.2**/1	**PRSU 4Z/24 V DC** **15799.2**/1	**PRSU 4Z/48 V DC** **15800.2**/1	**PRSU 4Z/60 V DC** **15801.2**/1
Size (L x W x H) with TS 35	98 x 31 x 69.2 mm	98 x 31 x 69.2 mm	98 x 31 x 69.2 mm	98 x 31 x 69.2 mm
Weight	109 g	109 g	109 g	109 g
Components				
Relay 4 W, encapsulated construction				
Type **Cat. no.**/Qty.	**PRS 4/12 V DC** **6486.2**/1	**PRS 4/24 V DC** **6487.2**/1	**PRS 4/48 V DC** **15461.2**/1	**PRS 4/60 V DC** **15336.2**/1
Weight	30 g	30 g	30 g	30 g
General specifications				
DIN-VDE specifications	Insulation IEC 664/VDE 0110, Rated voltage 250 V, contamination degree 3, overvoltage category III, flammability class UL 94 V-0			
Test voltage coil/contact	2.5 kV	2.5 kV	2.5 kV	2.5 kV
Operating temperature	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
Input data				
Input voltage	12 V DC	24 V DC	48 V DC	60 V DC
Power consumption	0.75 W	0.75 W	0.75 W	0.75 W
Output specifications				
Contacts	4 CO contact	4 CO contact	4 CO contact	4 CO contact
Switching voltage/Max. Switching voltage	240 V AC/240 V AC	240 V AC/240 V AC	240 V AC/240 V AC	240 V AC/240 V AC
Max. continuous current/inrush current	6 A / 12 A	6 A / 12 A	6 A / 12 A	6 A / 12 A
Typical response time/release time	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
Electrical lifespan	1.5 x 10^5	1.5 x 10^5	1.5 x 10^5	1.5 x 10^5
at contact load	6 A @ 240 V AC	6 A @ 240 V AC	6 A @ 240 V AC	6 A @ 240 V AC
Mechanical lifespan	> 30 x 10^6	> 30 x 10^6	> 30 x 10^6	> 30 x 10^6
Insert module				
Type **Cat. no.**/Qty.	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 24 V UC** **15175.2**/1	**PRS LED 110 V DC** **15422.2**/1
Protected against polarity reversal	Status display with free-wheel diode	Status display with free-wheel diode	Status display	Status display with free-wheel diode
in parallel to coil	12 to 24 V DC	12 to 24 V DC	12 to 48 V AC/DC	60 to 110 V DC
Socket base				
Type **Cat. no.**/Qty.	**PRS 4 Z** **15431.2**/1	**PRS 4 Z** **15431.2**/1	**PRS 4 Z** **15431.2**/1	**PRS 4 Z** **15431.2**/1
General				
Mounting foot for DIN rails	TS 35	TS 35	TS 35	TS 35
Plug-in base for	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston
Connection type	Tension-spring connection	Tension-spring connection	Tension-spring connection	Tension-spring connection
Technical data				
Rated current	12 A	12 A	12 A	12 A
Rated voltage	300 V	300 V	300 V	300 V
Dielectric strength coil/contact	> 2500 Veff	> 2500 Veff	> 2500 Veff	> 2500 Veff
Insulation group (VDE 0110 b)	C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4
Wire connect cross-section	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2
With ferrules	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2
Stripping length	7 mm	7 mm	7 mm	7 mm
Approvals	UL/CSA	UL/CSA	UL/CSA	UL/CSA
Holding clamp				
Type **Cat. no.**/Qty.	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1

Relay 4 CO contacts, PRS 4 Z

PRSU 4Z/110 V DC	PRSU 4Z/220 V DC	PRSU 4Z/12 V AC	PRSU 4Z/24 V AC	PRSU 4Z/115 V AC	PRSU 4Z/230 V AC
					
PRSU 4Z/110 V DC 15802.2/1	**PRSU 4Z/220 V DC 15803.2**/1	**PRSU 4Z/12 V AC 15804.2**/1	**PRSU 4Z/24 V AC 15805.2**/1	**PRSU 4Z/115 V AC 15806.2**/1	**PRSU 4Z/230 V AC 15807.2**/1
98 x 31 x 69.2 mm	98 x 31 x 69.2 mm	98 x 31 x 69.2 mm	98 x 31 x 69.2 mm	98 x 31 x 69.2 mm	98 x 31 x 69.2 mm
109 g	109 g	109 g	109 g	109 g	109 g
Components					
Relay 4 W, encapsulated construction					
PRS 4/110 V DC 15542.2/1	**PRS 4/220 V DC 15368.2**/1	**PRS 4/12 V AC 15393.2**/1	**PRS 4/24 V UC 6488.2**/1	**PRS 4/115 V AC 15257.2**/1	**PRS 4/230 V AC 6489.2**/1
30 g	30 g	30 g	30 g	30 g	30 g
Insulation IEC 664/VDE 0110, Rated voltage 250 V, contamination degree 3, Overvoltage category III, Flammability class UL 94 V-0					
2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV
-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
110 V DC	220 V DC	12 V AC	24 V AC	115 V AC	230 V AC
0.75 W	0.75 W	1.0 VA	1.0 VA	1.0 VA	1.0 VA
4 CO contact	4 CO contact	4 CO contact	4 CO contact	4 CO contact	4 CO contact
240 V AC/240 V AC	240 V AC/240 V AC	240 V AC/240 V AC	240 V AC/240 V AC	240 V AC/240 V AC	240 V AC/240 V AC
6 A / 12 A	6 A / 12 A	6 A / 12 A	6 A / 12 A	6 A / 12 A	6 A / 12 A
15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms
AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
1.5 x 10^5	1.5 x 10^5	1.5 x 10^5	1.5 x 10^5	1.5 x 10^5	1.5 x 10^5
6 A @ 240 V AC	6 A @ 240 V AC	6 A @ 240 V AC	6 A @ 240 V AC	6 A @ 240 V AC	6 A @ 240 V AC
> 30 x 10^6	> 30 x 10^6	> 20 x 10^6	> 20 x 10^6	> 20 x 10^6	> 20 x 10^6
Insert module					
PRS LED 110 V DC 15422.2/1	**PRS LED 230 V AC 15142.2**/1	**PRS LED 24 V UC 15175.2**/1	**PRS LED 24 V UC 15175.2**/1	**PRS LED 230 V AC 15142.2**/1	**PRS LED 230 V AC 15142.2**/1
Status display with free-wheel diode	Status display	Status display	Status display	Status display	Status display
60 to 110 V DC	110 to 230 V AC	12 to 48 V AC/DC	12 to 48 V AC/DC	110 to 230 V AC	110 to 230 V AC
Socket base					
PRS 4 Z 15431.2/1	**PRS 4 Z 15431.2**/1	**PRS 4 Z 15431.2**/1	**PRS 4 Z 15431.2**/1	**PRS 4 Z 15431.2**/1	**PRS 4 Z 15431.2**/1
TS 35	TS 35	TS 35	TS 35	TS 35	TS 35
2.8 mm Faston	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston	2.8 mm Faston
Tension-spring connection	Tension-spring connection	Tension-spring connection	Tension-spring connection	Tension-spring connection	Tension-spring connection
12 A	12 A	12 A	12 A	12 A	12 A
300 V	300 V	300 V	300 V	300 V	300 V
> 2500 Veff	> 2500 Veff	> 2500 Veff	> 2500 Veff	> 2500 Veff	> 2500 Veff
C/250 V	C/250 V	C/250 V	C/250 V	C/250 V	C/250 V
-25 to +70 °C	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C	-25 to +70 °C
IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
V-0	V-0	V-0	V-0	V-0	V-0
VBG 4	VBG 4	VBG 4	VBG 4	VBG 4	VBG 4
2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2	2 x 0.2 to 1.5 mm^2
2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2	2 x 0.2 to 0.75 mm^2
7 mm	7 mm	7 mm	7 mm	7 mm	7 mm
UL/CSA	UL/CSA	UL/CSA	UL/CSA	UL/CSA	UL/CSA
Holding clamp					
PRS C 4 15140.2/1	**PRS C 4 15140.2**/1	**PRS C 4 15140.2**/1	**PRS C 4 15140.2**/1	**PRS C 4 15140.2**/1	**PRS C 4 15140.2**/1

Relay modules with 1 CO RM 1

- Mounts on TS 32/TS 35
- Screw connection
- Input side: free-wheel and reverse-polarity protection diode
- LED for indicating the switching status
- Relay module available as plug-in or soldered construction

RM 1/1 W
Pluggable relay
1 CO contact

RMD 1/1 W
Soldered relay
1 CO contact

Circuit diagram

Circuit diagram

Size (L x W x H) with TS 35 x 7.5	87 x 20 x 72 mm	
Weight	57 g	
Cat. no./Qty.	**Type**	**Circuit diagram**
Pluggable relay		
6584.2/1	RM 1/1 W/12 V DC	1
5450.2/1	RM 1/1 W/24 V DC	1
5602.2/1	RM 1/1 W/115 V DC	1
5598.2/1	RM 1/1 W/24 V AC	2
5460.2/1	RM 1/1 W/115 V AC	2
5462.2/1	RM 1/1 W/230 V AC	2
Soldered relay		
6585.2/1	RMD 1/1 W/12 V DC	1
5451.2/1	RMD 1/1 W/24 V DC	1
5603.2/1	RMD 1/1 W/115 V DC	1
5599.2/1	RMD 1/1 W/24 V AC	2
5461.2/1	RMD 1/1 W/115 V AC	2
5463.2/1	RMD 1/1 W/230 V AC	2
Relay		
Relay	pluggable/soldered	
Contacts	1 CO contact	
Design	Closed	

General specifications	
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, Contamination degree 2, overvoltage category III
Test voltage	
Coil/contact	4 kV
Pinning	5 mm
Operating temperature	-20 to +50 °C
Stripping length	7 mm
Wire connect cross-section	0.2 to 2.5 mm²/AWG 22 to 14

Relay data				
Input data				
Input voltage ±10%	12 V DC	24 V DC	115 V DC	24 V AC
Power consumption ±10%	0.6 W	0.6 W	0.6 W	1.0 VA
Status indication per relay (LED)	red	red	red	red
Output specifications				
Contacts	1/2 CO contact	1/2 CO contact	1/2 CO contact	1/2 CO contact
Max. switching voltage	250 V AC	250 V AC	250 V AC	250 V AC
Max. continuous current/inrush current	6 A/10 A*	6 A/10 A*	6 A/10 A*	6 A/10 A*
Max. power rating (ohmic load)	2000 VA at 250 VAC, 8 A	2000 VA at 250 VAC, 8 A	2000 VA at 250 VAC, 8 A	2000 VA at 250 VAC, 8 A
Typical response time/release time	9 ms/7 ms	9 ms/7 ms	9 ms/7 ms	15 ms/10 ms
Contact material	AgNi	AgNi	AgNi	AgNi
Electrical lifespan at max. contact load	> 5 x 10^5	> 5 x 10^5	> 5 x 10^5	> 5 x 10^5
Mechanical lifespan	> 2 x 10^7	> 2 x 10^7	> 2 x 10^7	> 2 x 10^7

*2 CO relays 6 A/10 A, 1 CO relay 8 A/10A

Relay modules 2 CO RM 1/2

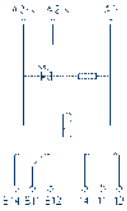
RM 1/2 W
Pluggable relay
2 CO contact

RMD 1/2 W
Soldered relay
2 CO contact

Circuit diagram

3

Circuit diagram



4

Size (L x W x H) with TS 35 x 7.5 Weight **Cat. no.**/Qty. **Pluggable relay**	87 x 26 x 76 mm 60 g **Type**	**Circuit diagram**
6586.2/1	RM 1/2 W / 12 V DC	3
5550.2/1	RM 1/2 W / 24 V DC	3
5652.2/1	RM 1/2 W / 115 V DC	3
5648.2/1	RM 1/2 W / 24 V AC	4
5562.2/1	RM 1/2 W / 115 V AC	4
5564.2/1	RM 1/2 W / 230 V AC	4
Soldered relay		
6587.2/1	RMD 1/2 W / 12 V DC	3
5551.2/1	RMD 1/2 W / 24 V DC	3
5653.2/1	RMD 1/2 W / 115 V DC	3
5649.2/1	RMD 1/2 W / 24 V AC	4
5563.2/1	RMD 1/2 W / 115 V AC	4
5565.2/1	RMD 1/2 W / 230 V AC	4
Relay with gold contacts		
6229.2/1	RMD 1 Au/2 W 24 V DC	3

Relay	
Relay	pluggable/soldered
Contacts	2 CO contact
Design	Closed

DIN EN 50178; DIN VDE 0110, Contamination degree 2, overvoltage category III
4 kV
5 mm
-20 to +50°C
7 mm
0.2 to 2.5 mm^2/AWG 22 to 14

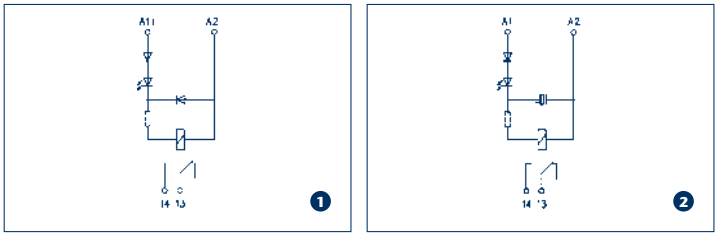
115 V AC	230 VAC	24 V DC (RMD 1 Au)
1.0 VA	1.0 VA	0.4 W
red	red	red
1/2 CO contact	1/2 CO contact	1/2 CO contact
250 V AC	250 V AC	250 V AC
6 A/10 A*	6 A/10 A*	1 A / 1 A
2000 VA at 250 VAC, 8 A	2000 VA at 250 VAC, 8 A	125 VA/30 W
15ms/8ms	15 ms/10 ms	6 ms/5 ms
AgNi	AgNi	AgPd 60/10+10µm Au
> 5 x 10^5	> 5 x 10^5	> 5 x 10^5
> 2 x 10^7	> 2 x 10^7	> 2 x 10^7

RM-S relay modules

- Mounts on TS 32/TS 35
- Screw connection
- Input side:
  free-wheel and reverse-polarity protection diode
- LED for indicating switching status is possible
- Thin design, a width of 11.2 mm

RM-S
Soldered relay
1 NO contact

Circuit diagram



General specifications	
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. II
Test voltage coil/contact	4 kV
Operating temperature	-20 to +50°C
Stripping length	7 mm
Wire connect cross-section	0.2 to 2.5 mm²/AWG 22 to 14
Wire cross-section for coil RMS-S	0.2 to 1.5 mm² /AWG 28-16
Relay	soldered
Design	Closed

Cat. no./Qty.	Type	Circuit diagram
Size (L x W x H) with TS 35 x 7.5	77 x 11.2 x 55 mm	
Weight	30 g	
red LED		
6347.2/1	RM-SR/1 S/12 V DC	1
5400.2/1	RM-SR/1 S/24 V DC	1
5412.2/1	RM-SR/1 S/48 V DC	1
5424.2/1	RM-SR/1 S/60 V DC	1
6356.2/1	RM-SR/1 S/12 V DC/AC	2
5406.2/1	RM-SR/1 S/24 V DC/AC	2
5418.2/1	RM-SR/1 S/48 V DC/AC	2
Green LED		
6348.2/1	RM-SG/1 S/12 V DC	1
5401.2/1	RM-SG/1 S/24 V DC	1
5413.2/1	RM-SG/1 S/48 V DC	1
5425.2/1	RM-SG/1 S/60 V DC	1
6357.2/1	RM-SG/1 S/12 V DC/AC	2
5407.2/1	RM-SG/1 S/24 V DC/AC	2
5419.2/1	RM-SG/1 S/48 V DC/AC	2
without LED		
6349.2/1	RM-S/1 S/12 V DC	1
5402.2/1	RM-S/1 S/24 V DC	1
5414.2/1	RM-S/1 S/48 V DC	1
5426.2/1	RM-S/1 S/60 V DC	1
6358.2/1	RM-S/1 S/12 V DC/AC	2
5408.2/1	RM-S/1 S/24 V DC/AC	2
5420.2/1	RM-S/1 S/48 V DC/AC	2

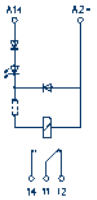
Relay data				
Input data				
Input voltage ±10%	12 V DC	24 V DC	48 V DC	60 V DC
Power consumption ±10%	0.6 W	0.6 W	0.6 W	0.6 W
Output specifications				
Contacts				
Max. switching voltage	250 V AC	250 V AC	250 V AC	250 V AC
Max. continuous current/inrush current	6 A / 8 A	6 A / 8 A	6 A / 8 A	6 A / 8 A
Max. switching capacity at resistive load	2000 VA at 250 V AC, 8 A/ 192 W at 24 V DC, 8 A	2000 VA at 250 V AC, 8 A/ 192 W at 24 V DC, 8 A	2000 VA at 250 V AC, 8 A/ 192 W at 24 V DC, 8 A	2000 VA at 250 V AC, 8 A/ 192 W at 24 V DC, 8 A
Typical response time/release time	9 ms/ 7 ms	9 ms/ 7 ms	9 ms/ 7 ms	9 ms/ 7 ms
Contact material	AgNi	AgNi	AgNi	AgNi
Electrical lifespan at max. contact load	> 1.5 x 10^5	> 1.5 x 10^6	> 1.5 x 10^7	> 1.5 x 10^8
Mechanical lifespan	> 1 x 10^7	> 1 x 10^8	> 1 x 10^9	> 1 x 10^{10}

RM-S relay modules

RM-S
Soldered relay
1 CO contact

RMS-S
Soldered relay
1 CO contact

Circuit diagram



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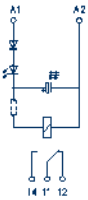
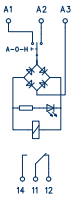


4

Circuit diagram



5

Cat. no./Qty.	Type	Circuit diagram
Size	77 x 11.2 x 60 mm	
Weight	30 g	
red LED		
6353.2/1	RM-SR/1 W/12 V DC	3
5770.2/1	RM-SR/1 W/24 V DC	3
5776.2/1	RM-SR/1 W/48 V DC	3
5782.2/1	RM-SR/1 W/60 V DC	3
6362.2/1	RM-SR/1 W/12 V DC/AC	4
5773.2/1	RM-SR/1 W/24 V DC/AC	4
5779.2/1	RM-SR/1 W/48 V DC/AC	4
Green LED		
6354.2/1	RM-SG/1 W/12 V DC	3
5771.2/1	RM-SG/1 W/24 V-	3
5777.2/1	RM-SG/1 W/48 V DC	3
5783.2/1	RM-SG/1 W/60 V DC	3
6363.2/1	RM-SG/1 W/12 V DC/AC	4
5774.2/1	RM-SG/1 W/24 V DC/AC	4
5780.2/1	RM-SG/1 W/48 V DC/AC	4
without LED		
6355.2/1	RM-S/1 W/12 V DC	3
5772.2/1	RM-S/1 W/24 V DC	3
5778.2/1	RM-S/1 W/48 V DC	3
5784.2/1	RM-S/1 W/60 V DC	3
6364.2/1	RM-S/1 W/12 V DC/AC	4
5775.2/1	RM-S/1 W/24 V DC/AC	4
5781.2/1	RM-S/1 W/48 V DC/AC	4

12 V AC/DC	24 V AC/DC	48 V AC/DC
0.6 W/0.8 VA	0.4 W/0.6 VA	0.5 W/0.7 VA
250 V AC	250 V AC	250 V AC
6 A / 8 A	6 A / 8 A	6 A / 8 A
2000 VA at 250 V AC, 8 A/ 192 W at 24 V DC, 8 A	2000 VA at 250 V AC, 8 A/ 192 W at 24 V DC, 8 A	2000 VA at 250 V AC, 8 A/ 192 W at 24 V DC, 8 A
15 ms/10 ms	15 ms/10 ms	15 ms/10 ms
AgNi	AgNi	AgNi
> 1.5 x 10^{9}	> 1.5 x 10^{10}	> 1.5 x 10^{11}
> 1 x 10^{11}	> 1 x 10^{12}	> 1 x 10^{13}

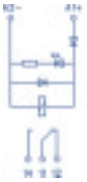
Cat. no./Qty.	Type	Circuit diagram
Size	77 x 11.2 x 59 mm	
Weight	30 g	
red LED		
15241.2	RMS-SR/1 W/12 V AC/DC	5
15242.2	RMS-SR/1 W/24 V AC/DC	5

Relay modules 1 CO RM L

- Mounts on TS 32/TS 35
- Screw connection
- LED for indicating the switching status
- Power relay, 16 A

RML/1 W
Soldered relay
1 CO contact

Circuit diagram



1

Circuit diagram

2

Cat. no./Qty. **Soldered relay**	**Type**	**Circuit diagram**
5800.2/1	RML/1 W/24 V DC	1
5801.2/1	RML/1 W/24 V AC/DC	2
5802.2/1	RML/1 W/48 V DC	1
Load relay		
6920.0	RML-L/1 W/24 V DC	1

Size (L x W x H) with TS 35 x 7.5	87 x 24 x 68 mm
Weight	53 g
Relay	soldered
Contacts	1 CO contact
Design	Closed
General specifications	
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage category III
Test voltage coil/contact	4 kV
Operating temperature	-20 to +50 °C
Stripping length	7 mm
Wire connect cross-section	0.2 to 2.5 mm²/AWG 22 to 14

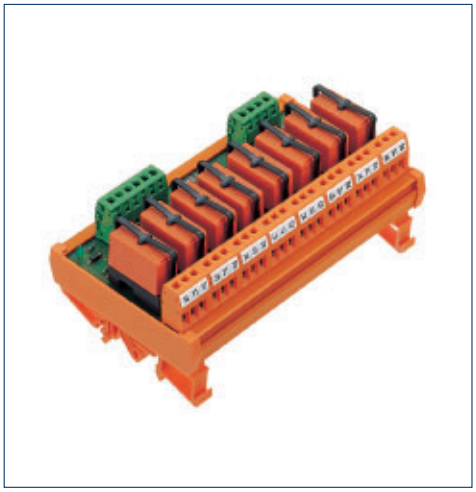
Relay data				
Input data				**RML-L**
Input voltage ±10%	24 V DC	24 V AC/DC	48 V DC	24 V DC
Power consumption ±10%	0.5 W	0.5 W/1.0 VA	0.5 W	0.5 W
Status indication per relay (LED)	red	red	red	red
Output specifications				
Contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. switching voltage	250 V AC	250 V AC	250 V AC	250 V AC
Max. continuous current/inrush current	16 A / 25 A	16 A / 25 A	16 A / 25 A	16 A/80 A (20 ms)
Max. power rating (ohmic load)	4000 VA at 250 V AC, 16 A	4000 VA at 250 V AC, 16 A	4000 VA at 250 V AC, 16 A	4000 VA at 250 V AC 16 A
Typical response time/release time	9 ms/7 ms	15 ms/8 ms	9 ms/7 ms	9 ms/7 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgSnO 2
Electrical lifespan at max. contact load	> 2 x 10^5	> 2 x 10^5	> 2 x 10^5	> 2 x 10^5
Mechanical lifespan	> 1 x 10^7	> 1 x 10^7	> 1 x 10^7	> 1 x 10^7

Notes

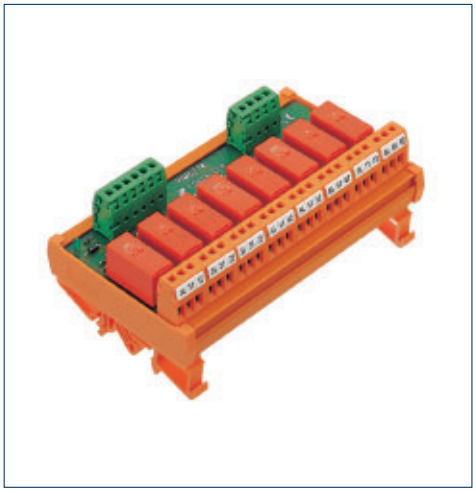
Relay modules 1 CO contact RIM

- Mounts on TS 32/TS 35
- Screw connection
- Relay modules with 1 CO contacts
- Input side:
  free-wheel and reverse-polarity protection diode
- LED for indicating the switching status
- Relays available as solder-in or pluggable
- Other voltages available upon request
- Gold-plated relay contact upon request

RIM/1 W
Pluggable relay
1 CO contact



RIMD/1 W
Soldered relay
1 CO contact

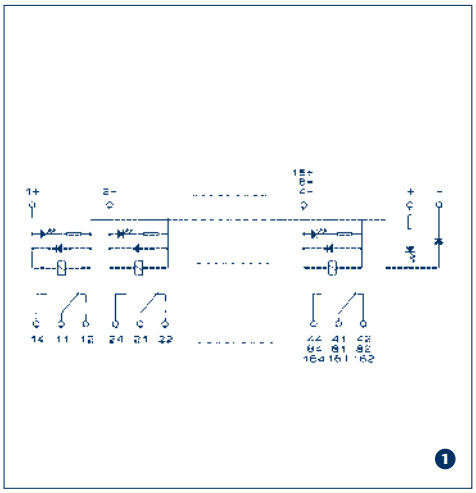


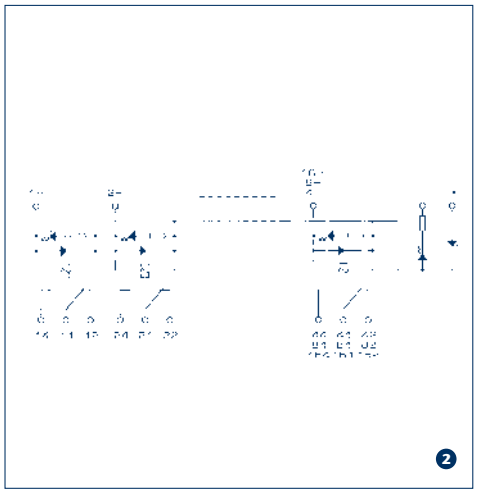
Relay	**Pluggable**	**soldered**
Contacts	**1 CO contact**	**1 CO contact**
Design	**Closed**	**Closed**
General specifications		
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	
Test voltage coil/contact	4 kV	4 kV
Operating temperature	-20 to +50 °C	-20 to +50 °C
Stripping length	7 mm	7 mm
Wire connect cross-section	0.2 to 2.5 mm^2/AWG 22 to 14	0.2 to 2.5 mm^2/AWG 22 to 14

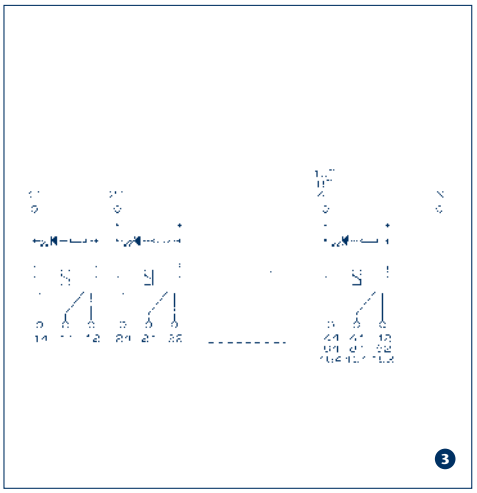
Relay data							
Input data							
Input voltage ±10%	12 V DC	24 V DC	48 V DC	115 V DC	24 V AC	115 VAC	230 VAC
Power consumption ±10%	0.6 W	0.6 W	0.6 W	0.6 W	1.0 VA	1.0 VA	1.0 VA
Operating voltage indicator LED	green	green	green	green	-	-	-
Status indication per relay (LED)	red	red	red	red	red	red	red
Output specifications							
Contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. switching voltage	250 V AC	250 V AC	250 V AC	250 V AC	250 V AC	250 V AC	250 V AC
Max. continuous current/inrush current	6 A / 10 A	6 A / 10 A	6 A / 10 A	6 A /10 A	6 A / 10 A	6 A / 10 A	6 A / 10 A
Max. power rating (ohmic load)	2000 VA at 250 V AC, 8 A 192 W at 24 V DC, 8A	2000 VA at 250 V AC, 8 A 192 W at 24 V DC, 8A	2000 VA at 250 V AC, 8 A 192 W at 24 V DC, 8A	2000 VA at 250 V AC, 8 A 192 W at 24 V DC, 8A	2000 VA at 250 V AC, 8 A 192 W at 24 V DC, 8A	2000 VA at 250 V AC, 8 A 192 W at 24 V DC, 8A	2000 VA at 250 V AC, 8 A 192 W at 24 V DC, 8A
Contact material	AgNi	AgNi	AgNi	AgNi	AgNi	AgNi	AgNi
Electrical lifespan at max. contact load	> 1.5 x 10^5	> 1.5 x 10^5	> 1.5 x 10^5	> 1.5 x 10^5	> 1.5 x 10^5	> 1.5 x 10^5	> 1.5 x 10^5
Mechanical lifespan	> 1 x 10^7	> 1 x 10^7	> 1 x 10^7	> 1 x 10^7	> 1 x 10^7	> 1 x 10^7	> 1 x 10^7

Relay modules 1 CO contact RIM

Circuit diagram





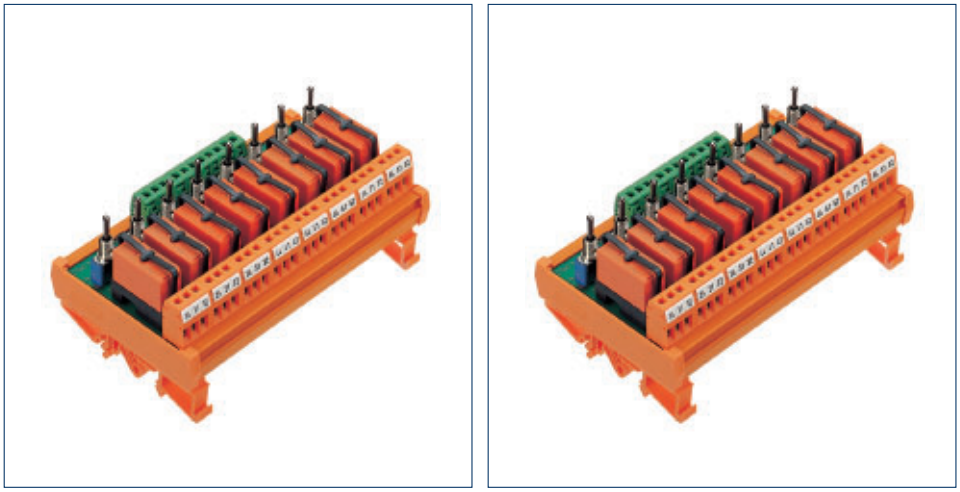


Modules	Cat. no./Qty. Relay Pluggable	Type	Cat. no./Qty. Relay soldered	Type	Circuit dia-gram	Size (L x W x H) with TS 35 x 7.5	Weight
Modules with 2 relays each with 1 CO contact							
	6021.2/1	RIM 2/1 W/24 V +	**6030.2**/1	RIMD 2/1 W/24 V +	1	87 x 41 x 66/57	100 g / 90 g
	6022.2/1	RIM 2/1 W/24 V -	**6031.2**/1	RIMD 2/1 W/24 V -	2	87 x 41 x 66/57	100 g / 90 g
	6023.2/1	RIM 2/1 W/24 ACG	**6032.2**/1	RIMD 2/1 W/24 ACG	3	87 x 41 x 66/57	100 g / 90 g
	6024.2/1	RIM 2/1 W/48 V +	**6033.2**/1	RIMD 2/1 W/48 V +	1	87 x 41 x 66/57	100 g / 90 g
	6025.2/1	RIM 2/1 W/48 V -	**6034.2**/1	RIMD 2/1 W/48 V -	2	87 x 41 x 66/57	100 g / 90 g
	6026.2/1	RIM 2/1 W/115 V +	**6035.2**/1	RIMD 2/1 W/115 V +	1	87 x 41 x 66/57	100 g / 90 g
	6027.2/1	RIM 2/1 W/115 V -	**6036.2**/1	RIMD 2/1 W/115 V -	2	87 x 41 x 66/57	100 g / 90 g
	6028.2/1	RIM 2/1 W/115 ACG	**6037.2**/1	RIMD 2/1 W/115 ACG	3	87 x 41 x 66/57	100 g / 90 g
	6029.2/1	RIM 2/1 W/230 ACG	**6038.2**/1	RIMD 2/1 W/230 ACG	3	87 x 41 x 66/57	100 g / 90 g
Modules with 4 relays each with 1 CO contact							
	6039.2/1	RIM 4/1 W/24 V +	**6048.2**/1	RIMD 4/1 W/24 V +	1	87 x 77 x 66/57	180 g / 160 g
	6040.2/1	RIM 4/1 W/24 V -	**6049.2**/1	RIMD 4/1 W/24 V -	2	87 x 77 x 66/57	180 g / 160 g
	6041.2/1	RIM 4/1 W/24 ACG	**6050.2**/1	RIMD 4/1 W/24 ACG	3	87 x 77 x 66/57	180 g / 160 g
	6042.2/1	RIM 4/1 W/48 V +	**6051.2**/1	RIMD 4/1 W/48 V +	1	87 x 77 x 66/57	180 g / 160 g
	6043.2/1	RIM 4/1 W/48 V -	**6052.2**/1	RIMD 4/1 W/48 V -	2	87 x 77 x 66/57	180 g / 160 g
	6044.2/1	RIM 4/1 W/115 V +	**6053.2**/1	RIMD 4/1 W/115 V +	1	87 x 77 x 66/57	180 g / 160 g
	6045.2/1	RIM 4/1 W/115 V -	**6054.2**/1	RIMD 4/1 W/115 V -	2	87 x 77 x 66/57	180 g / 160 g
	6046.2/1	RIM 4/1 W/115 ACG	**6055.2**/1	RIMD 4/1 W/115 ACG	3	87 x 77 x 66/57	180 g / 160 g
	6047.2/1	RIM 4/1 W/230 ACG	**6056.2**/1	RIMD 4/1 W/230 ACG	3	87 x 77 x 66/57	180 g / 160 g
Modules with 8 relays each with 1 CO contact							
	6057.2/1	RIM 8/1 W/24 V +	**6066.2**/1	RIMD 8/1 W/24 V +	1	87 x 148 x 66/57	340 g / 300 g
	6058.2/1	RIM 8/1 W/24 V -	**6067.2**/1	RIMD 8/1 W/24 V -	2	87 x 148 x 66/57	340 g / 300 g
	6059.2/1	RIM 8/1 W/24 ACG	**6068.2**/1	RIMD 8/1 W/24 ACG	3	87 x 148 x 66/57	340 g / 300 g
	6060.2/1	RIM 8/1 W/48 V +	**6069.2**/1	RIMD 8/1 W/48 V +	1	87 x 148 x 66/57	340 g / 300 g
	6061.2/1	RIM 8/1 W/48 V -	**6070.2**/1	RIMD 8/1 W/48 V -	2	87 x 148 x 66/57	340 g / 300 g
	6062.2/1	RIM 8/1 W/115 V +	**6071.2**/1	RIMD 8/1 W/115 V +	1	87 x 148 x 66/57	340 g / 300 g
	6063.2/1	RIM 8/1 W/115 V -	**6072.2**/1	RIMD 8/1 W/115 V -	2	87 x 148 x 66/57	340 g / 300 g
	6064.2/1	RIM 8/1 W/115 ACG	**6073.2**/1	RIMD 8/1 W/115 ACG	3	87 x 148 x 66/57	340 g / 300 g
	6065.2/1	RIM 8/1 W/230 ACG	**6074.2**/1	RIMD 8/1 W/230 ACG	3	87 x 148 x 66/57	340 g / 300 g
Modules with 16 relays each with 1 CO contact							
	6075.2/1	RIM 16/1 W/24 V +	**6084.2**/1	RIMD 16/1 W/24 V +	1	87 x 291 x 66/57	660 g / 580 g
	6076.2/1	RIM 16/1 W/24 V -	**6085.2**/1	RIMD 16/1 W/24 V -	2	87 x 291 x 66/57	660 g / 580 g
	6077.2/1	RIM 16/1 W/24 ACG	**6086.2**/1	RIMD 16/1 W/24 ACG	3	87 x 291 x 66/57	660 g / 580 g
	6078.2/1	RIM 16/1 W/48 V +	**6087.2**/1	RIMD 16/1 W/48 V +	1	87 x 291 x 66/57	660 g / 580 g
	6079.2/1	RIM 16/1 W/48 V -	**6088.2**/1	RIMD 16/1 W/48 V -	2	87 x 291 x 66/57	660 g / 580 g
	6080.2/1	RIM 16/1 W/115 V +	**6089.2**/1	RIMD 16/1 W/115 V +	1	87 x 291 x 66/57	660 g / 580 g
	6081.2/1	RIM 16/1 W/115 V -	**6090.2**/1	RIMD 16/1 W/115 V -	2	87 x 291 x 66/57	660 g / 580 g
	6082.2/1	RIM 16/1 W/115 ACG	**6091.2**/1	RIMD 16/1 W/115 ACG	3	87 x 291 x 66/57	660 g / 580 g
	6083.2/1	RIM 16/1 W/230 ACG	**6092.2**/1	RIMD 16/1 W/230 ACG	3	87 x 291 x 66/57	660 g / 580 g

Relay modules 1 CO contact RIM S

- Mounts on TS 32/TS 35
- Screw connection
- Relay modules with 1 CO contacts
- Switch for switching between Manual/Off/ Automatic
- LED for indicating the switching status
- Relays available as solder-in or pluggable
- With or without feedback loop
- Gold-plated relay contact upon request

RIM S/1 W
Pluggable relay
1 CO contact



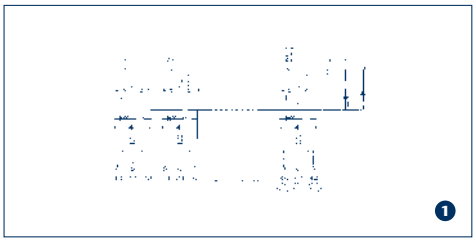
RIMD S/1 W
Soldered relay
1 CO contact

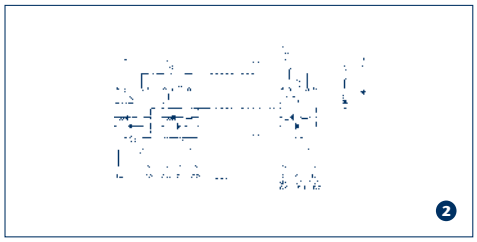
Relay	**Pluggable**	**soldered**
Contacts	**1 CO contact**	**1 CO contact**
Design	**Closed**	**Closed**
General specifications		
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, Contamination degree 2, overvoltage category III
Test voltage coil/contact	4 kV	4 kV
Pinning		
Operating temperature	-20 to +50 °C	-20 to +50 °C
Important notes		
Stripping length	7mm	7mm
Wire connect cross-section	0.2 to 2.5mm²/AWG 22 to 14	0.2 to 2.5mm²/AWG 22 to 14

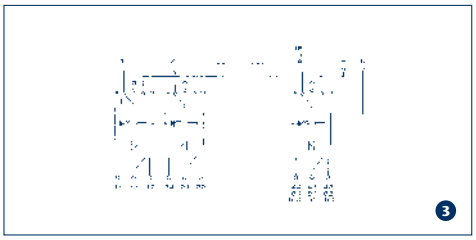
Relay data				
Input data				
Input voltage ±10%	24 V DC	24 V AC	230 V AC	
Power consumption ±10%	0.6 W	1.0 VA	1.0 VA	
Operating voltage indicator LED	green	-	-	
Status indication per relay (LED)	red	red	red	
Output specifications				
Contacts	1 CO contact	1 CO contact	1 CO contact	
Max. switching voltage	250 V AC	250 V AC	250 V AC	
Max. continuous current/inrush current	6 A / 10 A	6 A / 10 A	6 A / 10 A	
Max. power rating (ohmic load)	2000 VA at 250 V AC, 8 A 192 W at 24 V DC, 8 A	2000 VA at 250 V AC, 8 A 192 W at 24 V DC, 8 A	2000 VA at 250 V AC, 8 A 192 W at 24 V DC, 8 A	
Typical response time/release time	9 ms/7 ms	15 ms/10 ms	15 ms/10 ms	
Contact material	AgNi	AgNi	AgNi	
Electrical lifespan at max. contact load	> 1.5 x 10^5	> 1.5 x 10^5	> 1.5 x 10^5	
Mechanical lifespan	> 1 x 10^7	> 1 x 10^7	> 1 x 10^7	

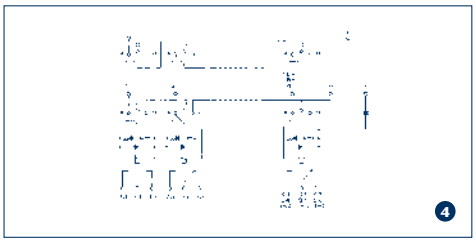
Relay modules 1 CO contact RIM S

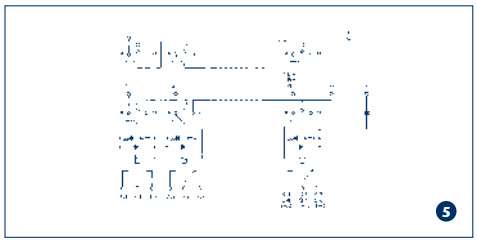
Circuit diagram

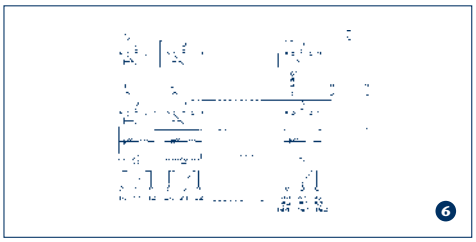










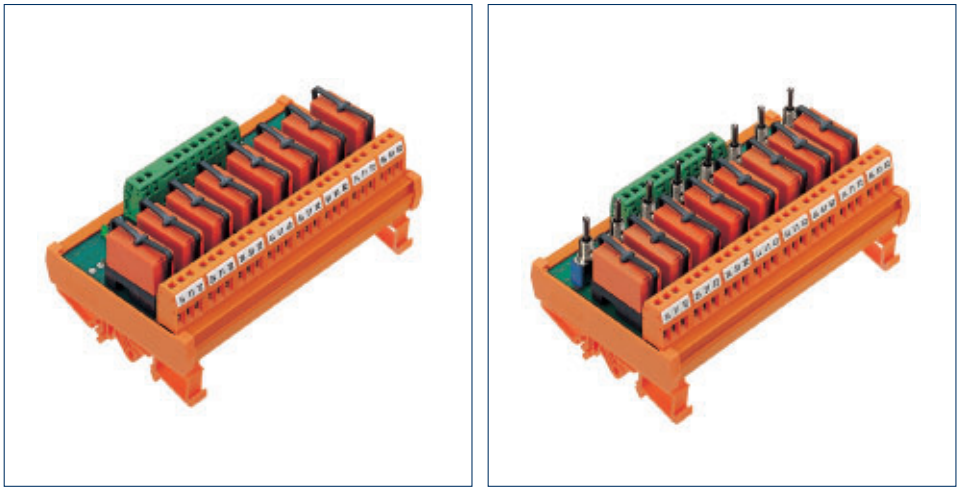


Modules	Cat. no./Qty. Relay Pluggable	Type	Cat. no./Qty. Relay soldered	Type	Circuit dia-gram	Size (L x W x H) with TS 35 x 7.5	Weight
Modules with 2 relays each with 1 CO contact							
	5900.3/1	RIM 2 S/1 W/24 V +	**5902.3**/1	RIMD 2 S/1 W/24 V +	1	87 x 44 x 74	115 g / 105 g
	5901.3/1	RIM 2 S/1 W/24 V -	**5903.3**/1	RIMD 2 S/1 W/24 V -	2	87 x 44 x 74	115 g / 105 g
	6588.2/1	RIM 2 S/1 W/24 ACG	**6589.2**/1	RIMD 2 S/1 W/24 ACG	3	87 x 44 x 74	115 g / 105 g
	6590.2/1	RIM 2 S/1 W/230 ACG	**6591.2**/1	RIMD 2 S/1 W/230 ACG	3	87 x 44 x 74	115 g / 105 g
	6606.2/1	RIM 2-2 S/1 W/24 +	**6607.2**/1	RIMD 2-2 S/1 W/24 +	4	87 x 44 x 74	115 g / 105 g
	6608.2/1	RIM 2-2 S/1 W/24 -	**6609.2**/1	RIMD 2-2 S/1 W/24 -	5	87 x 44 x 74	115 g / 105 g
	6610.2/1	RIM 2-2 S/1 W/24 ACG	**6611.2**/1	RIMD 2-2 S/1 W/24 ACG	6	87 x 44 x 74	115 g / 105 g
	6612.2/1	RIM 2-2 S/1 W/230 ACG	**6613.2**/1	RIMD 2-2 S/1 W/230 ACG	6	87 x 44 x 74	115 g / 105 g
Modules with 4 relays each with 1 CO contact							
	5904.3/1	RIM 4 S/1 W/24 V +	**5906.3**/1	RIMD 4 S/1 W/24 V +	1	87 x 78 x 74	195 g / 175 g
	5905.3/1	RIM 4 S/1 W/24 V -	**5907.3**/1	RIMD 4 S/1 W/24 V -	2	87 x 78 x 74	195 g / 175 g
	6592.2/1	RIM 4 S/1 W/24 ACG	**6593.2**/1	RIMD 4 S/1 W/24 ACG	3	87 x 78 x 74	195 g / 175 g
	6594.2/1	RIM 4 S/1 W/230 ACG	**6595.2**/1	RIMD 4 S/1 W/230 ACG	3	87 x 78 x 74	195 g / 175 g
	6614.2/1	RIM 4-2 S/1 W/24 +	**6615.2**/1	RIMD 4-2 S/1 W/24 +	4	87 x 78 x 74	195 g / 175 g
	6616.2/1	RIM 4-2 S/1 W/24 -	**6617.2**/1	RIMD 4-2 S/1 W/24 -	5	87 x 78 x 74	195 g / 175 g
	6618.2/1	RIM 4-2 S/1 W/24 ACG	**6619.2**/1	RIMD 4-2 S/1 W/24 ACG	6	87 x 78 x 74	195 g / 175 g
	6620.2/1	RIM 4-2 S/1 W/230 ACG	**6621.2**/1	RIMD 4-2 S/1 W/230 ACG	6	87 x 78 x 74	195 g / 175 g
Modules with 8 relays each with 1 CO contact							
	5908.3/1	RIM 8 S/1 W/24 V +	**5910.3**/1	RIMD 8 S/1 W/24 V +	1	87 x 150 x 74	365 g / 325 g
	5909.3/1	RIM 8 S/1 W/24 V -	**5911.3**/1	RIMD 8 S/1 W/24 V -	2	87 x 150 x 74	365 g / 325 g
	6596.2/1	RIM 8 S/1 W/24 ACG	**6597.2**/1	RIMD 8 S/1 W/24 ACG	3	87 x 150 x 74	365 g / 325 g
	6598.2/1	RIM 8 S/1 W/230 ACG	**6599.2**/1	RIMD 8 S/1 W/230 ACG	3	87 x 150 x 74	365 g / 325 g
	6622.2/1	RIM 8-2 S/1 W/24 +	**6623.2**/1	RIMD 8-2 S/1 W/24 +	4	87 x 150 x 74	365 g / 325 g
	6624.2/1	RIM 8-2 S/1 W/24 -	**6625.2**/1	RIMD 8-2 S/1 W/24 -	5	87 x 150 x 74	365 g / 325 g
	6626.2/1	RIM 8-2 S/1 W/24 ACG	**6627.2**/1	RIMD 8-2 S/1 W/24 ACG	6	87 x 150 x 74	365 g / 325 g
	6628.2/1	RIM 8-2 S/1 W/230 ACG	**6629.2**/1	RIMD 8-2 S/1 W/230 ACG	6	87 x 150 x 74	365 g / 325 g
Modules with 16 relays each with 1 CO contact							
	6600.2/1	RIM 16 S/1 W/24 V +	**6601.2**/1	RIMD 16 S/1 W/24 V +	1	87 x 292 x 74	715 g / 635 g
	6602.2/1	RIM 16 S/1 W/24 V -	**6603.2**/1	RIMD 16 S/1 W/24 V -	2	87 x 292 x 74	715 g / 635 g
	6604.2/1	RIM 16 S/1 W/24 ACG	**6605.2**/1	RIMD 16 S/1 W/24 ACG	3	87 x 292 x 74	715 g / 635 g
	6630.2/1	RIM 16 S/1 W/230 ACG	**6631.2**/1	RIMD 16 S/1 W/230 ACG	3	87 x 292 x 74	715 g / 635 g
	6632.2/1	RIM 16-2 S/1 W/24 +	**6633.2**/1	RIMD 16-2 S/1 W/24 +	4	87 x 292 x 74	715 g / 635 g
	6634.2/1	RIM 16-2 S/1 W/24 -	**6635.2**/1	RIMD 16-2 S/1 W/24 -	5	87 x 292 x 74	715 g / 635 g
	6636.2/1	RIM 16-2 S/1 W/24 ACG	**6637.2**/1	RIMD 16-2 S/1 W/24 ACG	6	87 x 292 x 74	715 g / 635 g
	6638.2/1	RIM 16-2 S/1 W/230 ACG	**6639.2**/1	RIMD 16-2 S/1 W/230 ACG	6	87 x 292 x 74	715 g / 635 g

Relay modules 1 CO contact RIM-16 A

- Mounts on TS 32/TS 35
- Screw connection
- Relay modules with 1 CO contacts
- Switch for MANUAL/OFF/AUTOMATIC switching
- LED for indicating the switching status
- Relays available as solder-in or pluggable
- Other voltages available upon request
- 16 A power relay, with 1 CO contact
- Power relay 80 A (20 ms) inrush current, available upon request

RIM 16 A/1 W
Pluggable relay
1 CO contact



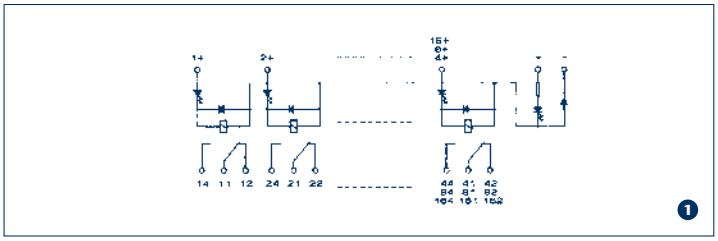
RIMS 16 A/1 W
MANUAL/OFF/AUTOMATIC
1 CO contact

Relay	**Pluggable**	**soldered**
Contacts	**1 CO contact**	**1 CO contact**
Design	**Closed**	**Closed**
General specifications		
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage category III
Test voltage coil/contact	4 kV	4 kV
Operating temperature	-20 to +50 °C	-20 to +50 °C
Stripping length	7 mm	7 mm
Wire connect cross-section	0.2 to 2.5mm²/AWG 22 to 14	0.2 to 2.5mm²/AWG 22 to 14

Relay data		
Input data		
Input voltage ±10%	24 V DC	24 V DC
Power consumption ±10%	0.6 W	0.6 W
Operating voltage indicator LED	green	green
Status indication per relay (LED)	red	red
Output specifications		
Contacts	1 CO contact	1 CO contact
Max. switching voltage	250 V AC/DC	250 V AC/DC
Max. continuous current/inrush current	16 A / 16 A	16 A / 16 A
Max. power rating (ohmic load)	4000 VA at 250 V AC, 384 W at 24 V DC	4000 VA at 250 V AC, 384 W at 24 V DC
Typical response time/release time	9 ms/7 ms	9 ms/7 ms
Contact material	AgNi	AgNi
Electrical lifespan at max. contact load	> 8 x 10^4	> 8 x 10^4
Mechanical lifespan	> 3 x 10^7	> 3 x 10^7

Relay modules 1 CO contact RIM-16 A

Circuit diagram



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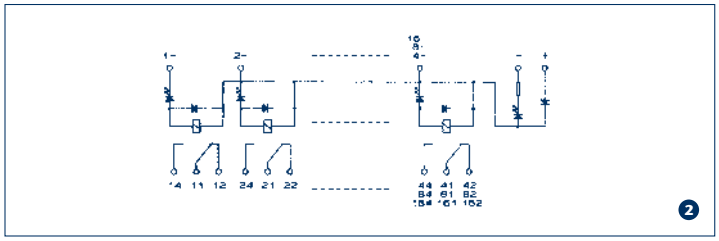

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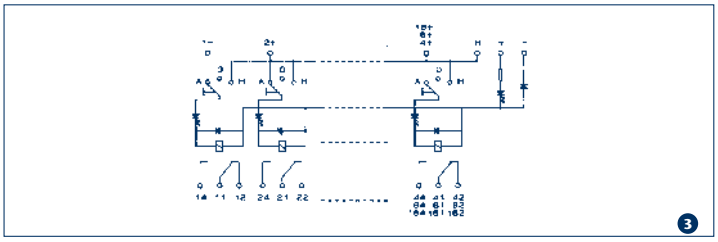

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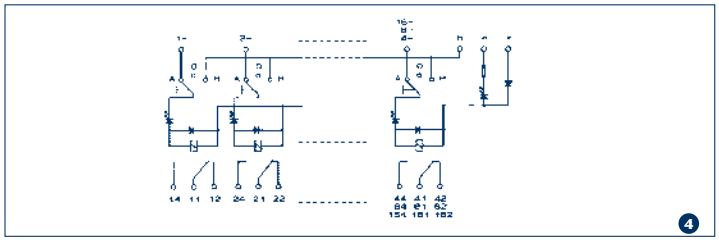


4

Modules	Cat. no./Qty. Relay Pluggable	Type	Cat. no./Qty. Relay soldered	Type	Circuit dia-gram	Size (L x W x H) with TS 35 x 7.5	Weight
Modules with 2 relays each with 1 CO contact							
	6016.2/1	RIM 2-16 A/1 W/24 V +	**6648.2**/1	RIMD 2-16 A/1 W/24 V +	1	87 x 42 x 74	100 g / 90 g
	6640.2/1	RIM 2-16 A/1 W/24 V -	**6649.2**/1	RIMD 2-16 A/1 W/24 V -	2	87 x 42 x 74	100 g / 90 g
	6017.2/1	RIM 2 S-16 A/1 W/24 V +	**6650.2**/1	RIMD 2 S-16 A/1 W/24 V +	3	87 x 42 x 74	110 g / 100 g
	6641.2/1	RIM 2 S-16 A/1 W/24 V -	**6651.2**/1	RIMD 2 S-16 A/1 W/24 V -	4	87 x 42 x 74	110 g / 100 g
Modules with 4 relays each with 1 CO contact							
	6018.2/1	RIM 4-16 A/1 W/24 V +	**6652.2**/1	RIMD 4-16 A/1 W/24 V +	1	87 x 77 x 74	180 g / 160 g
	6642.2/1	RIM 4-16 A/1 W/24 V -	**6653.2**/1	RIMD 4-16 A/1 W/24 V -	2	87 x 77 x 74	180 g / 160 g
	6019.2/1	RIM 4 S-16 A/1 W/24 V +	**6654.2**/1	RIMD 4 S-16 A/1 W/24 V +	3	87 x 77 x 74	200 g / 180 g
	6643.2/1	RIM 4 S-16 A/1 W/24 V -	**6655.2**/1	RIMD 4 S-16 A/1 W/24 V -	4	87 x 77 x 74	200 g / 180 g
Modules with 8 relays each with 1 CO contact							
	6012.2/1	RIM 8-16 A/1 W/24 V +	**6656.2**/1	RIMD 8-16 A/1 W/24 V +	1	87 x 148 x 74	340 g / 300 g
	6644.2/1	RIM 8-16 A/1 W/24 V -	**6657.2**/1	RIMD 8-16 A/1 W/24 V -	2	87 x 148 x 74	340 g / 300 g
	6013.2/1	RIM 8 S-16 A/1 W/24 V +	**6658.2**/1	RIMD 8 S-16 A/1 W/24 V +	3	87 x 148 x 74	380 g / 340 g
	6645.2/1	RIM 8 S-16 A/1 W/24 V -	**6659.2**/1	RIMD 8 S-16 A/1 W/24 V -	4	87 x 148 x 74	380 g / 340 g
Modules with 16 relays each with 1 CO contact							
	6014.2/1	RIM 16-16 A/1 W/24 V +	**6660.2**/1	RIMD 16-16 A/1 W/24 V +	1	87 x 290 x 74	660 g / 580 g
	6646.2/1	RIM 16-16 A/1 W/24 V -	**6661.2**/1	RIMD 16-16 A/1 W/24 V -	2	87 x 290 x 74	660 g / 580 g
	6015.2/1	RIM 16 S-16 A/1 W/24 V +	**6662.2**/1	RIMD 16 S-16 A/1 W/24 V +	3	87 x 290 x 74	740 g / 660 g
	6647.2/1	RIM 16 S-16 A/1 W/24 V -	**6663.2**/1	RIMD 16 S-16 A/1 W/24 V -	4	87 x 290 x 74	740 g / 660 g

Relay modules 2 CO contact RIM

- Mounts on TS 32/TS 35
- Screw connection
- Relay modules with 2 CO contacts
- Input side:
  Reverse polarity protection is provided
- LED for indicating the switching status
- Relays available as solder-in or pluggable
- Other voltages available upon request

RIM/2 W
Pluggable relay
2 CO contact

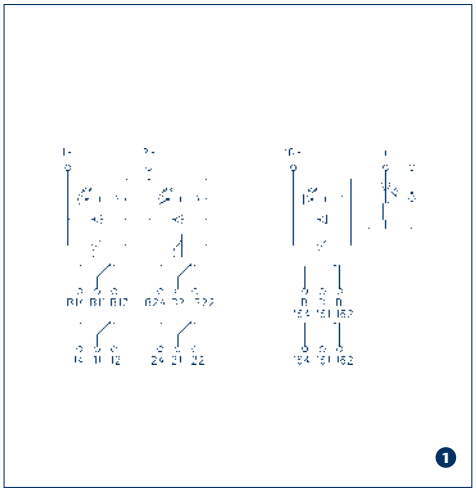
RIMD/2 W
Soldered relay
2 CO contact

Relay	**Pluggable**	**soldered**
Contacts	**2 CO contact**	**2 CO contact**
Design	**Closed**	**Closed**
General specifications		
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Test voltage coil/contact	4 kV	4 kV
Pinning	5 mm	5 mm
Operating temperature	-20 to 50 °C	-20 to 50 °C
Stripping length	7 mm	7 mm
Wire connect cross-section	0.2 to 2.5mm²/AWG 22 to 14	0.2 to 2.5mm²/AWG 22 to 14

Relay data						
Input data						
Input voltage ±10%	24 V DC	48 V DC	115 V DC	24 V AC	115 V AC	230 V AC
Power consumption ±10%	0.5 W	0.5 W	0.5 W	1.0 VA	1.0 VA	1.0 VA
Operating voltage indicator LED	green	green	green	-	-	-
Status indication per relay (LED)	red	red	red	red	red	red
Contacts	2 CO contact	2 CO contact	2 CO contact	2 CO contact	2 CO contact	2 CO contact
Max. switching voltage	250 V AC/DC	250 V AC/DC	250 V AC/DC	250 V AC/DC	250 V AC/DC	250 V AC/DC
Max. continuous current/inrush current	4 A / 8 A	4 A / 8 A	4 A / 8 A	4 A / 8 A	4 A / 8 A	4 A / 8 A
Max. power rating (ohmic load)	1250 VA/144 W	1250 VA/144 W	1250 VA/144 W	1250 VA/144 W	1250 VA/144 W	1250 VA/144 W
Typical response time/release time	9 ms/7 ms	9 ms/7 ms	9 ms/7 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms
Contact material	AgNi	AgNi	AgNi	AgNi	AgNi	AgNi
Mechanical lifespan	> 1 x 10^7	> 1 x 10^7	> 1 x 10^7	> 1 x 10^7	> 1 x 10^7	> 1 x 10^7
Electrical lifespan 24V DC/1A resistive load	> 5 x 10^5	> 5 x 10^5	> 5 x 10^5	> 5 x 10^5	> 5 x 10^5	> 5 x 10^5
Electrical lifespan 230V DC/2A resistive load	> 2 x 10^5	> 2 x 10^5	> 2 x 10^5	> 2 x 10^5	> 2 x 10^5	> 2 x 10^5

Relay modules 2 CO contact RIM

Circuit diagram



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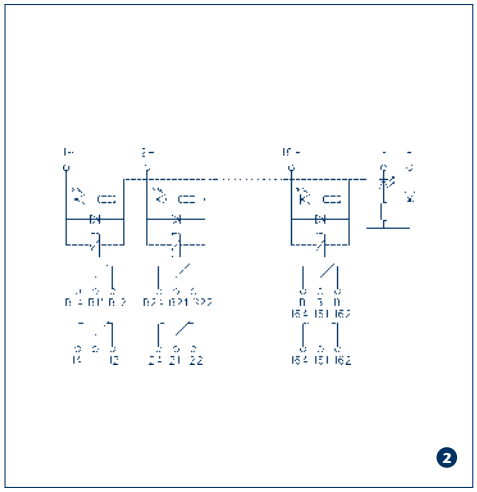

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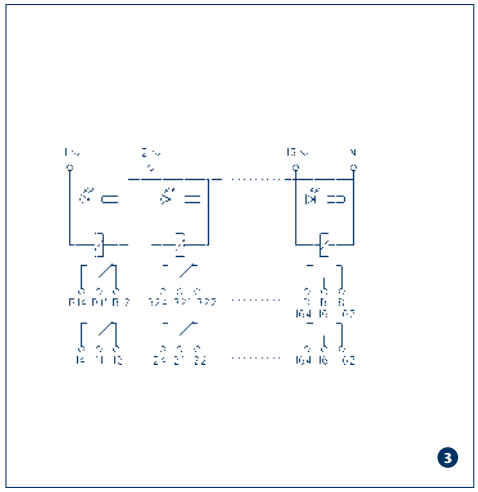


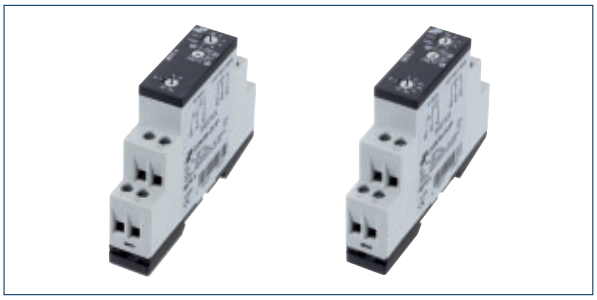
3

Modules	Cat. no./Qty. Relay Pluggable	Type	Cat. no./Qty. Relay soldered	Type	Circuit dia-gram	Size (L x W x H) with TS 35 x 7.5	Weight
Modules with 2 relays each with 2 CO contact							
	5566.2/1	RIM 2/2 W/24 V +	**5567.2**/1	RIMD 2/2 W/24 V +	1	87 x 44 x 72	120 g / 110 g
	5568.2/1	RIM 2/2 W/24 V -	**5569.2**/1	RIMD 2/2 W/24 V -	2	87 x 44 x 72	120 g / 110 g
	5658.2/1	RIM 2/2 W/24 ACG	**5659.2**/1	RIMD 2/2 W/24 ACG	3	87 x 44 x 72	120 g / 110 g
	5570.2/1	RIM 2/2 W/48 V +	**5571.2**/1	RIMD 2/2 W/48 V +	1	87 x 44 x 72	120 g / 110 g
	5572.2/1	RIM 2/2 W/48 V -	**5573.2**/1	RIMD 2/2 W/48 V -	2	87 x 44 x 72	120 g / 110 g
	5662.2/1	RIM 2/2 W/115 V +	**5663.2**/1	RIMD 2/2 W/115 V +	1	87 x 44 x 72	120 g / 110 g
	5664.2/1	RIM 2/2 W/115 V -	**5665.2**/1	RIMD 2/2 W/115 V -	2	87 x 44 x 72	120 g / 110 g
	5578.2/1	RIM 2/2 W/115 ACG	**5579.2**/1	RIMD 2/2 W/115 ACG	3	87 x 44 x 72	120 g / 110 g
	5580.2/1	RIM 2/2 W/230 ACG	**5581.2**/1	RIMD 2/2 W/230 ACG	3	87 x 44 x 72	120 g / 110 g
Modules with 4 relays each with 2 CO contact							
	5582.2/1	RIM 4/2 W/24 V +	**5583.2**/1	RIMD 4/2 W/24 V +	1	87 x 80 x 72	202 g / 182 g
	5584.2/1	RIM 4/2 W/24 V -	**5585.2**/1	RIMD 4/2 W/24 V -	2	87 x 80 x 72	202 g / 182 g
	5668.2/1	RIM 4/2 W/24 ACG	**5669.2**/1	RIMD 4/2 W/24 ACG	3	87 x 80 x 72	202 g / 182 g
	5586.2/1	RIM 4/2 W/48 V +	**5587.2**/1	RIMD 4/2 W/48 V +	1	87 x 80 x 72	202 g / 182 g
	5588.2/1	RIM 4/2 W/48 V -	**5589.2**/1	RIMD 4/2 W/48 V -	2	87 x 80 x 72	202 g / 182 g
	5672.2/1	RIM 4/2 W/115 V +	**5673.2**/1	RIMD 4/2 W/115 V +	1	87 x 80 x 72	202 g / 182 g
	5674.2/1	RIM 4/2 W/115 V -	**5675.2**/1	RIMD 4/2 W/115 V -	2	87 x 80 x 72	202 g / 182 g
	5594.2/1	RIM 4/2 W/115 ACG	**5595.2**/1	RIMD 4/2 W/115 ACG	3	87 x 80 x 72	202 g / 182 g
	5596.2/1	RIM 4/2 W/230 ACG	**5597.2**/1	RIMD 4/2 W/230 ACG	3	87 x 80 x 72	202 g / 182 g
Modules with 8 relays each with 2 CO contact							
	6155.2/1	RIM 8/2 W/24 V +	**6156.2**/1	RIMD 8/2 W/24 V +	1	87 x 151 x 72	392 g / 352 g
	6157.2/1	RIM 8/2 W/24 V -	**6158.2**/1	RIMD 8/2 W/24 V -	2	87 x 151 x 72	392 g / 352 g
	6159.2/1	RIM 8/2 W/24 ACG	**6160.2**/1	RIMD 8/2 W/24 ACG	3	87 x 151 x 72	392 g / 352 g
	6161.2/1	RIM 8/2 W/48 V +	**6162.2**/1	RIMD 8/2 W/48 V +	1	87 x 151 x 72	392 g / 352 g
	6163.2/1	RIM 8/2 W/48 V -	**6164.2**/1	RIMD 8/2 W/48 V -	2	87 x 151 x 72	392 g / 352 g
	6165.2/1	RIM 8/2 W/115 V +	**6166.2**/1	RIMD 8/2 W/115 V +	1	87 x 151 x 72	392 g / 352 g
	6167.2/1	RIM 8/2 W/115 V -	**6168.2**/1	RIMD 8/2 W/115 V -	2	87 x 151 x 72	392 g / 352 g
	6169.2/1	RIM 8/2 W/115 ACG	**6170.2**/1	RIMD 8/2 W/115 ACG	3	87 x 151 x 72	392 g / 352 g
	6171.2/1	RIM 8/2 W/230 ACG	**6172.2**/1	RIMD 8/2 W/230 ACG	3	87 x 151 x 72	392 g / 352 g
Modules with 16 relays each with 2 CO contact							
	6173.2/1	RIM 16/2 W/24 V +	**6174.2**/1	RIMD 16/2 W/24 V +	1	87 x 293 x 72	764 g / 684 g
	6175.2/1	RIM 16/2 W/24 V -	**6176.2**/1	RIMD 16/2 W/24 V -	2	87 x 293 x 72	764 g / 684 g
	6177.2/1	RIM 16/2 W/24 ACG	**6178.2**/1	RIMD 16/2 W/24 ACG	3	87 x 293 x 72	764 g / 684 g
	6179.2/1	RIM 16/2 W/48 V +	**6180.2**/1	RIMD 16/2 W/48 V +	1	87 x 293 x 72	764 g / 684 g
	6181.2/1	RIM 16/2 W/48 V -	**6182.2**/1	RIMD 16/2 W/48 V -	2	87 x 293 x 72	764 g / 684 g
	6183.2/1	RIM 16/2 W/115 V +	**6184.2**/1	RIMD 16/2 W/115 V +	1	87 x 293 x 72	764 g / 684 g
	6185.2/1	RIM 16/2 W/115 V -	**6186.2**/1	RIMD 16/2 W/115 V -	2	87 x 293 x 72	764 g / 684 g
	6187.2/1	RIM 16/2 W/115 ACG	**6188.2**/1	RIMD 16/2 W/115 ACG	3	87 x 293 x 72	764 g / 684 g
	6189.2/1	RIM 16/2 W/230 ACG	**6190.2**/1	RIMD 16/2 W/230 ACG	3	87 x 293 x 72	764 g / 684 g

Functional relays

Automation engineering applications often call for small control tasks. These new functional relays were developed in order to accomplish such tasks as simply as possible. The small size and great flexibility of these relays allows them to be used in many different applications.

Functional relays



Multi-function timing relays MFR 4 | MFR 5

Instead of timing units with only one function, these units offer the affordable possibility to implement several common time functions, such as ON-delay, impulse-ON, impulse-OFF, or pulse-monitoring. They reduce storage costs, since only one unit is needed for all applications.

Clock-pulse generator dual-time relays MFR *6*

This functional unit features a blink function with a freely configurable time setting. The output relay is controlled in accordance with both set times, until the supply voltage is interrupted. You can select operation – either beginning with pulse or beginning with delay.

Undervoltage monitoring relays USR1 | USR 2

These functional units are used for the undervoltage monitoring of alternating voltage in 3- or 1-phase supply systems. They monitor the power supply and protect motors and other power-consuming modules from the effects of phase errors. Voltages that are too low or loss of phase can lead to system failures and as such represent an enormous potential for danger.

Functional relays

2 star-delta switching relay SDSR

Star-delta switching is a commonly used function in motor-control engineering. These new timing relays were developed in order to accomplish this task as simply as possible. They can be used in different motor types because the transit time is adjustable.

Voltage monitoring relays VMR 1 | VMR 3

These voltage-monitoring relays conveniently monitor three-phase systems with and without a neutral wire. By precisely capturing characteristic values, they ensure the accessibility and reliability of a facility or machine. And in doing so, they deliver long-term added value. When operating facilities such as pumps and machines, it is critical to monitor the phase sequence, phase loss and asymmetry. Monitoring allows safe operation and prevents damage in a simple and efficient way.

AUTO-ON-OFF relay RM/HA/24 VUC

This compact relay component acts as the interface between the encoder, input, control signals and the control or factory-level. It also enables simple switching from automatic mode to OFF or manual mode. Because of the coil construction for the 24 V AC/DC input voltage, the component has a wide variety of uses. A potential-free check-back contact for control allows for convenient monitoring of the operating status. The status is also shown with an integrated LED. The integrated relay is designed with a switching capacity of up to 2500 VA at a rated voltage of 250 V.

GSM-PRO

Multi-function I/O module with e-mail function GSM-PRO

CONTA-CLIP's new multi-function **GSM-PRO** I/O module provides a solution for remote monitoring and servicing which signals via input and outputs, and also is capable of signalling via e-mails or SMS. In large systems, where many alarms or status messages from various units in the field are monitored centrally, the ability to send e-mail makes it easier to monitor for specific conditions and to classify messages. The **GSM-PRO** modules can be monitored and operated using the intuitive smartphone app and corresponding portal software.

Multi-function timing relay MFR

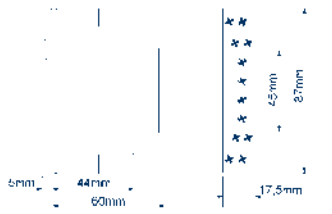
MFR 4 | MFR 5

General specifications

Mechanical design
- Mounts on TS 35
- Housing made of self-extinguishing plastic, IP40 protection
- Any mounting position is possible
- Screw connections protected against accidental contact, acc. to VBG 4 IP20 protection

Screw connection
- 1 x 0.5 to 2.5 mm² with/without wire-end ferrules
- 1 x 4 mm² without wire-end ferrules
- 2 x 0.5 to 2.5 mm² with/without wire-end ferrules
- 2 x 2.5 mm² flexible without wire-end ferrules
- Torque max. 1 Nm

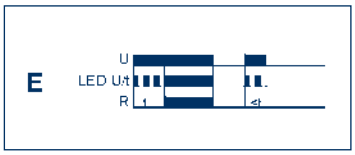
Dimensions ❶



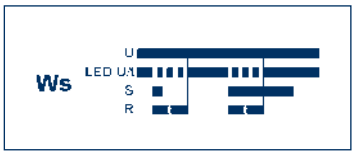
Environmental conditions	
Ambient temperature	-25 to +55 °C (acc. to IEC 68-1) -25 to +55 °C (acc. to IEC 508-1)
Storage temperature	-25 to +70 °C
Transportation temperature	-25 to +70 °C
Relative humidity	15% to 85% (acc. to IEC 721-3-3 Class 3K3)
Contamination degree	3 (acc. to IEC 664-1)
Vibration resistance	10 to 55 Hz 0.35 mm (acc. to IEC 68-2-6)
Shock resistance	15 g 11 ms (acc. to IEC 68-2-27)

Functional description
- The voltage supply must be disconnected before the time function is selected.
- Please refer to data sheet or information printed on the module for a complete list of the various module functions.

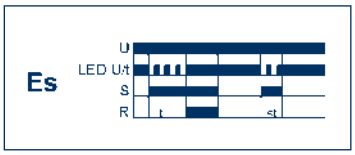
ON delay (E)
The set time t begins to run with the application of the supply voltage U. The green LED U/t flashes. After the time t has passed (the green LED U/t is lit), the output relay R goes on (yellow LED lit). This status is maintained until the supply voltage is interrupted. If the supply voltage is interrupted before the expiration of the time t, then the expired time is deleted and the time starts anew when the supply voltage is re-applied.



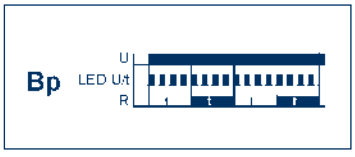
Impulse-ON with control contact (Ws)
The supply voltage U must constantly be applied to device (green LED U/t is lit). The output relay R activates (yellow LED lit) when the control contact S closes, and the set time t begins (green LED U/t flashes). After the time t has passed (green LED U/t is lit), the output relay deactivates (yellow LED not lit up). The control contact can be switched while the time is running. A further cycle can be started only when the currently running cycle is closed.



ON-delay with control contact (Es)
The supply voltage U must constantly be applied to device (green LED U/t is lit). The set time t begins when the control contact S is closed. The green LED U/t flashes. The output relay R activates (yellow LED is lit) after the expiration of the time t (green LED U/t is lit). This status is maintained until the control contact is opened. If the control contact is opened before the expiration of the time t, then the expired time is deleted and the time starts anew with the next cycle.

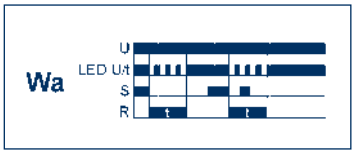


Flasher begin with delay (Bp)
The set time t begins to run with the application of the supply voltage U. The green LED U/t flashes. After the time t has passed, the output relay R goes on (the yellow LED lights up), and the set time t begins again. After the time t has passed, the output relay deactivates (yellow LED not lit). The output relay is controlled in a 1:1 ratio until the supply voltage is interrupted.

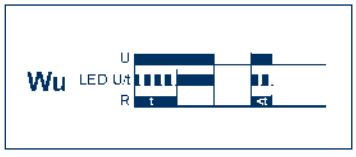


OFF-delay with control contact (R)
The supply voltage U must constantly be applied to device (green LED U/t is lit). The output relay R activates (yellow LED lit) when the control contact S closes. The set time t begins to run when the control contact S is opened. The green LED U/t flashes. The output relay deactivates (yellow LED not lit) after the expiration of the time t (green LED U/t is lit). If the control contract is closed again before time t is expired, then the expired time is deleted and the time starts anew with the next cycle.

Impulse-OFF with control contact (Wa)
The supply voltage U must constantly be applied to device (green LED U/t is lit). The closure of control contact S has no influence on the positioning of the output relay R. When the control contact opens, the output relay activates (yellow LED is lit) and the set time t begins to run (green LED U/t flashes). The output relay deactivates (yellow LED not lit) after the expiration of the time t (green LED U/t is lit). The control contact can be switched while the time is running. A further cycle can be started only when the currently running cycle is closed.

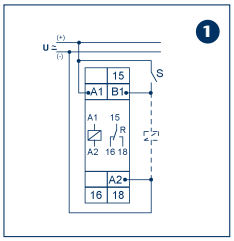


Impulse-ON voltage controlled (Wu)
The output relay R is activated (yellow LED lit) when the supply voltage is applied. The set time then begins to run (green LED U/t flashes). The output relay deactivates (yellow LED not lit) after the expiration of the time t (green LED U/t is lit). This status is maintained until the supply voltage is interrupted. If the supply voltage is interrupted before the time t expires, the the output relay is deactivated. The time that has already expired is deleted and when the supply voltage is re-applied the time is started anew.

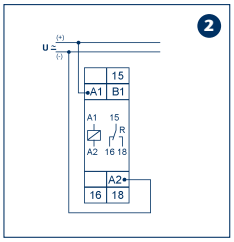


	MFR 4	MFR 5	
			
Type	**MFR 4**	**MFR 5**	
Cat. no./Qty.	**15677.2**/1	**15678.2**/1	
Dimensions	1	1	
Wiring diagram	1, 2	1, 2	
Dimensions (L x W x H) TS 35 x 7.5	87 x 17.5 x 67.5 mm	87 x 17.5 x 67.5 mm	
Weight (individually packed: components and packaging)	65 g	65 g	
Short description	**Timing relay**	**Timing relay**	
	Multi-function	Multi-function	
	4 functions	7 functions	
	7 time ranges	7 time ranges	
	Wide-range input	Wide-range input	
	1 CO contact	1 CO contact	
	Width: 17.5 mm	Width: 17.5 mm	
	Installation design	Installation design	
Functions			
	E, R, Wu, Bp*	E, R, Ws, Wa, Es, Wu, Bp*	
Time ranges / Setting ranges			
	50 ms to 100 h	50 ms to 100 h	
Displays			
	Green LED U/t ON*	Green LED U/t ON*	
	Green LED U/t flashing*	Green LED U/t flashing*	
	Yellow LED R ON/OFF*	Yellow LED R ON/OFF*	
Input circuit			
Supply voltage	24 to 240 V AC/DC, terminals A1(+) – A2(-)	12 to 240 V AC/DC terminals A1(+) –A2(-)	
Tolerance	24 V -15 % to 240 V +10 %	12 V -10 % to 240 V +10 %	
Rated frequency	48 to 63 Hz	48 to 63 Hz	
Rated consumption	4 VA (1.5 W)	4 VA (1.5 W)	
Power-on duration	100 %	100 %	
Recovery time	100 ms	100 ms	
Residual ripple for DC	10 %	10 %	
Release voltage	> 30 % of min. supply voltage	> 30 % of min. supply voltage	
Overvoltage category	III (acc. to IEC 664-1)	III (acc. to IEC 664-1)	
Rated impulse voltage	4 kV	4 kV	
Output circuit	1 potential-free CO contact	1 potential-free CO contact	
Rated voltage	250 V AC	250 V AC	
Switching capacity of aligned device (gap < 5 mm)	2000 VA (8 A/250 V AC)	2000 VA (8 A/250 V AC)	
Switching capacity of non-aligned device (gap < 5 mm)	2000 VA (8 A/250 V AC)	2000 VA (8 A/250 V AC)	
Fuse	8 A fast acting	8 A fast acting	
Mechanical lifespan	20 x 10^6 switching cycles	20 x 10^6 switching cycles	
Electrical lifespan	2 x 10^5 switching cycles at 1000 VA*	2 x 10^5 switching cycles at 1000 VA*	
Switching frequency	Max. 60/min at 100 VA* Max. 6/min at 1000 VA* (acc. to IEC 947-5-1)	Max. 60/min at 100 VA* Max. 6/min at 1000 VA* (acc. to IEC 947-5-1)	
Rated insulation voltage	250 V AC (acc. to IEC 664-1)	250 V AC (acc. to IEC 664-1)	
Overvoltage category	III (acc. to IEC 664-1)	III (acc. to IEC 664-1)	
Rated impulse voltage	4 kV	4 kV	
Control contact			
Input	Voltage applied, terminals A1-B1	Voltage applied, terminals A1-B1	
Can carry load	yes	yes	
Response threshold	Automatically adjusted to supply voltage	Automatically adjusted to supply voltage	
Max. line length	10 m	10 m	
Min. control pulse duration	DC 50 ms/AC 100 ms	DC 50 ms/AC 100 ms	
Accuracy			
Basic accuracy	± 1 % (from scale reading)	± 1 % (from scale reading)	
Setting tolerance	≤ 5 % (from scale reading)	≤ 5 % (from scale reading)	
Repeat accuracy	< 0.5 % or ± 5 ms	< 0.5 % or ± 5 ms	
Voltage influence	-	-	
Temperature influence	≤ 0.01 % / °C	≤ 0.01 % / °C	

With control contact



Without control contact



Abbreviations legend:

E ON delay
R OFF delay*
Ws Impulse-ON*
Wa Impulse-OFF*
Es ON delay*
Wu Impulse-ON
Voltage controlled
Bp Flasher, begin with pause
*With control contact

Green LED U/t ON:
Supply voltage applied
Green LED U/t flashing:
Indicates time has expired
Yellow LED R ON/OFF:
Position of output relay

Output circuit
VA resistive load

*See abbreviations legend

Clock-pulse generator dual-time relays MFR

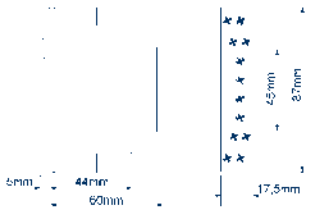
MFR 6

General specifications

Mechanical design
- Mounts on TS 35
- Housing made of self-extinguishing plastic, IP40 protection
- Any mounting position is possible
- Screw connections protected against accidental contact, acc. to VBG 4 IP20 protection

Screw connection
- 1 x 0.5 to 2.5 mm² with/without wire-end ferrules
- 1 x 4 mm² without wire-end ferrules
- 2 x 0.5 to 2.5 mm² with/without wire-end ferrules
- 2 x 2.5 mm² flexible without wire-end ferrules
- Torque max. 1 Nm

Dimensions 1

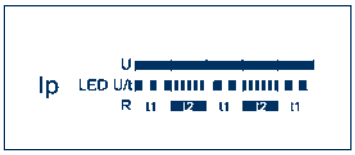


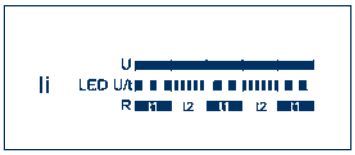
Environmental conditions	
Ambient temperature	-25 to +55 °C (acc. to IEC 68-1) -25 to +55 °C (acc. to IEC 508-1)
Storage temperature	-25 to +70 °C
Transportation temperature	-25 to +70 °C
Relative humidity	15% to 85% (acc. to IEC 721-3-3 Class 3K3)
Contamination degree	3 (acc. to IEC 664-1)
Vibration resistance	10 to 55 Hz 0.35 mm (acc. to IEC 68-2-6)
Shock resistance	15 g 11 ms (acc. to IEC 68-2-27)

Functional description

Pulsed begin with delay (Ip)
The set time t1 begins to run with the application of the supply voltage U. (The green LED U/t flashes slowly.) After the time t1 expires, the output relay R activates (yellow LED is lit), and the time t2 begins to run (green LED U/t flashes quickly). After the time t2 has expired, the output relay deactivates (yellow LED not lit). The output relay is controlled in accordance with both set times until the supply voltage is interrupted.

Pulsed begin with pulse (Ii)
The output relay R is activated (yellow LED lit) when the supply voltage U is applied. The set time t1 then begins to run (green LED U/t flashes slowly). After the time t1 has expired, the output relay is deactivated (yellow LED not lit), and the set time t2 begins to run (green LED flashes quickly). After the time t2 has expired, the output relay re-activates (yellow LED is lit). The output relay is controlled in accordance with both set times until the supply voltage is interrupted.

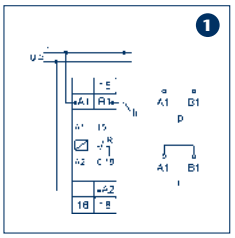




	MFR 6		
			
Type	**MFR 6**		
Cat. no./Qty.	**15679.2**/1		
Dimensions	1		
Wiring diagram	1		
Dimensions (L x W x H) TS 35 x 7.5	87 x 17.5 x 67.5 mm		
Weight (individually packed: components and packaging)	72 g		
Short description	**Clock pulse generator**		
	7 time ranges		
	Wide-range input		
	1 CO contact		
	Width: 17.5 mm		
	Installation design		
Functions			
	Ip Pulsed begin with delay		
	Ii Pulsed begin with pulse (with A1-B1 bridge)		
Time ranges / Setting ranges			
	50 ms to 100 h		
Displays			
	Green LED U/t ON*		
	Green LED U/t flashing slowly*		
	Green LED U/t flashing quickly*		
	Yellow LED R ON/OFF*		
Input circuit			
Supply voltage	12 to 240 V AC/DC, Terminals A1 (+) – A2 (-)		
Tolerance	12 V -10 % to 240 V +10 %		
Rated frequency	48 to 63 Hz		
Rated consumption	4 VA (1.5 W)		
Power-on duration	100 %		
Recovery time	100 ms		
Residual ripple for DC	10 %		
Release voltage	> 30 % of min. supply voltage		
Overvoltage category	III (acc. to IEC 664-1)		
Rated impulse voltage	4 kV		
Output circuit	1 potential-free CO contact		
Rated voltage	250 V AC		
Switching capacity of aligned device (gap < 5 mm)	2000 VA (8 A/250 V AC)		
Switching capacity of non-aligned device (gap < 5 mm)	2000 VA (8 A/250 V AC)		
Fuse	8 A fast acting		
Mechanical lifespan	20 x 10^6 switching cycles		
Electrical lifespan	2 x 10^5 switching cycles at 1000 VA*		
Switching frequency	Max. 60/min at 100 VA* Max. 6/min at 1000 VA* (acc. to IEC 947-5-1)		
Overvoltage category	III (acc. to IEC 664-1)		
Rated impulse voltage	4 kV		
Control contact			
Input	Voltage applied, terminals A1-B1		
Can carry load	yes		
Response threshold	Automatically adjusted to supply voltage		
Max. line length	10 m		
Accuracy			
Basic accuracy	± 1 % (from scale reading)		
Setting tolerance	< 5 % (from scale reading)		
Repeat accuracy	< 0.5 % or ± 5 ms		
Voltage influence	-		
Temperature influence	≤ 0.01 %/°C		

*See abbreviations legend

Wiring diagram



Abbreviations legend:

Green LED U/t ON:
Supply voltage applied
Green LED U/t flashing slowly:
Indicates time t1 has expired
Green LED U/t flashing quickly:
Indicates time t2 has expired
Yellow LED R ON/OFF:
Position of output relay

Output circuit
*VA resistive load

Undervoltage monitoring relays USR

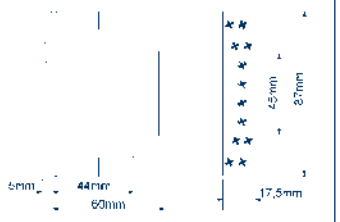
USR 1 | USR 2

General specifications

Mechanical design
- Mounts on TS 35
- Housing made of self-extinguishing plastic, IP40 protection
- Any mounting position is possible
- Screw connections protected against accidental contact, acc. to VBG 4 IP20 protection

Screw connection
- 1 x 0.5 to 2.5 mm² with/without wire-end ferrules
- 1 x 4 mm² without wire-end ferrules
- 2 x 0.5 to 1.5 mm² with/without wire-end ferrules
- 2 x 2.5 mm² flexible without wire-end ferrules
- Torque max. 1 Nm

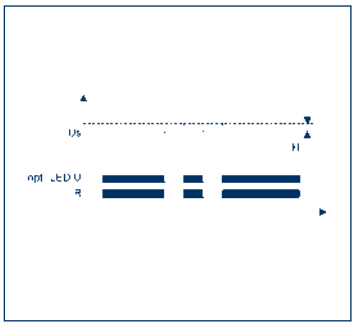
Dimensions 1



Environmental conditions	
Ambient temperature	-25 to +55 °C (acc. to IEC 68-1) -25 to +55 °C (acc. to IEC 508-1)
Storage temperature	-25 to +70 °C
Transportation temperature	-25 to +70 °C
Relative humidity	15% to 85% (acc. to IEC 721-3-3 Class 3K3)
Contamination degree	3 (acc. to IEC 664-1)
Vibration resistance	10 to 55 Hz 0.35 mm (acc. to IEC 68-2-6)
Shock resistance	15 g 11 ms (acc. to IEC 68-2-27)

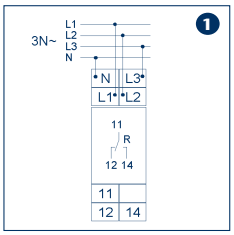
Functional description
Undervoltage monitoring for three-phase AC mains with a fixed (UFR 1) or variable (UFR 2) switching threshold, and a fixed hysteresis. All measuring inputs (L1, L2, and L3) must each be connected to a phase voltage. If three-phase measurements are not desired, then multiple measurement inputs should be connected to one phase, so that all inputs have the appropriate voltage applied. If the reverse voltage coming from the load exceeds the threshold Us, then a phase failure can not be detected.

Undervoltage monitoring without the optional time function
The output relay activates (yellow LED lit) when the measured voltage of all connected phases exceeds the threshold Us by more than the hysteresis. When the voltage of one of the connected phases falls below the fixed threshold value, the output relay is deactivated (yellow LED not lit).

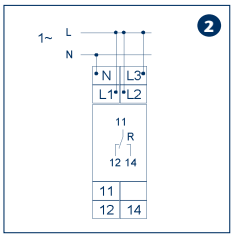


	USR 1	USR 2	
			
Type	**USR 1**	**USR 2**	
Cat. no./Qty.	**15682.2**/1	**15683.2**/1	
Dimensions	1	1	
Wiring diagrams	1, 2	1, 2	
Dimensions (L x W x H) TS 35 x 7.5	87 x 17.5 x 67.5 mm	87 x 17.5 x 67.5 mm	
Weight (individually packed: components and packaging)	72 g	72 g	
Short description	**Undervoltage Monitoring relays**	**Undervoltage Monitoring relays**	
	Voltage monitoring 3-phase	Voltage monitoring 3-phase	
	Undervoltage monitoring	Undervoltage monitoring	
	Supply voltage = Measuring voltage	Supply voltage = Measuring voltage	
	Switching threshold fixed for systems accord. to VDE0108	Variable switching threshold	
	1 CO contact	1 CO contact	
	Width: 17.5 mm	Width: 17.5 mm	
	Installation design	Installation design	
Time ranges / Setting ranges	Triggering delay	Triggering delay	
	Fast, approx. 200 ms	Fast, approx. 200 ms	
Displays			
	Yellow LED R ON/OFF*	Yellow LED R ON/OFF*	
		Green LED L1 ON/OFF*	
		Green LED L2 ON/OFF*	
		Green LED L3 ON/OFF*	
Input circuit			
Supply voltage	= measuring voltage	= measuring voltage	
Terminals	N-L1-L2-L3	N-L1-L2-L3	
Rated voltage	Un: 3N-400/230 V	Un: 3N-400/230 V	
Tolerance	-30% to +10% of Un	-30% to +10% of Un	
Rated frequency	48 to 63 Hz	48 to 63 Hz	
Rated consumption	5 VA (0.6 W)	8 VA (0.8 W)	
Power-on duration	100 %	100 %	
Recovery time	500 ms	500 ms	
Stored energy time	-	-	
Release voltage	Defined by measuring function	Defined by measuring function	
Overvoltage category	III (acc. to IEC 664-1)	III (acc. to IEC 664-1)	
Rated impulse voltage	4 kV	4 kV	
Output circuit	1 potential-free CO contact	1 potential-free CO contact	
Rated voltage	250 V AC	250 V AC	
Switching capacity of aligned device (gap < 5 mm)	1250 VA (5 A/250 V AC)	1250 VA (5 A/250 V AC)	
Switching capacity of non-aligned device (gap < 5 mm)	1250 VA (5 A/250V AC)	1250 VA (5 A/250 V AC)	
Fuse	5 A fast acting	5 A fast acting	
Mechanical lifespan	20 x 10^6 switching cycles	20 x 10^6 switching cycles	
Electrical lifespan	2 x 10^5 switching cycles at 1000 VA*	2 x 10^5 switching cycles at 1000 VA*	
Switching frequency	Max. 60/min at 100 VA* Max. 6/min at 1000 VA* (acc. to IEC 947-5-1)	Max. 60/min at 100 VA* Max. 6/min at 1000 VA* (acc. to IEC 947-5-1)	
Overvoltage category	III (acc. to IEC 664-1)	III (acc. to IEC 664-1)	
Rated impulse voltage	4 kV	4 kV	
Measuring circuit			
Measured value	AC sinus, 48 to 68 Hz	AC sinus, 48 to 68 Hz	
Measurement input	= supply voltage	= supply voltage	
Terminals	N-L1-L2-L3	N-L1-L2-L3	
Overload capacity	Defined by the tolerance of the supply voltage	Defined by the tolerance of the supply voltage	
input resistance	-	-	
Switching threshold Us	Fast 195.5 V (L-N) For facilities, acc. to VDE 0108	160 to 240 V (L-N)	
Hysteresis H	approx. 5%	approx. 5%	
Overvoltage category	III (acc. to IEC 664-1)	III (acc. to IEC 664-1)	
Rated impulse voltage	4 kV	4 kV	
Accuracy			
Basic accuracy	± 5% from rated voltage	± 5% from rated voltage	
Setting tolerance	-	-	
Repeat accuracy	≤ 2%	≤ 2%	
Voltage influence	-	-	
Temperature influence	≤ 1 %	≤ 1 %	

Wiring diagram



Wiring diagram



Abbreviations legend:

Yellow LED R ON/OFF:
Position of output relay
Green LED L1 ON/OFF:
Displays voltage L1-N
Green LED L2 ON/OFF:
Displays voltage L2-N
Green LED L3 ON/OFF:
Displays voltage L3-N

Output circuit
*VA resistive load

*See abbreviations legend

Star-delta switching relay SDSR

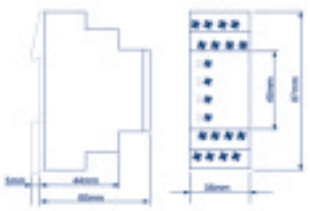
SDSR 2

General specifications

Mechanical design
- Mounts on TS 35
- Housing made of self-extinguishing plastic, IP40 protection
- Any mounting position is possible
- Screw connections protected against accidental contact, acc. to VBG 4 IP 20 protection

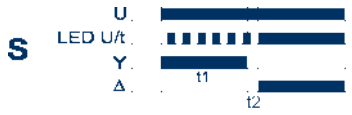
Screw connection
- 1 x 0.5 to 2.5 mm² with/without wire-end ferrules
- 1 x 4 mm² without wire-end ferrules
- 2 x 0.5 to 1.5 mm² with/without wire-end ferrules
- 2 x 2.5 mm² flexible without wire-end ferrules
- Torque max. 1 Nm

Dimensions 1



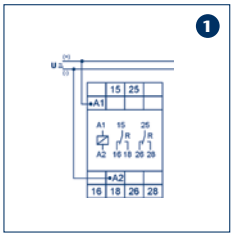
Environmental conditions	
Ambient temperature	-25 to +55 °C (acc. to IEC 68-1) -25 to +40 °C (UL 508)
Storage temperature	-25 to +70 °C
Transportation temperature	-25 to +70 °C
Relative humidity	15 % to 85 % (acc. to IEC 721-3-3 Class 3K3)
Contamination degree	2, in installed condition 3 (acc. to IEC 664-1)
Vibration resistance	10 to 55 Hz 0.35 mm (acc. to IEC 68-2-6)
Shock resistance	15 g 11 ms (acc. to IEC 68-2-27)

Functional description
When supply voltage U is applied, the output relay for the star protection activates (yellow LED is lit), and the set star time (t1) begins to run (green LED U/t flashes). After the star time expires (green LED U/t is lit), the output relay for the star protection is deactivated (yellow LED is not lit), and the set transit time (t2) begins to run. After the transit time expires, the output relay for the delta protection activates. In order to re-start this function, the supply voltage must be interrupted and re-applied.



	SDSR 2		
			
Type	**SDSR 2**		
Cat. no./Qty.	**15777.2**/1		
Dimensions	2		
Wiring diagram	2		
Dimensions (L x W x H) TS 35 x 7.5	87 x 35 x 67.5mm		
Weight (individually packed: components and packaging)	106 g		
Short description	**Star-delta start-up**		
	2 CO contact		
	Wide-range input		
	Width: 35 mm		
	Installation design		
Functions			
	S star-delta start-up		
Time delay range	**Time end range/setting range**		
Star time	10 sec/500 ms to 10 sec 30 sec/1500 ms to 30 sec 1 min/3 sec to 1 min		
Transit time (fast)			
	40 ms		
	60 ms		
	80 ms		
	100 ms		
Displays			
	Green LED ON*		
	Green LED flashes*		
	Yellow LED R ON/OFF*		
Supply circuit			
supply voltage	12 to 240 V AC/DC terminals A1(+)–A2(-)		
Tolerance	12 V -10% to 240 V +10%		
Rated frequency	48 to 63 Hz		
Rated consumption	4 VA (1.5 W)		
Power-on duration	100%		
Recovery time	100 ms		
Residual ripple for DC	10%		
Release voltage	> 30% of min. supply voltage		
Overvoltage category	III (acc. to IEC 664-1)		
Rated impulse voltage	4 kV		
Output circuit	2 potential-free CO contact		
Rated voltage	250 V AC		
Switching capacity of aligned device (gap < 5 mm)	2000 VA (8A/250V AC)		
Switching capacity of non-aligned device (gap < 5 mm)	2000 VA (8A/250V AC)		
Fuse	8A fast acting		
Mechanical lifespan	20 x 10^6 switching cycles		
Electrical lifespan	2 x 10^5 switching cycles at 1000 VA resistive load		
Switching frequency	Max. 60/min at 100 VA resistive load Max. 6/min at 1000 VA resistive load (acc. to IEC 947-5-1)		
Rated insulation voltage	250 V AC (acc. to IEC 664-1)		
Overvoltage category	III (acc. to IEC 664-1)		
Rated impulse voltage	4 kV		
Accuracy			
Basic accuracy	± 1 % (from scale reading)		
Setting tolerance	≤ 5 % (from scale reading)		
Repeat accuracy	< 0.5 % or ± 5 ms		
Voltage influence	-		
Temperature influence	≤ 0.01 % / °C		

Wiring diagram



Abbreviations legend:

Green LED ON:
Supply voltage activated
Output relay for delta protection is activated

Green LED flashing:
Indicates expiration of star time

Yellow LED ON/OFF:
Position of output relay for star protection

*See abbreviations legend

Voltage-monitoring relay VMR

VMR 1

The new voltage-monitoring relays conveniently monitor three-phase systems with and without a neutral wire. By precisely capturing characteristic values, they ensure the accessibility and reliability of a facility or machine. And in doing so, they deliver long-term added value. When operating facilities such as pumps and machines, it is critical to monitor the phase sequence, phase loss and asymmetry. Monitoring allows safe operation and prevents damage in a simple and efficient way. The power for the devices is supplied from the monitored measurement circuit. Thus the relays can easily and punctually record any irregularities in the three-phase supply systems, such as single-phase operations resulting from mains malfunctions which can lead to overheated motors. They notify of the need for maintenance or repair steps before further costs are incurred.

Application areas:

- Monitoring the connection for mobile equipment (construction equipment, agricultural devices, refrigerated vehicles)
- Protecting people and facilities – monitoring for reversal of rotation direction (for hoisting equipment, conveyor systems, elevators, escalators, etc.)
- Monitoring of sensitive systems
- Protecting from effects of passing temporary loads (loss of phase)
- Switching from normal to spare systems

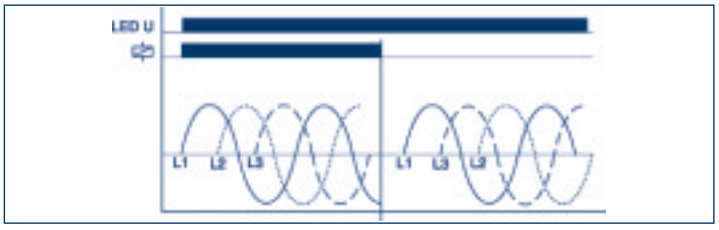
Screw connection

- 1 x 0.5 to 2.5 mm² with/without wire-end ferrules
- 1 x 4 mm² without wire-end ferrules
- 2 x 0.5 to 1.5 mm² with/without wire-end ferrules
- 2 x 2.5 mm² flexible without wire-end ferrules
- Torque max. 1 Nm

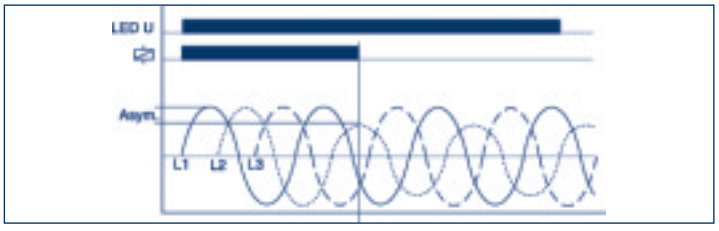
Dimensions 1

Environmental conditions	
Ambient temperature	-25 to +55 °C (acc. to IEC 68-1) -25 to +55 °C (acc. to IEC 508-1)
Storage temperature	-25 to +70 °C
Transportation temperature	-25 to +70 °C
Relative humidity	15 % to 85 % (acc. to IEC 721-3-3 Class 3K3)
Contamination degree	3 (acc. to IEC 664-1)
Vibration resistance	10 to 55 Hz 0.35 mm (acc. to IEC 68-2-6)
Shock resistance	15 g 11 ms (acc. to IEC 68-2-27)

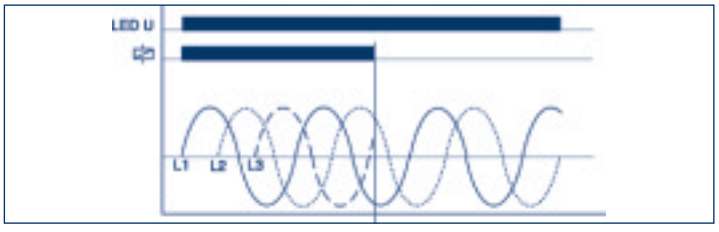
Functional description



Monitoring of phase sequence
If all phase are connected correctly and the voltage asymmetry is smaller than the defined set value, then the output relay R activates (yellow LED illuminated). If the rotational direction of the phase sequence changes, then the output relay R deactivates (yellow LED not illuminated)



Monitoring asymmetry
The output relay R is deactivated (the yellow LED is not illuminated) when the asymmetry exceeds the set value on the ASYM controller. The shut-off also takes place when the asymmetry is caused by inverse voltage from motors running on two phases.

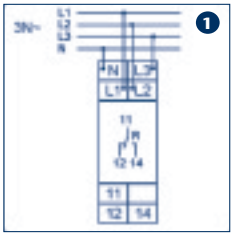


Monitoring for loss of phase
In the event of a phase loss, the output relay R deactivates (yellow LED is not illuminated).

- Mounts on TS 35
- Self-extinguishing plastic housing, IP 40 protection
- Any mounting position is possible
- Screw terminals protected against accidental touch according to VBG 4 IP 20 protection

Type	VMR 1
Cat. no./Qty.	**15956.2**/1
Dimensions	1
Wiring diagram	1
Dimensions (L x W x H) TS 35 x 7.5	87 x 17.5 x 67.5 mm
Weight (individually packed: components and packaging)	72 g
Short description	Overvoltage monitoring in three-phase systems, monitoring for phase sequence and loss of phase, monitoring for asymmetrical connection of the neutral wire is optional; supply voltage = measuring-circuit voltage 1 CO contact width: 17.5 mm Installation design
Functions	
	Monitoring of phase sequence
	Monitoring asymmetry
	Monitoring for loss of phase
Time delay range	
Triggering delay (quick)	approx. 100 ms
Displays	
Green LED ON*	Supply voltage applied
Yellow LED ON/OFF	Position of output relay
Supply circuit	1 min/3 sec to 1 min
supply voltage	(= measuring-circuit voltage)
Terminals	(N)-L1-L2-L3
Rated voltage UN	3(N)~400/230 V
Tolerance	-30% to +30% of Un
Rated consumption	8 VA (0.8 W)
Rated frequency	AC 48 to 63 Hz
Power-on duration	100 %
Recovery time	500 ms
Stored energy time	-
Release voltage	>20 % of supply voltage
Overvoltage category	III (acc. to IEC 60664-1)
Rated impulse voltage	4 kV
Output circuit	1 potential-free CO contact
Rated voltage	250 V AC
Switching capacity	1250 VA (5 A / 250 V AC)
Fuse	5 A fast acting
Mechanical lifespan	20 x 10^6 switching cycles
Electrical lifespan	2 x 10^5 switching cycles at 1000 VA resistive load
Switching frequency	Max. 60/min at 100 VA resistive load Max. 6/min at 1000 VA resistive load (acc. to IEC 947-5-1)
Overvoltage category	III (acc. to IEC 60664-1)
Rated impulse voltage	4 kV
Measuring circuit	
Measured value	3(N)~, sine, 48 to 63 Hz
Measurement input	(= supply voltage)
Terminals	(N)-L1-L2-L3
Overload capacity	Def. by tolerance of the supply voltage
input resistance	-
Asymmetry	5 % to 25 %
Overvoltage category	III (acc. to IEC 60664-1)
Rated impulse voltage	4 kV
Accuracy	
Basic accuracy	± 5 %
Setting tolerance	≤ 5 %
Repeat accuracy	± 2 %
Voltage influence	-
Temperature influence	≤ 0.05% / °C

Wiring diagram



Abbreviations legend:

Green LED ON:
Supply voltage activated
Output relay for delta protection is activated
Green LED flashing:
Indicates expiration of star time
Yellow LED ON/OFF:
Position of output relay for star protection

*See abbreviations legend

Voltage-monitoring relay VMR

VMR 3

The new **VMR 3** voltage-monitoring relay features professional monitoring of phase loss and phase sequence in three-phase and single-phase systems, with adjustable switching thresholds and triggering delays. The monitoring of the phase sequence, and thus the rotational direction of the phase sequence, is a very important function. A drive which is rotating incorrectly can lead to severe machine or system damage.

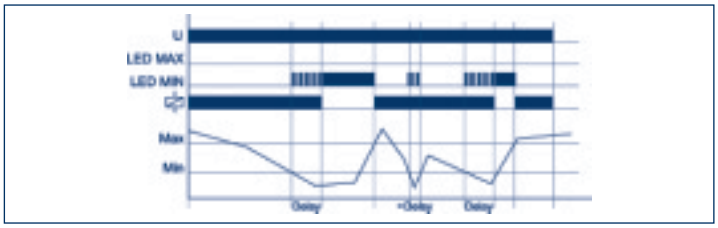
In addition, this unit can monitor machines for possible surges or dips in the mains voltage. A breakage in a neutral wire can also be quickly, safely, and reliably detected. This makes the **VMR 3** a compact solution for operating non-stationary machines securely and reliably, with a pluggable power supply from three-phase current.

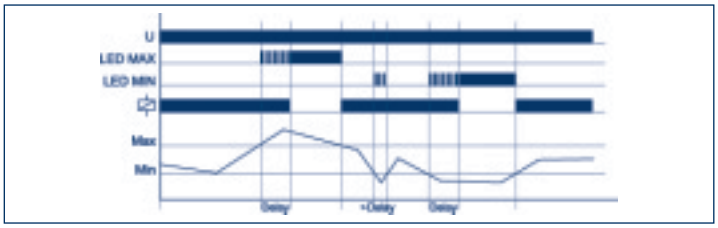
Screw connection
- 1 x 0.5 to 2.5 mm² with/without wire-end ferrules
- 1 x 4 mm² without wire-end ferrules
- 2 x 0.5 to 1.5 mm² with/without wire-end ferrules
- 2 x 2.5 mm² flexible without wire-end ferrules
- Torque max. 1 Nm

Dimensions ❶

Functional description
During all functions, if the minimum value for the measured voltage has been selected as a larger value than the maximum, then the Min. and Max. LEDs flash alternately (the relay is in off position). If a system error has occurred when activating the device, then the output relay remains off and the LED for the corresponding threshold illuminates. The device records every phase voltage (L-N) separately and monitors them according to the selection function (UNDER or WINDOW).

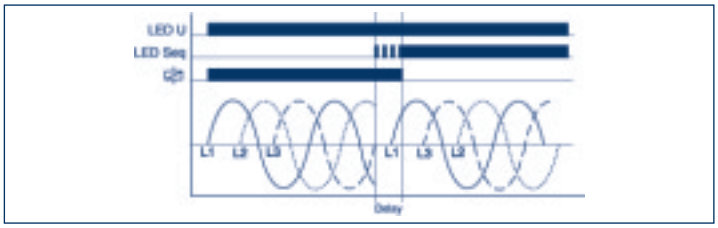
Environmental conditions	
Ambient temperature	-25 to +55 °C (acc. to IEC 68-1)
	-25 to +55 °C (acc. to IEC 508-1)
Storage temperature	-25 to +70 °C
Transportation temperature	-25 to +70 °C
Relative humidity	15 % to 85 % (acc. to IEC 721-3-3 Class 3K3)
Contamination degree	3 (acc. to IEC 664-1)
Vibration resistance	10 to 55 Hz 0.35 mm (acc. to IEC 68-2-6)
Shock resistance	15 g 11 ms (acc. to IEC 68-2-27)



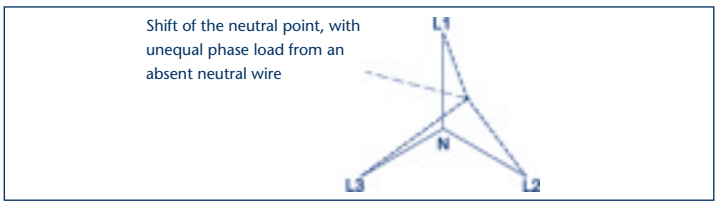


Undervoltage monitoring (UNDER, UNDER+SEQ)
When the measured voltage (one of the phase voltages) falls under the value set at the Min controller, the set triggering delay time begins to run (the red LED Min flashes). The output relay R deactivates (yellow LED not illuminated) after the expiration of the delay time (red LED Min illuminated). If the measured voltage (all phase voltages) exceeds the value set at the Max. controller, then the output relay R re-activates (yellow LED illuminated).

Window function (WIN, WIN+SEQ)
The output relay R activates (yellow LED illuminated) when the measured voltage (all phase voltages) exceeds the set value on the Min controller. When the measured voltage (one of the phase voltages) exceeds the value set at the Max. controller, the set triggering delay time begins to run (the red LED max. flashes). The output relay R deactivates (yellow LED not illuminated) after the expiration of the delay time (red LED Max illuminated). The output relay re-activates (yellow LED illuminated) when the measured voltage once again falls below the maximum value (red LED Max not illuminated). When the measured voltage (one of the phase voltages) falls under the value set at the Min controller, the set triggering delay time begins to run (the red LED Min flashes). The output relay R deactivates (yellow LED not illuminated) after the expiration of the delay time (red LED Min illuminated).



Monitoring the phase sequence (SEQ)
The monitoring of the phase sequence is selectable for all functions. For single-phase circuits, monitoring of the phase sequence must be turned off. When the rotation direction of the phase changes (red LED SEQ illuminated), the output relay R is deactivated (yellow LED not illuminated) after the triggering delay time expires.

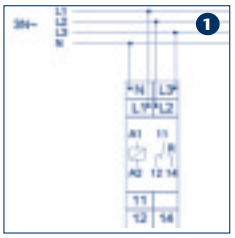


Neutral wire break
The device monitors each phase (L1, L2 and L3) in reference to N. An asymmetrical phase load and a neutral wire breakage in the mains line will result in a dislocation of the neutral point. When one of the phase voltage exceeds the set shutdown threshold (Min. or Max.), the triggering delay then begins to run (red LED Min. or Max. flashes). The output relay R deactivates (yellow LED not illuminated) after the expiration of the delay time (red LED Max or Min illuminated).

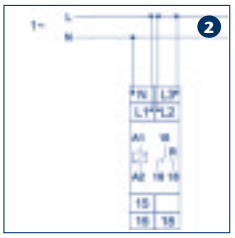
- Mounts on TS 35
- Housing made of self-extinguishing plastic, IP40 protection
- Any mounting position is possible
- Screw terminals protected against accidental touch according to VBG 4
  IP 20 protection

	VMR 3		
Type	**VMR 3**		
Cat. no./Qty.	**15958.2**/1		
Dimensions	1		
Wiring diagram	1.2		
Dimensions (L x W x H) TS 35 x 7.5	87 x 17.5 x 67.5 mm		
Weight (individually packed: components and packaging)	72 g		
	Voltage monitoring in three-phase and single-phase systems, multi-function, monitoring for phase loss, monitoring of phase sequence selectable, monitoring for asymmetrical connection of the neutral wire is optional; 1 CO contact, width: 17.5 mm Installation design		
Functions			
UNDER	Undervoltage monitoring		
UNDER+SEQ	Undervoltage and phase sequence monitoring		
WIN	Monitoring the window between the min. and max. thresholds		
WIN+SEQ	Monitoring the window between the min. and max. thresholds and phase sequence monitoring		
Time delay range	**Setting range**		
Start-up override	-		
Triggering delay	0.1 s 10 s		
Displays			
Red LED ON/OFF	Error display for corr. threshold		
Red LED flashing	Displays the triggering delay for the corresponding threshold		
Yellow LED ON/OFF	Position of output relay		
Supply circuit			
supply voltage	(= measuring-circuit voltage)		
Terminals	(N)-L1-L2-L3		
Rated voltage UN	3(N)~400/230 V		
Tolerance	-30% to +30 % of Un		
Rated consumption	8 VA (1 W)		
Rated frequency	AC 48 to 63 Hz		
Power-on duration	100 %		
Recovery time	500 ms		
Stored energy time	-		
Release voltage	>20 % of supply voltage		
Overvoltage category	III (acc. to IEC 60664-1)		
Rated impulse voltage	4 kV		
Output circuit	1 potential-free CO contact		
Rated voltage	250 V AC		
Switching capacity	1250 VA (5 A / 250 V AC)		
Fuse	5 A fast acting		
Mechanical lifespan	20 x 10^6 switching cycles		
Electrical lifespan	2 x 10^5 switching cycles at 1000 VA resistive load		
Switching frequency	Max. 60/min at 100 VA resistive load Max. 6/min at 1000 VA resistive load (acc. to IEC 947-5-1)		
Overvoltage category	III (acc. to IEC 60664-1)		
Rated impulse voltage	4 kV		
Measuring circuit			
Measured value	3(N)~, Sinus, 48 to 63 Hz		
Measurement input	(= supply voltage)		
Terminals	(N)-L1-L2-L3		
Overload capacity	Def. by tolerance of supply voltage		
input resistance	80% to 130% of UN		
Asymmetry	70% to 120% of UN		
Overvoltage category	III (acc. to IEC 60664-1)		
Rated impulse voltage	4 kV		
Accuracy			
Basic accuracy	± 5% of scale limit		
Setting tolerance	≤ 5% of scale limit		
Repeat accuracy	≤ 2%		
Voltage influence	-		
Temperature influence	≤ 1 %		

Wiring diagram



Wiring diagram

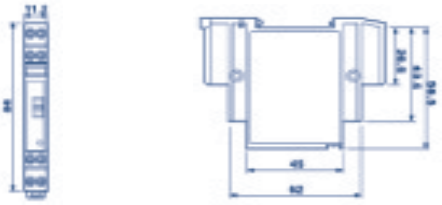


Auto-Off-On Relay RM/HA/24 VUC

- Mounts on TS 35
- Installation design, width 11.2 mm
- IP 20 protection
- Screw connections protected against accidental contact acc. to VBG 4
- Switch with switching between Manual/Off/Automatic
- LED display for relay in working position
- Basic insulation, acc. to VDE 0435/EN 61810-1

RM/HA/24 VUC

Dimensions



Type **Cat. no. /Qty.**	**RM/HA/24 VUC** **15561.2**/1	
Size (L x W x H) with TS35 x 7.5	84 x 11.2 x 64 mm	
Weight	45 g	
General specifications **Insulation properties**		
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	
Dielectric strength of coil/contacts (1.2/50 µs)	4 kV	
Dielectric strength between the mains voltage and contacts	3000 V AC	
with open contact	1000 V AC	
Operating temperature	-10 to +50°C	
Relay protection type	IP 20	
Stripping length	7mm	
Max. connection cross-section for screw	Solid	Stranded
mm²	1 x 6/2 x 2.5	1 x 4/2 x 1.5
AWG	1 x 10/2 x 14	1 x 12/2 x 16
Torque	0.5 Nm	
Ambient heat dissipation without contact current	0.4 W	
with continuous current	1.8 W	
Coil input data		
Rated voltage (UN)	24 V AC/DC	
Power rating AC/DC	0.6 VA (50 Hz)/0.4 W	
Operating range	19.2 V to 26.4 V AC/DC	
Contacts output data		
Number of contacts	1 CO contact	
Max. continuous current/max. Inrush current	10 A / 15 A	
Rated voltage / max. Switching voltage	250/400 V AC	
Max. switching capacity AC 1	2500 VA	
Max. switching capacity AC 15 (230 V AC)	500 VA	
1-phase motor load, AC 3 - operation (230 V AC)	0.44 KW	
Max. switching current DC 1: 30/110/220 V	10 A / 0.3 A / 0.12 A	
Min. switching load	300 mW (5 V/5 mA)	
Contact material	AgSnO 2	
Mech. Service life	10 x 10^6 switching cycles	
Electrical lifespan AC 1	100 x 10^3 switching cycles	
Contact data		
Permissible contact load of glow lamps (230 V)	1000 W	
Fluorescent lamps, compensated (230 V)	350 W	
Fluorescent lamps, uncompensated (230 V)	500 W	
Halogen lamps (230 V)	1000 W	

Approvals (details upon request)

Auto-Off-On Relay RM/HA/24 VUC

Circuit diagram

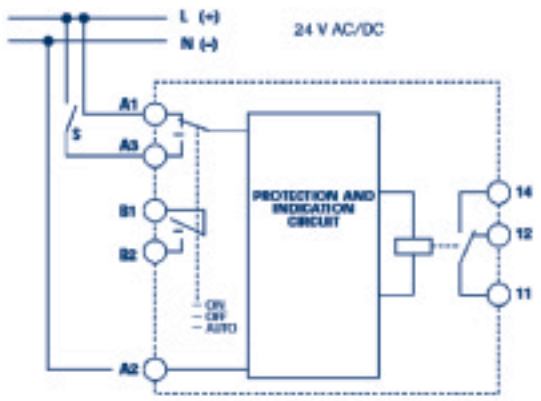


Table of functions

Changeover contact	Controller output (S)	Output relay	LED	B1 - B2 check-back contact
AUTO	Closed	ON	ON	Closed
AUTO	Open	OFF	OFF	Closed
ON	-	ON	ON	Open
OFF	-	OFF	OFF	Open

Functional principle

When the CO contact is in the AUTO position, the check-back contact B1-B2 is closed.
The LED is lit when the NO of the internal relay is closed.

AUTO = The output signal originating from the controller will be forwarded
OFF = The actuator for restricting the control variable is turned off.
ON = The actuator for restricting the control variable is turned on independent from the controller.

GSM-PRO – perfect for communication

CONTA-CLIP's GSM-PRO module offers a remote control and maintenance solution which allows you to monitor and control decentralized facilities.

The **GSM-PRO** module informs you when the process reaches a user-defined status or limit value. Digital and analogue inputs values can also be transmitted via e-mail or SMS (text message). The digital relay outputs can be switched using an SMS sent from the decentralized control room or from the service technician.

Thus the process can be monitored and controlled remotely.

Monitoring and controlling the **GSM-PRO** module is even easier when you use our iPhone or Android App. If you are using multiple modules and you need a complete overview of all modules in the field at a glance, then **CONTA-CLIP's** portal software provides another helpful solution.

All of the module inputs, output and associated functions can be easily configured using the module software included in the delivery.

The wide-range input makes it possible to operate the **GSM-PRO** module with supply voltages from 10 to 30 V DC. So the I/O module can also be used in mobile applications, such as those for the transportation sector.

Inputs

You can stay up to date with just one SMS or e-mail message.

The **GSM-PRO** module features eight multi-function inputs. The input module may be selected as either digital (24 V DC) or analogue (0 to 10V), so that many different signal levels can be connected.

A designated person or group from the built-in address book will then be notified with an SMS or e-mail message if a specified status changes on the input side. The software allows you to easily specify the notification status, the person or group to be notified, and the content of the SMS. You can also query the current status of the process or machine simply by sending a query SMS message. The query message can specify specific inputs or all inputs.

Analogue inputs
The required measurement units can be custom defined on the analogue inputs (kg, bar, etc.). You can then monitor an analogue process and have an SMS message sent out depending on various circumstances:

- When an input exceeds a defined maximum limit,
- When an input is below a defined maximum limit,
- When an input returns to a normal state within the specified limits.

E-mail
E-mails are sent directly from the **GSM-PRO** module via an SMTP server to the recipient. The **CONTA-CLIP** server is set as the standard server.

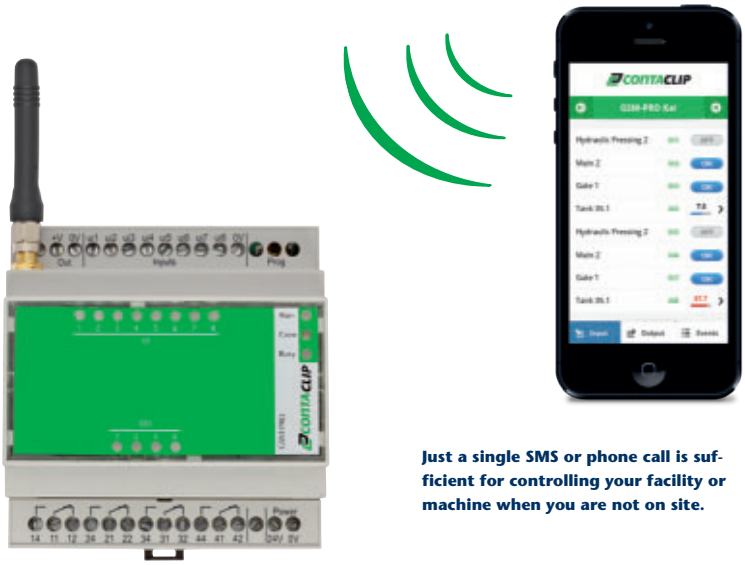
The software also allows you to set up your own server.

Outputs

The **GSM-PRO** module features four relay outputs (four COs) with 250V/5A. The versatility of the outputs enables machine and facility functions to be controlled even when you are not on-site.

The status of one or more outputs can be queried with a single SMS text message. When a process requires a control pulse, the outputs can also be controlled with an SMS. An output can also be activated simply by calling it up when using the call-in function. If an output only needs to be controlled for a specific duration (to issue a reset pulse, for example), then the output can be activated for a period between 1 and 36,000 seconds using an SMS or phone call to activate the impulse-ON contact function.

It is also possible to link an output internally to a digital input. So as soon as the input switches to "one", an SMS or e-mail is sent out and the corresponding output is switched.



Just a single SMS or phone call is sufficient for controlling your facility or machine when you are not on site.

OTA (over-the-air) capabilities

In many systems or machines, some parameters or user entries may need to be changed after the installation is completed. In such cases you may also need to change parameters on the **GSM-PRO** module. The **GSM-PRO** module features OTA (over-the-air) functions for just such instances. This functionality allows you to change parameters without having to be on site:

OTA configuration
The initial configuration process must always take place via a direct USB connection between the **GSM-PRO** module and the PC. When the APN settings are specified during this initial configuration, it is still possible to access the module later via OTA and change the configuration. Whether you're adding a new phone number of a user, a new I/O setting, a change in the module name or any other change: the settings on all **GSM-PRO** modules can easily be changed from remote locations.

OTA firmware updates
The **GSM-PRO** module can also update its firmware using OTA, so modules with different versions can always be kept up to date. The newest software can be installed remotely. You can also add new functions and configure them without being on site.

The OTA firmware update can be triggered with an SMS that is sent to the **GSM-PRO** module containing a specific code. This setting allows the user to have complete control of whether or when an update will be installed.

That means you're always up to date with integrated OTA functionality.

Log functionality

Is your process running optimally? What happened last week? How many hours has the machine been running this week?

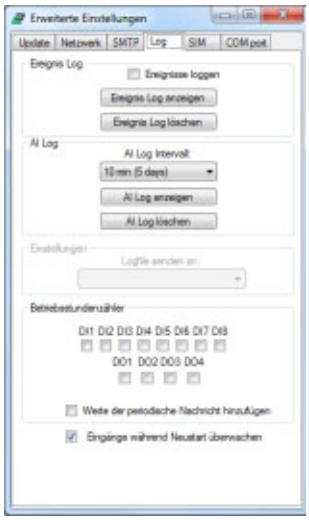
The **GSM-PRO** module delivers answers to all these questions. The extensive logging functionality of the **GSM-PRO** module allows you to log events that have taken place at a facility or a machine over a defined period of time.

Event log
This log function of the module keeps track of a variety of activities and events. The following events are logged:

- The threshold limit on an an analogue input (AI) has been reached
- Rising and falling edges of the digital inputs (DI)
- Incoming messages
- Outgoing messages
- Data transfers
- OTA updates

Logs for the analogue inputs
When analogue signals are being used in a process, the **GSM-PRO** features an AI Log function which allows you to log any process values from the analogue input which have a specified frequency. In this way you can compile a history of the process that can help you later to optimize the process. The logging frequency can be configured in steps from 5 to 60 minutes.

Both log files can be transferred to the PC using a USB cable. Or, using the OTA functions, you can have the log files automatically sent to your e-mail address.



Run-time counter
How many hours has the motor been running? Is the unit due for servicing or maintenance?

The run-time counter for the **GSM-PRO** module's I/Os simplify the control process. As soon as an input or output is activated, the time is registered and added to a pre-set time interval. The counter value of an input or output can be queried at any time with an SMS. Or the current counter readings can be added to the module's periodic status messages.

Smartphone apps

CONTA-CLIP's iPhone and Android smartphone apps for the **GSM-PRO** modules provide a simple and fast solution so that you can get an overview of each distributed system and application. These apps can show you the status of all inputs and outputs from one or more **GSM-PRO** modules.

They also allow you some control over the process. Module outputs can be controlled easily and directly using this app. The app buttons provide an intuitive control interface (for controlling the heating, a motor, water pump, etc.).

The start is easy!
The address book for the **GSM-PRO** modules can be set up easily and quickly. Whether you are using one or multiple **GSM-PRO** modules, all modules names are clearly displayed within the app.

Updates are easy!
Once a **GSM-PRO** module is selected from the list, the current states of the inputs and outputs are displayed. Additional extended values can also be displayed associated with the analogue inputs.

Control is easy!
From the list of available outputs, each output can be individually selected and controlled (with or without a timer function) with just the press of a button.

Saving is easy!
The 30 most recent I/O events will be saved even when the app is not currently running on your smartphone. So the user always stays informed.

Free Available at:

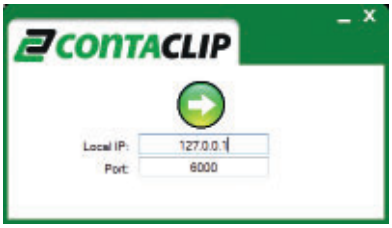
ANDROID APP ON Google play

Available on the iPhone App Store

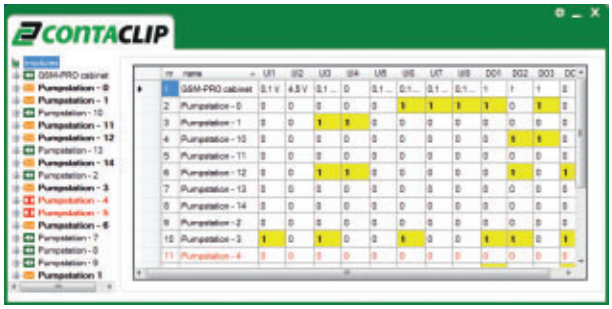
Portal Software

The **GSM-PRO**, like most SMS modules, are often used as stand-alone units in the field. These modules are put to use at various remote locations even though they normally have configurations which are very similar. It is often quite helpful to have one overall view of the status of all modules used in the field. The new **GSM-PRO** portal software from **CONTA-CLIP** offers you precisely this possibility. This software is very easy to install and configure. All modules in the field can now be easily monitored and run from a single local site or control panel.

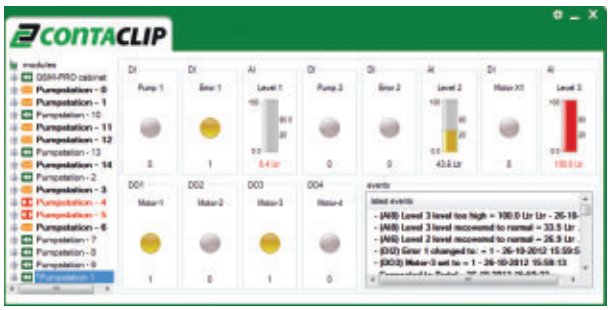
The **GSM-PRO** portal software can be installed on any Windows PC (XP, Vista, or Win7). The field modules can use port forwarding to communicate with the portal software so that they can be monitored and controlled. Specific IP addresses and ports must first be configured on the **GSM-PRO** modules in the field and in the portal software in order to enable this functionality. Pre-installed modules can also be integrated later into the portal by using OTA configuration.



Once the portal software is started on the PC, all modules are quickly registered. They are then listed in alphabetical order on the portal.



The portal displays an overview of registered **GSM-PRO** modules, which already shows the status of all detected inputs and outputs. Any state changes to the inputs or outputs are marked yellow in the overview. So even when many modules are registered with the portal, changes to any one module are easily visible. In addition to this monitoring function, the outputs of all field modules can be controlled directly. By clicking the mouse on the corresponding button in the portal software, a broadcast signal is sent out and the selected outputs are activated.



When a module is selected, a window opens showing detailed information about that particular module. The specific names of the I/Os are displayed along with the standardized abbreviations of the **GSM-PRO** module. All module outputs can be controlled by simply clicking on the corresponding portal buttons. The "Events Log" lists all actions and I/Os for the module. This log can also be easily exported.

The **GSM-PRO** portal provides a clear, versatile monitoring and control system for **GSM-PRO** modules. It can be easily implemented without any prior programming knowledge.

Options and possibilities

GSM-PRO

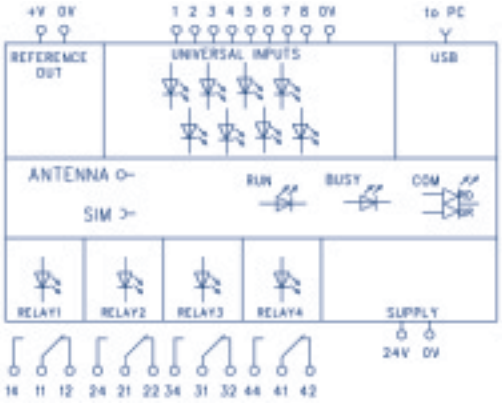
- Mounts on TS 35 or directly mounted
- Enclosed housing, with width of 88 mm
- Screw wire connection
- Status displays for the GSM-PRO module

'Run' LED displays module activity
Flashing = starting the module
On = module started
Off = no power supply

'Com' LED displays activity on the GSM network
Flashing = roaming GSM network
On = connection with GSM network
Off = no connection with GSM network

'Busy' LED displays activity on the modem
On = modem is functioning

LED status displays for all inputs and outputs



Type	GSM-PRO	
Cat. no.	**16099.2**	
Size (L x W x H) with TS 35 x 7.5, mm, without antenna	88 x 95 x 77 mm	
Weight	275 g	
Input data		
8 multi-function analogue/digital inputs	0 to 10V / 24 VDC (10 to 30 VDC)	
Resolution / accuracy (0 to 10V)	20 mV / ± (20 mV + 0.3 %*)	
Input resistance (0 to 10 V)	46 kOhm	
Input current (digital inputs)	@10V: 0.3 mA / @24 V: 0.8 mA / @30 V: 1.0 mA	
UI minimum pulse duration	800 ms (not during transmission)	
Threshold for digital inputs	Low < 2V / High > 4V	
Output specifications		
4 relay outputs	4 x CO contacts, 250 V ~	
Continuous current / Inrush current (resistive load)	5 A / 5 A	
Max. switching capacity	1200 VA at 240 V AC, 5A	
Lifespan at resistive load	Electrical: at max. load: > 1.5 x 10^5 switching cycles; mechanical: 15 x 10^6 switching cycles	
Max. switching frequency	6 min^{-1} with continuous current; 1200 min^{-1} with no load	
Contact material / Test voltage	AgNi / 4 kV	
GSM specifications		
Frequency	850/900/1800/1900 MHz	
Sensitivity	-108 dBm @ 850/900 MHz / -107 dBm @ 1800/1900 MHz (typical)	
Transmit power	Class 4 (2 W @ 850/900 MHz), Class 1 (1W@1800/1900 MHz)	
Antenna	50 Ohm impedance, SMA plug	
General specifications		
Voltage supply	10 to 30 V DC	
Current consumption	275 mA DC @ 24 V DC	
Reference from	4.7 V ± 10% / 20 mA	
Backup power	Internal maintenance-free supercap capacitor	
Operating temperature / Storage temperature	-20 °C to 50 °C | -20 °C to 70 °C	
Max. relative humidity	80 %, non-condensing	
DIN-VDE specifications	Low-Voltage Directive (LVD) 2006/95/EC, in compliance with EN 50178	
Electromagnetic properties	Directive 2004/108/EC, in compliance with EN 55011 and EN 61326-1	
Frequency spectrum	R&TTE 1999/5/EC in compliance with ETSI EN 301-511 V9.0.2	
Connection type	Screw connection	
Wire connect cross-section	0.2 to 2.5 mm^2	
Stripping length	6 mm	
Material: Housing / Connecting terminals	Noryl / polyamide 6.6	
Flammability class per UL94	V0	
Protection class (DIN 40050)	IP20	
Installation guidelines	Refer to manual	
Accessories		**Qty.**
Module antenna	GSM ANTENNA	
Cat. no.	**16101.2**	1
External antenna	GSM ANTENNA EXTERNAL-SMA-3M	
Cat. no.	**16061.2**	1
External antenna	GSM ANTENNA EXTERNAL-SMA-5M	
Cat. no.	**16172.2**	1
External antenna	GSM ANTENNA EXTERNAL-SMA-10M	
Cat. no.	**16173.2**	1
External Antenna (Not UV resist.)	GSM ANTENNA EXTERNAL-SMA-3M-ECO	
Cat. no.	**16139.2**	1
USB programming cable	GSM USB cable	
Cat. no.	**16103.2**	1
Portal Software	GSM-PRO PORTAL **	
Cat. no.	**16155.2**	1

* Of measured reading, ** The portal software can be downloaded at www.conta-clip.de. The software is free for up to two GSM-PRO modules. If you are monitoring more modules, you can order a software key using this order number.

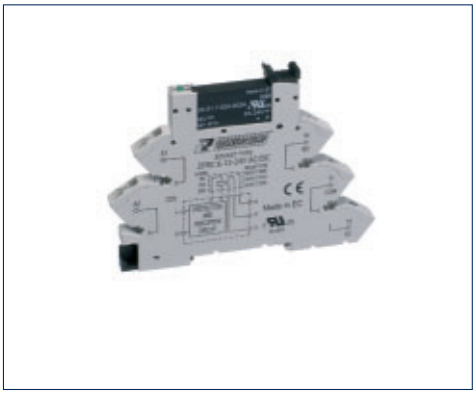
Notes

Opto-couplers

The unambiguous and secure separation of potentials in the different data and control signals – this is important for the trouble-free functioning of equipment and production facilities. The opto-coupler is to an increasing degree responsible for the coupling between sensor and controls, or controls and actuators.

The opto-coupler offers several other advantages over mechanical relay couplers, in addition to the electrical isolation of input and output circuits. This includes a high switching frequency, a high repetition accuracy, a long lifespan, and resistance to shock.

CONTA-CLIP offers opto-couplers in a variety of voltages and power ranges. These modules and units are provided with the appropriate protective input circuitry so that they are suited for industrial applications.

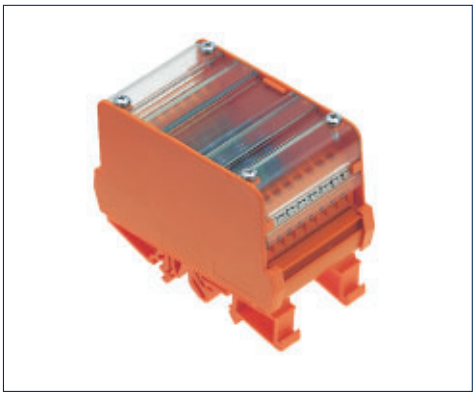


Solid-state Compact PSC

The **PSC** Solid-state Compact features a compact shape in terminal block design. Thanks to their thin form (6.2 mm) and a switchable continuous current of 2 amps, these solid-state modules can be integrated into a mounted-rail control design where space is tight. And owing to their features of secure electrical isolation of circuits and the multiplication of contacts, these modules are well-suited for use in automation engineering. The solid-state units offer a total of 8 varieties, including screw and tension-spring wire connections, and are available with input voltages from 24 to 60 VDC and 240 VAC. With the AQI cross-connection system, mutual potentials can be carried out over the coil or contact sides. Excellent equipment identification is possible since the socket base has a labelling surface for the standard PMC BSTR 6/30 marking system. **CONTA-CLIP** also offers a customer-specific labelling service, in addition to the standard marking.

Solid state relay module CMS-SSR

The **CMS-SSR** two-way solid state relay module has universal AC/DC inputs and outputs that allow for any operating combination. The voltage drop to the outputs is extremely low, even at maximum operating load. This results in very low heating up of the local surroundings. Both channels of the module are identical and have a yellow LED to indicate the switch status.



Opto-coupler modules OKI

The **OKI** opto-coupler modules are available with either four or eight switching channels, suitable for varying input voltage types.

The applied output voltage can be between 5 and 48 V. The maximum output current can be up to 100 mA. An LED showing the actual switching status is available for each channel. The standard maximum transmission frequency is 100 Hz. Modules with higher transmission frequencies are available upon request.

Solid-state relays SSR & Base SSOIF

The **Opto 22** solid-state relay modules feature excellent handling characteristics and a high power rating. Individual modules can be replaced and combined together.

The modules are suitable for particularly high output current levels of up to 3 A. Short-term current surges may reach up to 5 A, and yet the electrical isolation from the input side is still ensured.

The opto-coupler can simply be inserted onto the **SSOIF** base system, and it is then attached. Depending on the version, between 1 and 16 such modules can be attached side by side.

For their protection, the opto-couplers use an integrated safety fuse, which can be easily twisted out and replaced. The switching status is also displayed with an integrated LED. The Base **SSOIF** can be mounted on the standard **TS 32** and **TS 35** DIN rail systems.

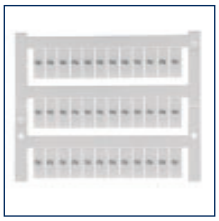
Solid-state compact PSC

Solid-state terminals

1. Overview

(a) Labelling | Marking

The socket bases have a labelling surface which is optimally suited for our **PMC Pocket-Maxicard** standard marking systems. In addition to our large variety of standard labels, **CONTA-CLIP** can also provide "just-in-time" individual labelling for you.



(b) Using the mount/dismount lever

The mounting and dismounting mechanism forms a reliable connection by latching the relay with the socket base. The fitted relay can be removed, easily and without force, from the socket base by using the dismount function of the lever!

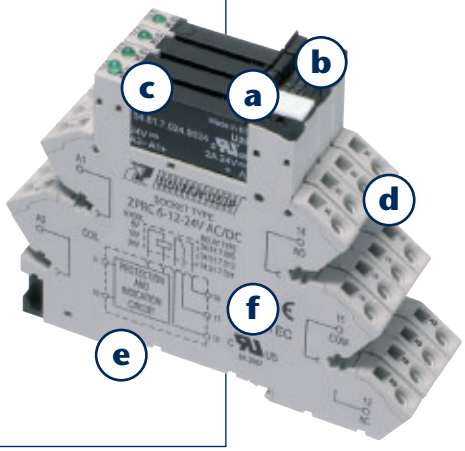
(c) Pluggable solid-state modules

Pluggable relays are also available with AgSNO and gold contacts, to fit with the many functions of your individual requirements!

Converting switching relays to solid-state modules

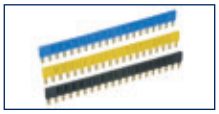
Relay terminals can be later converted to solid-state terminal, in cases of high expected electrical lifespans and in order to avoid the influence of contact-material migration (with DC).

Socket base	Input	Output	Solid-state relays
ZPRC 6-12-24V DC	24V DC	2A 24V DC	PSC 1/24V/DC-24V/2A/DC
ZPRC 60V DC	60V DC	2A 24V DC	PSC 1/60V/DC-24V/2A/DC
ZPRC 230V AC	230V AC	2A 24V DC	PSC 1/60V/DC-24V/2A/DC
ZPRC LW 230V AC	230V AC	2A 24V DC	PSC 1/60V/DC-24V/2A/DC
ZPRC 6-12-24V DC	24V DC	2A 230V AC	PSC 1/24V/DC-240V/2A/AC
ZPRC 60V DC	60V DC	2A 230V AC	PSC 1/60V/DC-240V/2A/AC
ZPRC 230V AC	230V AC	2A 230V AC	PSC 1/60V/DC-240V/2A/AC
ZPRC LW 230V AC	230V AC	2A 230V AC	PSC 1/60V/DC-240V/2A/AC
PRC 6-12-24V DC	24V DC	2A 24V DC	PSC 1/24V/DC-24V/2A/DC
PRC 60V DC	60V DC	2A 24V DC	PSC 1/60V/DC-24V/2A/DC
PRC 230V AC	230V AC	2A 24V DC	PSC 1/60V/DC-24V/2A/DC
PRC LW 230V AC	230V AC	2A 24V DC	PSC 1/60V/DC-24V/2A/DC
PRC 6-12-24V DC	24V DC	2A 230V AC	PSC 1/24V/DC-240V/2A/AC
PRC 60V DC	60V DC	2A 230V AC	PSC 1/60V/DC-240V/2A/AC
PRC 230V AC	230V AC	2A 230V AC	PSC 1/60V/DC-240V/2A/AC
PRC LW 230V AC	230V AC	2A 230V AC	PSC 1/60V/DC-240V/2A/AC



(d) Pluggable external cross-connections

The AQI/PRC pluggable cross-connection system enables a time-saving distribution of potentials. The AQI/PRC is constructed so that it is protected against accidental touch. It is available as a 20-pole unit, in either yellow, blue or black. The cross-connection can be shortened to fewer poles in order to fit the required interface. Insulation plating can be used to insulate the ends.

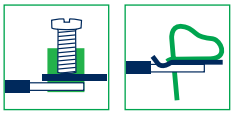


(e) Mounts on standard TS 35 rail

CONTA-CLIP solid-state terminals can be mounted as needed on standard TS 35 DIN rails, according to EN 50035 and EN 50022.

(f) Connection types

All of our relay terminals are optionally available with screw or tension-spring connection systems.



2. Approvals (details upon request)

Solid-state compact PSC

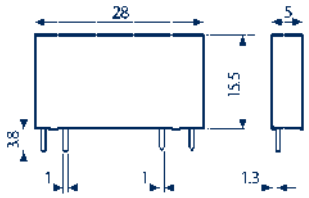
Solid-state terminals

3. Features

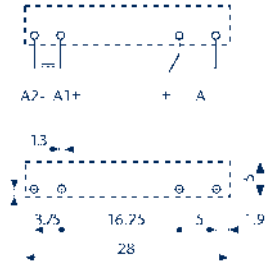
I. Solid-state module

- 5 mm width, very thin solid-state module, semi-conductor relay
- For DC or AC loads, without contact-material burn-off
- For high frequency switching cycles

The complete view of the solid state module



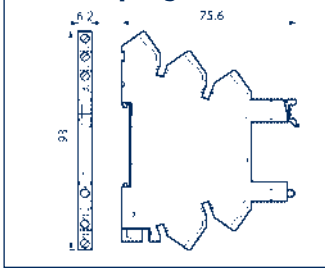
View of connections



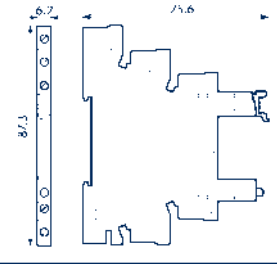
II. Socket base

- Mounts on TS 35
- Very flexible and modular construction of individual solid-state module base
- User-friendly, because the relays can be easily replaced
- High-quality connecting terminals (tension-spring or screw connection system)
- Integrated EMC input circuitry and LED
- High-quality innovative mount/dismount lever
- All versions are optionally available with screw or tension-spring connection system

Tension-spring connection



Screw connection



4. General specifications

Opto-coupler, semiconductor relay, SSR

Additional data

Ambient heat dissipation	without output current W	0.2 to 0.5 at ZPRCU LW 1/240 V DC and PRCU LW 1/240 V DC
	at rated output current W	0.4 to 0.9 at ZPRCU LW 1/240 V DC and PRCU LW 1/240 V DC

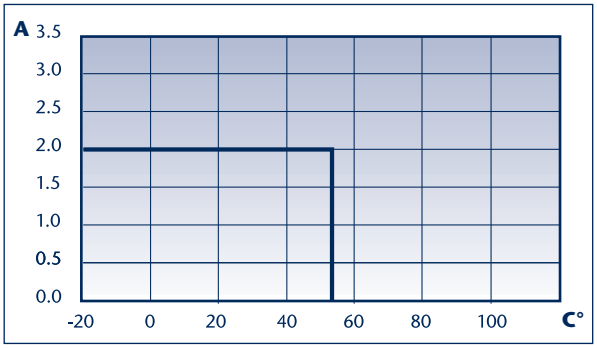
5. Input specifications

DC version

Rated voltage U_N V	Input code	Operating range U_{min} V	U_{max} V	Drop-out voltage U V	Rated current, I mA	Power rating P W
24	–	16.8	30	10	10.5	–
230 to 240 VAC	–	184	264	72	5.6 (*)	0.5 (*)

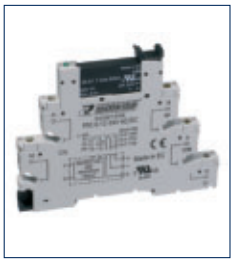
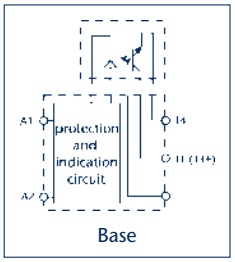
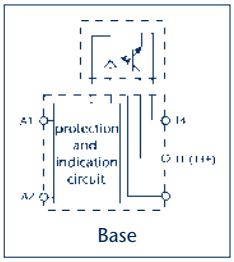
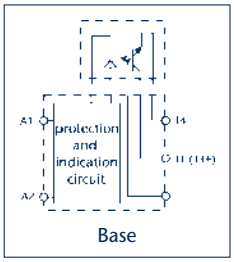
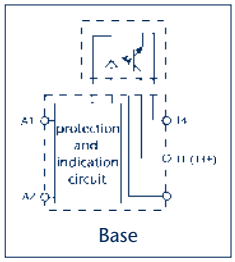
* Rated current and power at UN = 240 V.

6. Output specifications

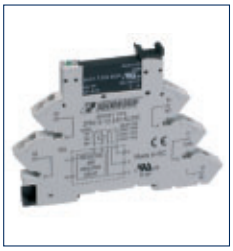
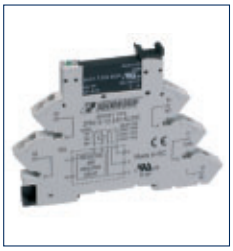
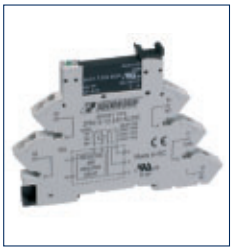
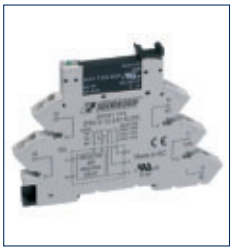
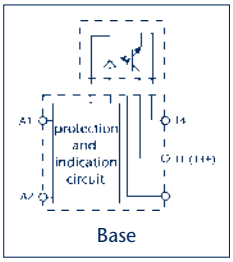
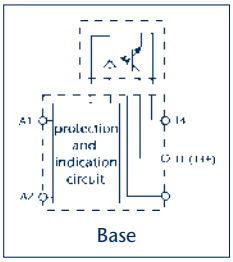
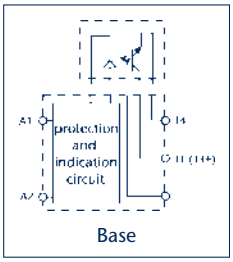
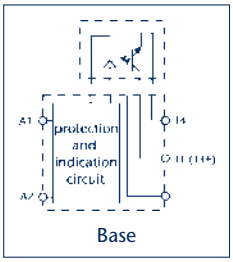


Continuous current, dependent on the ambient temperature.
SSR with 2 A, DC or AC

Solid-state compact PSC

Solid-state terminal, screw connection	**PSCU 1/24 V DC/240 V AC**	**PSCU 1/24 V DC/24 V AC**	**PSCU 1/240 V AC/24 V DC**	**PSCU 1/240 V AC/240 V AC**
consisting of: · Base terminal and pluggable solid-state module · Mounts on TS 35				
Circuit diagram				
· Internal EMC coil circuitry and LED display				
Type	**PSCU 1/24 V DC/24 V DC**	**PSCU 1/24 V DC/240 V AC**	**PSCU 1/240 V AC/24 V DC**	**PSCU 1/240 V AC/240 V AC**
Cat. no./Qty. Type/Colour grey (RAL 7032)	**15530.2/10**	**15529.2/10**	**15532.2/10**	**15531.2/10**
Size (L x W x H) with TS35 x 7.5	87.3 x 6.2 x 79.9 mm	87.3 x 6.2 x 79.9 mm	87.3 x 6.2 x 79.9 mm	87.3 x 6.2 x 79.9 mm
Weight	36 g	36 g	36 g	36 g
Rated operating voltage	24 V DC	24 V DC	230 V AC	230 V AC
General specifications				
Response time/Release time	0.1/0.4 ms	12/12 ms	0.1/0.4 ms	12/12 ms
Dielectric strength of control/load circuit	2,500 V	2,500 V	2,500 V	2,500 V
Ambient temperature	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C
Relay protection type	RT III	RT III	RT III	RT III
Ratings for socket base				
Ambient temperature	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C
Stripping length	10 mm	10 mm	10 mm	10 mm
Max. wire cross-section, solid | finely stranded	1 x 2.5 | 1 x 2.5 mm²	1 x 2.5 | 1 x 2.5 mm²	1 x 2.5 | 1 x 2.5 mm²	1 x 2.5 | 1 x 2.5 mm²
	1 x 14 | 1 x 14 mm²	1 x 14 | 1 x 14 mm²	1 x 14 | 1 x 14 mm²	1 x 14 | 1 x 14 mm²
Input circuit				
Rated voltage	24 V DC	24 V DC	230 V DC	230 V DC
Power rating	0.2 W	0.2 W	0.9 W	0.9 W
Operating range	16 to 30 V DC	16 to 30 V DC	184 to 264 V DC	184 to 264 V DC
Control current	10.5 mA DC	10.5 mA DC	5.6 mA DC	5.6 mA DC
Drop-out voltage	10 AC/DC	10 AC/DC	20 AC/DC	20 AC/DC
Input resistance	3,200 Ω	3,200 Ω	21,300 Ω	21,300 Ω
Ratings for solid-state module combined with socket base				
Output circuit				
Output	1 NO contact	1 NO contact	1 NO contact	1 NO contact
Max. continuous current|Max. inrush current (10ms)	2/20 A	2/40 A	2/20 A	2/40 A
Rated voltage | Max. reverse voltage	(24/33) V AC DC	(240/275) V AC	(24/33) V AC DC	(240/275) V AC
Switching load-voltage range	1.5 to 24 V DC	12 to 240 V AC	1.5 to 24 V DC	12 to 240 V AC
Min. switching current	1 mA	22 mA	1 mA	22 mA
Max. residual current at 55 °C	0.001 mA	1.5 mA	0.001 mA	1.5 mA
Max. voltage drop at 20°C and rated current	0.12 V	1.6 V	0.12 V	1.6 V
Components, socket base				
Type/Colour grey (RAL 7032)	**PRC 6-12-24 V DC**	**PRC 6-12-24 V DC**	**PRC 220 ... 240 V AC/DC**	**PRC 220 ... 240 V AC/DC**
Cat. no./Qty.	**15490.2/10**	**15490.2/10**	**15489.2/10**	**15489.2/10**
Components, solid-state module				
Type/colour	**PSC 1/24 V DC-24 V/2 A/DC**	**PSC 1/24 V DC-240 V/2 A/AC**	**PSC 1/60 V DC-24 V/2 A/DC**	**PSC 1/60 V/DC-240 V/2 A/AC**
Cat. no./Qty.	**15505.2/10**	**15504.2/10**	**15507.2/10**	**15506.2/10**
Accessories for AQI/PRC ext. insul. cross-connection	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**
Cat. no./Qty. yellow	**15545.8/1**	**15545.8/1**	**15545.8/1**	**15545.8/1**
Cat. no./Qty. blue	**15545.5/1**	**15545.5/1**	**15545.5/1**	**15545.5/1**
Cat. no./Qty. black	**15545.4/1**	**15545.4/1**	**15545.4/1**	**15545.4/1**
TW/PRC partition	**TW/PRC**	**TW/PRC**	**TW/PRC**	**TW/PRC**
Cat. no./Qty.	**15546.2/1**	**15546.2/1**	**15546.2/1**	**15546.2/1**
Labelling/markers PMC	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**
Cat. no./Qty. standard print, see catalogue	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT
Cat. no./Qty. blank	**9106.7/300**	**9106.7/300**	**9106.7/300**	**9106.7/300**
Cat. no./Qty. special print	**9107.7/300**	**9107.7/300**	**9107.7/300**	**9107.7/300**
Screwdriver SDB	**SDB 0.6 x 3.5**	**SDB 0.6 x 3.5**	**SDB 0.6 x 3.5**	**SDB 0.6 x 3.5**
Cat. no./Qty.	**1086.0/1**	**1086.0/1**	**1086.0/1**	**1086.0/1**

Solid-state compact PSC

Solid-state terminal, tension-spring connection	ZPSCU 1/24 V DC/24 V DC	ZPSCU 1/24 V DC/240 V AC	ZPSCU 1/240 V AC/24 V DC	ZPSCU 1/240 V AC/240 V AC
consisting of: · Base terminal and pluggable solid-state module · Mounts on TS 35				
Circuit diagram				
· Internal EMC coil circuitry and LED display				

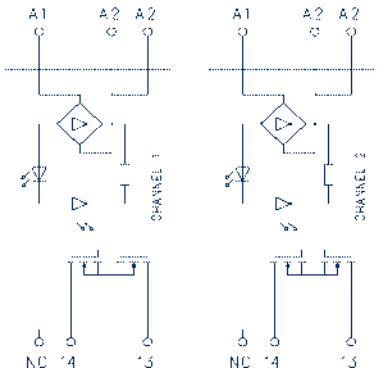
Type	ZPSCU 1/24 V DC/24 V DC	ZPSCU 1/24 V DC/240 V DC	ZPSCU 1/240 V AC/24 V DC	ZPSCU 1/240 V AC/240 V AC
Cat. no./Qty. Type/Colour grey (RAL 7032)	**15534.2/10**	**15533.2/10**	**15543.2/10**	**15535.2/10**
Size (L x W x H) with TS35 x 7.5	93 x 6.2 x 79.9 mm	93 x 6.2 x 79.9 mm	93 x 6.2 x 79.9 mm	93 x 6.2 x 79.9 mm
Weight	36 g	36 g	36 g	36 g
Rated operating voltage	24 V DC	24 V DC	230 V AC	230 V AC
General specifications				
Response time/Release time	0.1/0.4 ms	12/12 ms	0.1/0.4 ms	12/12 ms
Dielectric strength of control/load circuit	2,500 V	2,500 V	2,500 V	2,500 V
Ambient temperature	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C
Relay protection type	RT III	RT III	RT III	RT III
Ratings for socket base				
Ambient temperature	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C
Stripping length	10 mm	10 mm	10 mm	10 mm
Max. connection cross-section, solid | finely stranded mm²	1 x 2.5/2 x 1.5 | 1 x 2.5/2 x 1.5	1 x 2.5/2 x 1.5 | 1 x 2.5/2 x 1.5	1 x 2.5/2 x 1.5 | 1 x 2.5/2 x 1.5	1 x 2.5/2 x 1.5 | 1 x 2.5/2 x 1.5
AWG	1 x 14/2 x 16 | 1 x 14/2 x 16	1 x 14/2 x 16 | 1 x 14/2 x 16	1 x 14/2 x 16 | 1 x 14/2 x 16	1 x 14/2 x 16 | 1 x 14/2 x 16
Input circuit				
Rated voltage	24 V DC	24 V DC	230 V DC	230 V DC
Power rating	0.2 W	0.2 W	0.9 W	0.9 W
Operating range	16 to 30 V DC	16 to 30 V DC	184 to 264 V DC	184 to 264 V DC
Control current	10.5 mA DC	10.5 mA DC	5.6 mA DC	5.6 mA DC
Drop-out voltage	10 V DC	10 V DC	72 V DC	72 V DC
Input resistance	3200 Ω	3200 Ω	43,000 Ω	43,000 Ω
Ratings for solid-state module combined with socket base				
Output circuit				
Output	1 NO contact	1 NO contact	1 NO contact	1 NO contact
Max. continuous current|Max. inrush current (10ms)	2/20 A	2/40 A	2/20 A	2/40 A
Rated voltage | Max. reverse voltage	(24/33) V AC DC	(240/275) V AC	(24/33) V AC DC	(240/275) V AC
Switching load-voltage range	1.5 to 24 V DC	12 to 240 V AC	1.5 to 24 V DC	12 to 240 V AC
Min. switching current	1 mA	22 mA	1 mA	22 mA
Max. residual current at 55 °C	0.001 mA	1.5 mA	0.001 mA	1.5 mA
Max. voltage drop at 20 °C and rated current	0.12 V	1.6 V	0.12 V	1.6 V
Components, socket base				
Type/Colour grey (RAL 7032)	**ZPRC 6-12-24 V DC**	**ZPRC 6-12-24 V DC**	**ZPRC 220 ... 240 V AC/DC**	**ZPRC 220 ... 240 V AC/DC**
Cat. no./Qty.	**15494.2/10**	**15494.2/10**	**15493.2/10**	**15493.2/10**
Components, solid-state module				
Type/colour	**PSC 1/24 V DC-24 V/2 A/DC**	**PSC 1/24 V DC-240 V/2A/AC**	**PSC 1/60 V/DC-24 V/2A/DC**	**PSC 1/60 V/DC-240 V/2A/AC**
Cat. no./Qty.	**15505.2/10**	**15504.2/10**	**15507.2/10**	**15506.2/10**
Accessories for AQI/PRC ext. insul. cross-connection	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**
Cat. no./Qty. yellow	**15545.8/1**	**15545.8/1**	**15545.8/1**	**15545.8/1**
Cat. no./Qty. blue	**15545.5/1**	**15545.5/1**	**15545.5/1**	**15545.5/1**
Cat. no./Qty. black	**15545.4/1**	**15545.4/1**	**15545.4/1**	**15545.4/1**
TW/PRC partition	**TW/PRC**	**TW/PRC**	**TW/PRC**	**TW/PRC**
Cat. no./Qty.	**15546.2/1**	**15546.2/1**	**15546.2/1**	**15546.2/1**
Labelling/markers PMC	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**
Cat. no./Qty. standard print, see catalogue	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT
Cat. no./Qty. blank	**9106.7/300**	**9106.7/300**	**9106.7/300**	**9106.7/300**
Cat. no./Qty. special print	**9107.7/300**	**9107.7/300**	**9107.7/300**	**9107.7/300**
Metal actuating tool BWMA	**BWMA 1**	**BWMA 1**	**BWMA 1**	**BWMA 1**
Cat. no./Qty.	**3808.0/1**	**3808.0/1**	**3808.0/1**	**3808.0/1**

Solid state relay module CMS-SSR

- Mounts on TS 35
- Compact design, width: 17.5 mm
- Electrical isolation
- Screw connection on input and output sides
- Input AC/DC
- Output AC/DC
- AC/AC - AC/DC - DC/DC - DC/AC operation possible
- Max. output current 24 A per channel
- Very small output voltage drop

CMS-SSR24A

Circuit diagram

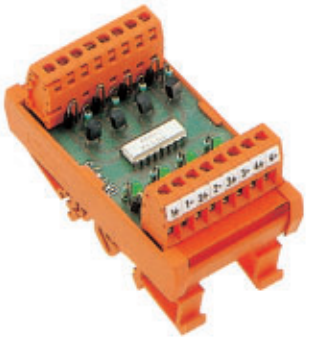


TYPE Cat. no./Qty.		CMS-SSR24A 16038.2 / 1
Size (L x W x H) with TS35 x 7.5		17.5 x 99 x 114.5 mm
Weight		106g
General specifications		
DIN-VDE specifications		DIN EN 50178: 1987; DIN VDE 0110, contamination degree 2, overvoltage cat. III
Electromagnetic properties		EMC Directive 2004/108/EC, in compliance with EN 55011 and EN 61326-1
Operating temperature		0 to +50 °C
Storage temperature		-20 to +70 °C
Connection type		Screw connection
Wire connect cross-section		0.2 to 2.5 mm²
Screw connection		AWG 22-14
Stripping length		12 mm
Mounting position		horizontal
Mounting gap	Current load on both channels < 32 A	0 mm
	Current load on both channels > 32 A	20 mm
Input data		
Channels		2
Rated voltage		24V AC / DC
Working range DC		9 to 36 V / 10 mA
Working range AC		10 to 26.4 V / 20 mA
Output data per channel		
Output		1 NO contact
Max. continuous current		24 A
Voltage range DC		0 to 50 V
Voltage range DC		0 to 30 V
Voltage drop at max. load current		120 mV
Leakage current 25°C		< 60 µA
Dielectric strength of control/load circuit		2.5 kV, 50 Hz, 1 min.
Response time		< 15 ms
Release time		< 10 ms
Max. switching frequency		2 Hz
Indicator		yellow LED

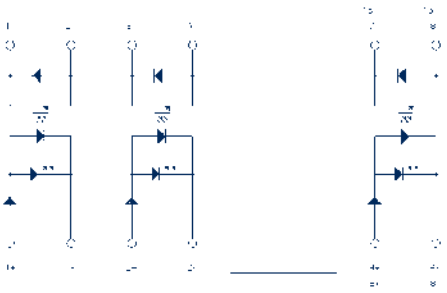
Opto-coupler modules OKI DC

- Mounts on TS 32/TS 35
- Screw connection
- LED for indicating the switching status
- Other transmission frequencies available upon request

OKI 4/5 4 channels	OKI 8/5 8 channels	OKI 4/24 4 channels	OKI 8/24 8 channels



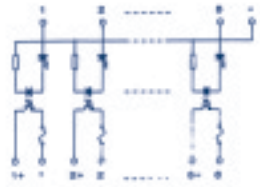
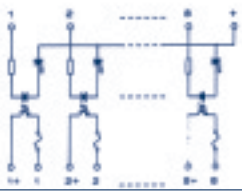
Circuit diagram



Type Cat. no./Qty.	OKI 4/5 5945.2/1	OKI 8/5 5946.2/1	OKI 4/24 5947.2/1	OKI 8/24 5948.2/1
Size (L x W x H) with TS35 x 7.5	87 x 48 x 57 mm	87 x 89 x 57 mm	87 x 48 x 57 mm	87 x 89 x 57 mm
Weight	75 g	126 g	75 g	126 g
General specifications				
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Test voltage	4 kV	4 kV	4 kV	4 kV
Operating temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Stripping length	7 mm	7 mm	7 mm	7 mm
Wire connect cross-section	0.2 to 2.5 mm²	0.2 to 2.5 mm²	0.2 to 2.5 mm²	0.2 to 2.5 mm²
Screw connection	AWG 22-14	AWG 22-14	AWG 22-14	AWG 22-14
Max. transmission frequency	100 Hz	100 Hz	100 Hz	100 Hz
Input data				
Input voltage ±10%	5 V DC	5 V DC	24 V DC	24 V DC
Power consumption	45 mW	45 mW	0.3 W	0.3 W
Switching threshold, voltage	2 V DC	2 V DC	19 V DC	19 V DC
Switching threshold, current	0.6 mA	0.6 mA	5 mA	5 mA
Output specifications				
Output voltage	5 to 48 V DC	5 to 48 V DC	5 to 48 V DC	5 to 48 V DC
Voltage drop at max. load current	< 1 V	< 1 V	< 1 V	< 1 V
Max. output current	100 mA	100 mA	100 mA	100 mA
LED display	green	green	green	green

Solid-state output modules SSOIF

- Mounts on TS 32/TS 35
- Screw connection
- LED for indicating the switching status
- Modules are delivered without solid-state relay

	SSOIF 1	SSOIF 2	SSOIF 4	SSOIF 8	SSOIF 16
					
Circuit diagram	 ❶			**Circuit diagram**  ❷	

Type **Cat. no./Qty.** **Type** + **switching** **Cat. no./Qty.** **Type** - **switching** **Cat. no./Qty.**	**SSOIF 1** **7783.2/1**	**Circuit diagram** **SSOIF 2 +** ❶ **7784.2/1** **SSOIF 2 -** ❷ **7785.2/1**	**Circuit diagram** **SSOIF 4 +** ❶ **7786.2/1** **SSOIF 4 -** ❷ **7787.2/1**	**Circuit diagram** **SSOIF 8 +** ❶ **5970.3/1** **SSOIF 8 -** ❷ **5971.3/1**	**Circuit diagram** **SSOIF 16 +** ❶ **7788.2/1** **SSOIF 16 -** ❷ **7789.2/1**
Size (L x W x H) with TS35 x 7.5	87 x 18 x 57 mm	87 x 31 x 57 mm	87 x 60 x 57 mm	87 x 110 x 57 mm	87 x 212 x 57 mm
Weight	30 g	55 g	85 g	150 g	280 g
General specifications					
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Test voltage coil/contact	4 kV	4 kV	4 kV	4 kV	4 kV
Operating temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Stripping length	7 mm	7 mm	7 mm	7 mm	7 mm
Wire connect cross-section	0.2 to 2.5 mm²	0.2 to 2.5 mm²	0.2 to 2.5 mm²	0.2 to 2.5 mm²	0.2 to 2.5 mm²
Screw connection	AWG 22-14	AWG 22-14	AWG 22-14	AWG 22-14	AWG 22-14
Input/output data	**The rated data is independent from the solid-state relay being used.**				

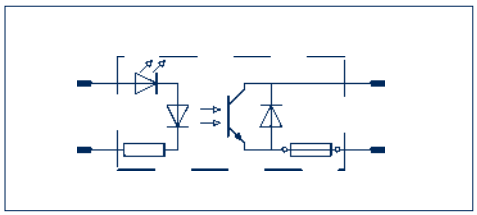
Solid-state relays OPTO 22

- The G 4 generation
- Pluggable
- Integrated LED for indication of switching status
- Removable fuse

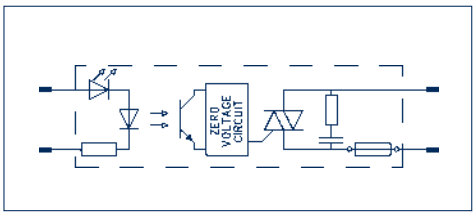
SSR

SSR

Circuit diagram



Circuit diagram



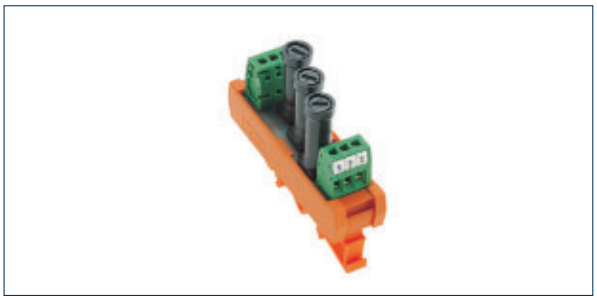
Type Cat. no./Qty.	G 4 ODC 5 5975.0/1	G 4 ODC 24 5976.0/1	G 4 OAC 5 5977.0/1	G 4 OAC 24 5978.0/1
Weight	27 g	27 g	27 g	27 g
Input data				
Logic pickup voltage	5 V (2.5 to 8 V)	24 V (18 to 32 V)	5 V (2.5 to 8 V)	24 V (18 to 32 V)
Logic dropout voltage	1 V	1 V	1 V	1 V
Rated current	12 mA	18 mA	12 mA	18 mA
Input resistance	220 Ω	2.2 kΩ	220 Ω	2.2 kΩ
Output specifications				
Operating voltage	5 to 60 V DC	5 to 60 V DC	22 to 280 V AC	22 to 280 V AC
Max. current (45 °C)	3 A	3 A	3 A	3 A
Max. current (70 °C)	2 A	2 A	2 A	2 A
Max. surge current	5 A / 1 sec.	5 A / 1 sec.	80 A / ½ cycle	80 A / ½ cycle
Voltage drop at max. load current	1.6 V	1.6 V	1.6 V	1.6 V
Min. load current	-	-	20 mA	20 mA
Max. quiescent current (in off state)	1 mA	1 mA	5 mA	5 mA
Output	Free-wheel diode	Free-wheel diode	RC-combination	RC-combination
Insulation test, Input-output	4 kV AC eff.	4 KV AC eff.	4 kV AC eff.	4 kV AC eff.
ON/OFF switching time	100/750 µ sec.	100/750 µ sec.	< ½ cycle	< ½ cycle
Operating temperature range	-30 to +70 °C	-30 to +70 °C	-30 to +70 °C	-30 to +70 °C
LED display	red	red	red	red

Fuse, component, diode and indicator modules

In the passive electronics sector, **CONTA-CLIP** offers a large variety of module types which support fast, secure, and compact functionality.

These modules can be mounted with their combi-base on either the **TS 32** or **TS 35** DIN rails. They feature a screw PCB terminal connection with a rated cross-section of 2.5 mm². Customer-specific descriptions can be attached using the standard PMC Pocket-Maxicard Quick marking system. The **PMCs** fit on labelling channels located on both sides of the orange-coloured fitting trough.

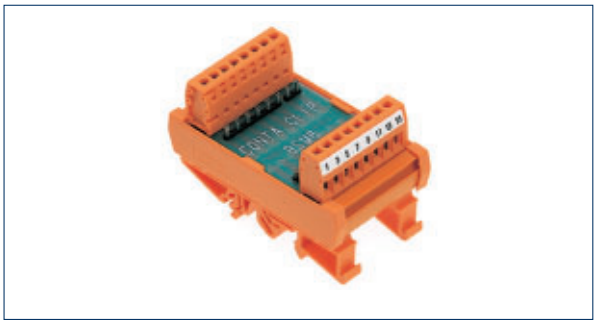
Fuse, component, diode and indicator modules



Fuse modules SM

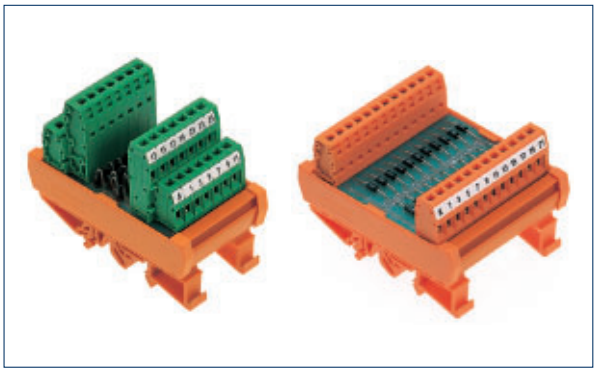
The **SM** fuse modules are designed with three or six micro-fuse receptacles. Each is separated with screw-PCB terminals. The fuse receptacles can hold micro-fuses in the 5x20 size.

In the ...G designs, the entries for the fuse receptacles are connected to each other via the PCB. This allows for a shared power supply.



Component modules BSM

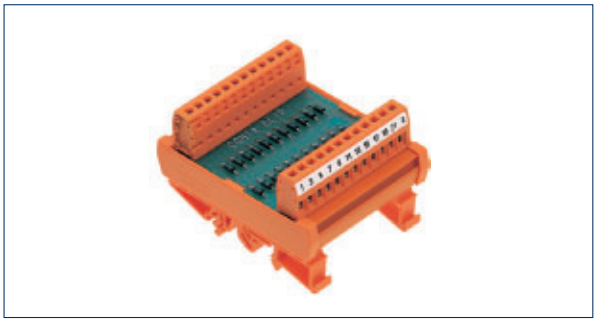
The **BSM** component module features two rows of solder pins, attached parallel to the PCB. They are connected via circuit tracks, with screw-PCB terminals. The area on the opposite side to the solder pins may be used for soldering on a variety of user-side components, such as resistors, diodes, capacitors or varistors.



Diode modules DM

Different components, such as diodes or diodes with resistors, can be connected in parallel or in series using the **DM** diode modules. These diode circuits fulfil a variety of tasks in the area of electrical and electronic controls. These include: protection against polarity reversal, the electric decoupling of warning signals, spark-repression diodes for overvoltages from inductive loads such as magnet valves or DC relays, and lamp test modules for the detection and decoupling of group status messages.

The modules are available in minus-pole or plus-pole designs, or as freely-switchable units.



Lamp test modules LPM

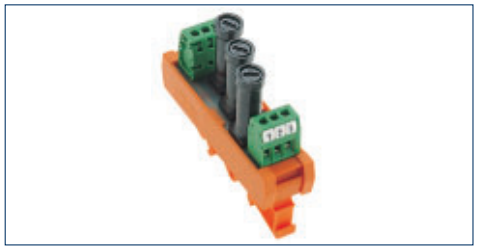
The **LPM** lamp test modules are for the detection and decoupling of group status messages. They serve as visual indicators of the switching or signal status.

The **LPM-K** modules feature diodes which are connected in pairs on the cathode side. They are freely-switchable on the anode. On the modules, the diodes are connected in pairs on the cathode side. One anode from the connected pair is connected to a common collection point with the other anodes.

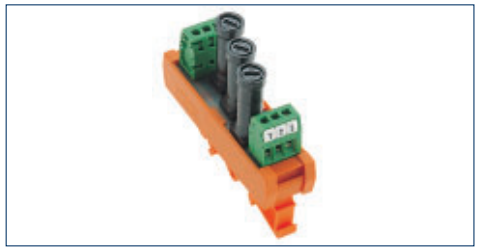
Fuse modules SM

- Mounts on TS 32/TS 35
- Screw connection
- Modules delivered standard with 3 or 6 fuse cartridges
- Suitable for 5x20 fuse cartridges
- Available upon request with individually-switched fuse paths, or as a distributor with a shared feed-in

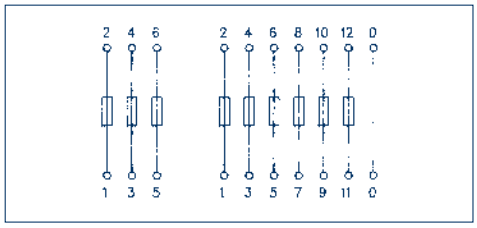
SM E
Individually switchable



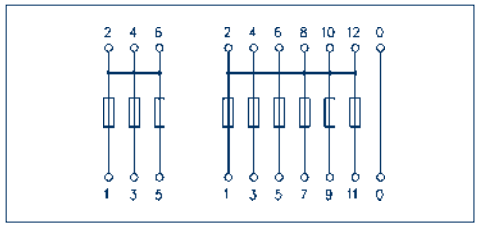
SM G
Shared feed-in



Circuit diagram



Circuit diagram

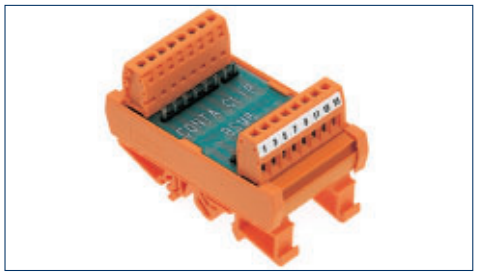


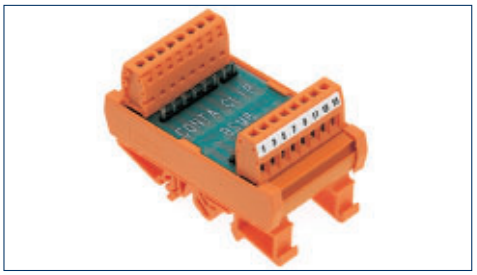
Type **Cat. no.**/Qty.	**SM 3-E** **5712.2**/1	**SM 3-G** **5716.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 24 x 77 mm	87 x 24 x 77 mm
Weight	51 g	51 g
Type **Cat. no.**/Qty.	**SM 6-E** **5714.2**/1	**SM 6-G** **5718.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 47 x 77 mm	87 x 47 x 77 mm
Weight	104 g	104 g
General specifications		
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Operating temperature	-20 to +50 °C	-20 to +50 °C
Stripping length	7 mm	7 mm
Wire connect cross-section	0.2 to 2.5 mm^2	0.2 to 2.5 mm^2
Screw connection	AWG 22-14	AWG 22-14
Input data		
Max. operating voltage	250 V AC	250 V AC
Rated current	6.3 A max. per current path 4 A max., with simultaneous loads	6.3 A max. per current path 4 A max., with simultaneous loads
Max. load at point L1	16 A	16 A
Standard fuse	6.3 A	6.3 A

Component modules BSM

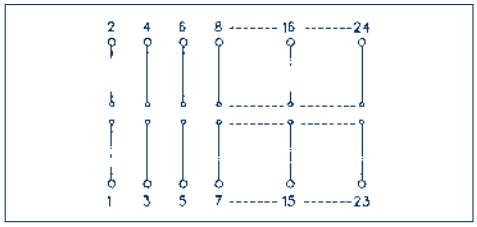
- Mounts on TS 32/TS 35
- Screw connection
- Two rows of soldering pins for versatile assembly with components

BSM

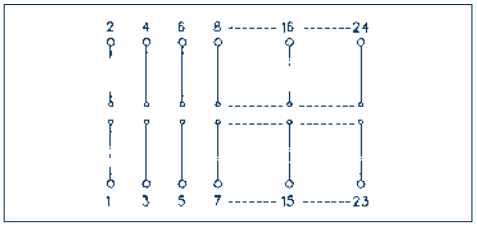




Circuit diagram



Circuit diagram



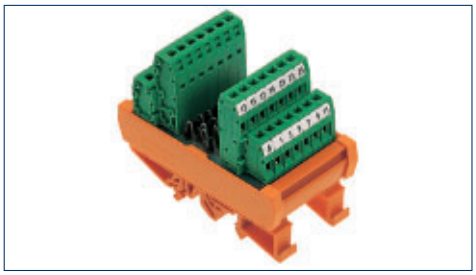
Type **Cat. no.**/Qty.	**BSM 4** **6011.2**/1		
Size (L x W x H) with TS 35 x 7.5	87 x 27 x 57 mm		
Weight	45 g		
Number of solder pins	2 rows for 4 poles		
Type **Cat. no.**/Qty.	**BSM 4/AD*** **6011.9**/1		
Size (L x W x H) with TS 35 x 7.5	87 x 27 x 57 mm		
Weight	62 g		
Number of solder pins	2 rows for 4 poles		
Type **Cat. no.**/Qty.	**BSM 8** **5700.2**/1		
Size (L x W x H) with TS 35 x 7.5	87 x 47 x 57 mm		
Weight	79 g		
Number of solder pins	2 rows for 8 poles		
Type **Cat. no.**/Qty.	**BSM 8/AD*** **5700.9**/1		
Size (L x W x H) with TS 35 x 7.5	87 x 47 x 57 mm		
Weight	102 g		
Number of solder pins	2 rows for 8 poles		
Type **Cat. no.**/Qty.	**BSM 12** **5701.2**/1		
Size (L x W x H) with TS 35 x 7.5	87 x 68 x 57 mm		
Weight	100 g		
Number of solder pins	2 rows for 12 poles		
Type **Cat. no.**/Qty.	**BSM 12/AD*** **5701.9**/1		
Size (L x W x H) with TS 35 x 7.5	87 x 68 x 57 mm		
Weight	135 g		
Number of solder pins	2 rows for 12 poles		
General specifications			
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Operating temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Stripping length	7 mm	7 mm	7 mm
Wire connect cross-section	0.2 to 2.5 mm²	0.2 to 2.5 mm²	0.2 to 2.5 mm²
Screw connection	AWG 22-14	AWG 22-14	AWG 22-14
Input data			
Distance between pins	35 mm	35 mm	35 mm
Height of soldering pins	approx. 5 mm	approx. 5 mm	approx. 5 mm
Solder pin grid/pitch	5.08 mm	5.08 mm	5.08 mm
Max. operating voltage	250 V AC	250 V AC	250 V AC
Max. rated current	5 A	5 A	5 A

*The .../AD modules must be used when the operating voltage exceeds 30 V AC/60 V DC.

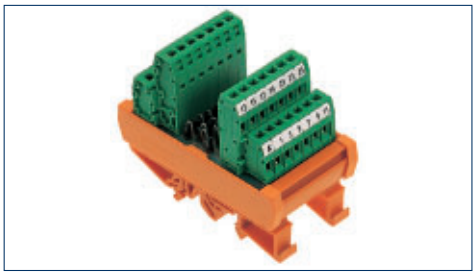
Diode modules DM

- Mounts on TS 32/TS 35
- Screw connection
- Diode modules with freely switchable diodes, and also diode gates with shared anodes or shared cathodes
- These modules can be used for protection against reverse polarity, decoupling, and arc suppression

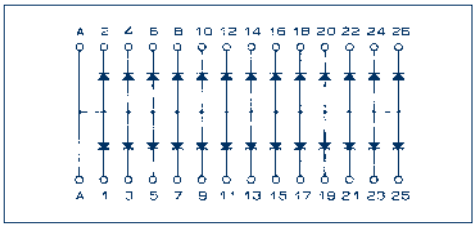
DM 26-A



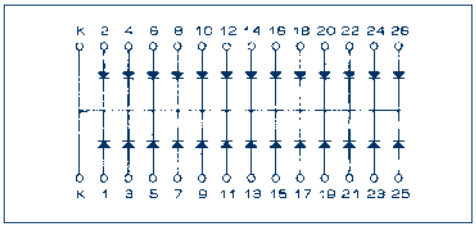
DM 26-K



Circuit diagram



Circuit diagram

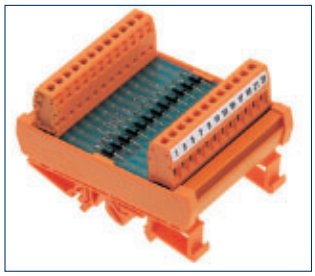
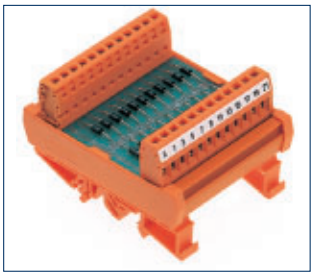
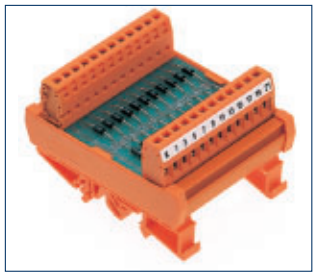
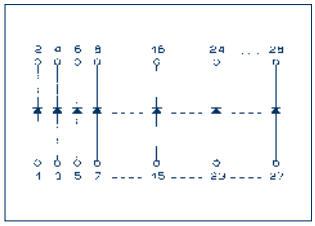
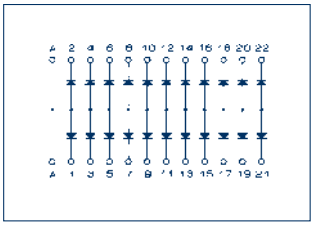
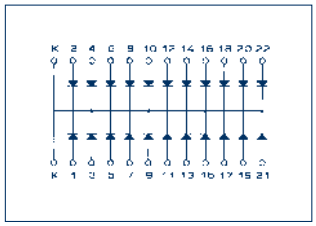


Type **Cat. no.**/Qty.	**DM 26-A** **6093.2**/1	**DM 26-K** **6094.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 46 x 72 mm	87 x 46 x 72 mm
Weight	115 g	115 g
Type **Cat. no.**/Qty.	**DM 26-A/AD*** **6093.9**/1	**DM 26-K/AD*** **6094.9**/1
Size (L x W x H) with TS 35 x 7.5	87 x 46 x 72 mm	87 x 46 x 72 mm
Weight	140 g	140 g
General specifications		
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Operating temperature	-20 to +50 °C	-20 to +50 °C
Stripping length	7 mm	7 mm
Wire connect cross-section	0.2 to 2.5 mm^2	0.2 to 2.5 mm^2
Screw connection	AWG 22-14	AWG 22-14
Input data		
Max. operating voltage	250 V AC/DC	250 V AC/DC
Diode reverse voltage	1000 V	1000 V
Max. diode current	0.5 A	0.5 A
Total current per module	10 A	10 A
Diode type	1 N 4007	1 N 4007
Reverse current of diode	5 µA	5 µA
On-state voltage of diode	0.8 V	0.8 V

*The .../AD modules must be used when the operating voltage exceeds 30 V AC/60 V DC. Designs with other diode types are available upon request.

Diode modules DM

- Mounts on TS 32/TS 35
- Screw connection
- Diode modules with freely switchable diodes, and also diode gates with shared anodes or shared cathodes
- These modules can be used for protection against reverse polarity, decoupling, and arc suppression

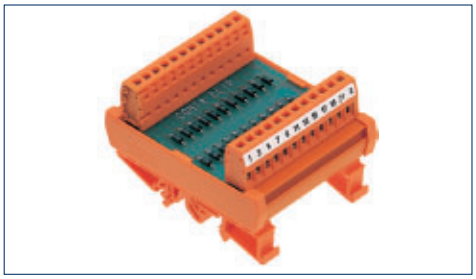
	DM	DM-A	DM-K
			
Circuit diagram			
Type **Cat. no.**/Qty.	**DM 4** **6318.2**/1	**DM 14-A** **5704.2**/1	**DM 14-K** **5706.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 27 x 57 mm	87 x 49 x 57 mm	87 x 49 x 57 mm
Weight	44 g	80 g	80 g
Type **Cat. no.**/Qty.	**DM 4/AD*** **6318.9**/1	**DM 14-A/AD** **5704.9**/1	**DM 14-K/AD** **5706.9**/1
Size (L x W x H) with TS 35 x 7.5	87 x 27 x 57 mm	87 x 49 x 57 mm	87 x 49 x 57 mm
Weight	62 g	101 g	101 g
Type **Cat. no.**/Qty.	**DM 8** **5702.2**/1	**DM 22-A** **5705.2**/1	**DM 22-K** **5707.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 47 x 57 mm	87 x 68 x 57 mm	87 x 68 x 57 mm
Weight	78 g	109 g	109 g
Type **Cat. no.**/Qty.	**DM 8/AD*** **5702.9**/1	**DM 22-A/AD** **5705.9**/1	**DM 22-K/AD** **5707.9**/1
Size (L x W x H) with TS 35 x 7.5	87 x 47 x 57 mm	87 x 68 x 57 mm	87 x 68 x 57 mm
Weight	99 g	138 g	138 g
Type **Cat. no.**/Qty.	**DM 12** **5703.2**/1		
Size (L x W x H) with TS 35 x 7.5	87 x 69 x 57 mm		
Weight	107 g		
Type **Cat. no.**/Qty.	**DM 12/AD*** **5703.9**/1		
Size (L x W x H) with TS3 5 x 7.5	87 x 69 x 57 mm		
Weight	135 g		
Type **Cat. no.**/Qty.	**DM 14** **6319.2**/1		
Size (L x W x H) with TS 35 x 7.5	87 x 46 x 57 mm		
Weight	116 g		
Type **Cat. no.**/Qty.	**DM 14/AD** **6319.9**/1		
Size (L x W x H) with TS 35 x 7.5	87 x 46 x 57 mm		
Weight	147 g		
General specifications			
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Operating temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Stripping length	7 mm	7 mm	7 mm
Wire connect cross-section	0.2 to 2.5 mm²	0.2 to 2.5 mm²	0.2 to 2.5 mm²
Screw connection	AWG 22-14	AWG 22-14	AWG 22-14
Input data			
Max. operating voltage	250 V AC/DC	250 V AC/DC	250 V AC/DC
Diode reverse voltage	1000 V	1000 V	1000 V
Max. diode current	1 A	1 A	1 A
Total current per module	-	6 A	6 A
Diode type	1 N 4007	1 N 4007	1 N 4007
Reverse current of diode	5 µA	5 µA	5 µA
On-state voltage of diode	0.8 V	0.8 V	0.8 V

*The .../AD modules must be used when the operating voltage exceeds 30 V AC/60 V DC. Designs with other diode types are available upon request.

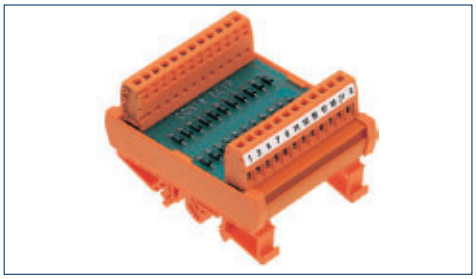
Lamp test modules LPM

- Mounts on TS 32/TS 35
- Screw connection
- Lamp test modules for the detection and decoupling of group status messages
- The LPM-K modules feature diodes which are connected in pairs on the cathode side. They are freely-switchable at the anode.
- The LPM-A modules feature diodes which are connected in pairs on the cathode side.
- One anode from the connected pair is connected to a common collection point with the other anodes.

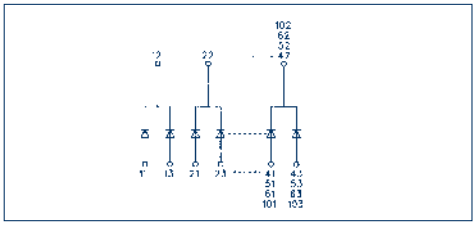
LPM



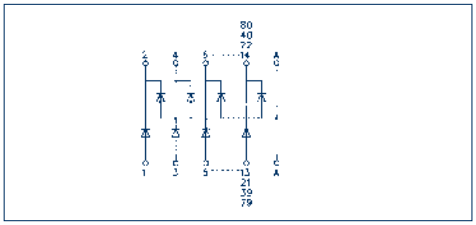
LPM-A



Circuit diagram



Circuit diagram



Type **Cat. no.**/Qty.	**LPM 8-4K** **5708.2**/1	**LPM 7-A** **5710.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 49 x 57 mm	87 x 49 x 57 mm
Weight	74 g	80 g
Type **Cat. no.**/Qty.	**LPM 8-4K/AD*** **5708.9**/1	**LPM 7-A/AD*** **5710.9**/1
Size (L x W x H) with TS 35 x 7.5	87 x 49 x 57 mm	87 x 49 x 57 mm
Weight	96 g	109 g
Type **Cat. no.**/Qty.	**LPM 12-6K** **5709.2**/1	**LPM 11-A** **5711.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 68 x 57 mm	87 x 68 x 57 mm
Weight	100 g	110 g
Type **Cat. no.**/Qty.	**LPM 12-6K/AD*** **5709.9**/1	**LPM 11-A/AD*** **5711.9**/1
Size (L x W x H) with TS 35 x 7.5	87 x 68 x 57 mm	87 x 68 x 57 mm
Weight	130 g	198 g
Type **Cat. no.**/Qty.	**LPM 20-10K** **6124.2**/1	**LPM 20-A** **6125.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 109 x 57 mm	87 x 115 x 57 mm
Weight	152 g	176 g
Type **Cat. no.**/Qty.	**LPM 20-10K/AD*** **6124.9**/1	**LPM 20-A/AD*** **6125.9**/1
Size (L x W x H) with TS 35 x 7.5	87 x 109 x 57 mm	87 x 115 x 57 mm
Weight	190 g	215 g
Type **Cat. no.**/Qty.		**LPM 40-A** **6126.2**/1
Size (L x W x H) with TS 35 x 7.5		87 x 216 x 57 mm
Weight		325 g
Type **Cat. no.**/Qty.		**LPM 40-A/AD*** **6126.9**/1
Size (L x W x H) with TS 35 x 7.5		87 x 216 x 57 mm
Weight		390 g
General specifications		
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Operating temperature	-20 to +50 °C	-20 to +50 °C
Stripping length	7 mm	7 mm
Wire connect cross-section	0.2 to 2.5 mm^2	0.2 to 2.5 mm^2
Screw connection	AWG 22-14	AWG 22-14
Input data		
Max. operating voltage	250 V AC/DC	250 V AC/DC
Diode reverse voltage	1000 V	1000 V
Max. diode current	1 A	1 A
Total current per module	-	-
Diode type	1 N 4007	1 N 4007
Reverse current of diode	5 µA	5 µA
On-state voltage of diode	0.8 V	0.8 V

*The .../AD modules must be used when the operating voltage exceeds 30 V AC/60 V DC. Designs with other diode types are available upon request.

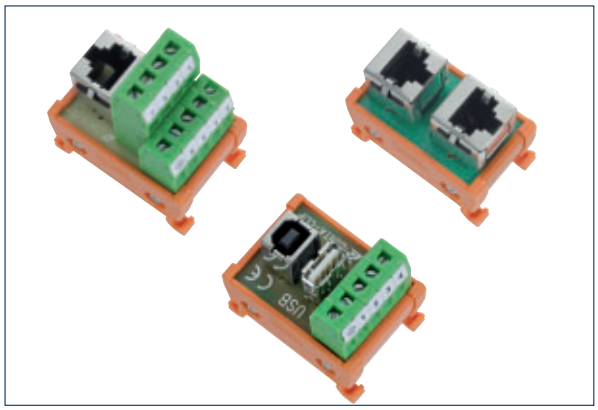
Notes

Interface modules

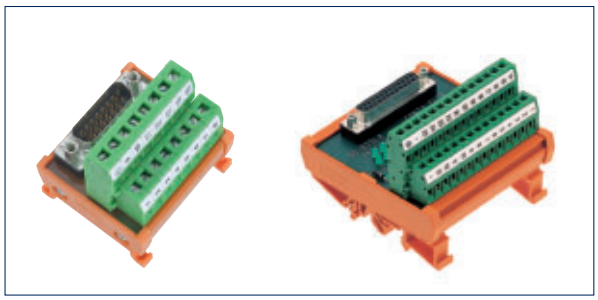
Interface modules allow for a passive mechanical-electrical implementation of standard connectors onto screw or tension-spring PCB terminals. The individual signals of the multi-pole or high-pole connectors are implemented one-to-one to the PCB – from the individual wire via connectors to pre-assembled cables. Thus the assembly time and associated costs are reduced.

Because of the compact design of the interface modules, their clear terminal labelling, and their simple assembly on TS 32 or TS 35 rails, this system represents an attractive alternative to a pure individual wire approach.

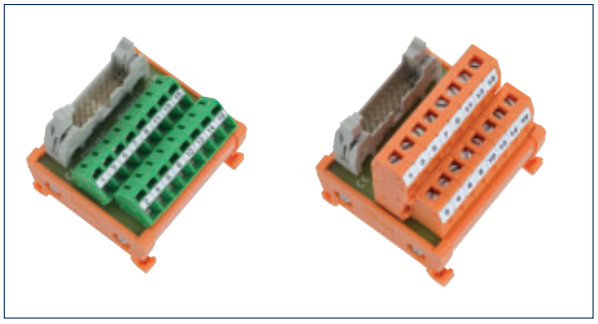
Interface modules



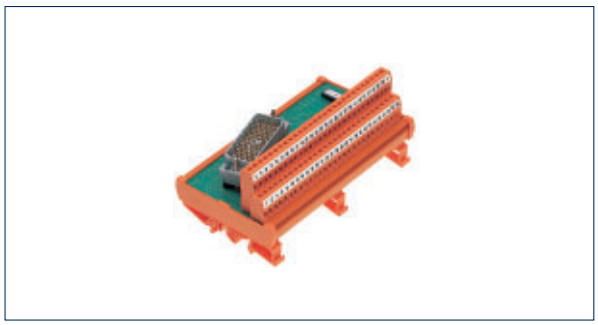
RJ 45 and **USB modules** implement the standardized RJ45 Ethernet and USB connectors from bus systems, computer components, laptops or modems on screw PCB terminals. They can be mounted with the compact **RS-SP0** profile on the **TS 35** rail.



Signal lines can be implemented with **SD modules**, using male or female connectors, according to IEC 807-2/DIN 41652, on screw or tension-spring PCB terminals. The interface modules are equipped with their respective counterparts, which are available with from 9 to 37 poles. The **SD-LA modules** also feature a LED status display.



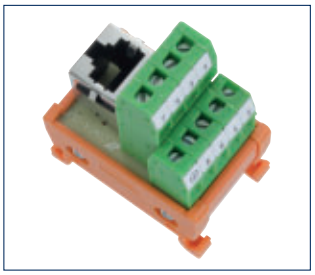
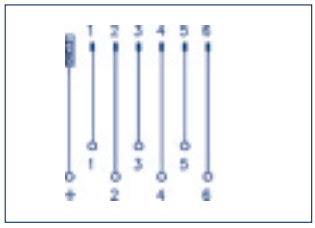
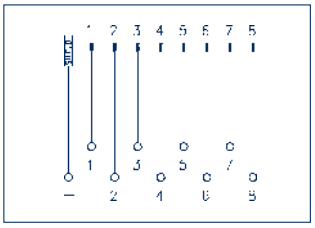
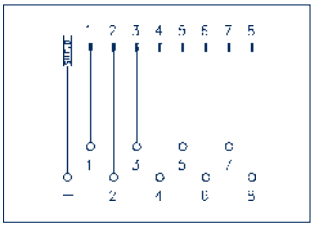
The **FBK modules** enable the assembly of pre-assembled cables with connectors (from 10 to 64 poles) according to IEC 603-1/ DIN 41651, for use with screw or tension-spring PCB terminals.



The **OE** interface modules make use of the **EDAC** "hermaphrodite" multi-pole plug (Series 516) on screw connections. This results in excellent shock and vibration resistance. The offset arrangement of the connector means that the neighbouring modules will not be impaired. The **EDAC** connector is compatible with the **ELCO** 8016 connector series.

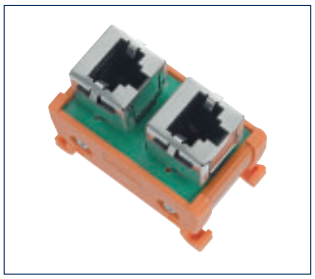
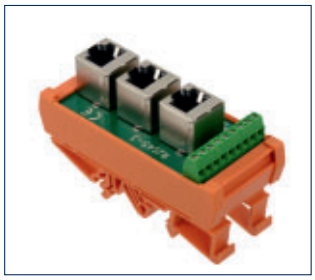
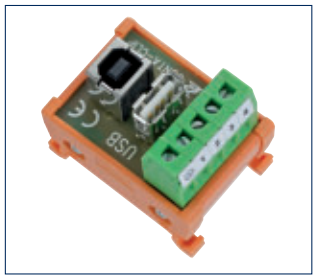
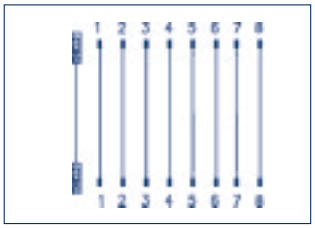
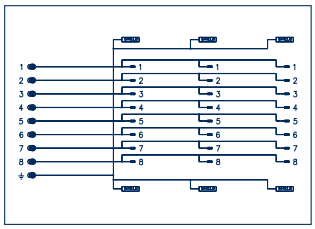
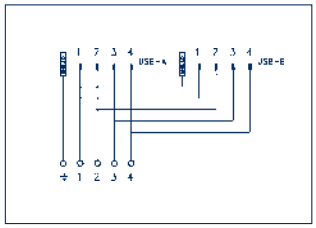
RJ 45 USB interface modules

- Mounts on TS 35
- Unshielded RJ 11/12 modules
- RJ 45 module available in shielded and unshielded design
- USB modules features type A and type B connections
- Width: 47mm

	RJ 11-12	RJ 45	RJS45-SH
			
Circuit diagram			
Type **Cat. no.**/Qty.	**RJ 11-12** **15672.2 / 1**	**RJS 45 (shielded)** **15256.2/1**	**RJS45-SH** **15904.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 26 x 61mm	47 x 31 x 61 mm	87 x 26 x 63 mm
Weight	32 g	76 g	47 g
Type **Cat. no.**/Qty.		**RJU 45 (unshielded)** **15255.2/1**	
Size (L x W x H) with TS 35 x 7.5		47 x 31 x 61 mm	
Weight		76 g	
General specifications			
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Operating temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Test voltage	0.75 kV	0.75 kV	0.75 kV
Stripping length	7mm	7 mm	9 mm
Wire connect cross-section	0.2 to 2.5 mm²	0.2 to 2.5 mm²	1.5 mm²
Screw connection	AWG 22-14	AWG 22-14	AWG 22-16
Connection data			
Input voltage	125 V AC/DC	125 V AC/DC	125 V AC/DC
Rated current	1 A	1 A	1 A
Cable Impedance			100 Ω
Transmission speed			CAT5, 100 Mbps max.
Max. cable length			100 m
Connection cable			Shielded twisted pair, CAT5 or better
Cable diameter			3 to 8 mm
Contact			
Durability	750 plugging cycles	750 plugging cycles	750 plugging cycles
Contact material	phosphorus bronze 1.27 µm Au over 1.27 µm Ni	phosphorus bronze 1.27 µm Au over 1.27 µm Ni	phosphorus bronze 1.27 µm Au over 1.27 µm Ni
Housing	Polyester, black UL 94V-0	nylon, black, UL 94 V-0	nylon, black, UL 94 V-0
Category		CAT 3	CAT 5

RJ 45 USB interface modules

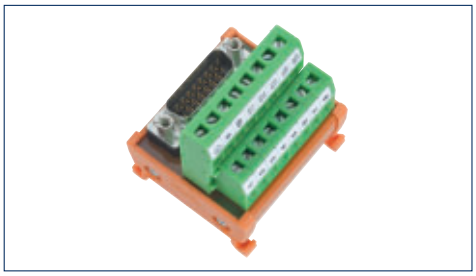
- Mounts on TS 35
- Unshielded RJ 11/12 modules
- RJ 45 module available in shielded and unshielded design
- USB modules features type A and type B connections
- Width: 47 mm

	RJS 45-RJS 45	RJS45-3	USB-AB
			
Circuit diagram			
Type **Cat. no.**/Qty.	**RJS 45-RJS 45 (shielded)** **15775.2**/1	**RJS 45-3** **16135.2 / 1**	**USB-AB** **15387.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 27 x 44 mm	87 x 39 x 53	47 x 33 x 48 mm
Weight	30 g	64 g	32 g
Type **Cat. no.**/Qty.			
Size (L x W x H) with TS 35 x 7.5			
Weight			
General specifications			
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Operating temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Test voltage	0.75 kV	0.75 kV	0.75 kV
Stripping length	-	5 mm	7mm
Wire connect cross-section	-	0.14 to 1.0 mm²	0.2 to 2.5 mm²
Screw connection	-	AWG 30-16	AWG 22-14
Connection data			
Input voltage	125 V AC/DC	125 V AC/DC	30 V AC/DC
Rated current	1 A	1 A	1 A
Cable Impedance	100 Ω		
Transmission speed	CAT5, 100 Mbps max.		
Max. cable length	100 m		
Connection cable	Shielded twisted pair, CAT5 or better		
Cable diameter			
Contact			
Durability	750 plugging cycles	750 plugging cycles	1500 plugging cycles
Contact material	phosphorus bronze 1.27 µm Au over 1.27 µm Ni	phosphorus bronze 1.27 µm Au over 1.27 µm Ni	CuAl with gold coating
Housing	nylon, black, UL 94 V-0	nylon, black, UL 94 V-0	Glass-fibre reinforced polyester, UL 94 V-0
Category	CAT 5	CAT 3	-

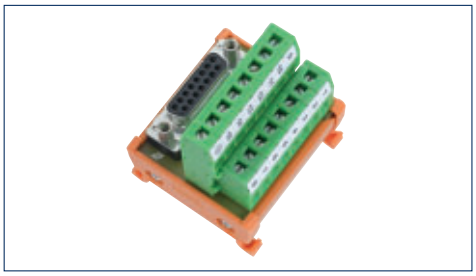
Interface modules SD...C

- Mounts on TS 35
- D-sub on screw connection or on tension-spring connection (Z)
- D-sub connection acc. to MIL-C-24308/ DIN 41652
- Module versions from 9 to 37 connections
- Male (S) / female (B) versions

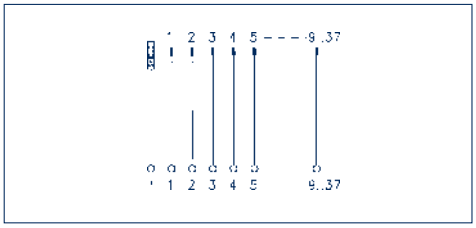
SD..S...C



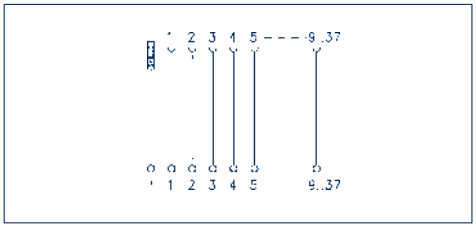
SD..B...C



Circuit diagram



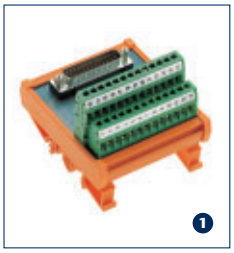
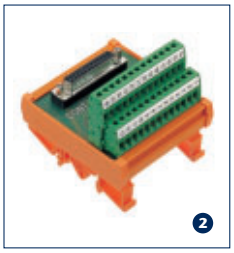
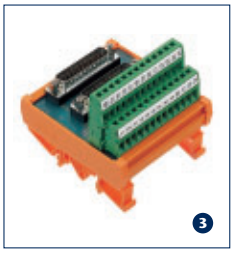
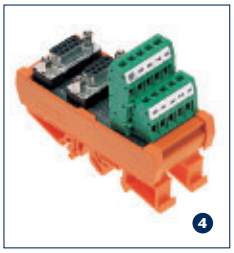
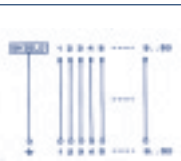
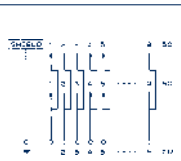
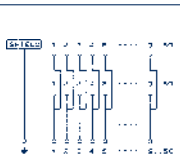
Circuit diagram



Type **Cat. no.**/Qty.	**D-sub male plug** **SD-S 9 C** **15292.2**/1	**D-sub female plug** **SD-B 9 C** **15294.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 37 x 61 mm	47 x 37 x 61 mm
Weight	50 g	50 g
Type **Cat. no.**/Qty.	**SD-S 9 CZ** **15293.2**/1	**SD-B 9 CZ** **15295.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 37 x 38 mm	47 x 37 x 38 mm
Weight	35 g	35 g
Type **Cat. no.**/Qty.	**SD-S 15 C** **15296.2**/1	**SD-B 15 C** **15298.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 51 x 61 mm	47 x 51 x 61 mm
Weight	72 g	72 g
Type **Cat. no.**/Qty.	**SD-S 15 CZ** **15297.2**/1	**SD-B 15 CZ** **15299.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 51 x 38 mm	47 x 51 x 38 mm
Weight	46 g	46 g
Type **Cat. no.**/Qty.	**SD-S 25 C** **15300.2**/1	**SD-B 25 C** **15302.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 78 x 61 mm	47 x 78 x 61 mm
Weight	107 g	107 g
Type **Cat. no.**/Qty.	**SD-S 25 CZ** **15301.2**/1	**SD-B 25 CZ** **15303.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 78 x 38 mm	47 x 78 x 38 mm
Weight	67 g	67 g
Type **Cat. no.**/Qty.	**SD-S 37 C** **15304.2**/1	**SD-B 37 C** **15306.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 107 x 61 mm	47 x 107 x 61 mm
Weight	148 g	148 g
Type **Cat. no.**/Qty.	**SD-S 37 CZ** **15305.2**/1	**SD-B 37 CZ** **15307.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 107 x 38 mm	47 x 107 x 38 mm
Weight	90 g	90 g
General specifications		
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Operating temperature	-20 to +50 °C	-20 to +50 °C
Stripping length, screw/tension-spring	7/6 mm	7/6 mm
Connection	Screw / tension-spring (Z types)	Screw / tension-spring (Z types)
Wire connect cross-section	0.2 to 2.5 mm^2	0.2 to 2.5 mm^2
Connection	AWG 22-14	AWG 22-14
Connection data		
Status indication	-	-
Reverse polarity protection	-	-
Input voltage	125 V AC/DC	125 V AC/DC
Rated current	1.5 A	1.5 A
Male plug	D-sub acc. to MIL-C-24308/DIN 41652	D-sub acc. to MIL-C-24308/DIN 41652
Test voltage	0.67 kV eff	0.67 kV eff

Interface modules SD

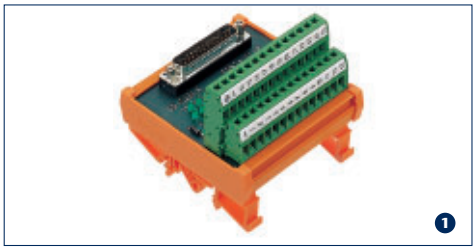
- Mounts on TS 32/TS 35
- D-sub on screw connection
- D-sub connection acc. to MIL-C-24308/ DIN 41652
- Module versions from 9 to 50 connections
- Male (S) / female (B) versions
- Width: 87 mm

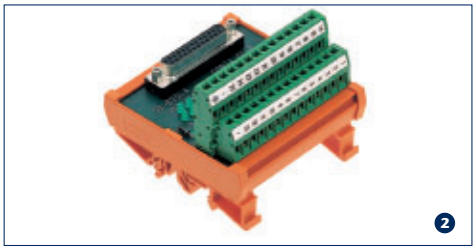
	SD		SD 2 double D-sub connection	
	 1	 2	 3	 4
Circuit diagram	 1	 2	 3	 4
Type **Cat. no.**/Qty.	**D-sub male plug** 1 **SD-S 50** **5744.2**/1		**D-sub male plug** 3 **SD 2-S 9** **6301.2**/1	
Size (L x W x H) with TS 35 x 7.5	87 x 140 x 72 mm		87 x 37 x 72 mm	
Weight	248 g		77 g	
Type **Cat. no.**/Qty.	**SD-S 50/3** **6413.2**/1		**SD 2-S 15** **6302.2**/1	
Size (L x W x H) with TS 35 x 7.5	87 x 97 x 72 mm		87 x 51 x 72 mm	
Weight	195 g		104 g	
Type **Cat. no.**/Qty.			**SD 2-S 25** **6303.2**/1	
Size (L x W x H) with TS 35 x 7.5			87 x 77 x 72 mm	
Weight			149 g	
Type **Cat. no.**/Qty.			**SD 2-S 37** **6304.2**/1	
Size (L x W x H) with TS 35 x 7.5			87 x 107 x 72 mm	
Weight			205 g	
Type **Cat. no.**/Qty.	**D-sub female plug** 2 **SD-B 50** **5749.2**/1		**D-sub female plug** 4 **SD 2-B 9** **6306.2**/1	
Size (L x W x H) with TS 35 x 7.5	87 x 140 x 72 mm		87 x 37 x 72 mm	
Weight	248 g		77 g	
Type **Cat. no.**/Qty.	**SD-B 50/3** **6414.2**/1		**SD 2-B 15** **6307.2**/1	
Size (L x W x H) with TS 35 x 7.5	87 x 97 x 72 mm		87 x 51 x 72 mm	
Weight	195 g		104 g	
Type **Cat. no.**/Qty.			**SD 2-B 25** **6308.2**/1	
Size (L x W x H) with TS 35 x 7.5			87 x 77 x 72 mm	
Weight			149 g	
Type **Cat. no.**/Qty.			**SD 2-B 37** **6309.2**/1	
Size (L x W x H) with TS 35 x 7.5			87 x 107 x 72 mm	
Weight			205 g	
General specifications				
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III		DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	
Operating temperature	-20 to +50 °C		-20 to +50 °C	
Stripping length	7 mm		7 mm	
Connection	Screw connection		Screw connection	
Wire connect cross-section	0.2 to 2.5 mm²		0.2 to 2.5 mm²	
Connection	AWG 22-14		AWG 22-14	
Connection data				
Status indication	-		-	
Reverse polarity protection	-		-	
Input voltage	125 V AC/DC		125 V AC/DC	
Rated current	1.5 A		1 A	
Male plug	D-sub acc. to MIL-C-24308/DIN 41652		D-sub connection acc. to MIL-C-24308/DIN 41652	
Test voltage	0.67 kV eff		0.67 kV eff	

Interface modules SD

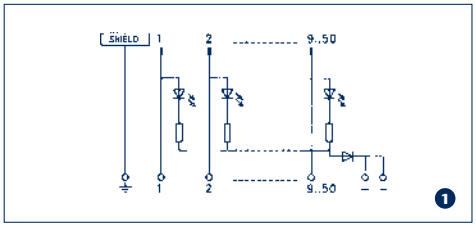
- Mounts on TS 32/TS 35
- D-sub on screw connection
- D-sub connection acc. to MIL-C-24308/ DIN 41652
- Module versions from 9 to 37 connections
- Male (S) / female (B) versions
- Width: 87mm
- LED display

SD-LA
with illuminated display

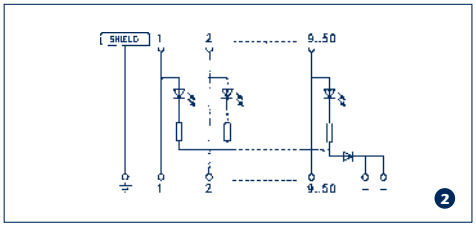




Circuit diagram



Circuit diagram

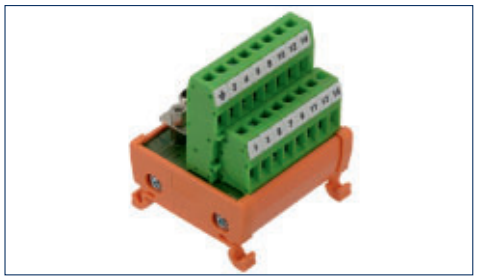


	D-sub male plug ❶
Type **Cat. no.**/Qty.	**SD S 9 LA** **6520.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 41 x 72 mm
Weight	79 g
Type **Cat. no.**/Qty.	**SD S 15 LA** **6521.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 56 x 72 mm
Weight	105 g
Type **Cat. no.**/Qty.	**SD S 25 LA** **6135.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 83 x 72 mm
Weight	152 g
Type **Cat. no.**/Qty.	**SD S 37 LA** **6522.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 112 x 72 mm
Weight	203 g
	D-sub female plug ❷
Type **Cat. no.**/Qty.	**SD B 9 LA** **6524.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 41 x 72 mm
Weight	79 g
Type **Cat. no.**/Qty.	**SD B 15 LA** **6525.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 56 x 72 mm
Weight	105 g
Type **Cat. no.**/Qty.	**SD B 25 LA** **6136.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 83 x 72 mm
Weight	152 g
Type **Cat. no.**/Qty.	**SD B 37 LA** **6526.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 112 x 72 mm
Weight	203 g
General specifications	
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage category III
Operating temperature	-20 to +50 °C
Stripping length	7 mm
Connection	Screw connection
Wire connect cross-section	0.2 to 2.5 mm^2
Connection	AWG 22-14
Connection data	
Status indication	green LED
Reverse polarity protection	Diode 1 N 4007
Input voltage	24 V DC
Rated current	1 A
Male plug	D-sub connection acc. to MIL-C-24308/DIN 41652
Test voltage	0.67 kV eff

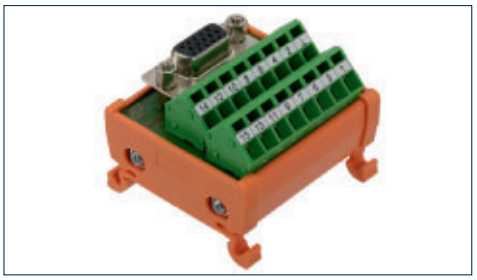
Interface modules SD High Density

- Mounts on TS 35
- D-sub 15-pole High Density on screw or tension-spring connection (Z)
- D-sub connection acc. to MIL-C-24308/ DIN 41652
- Male (S) / female (B) versions

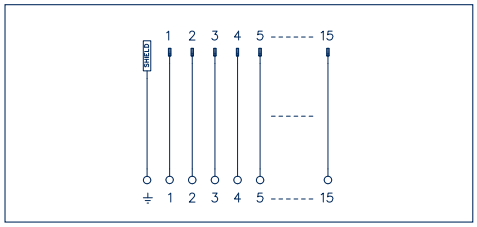
SD-S15..-HD



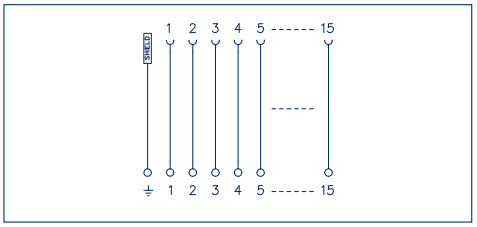
SD-B15..-HD



Circuit diagram



Circuit diagram

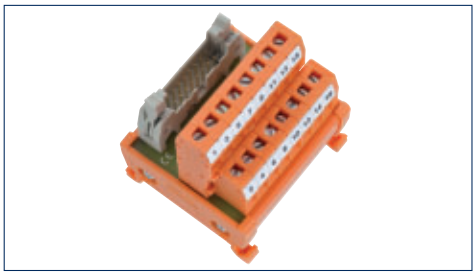


Type **Cat. no.**/Qty.	**D-sub male plug** **SD-S15C-HD** **16105.2 / 1**	**D-sub female plug** **SD-B15C-HD** **16107.2 / 1**
Size (L x W x H) with TS 35 x 7.5	47 x 49 x 61	47 x 49 x 61
Weight	72 g	72 g
Type **Cat. no.**/Qty.	**SD-S15CZ-HD** **16106.2 / 1**	**SD-B15CZ-HD** **16108.2 / 1**
Size (L x W x H) with TS 35 x 7.5	47 x 49 x 38	47 x 49 x 38
Weight	46 g	46 g
General specifications		
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Operating temperature	-20 to +50 °C	-20 to +50 °C
Stripping length, screw/tension-spring	7/6 mm	7/6 mm
Connection	Screw / tension-spring (Z types)	Screw / tension-spring (Z types)
Wire connect cross-section	0.2 to 2.5 mm²	0.2 to 2.5 mm²
Connection	AWG 22-14	AWG 22-14
Connection data		
Status indication	-	-
Reverse polarity protection	-	-
Input voltage	125 V AC/DC	125 V AC/DC
Rated current	1.5 A	1.5 A
Male plug	D-sub High Density male plug MIL-C-24308/DIN 41652	D-sub High Density male plug MIL-C-24308/DIN 41652
Test voltage	0.67 kV eff	0.67 kV eff

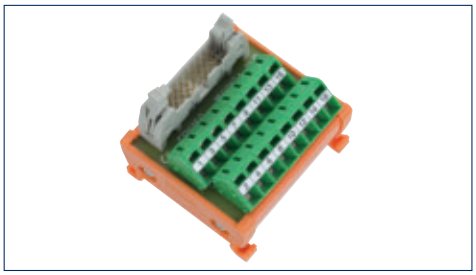
Interface modules FBK...C

- Mounts on TS 35
- Flat ribbon cable on screw connection or on tension-spring connection (Z)
- Male plug connection acc. to DIN 41651
- Module versions from 10 to 64 connections
- Ejector mechanism for socket block (female connectors)
- Width: 47 mm

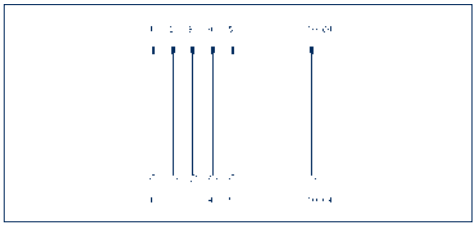
FBK... C



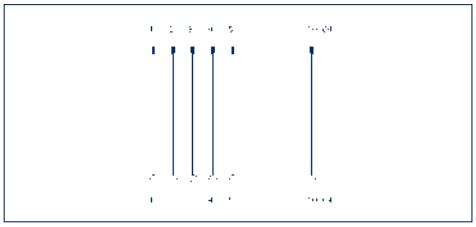
FBK... CZ



Circuit diagram



Circuit diagram

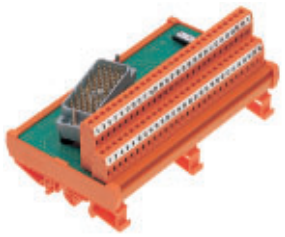


Type **Cat. no.**/Qty.	**FBK 10C 15272.2**/1	**FBK 10CZ 15273.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 36 x 61 mm	47 x 36 x 38 mm
Weight	47 g	32 g
Type **Cat. no.**/Qty.	**FBK 14C 15274.2**/1	**FBK 14CZ 15275.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 46 x 61 mm	47 x 46 x 38 mm
Weight	61 g	43 g
Type **Cat. no.**/Qty.	**FBK 16C 15276.2**/1	**FBK 16CZ 15277.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 51 x 61 mm	47 x 51 x 38 mm
Weight	68 g	48 g
Type **Cat. no.**/Qty.	**FBK 20C 15278.2**/1	**FBK 20CZ 15279.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 63 x 61 mm	47 x 63 x 38 mm
Weight	82 g	58 g
Type **Cat. no.**/Qty.	**FBK 26C 15280.2**/1	**FBK 26CZ 15281.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 77 x 61 mm	47 x 77 x 38 mm
Weight	102 g	68 g
Type **Cat. no.**/Qty.	**FBK 34C 15282.2**/1	**FBK 34CZ 15283.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 96 x 61 mm	47 x 96 x 38 mm
Weight	130 g	80 g
Type **Cat. no.**/Qty.	**FBK 40C 15284.2**/1	**FBK 40CZ 15285.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 113 x 61 mm	47 x 113 x 38 mm
Weight	151 g	88 g
Type **Cat. no.**/Qty.	**FBK 50C 15286.2**/1	**FBK 50CZ 15287.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 138 x 61 mm	47 x 138 x 38 mm
Weight	184 g	99 g
Type **Cat. no.**/Qty.	**FBK 60C 15288.2**/1	**FBK 60CZ 15289.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 169 x 61 mm	47 x 169 x 38 mm
Weight	222 g	122 g
Type **Cat. no.**/Qty.	**FBK 64C 15290.2**/1	**FBK 64CZ 15291.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 169 x 61 mm	47 x 169 x 38 mm
Weight	232 g	128 g
General specifications		
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Operating temperature	-20 to +50 °C	-20 to +50 °C
Stripping length	7 mm	6 mm
Connection	Screw connection	Tension-spring connection
Wire connect cross-section	0.2 to 2.5 mm²	0.2 to 2.5 mm²
Connection	AWG 22-14	AWG 22-14
Input data		
Status indication	-	-
Reverse polarity protection	-	-
Input voltage	125 V AC/DC	125 V AC/DC
Rated current	1 A	1 A
Male plug	Flat ribbon cable connection EN 60603-13/DIN 41651	Flat ribbon cable connection EN 60603-13/DIN 41651
Test voltage	0.67 kV eff	0.67 kV eff

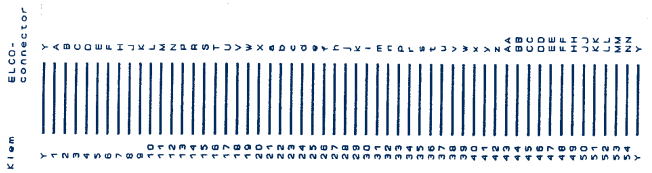
Interface modules OE-E

- Mounts on TS 32/TS 35
- EDAC plug connector on screw connection
- The EDAC series 516 is 100% compatible with the ELCO 8016
- Offset arrangement of plug connector
- Does not influence the neighbouring modules
- "Left" and "right" versions are available

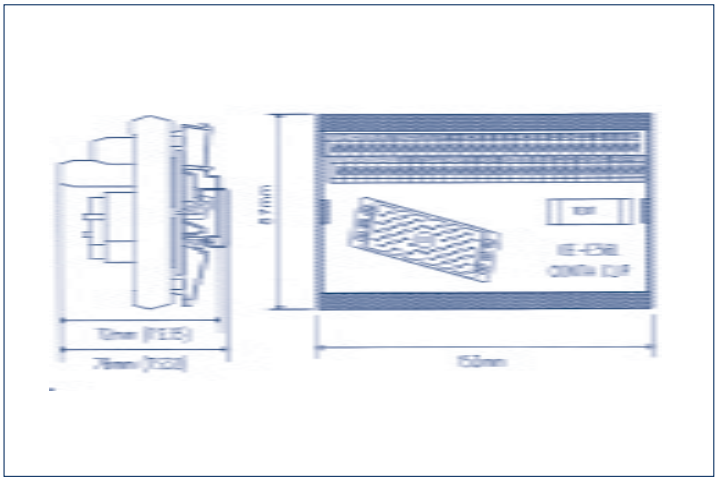
OE-E 38/E 56

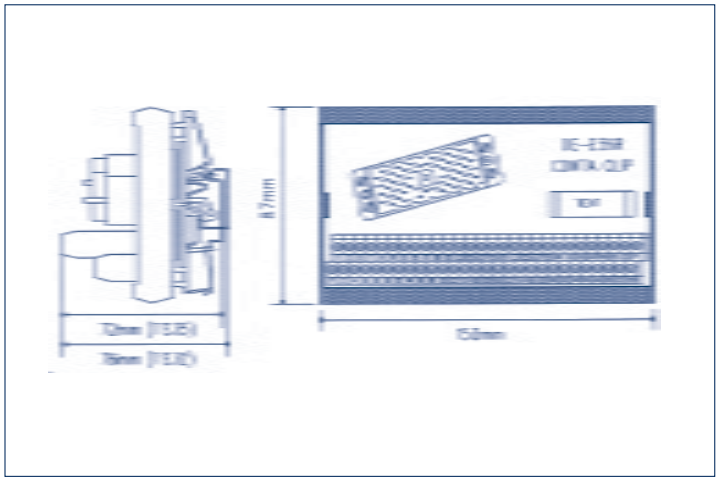


Circuit diagram



Type **Cat. no.**/Qty.	**OE-E 38/36 L** **15351.2**/1	**OE-E 38/36 R** **15350.2/1**	**OE-E 56 L** **15090.2**/1	**OE-E 56 R** **15091.2**/1
Size (L x W x H) with TS 35 x 7.5	122 x 107 x 72 mm	122 x 107 x 72 mm	122 x 153 x 72 mm	122 x 153 x 72 mm
Weight	272 g	272 g	295 g	295 g
General specifications				
DIN-VDE specifications	DIN EN 50178:1997; DIN VDE 0110 contamination degree 2, overvoltage category III	DIN EN 50178:1997; DIN VDE 0110 contamination degree 2, overvoltage category III	DIN EN 50178:1997; DIN VDE 0110 contamination degree 2, overvoltage category III	DIN EN 50178:1997; DIN VDE 0110 contamination degree 2, overvoltage category III
Test voltage	0.8 kV	0.8 kV	0.8 kV	0.8 kV
Operating temperature	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C
Stripping length	7 mm	7 mm	7 mm	7 mm
Connection	Screw connection	Screw connection	Screw connection	Screw connection
Wire connect cross-section	0.2 to 2.5 mm²	0.2 to 2.5 mm²	0.2 to 2.5 mm²	0.2 to 2.5 mm²
Connection	AWG 22-14	AWG 22-14	AWG 22-14	AWG 22-14
Connection data				
Pin block and position	516-038 left	516-038 right	516-056 left	516-056 right
No. of poles	36 + shield	36 + shield	54 + shield	54 + shield
Polarization code of male plug connector	1-1 (changeable)	1-1 (changeable)	4-4 (changeable)	4-4 (changeable)
Input voltage	250 V AC/DC	250 V AC/DC	250 V AC/DC	250 V AC/DC
Max. rated current per pole	2 A	2 A	2 A	2 A
Max. total current	36 A	36 A	56 A	56 A
Male plug	EDAC connection	EDAC connection	EDAC connection	EDAC connection
Clearance and creepage distance: EDAC male plug	EN 50020/DIN VDE 0170/171 sect. 7	EN 50020/DIN VDE 0170/171 sect. 7	EN 50020/DIN VDE 0170/171 sect. 7	EN 50020/DIN VDE 0170/171 sect. 7
PCB	DIN VDE 0110	DIN VDE 0110	DIN VDE 0110	DIN VDE 0110





Converter Units

Whether for manufacturing, electrical machine and plant instrumentation, control engineering, power distribution, building automation, or process engineering – it is always important to guarantee that the signal exchange between the peripheral devices and the upper-level central control and instrumentation systems remains potential-free and operationally safe.

There are standardized electrical signal strengths which are typical for industrial processes. Current levels from 0 to 20 mA, 4 to 20 mA, or voltage levels from 0 to 10 V have become established as the standard output or input levels of sensors or actuators of varying physical sizes.

CONTA-CLIP offers a wide variety of different signal converters and different designs. These cover most conceivable applications.

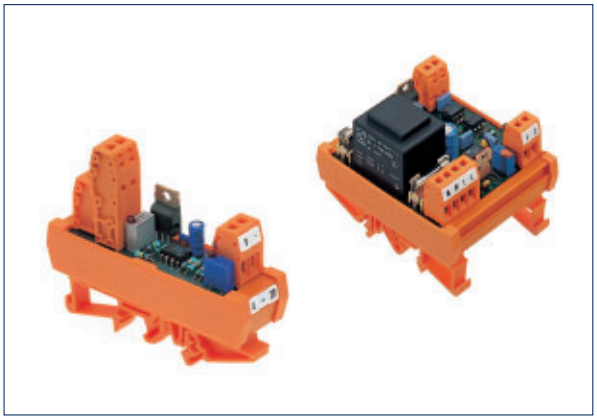
Converter Units

Signal converters CML

Thanks to their thin form (6.2 mm), these converter units can be integrated into a mounted-rail control design where space is tight. It does not matter if they are voltage and current signals (**CML-UI-UI**), potentiometer signals (**CML-POT-UI**) or temperature signals from PT 100 sensors (**CML-PT100-UI**). For the signal converters, there are always two standardized output signals available: signals 0 to 20 mA or 4 to 20 mA and 0 to 10 V. They can be converted easily with DIP switches, and offer an externally-accessible option for calibration.

Multi-function signal converters CMS

The **CMS** signal converter was developed to convert analogue and frequency-based signals from a field sensor to a standard signal for a controller. These multi-function signal converters come enclosed in a compact sealed housing. All the common conversions are selectable directly on the unit with DIP switches (current, voltage and frequency). The integrated three-way electrical isolation separates the input and output circuits as well as the power supply. The module includes an additional digital output that can be used as an alarm indicator.



Signal conversion modules

The signal conversion modules offer a variety of conversion options in the standard open-mounting profile for TS 35 and TS 32 DIN rails. Possible conversions include voltage and current signals (**CAE/I, U**) or potentiometric signals (**CAE/POT**).

Overview of the product line

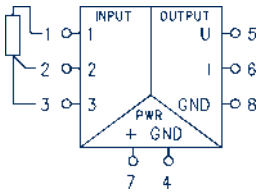
- **CAE/I, U**: analogue signal converter modules without electrical isolation
- **CAE/...G/230**: analogue signal converter modules without electrical isolation
- **CAE/POT** potentiometric modules

Temperature converter units CML

- Mounts on TS 35
- Compact design, width: 6.2 mm
- Screw connection
- Converts PT100 resistance thermometers (3- or 2-wire) to standard analogue signals
- Three-way output: 0 to 10 V, 0 to 20 mA or 4 to 20 mA
- Output signal adjustable via DIP switch
- OFFSET and SPAN setting is always accessible
- Special temperature ranges available upon request
- PT 500 and PT 1000 connections available upon request

CML-PT 100-UI

Circuit diagram



DIPSWITCH SELECTION

OUTPUT	1	2	3	4
0..10V	ON	OFF	X	X
0..20mA	ON	OFF	ON	X
4..20mA	OFF	ON	OFF	X

X = Don't Care

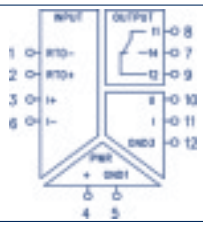
Type **Cat. no.**/Qty.	**CML-PT 100-UI** **15752.2/1**
Temperature range	-50 to +50 °C
Type **Cat. no.**/Qty.	**CML-PT 100-UI** **15701.2/1x**
Temperature range	0 to +100 °C
Type **Cat. no.**/Qty.	**CML-PT 100-UI** **15753.2/1**
Temperature range	0 to +200 °C
Type **Cat. no.**/Qty.	**CML-PT 100-UI** **15754.2/1**
Temperature range	0 to +300 °C
Type **Cat. no.**/Qty.	**CML-PT 100-UI** **15755.2/1**
Temperature range	0 to +400 °C
Size (L x W x H) with TS 35 x 7.5	93.1 x 6.2 x 102.5 mm
Weight	66 g
Colour	grey
General specifications	
DIN-VDE specifications	DIN EN 50178: 1987, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Electromagnetic properties	CE compliant
Protection class	IP 20
Operating temperature	-20 to +55 °C
Connection type	
Stripping length	12 mm
Conductor cross-section	0.2 to 2.5 mm²
Screw connection	AWG 22-14
Transmission errors	< 0.2 % of end value
Temperature coefficient	< 0.02 %/K
Frequency limit (- 3dB)	10 Hz
Power supply	24 V DC -15 % +10 % / 40 mA
Input data	
Input signal	PT 100 (IEC 751/EN 60751) 2- and 3-wire system
Conductor resistance	< 100 Ω
Supply current for PT 100	0.8 mA
Remarks:	initially OFFSET, then set to SPAN
Remarks:	when a 2-wire sensor is being used, connect terminals 2 and 3
Output specifications	
Voltage of output signal	0 to 10 V (initial setting)
Max. voltage of output signal	approx. 11 V
Load resistance	> 1 kΩ
Current of outputs (adjustable via DIP switch)	0 to 20 or 4 to 20 mA (initial setting is 4 to 20 mA)
Max. output current	approx. 22 mA
Load resistance	< 500 Ω
Offset	< 10 mV/20 mA
Remarks:	The current and voltage output can not both be used simultaneously

Multi-function thermal sensor unit CMS-RTD-UI

- Mounts on TS 35
- Compact design, width: 17.5 mm
- Three-way electrical isolation
- Screw connection
- Multi-channel thermocouple input
- Multi-function analogue output (U-I)
- Temperature conversion is adjustable via DIP switch
- 24 V DC power supply
- Limit-value relay with adjustable setpoint and hysteresis
- Other designs available upon request

CMS-RTD-UI

Circuit diagram



Type Cat. no./Qty.	CMS-RTD-UI 15919.2/1
Size (L x W x H) with TS 35 x 7.5	99 x 17.5 x 114.5 mm
Weight	120 g
General specifications	
DIN-VDE specifications	DIN EN 50178:1997 ; DIN VDE 0110, contamination degree 2, overvoltage category III
Electromagnetic properties	CE compliant
Operating temperature	-20 °C to +55 °C
Connection type	Pluggable Screw connection, AWG 22-14
Stripping length	7 mm
Wire connect cross-section	0.2 to 2.5 mm²
Conversion error set / not set	< 0.3 % F.S. / < 1.0 % F.S.
Temperature coefficient	< 0.01 % / K
Response time	200 ms
Offset voltage @ 3x In overload	< 0.7 % of In
Power supply	24 V DC ± 10 % / 60 mA
Insulation voltage input / output	1 kV, 50 Hz, 1 min
Insulation voltage power supply / signal	1 kV, 50 Hz, 1 min
Input data	
Input type	RTD as 2, 3 and 4 wire, in compliance with EN 60751/DIN 43760
	Pt-100 -50 to 850 °C (initial setting)
	Pt-500 -50 to + 850 °C
	Pt-1000 -50 to + 850 °C
	Ni-100 -50 to + 180 °C
	Ni-1000 -50 to + 180 °C
Cold junction compensation	-
Cold junction error	-
Excitation current	200 µA
Output specifications	
Output signals (adjustable via DIP switch)	0-10 V, 0-5 V, 1-5 V, 10-0 V, 0-5 mA, 0-10 mA, 0-20 mA, 4-20 mA
Load resistance U/I	U: > 1 kOhm I: <600 Ohm
Offset U/I	< 10 mV/ 20 µA
Max. output signal U/I	< 11 V/22 mA
Relay contact	1 CO contact
Max. switching voltage	240 V AC
Max. continuous current/inrush current	3 A / 5 A (at resistive load)
Contact material	AgNi
Electrical lifespan at max. contact load	> 1.5 x 10^5
Mechanical lifespan	> 15 x 10^6
Test voltage coil/contact	4 kV

Input Thermal sensor TYPE	Min. (°C)	Max. (°C)	R0 (Ω)	Output U (V) 0-10 V	0-5 V	1-5 V	10-0 V	I (mA) 0-5	0-10	0-20	0-40
PT100	-50	+ 850	100	x	x	x	x	x	x	x	x
PT500	-50	+ 850	500	x	x	x	x	x	x	x	x
PT1000	-50	+ 850	1000	x	x	x	x	x	x	x	x
NI100	-50	+ 180	100	x	x	x	x	x	x	x	x
NI1000	-50	+ 180	1000	x	x	x	x	x	x	x	x

Multi-function thermocouple unit CMS-TC-UI

- Mounts on TS 35
- Compact design, width: 17.5 mm
- Three-way electrical isolation
- Screw connection
- Multi-channel thermocouple input
- Multi-function analogue output (U-I)
- Temperature conversion is adjustable via DIP switch
- 24 V DC power supply
- Limit-value relay with adjustable setpoint and hysteresis
- Other designs available upon request

CMS-TC-UI

Circuit diagram

Type Cat. no./Qty.	CMS-TC-UI 15900.2/1
Size (L x W x H) with TS 35 x 7.5	99 x 17.5 x 114.5 mm
Weight	120 g
General specifications	
DIN-VDE specifications	DIN EN50178 : 1997, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Electromagnetic properties	CE compliant
Operating temperature	-20 °C to +55 °C
Connection type	Pluggable screw connection, AWG 22-14
Stripping length	7 mm
Wire connect cross-section	0.2 to 2.5 mm^2
Conversion error set / not set	< 0.3 % F.S. / < 1.0 % F.S.
Temperature coefficient	< 0.01 % / K
Response time	200 ms
Offset voltage @ 3x In overload	< 0.7 % of In
Power supply	24 V DC ± 10 % / 60 mA
Insulation voltage input / output	1 kV, 50 Hz, 1 min
Insulation voltage power supply / signal	1 kV, 50 Hz, 1 min
Input data	
Input type	Thermocouple acc. to EN 60584
	K -50 to + 1350 °C (initial setting)
	J -50 to + 1200 °C
	T -50 to + 400 °C
	E -50 to + 1000 °C
Cold junction compensation	Selectable
Cold junction error	≤ 3 K (typically 1.5 K)
Excitation current	-
Output specifications	
Output signals (adjustable via DIP switch)	0-10 V, 0-5 V, 1-5 V, 10-0 V, 0-5 mA, 0-10 mA, 0-20 mA, 4-20 mA
Load resistance U/I	U: > 1 kOhm I: <600 Ohm
Offset U/I	< 10 mV/20 µA
Max. output signal U/I	< 11 V/22 mA
Relay contact	1 CO contact
Max. switching voltage	240 V AC
Max. continuous current/inrush current	3 A / 5 A (at resistive load)
Contact material	AgNi
Electrical lifespan at max. contact load	> 1.5 x 10^5
Mechanical lifespan	> 15 x 10^6
Test voltage coil/contact	4 kV

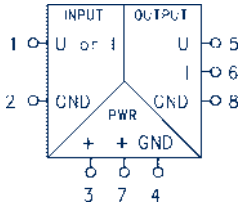
Input Thermocouple TYPE	Min. (°C)	Max. (°C)	Standards	Output U (V) 0-10 V	0-5 V	1-5 V	10-0 V	I (mA) 0-5	0-10	0-20	0-40
K	-50	+ 1350	EN 60584	x	x	x	x	x	x	x	x
J	-50	+ 1200	EN 60584	x	x	x	x	x	x	x	x
T	-50	+ 400	EN 60584	x	x	x	x	x	x	x	x
E	-50	+ 1000	EN 60584	x	x	x	x	x	x	x	x

Voltage and current transformer units CML

- Mounts on TS 35
- Compact design, width: 6.2 mm
- Screw connection
- Conversion of a standard analogue signal into another signal
- Three-way input 0 to 10 V, 0 to 20 mA, or 4 to 20 mA
- Three-way output: 0 to 10 V, 0 to 20 mA or 4 to 20 mA
- Input and output signals are adjustable via DIP switch
- OFFSET and SPAN setting is always accessible

CML-UI-UI

Circuit diagram



DIPSWITCH SELECTION

INPUT	S1.1	S1.2	S1.3	S1.4	S2.1	S2.4
0..1V	OFF	OFF	OFF	ON	OFF	ON
0..10V	OFF	OFF	ON	OFF	OFF	ON
0..20mA	OFF	ON	OFF	ON	OFF	ON
4..20mA	ON	ON	OFF	ON	ON	OFF

OUTPUT	S2.2	S2.3
0..10V	X	X
0..20mA	OFF	OFF
4..20mA	ON	ON

X = Don't Care

Type **Cat. no./Qty.**	**CML-UI-UI** **15643.2/1**
Size (L x W x H) with TS 35 x 7.5	93.1 x 6.2 x 102.5 mm
Weight	66 g
General specifications	
DIN-VDE specifications	DIN EN 50178: 1987, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Electromagnetic properties	CE compliant
Protection class	IP 20
Operating temperature	-20 to +55 °C
Connection type	Screw connection
Stripping length	12 mm / 8 mm
Wire connect cross-section	0.2 to 2.5 mm²
Screw / tension-spring connection	AWG 22-14
Transmission errors	< 0.2 % of end value
Temperature coefficient	< 0.02 % / K
Frequency limit (- 3dB)	10 Hz
Power supply	24 V DC -15 % +10 % / 40 mA
Input data	
Input signals (adjustable via DIP switch)	0 to 10 V / 0 to 20 mA / 4 to 20 mA
Max. input signal	30 V, 50 mA, 50 mA
input resistance	100 kΩ / 50 Ω / 50 Ω
SPAN setting range	2 %
OFFSET setting range	2 %
Remarks:	initially OFFSET, then set to SPAN
Output specifications	
Voltage of output signal	0 to 10 V (initial setting)
Max. voltage of output signal	approx. 11 V
Load resistance	> 1 kΩ
Current of outputs (adjustable via DIP switch)	0 to 20 or 4 to 20 mA (initial setting is 4 to 20 mA)
Max. output current	approx. 22 mA
Load resistance	< 500 Ω
Offset	< 10 mV/20 mA
Remarks:	when the current and voltage outputs are used simultaneously, the load resistance must be > 10 kΩ on the voltage output.

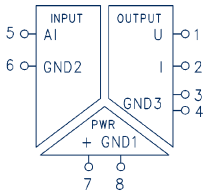
Voltage and current transformer unit CML-UI-UI-G

With electrical isolation

- Mounts on TS 35
- Compact design, width: 6.2 mm
- Screw connection
- Three-way electrical isolation between the input, output and power supply
- Input: 0 to 10 V, 2 to 10 V, 0 to 5 V, 1 to 5 V 0 to 20 mA, 4 to 20 mA
- Output: 0 to 10 V, 2 to 10 V, 0 to 5 V, 1 to 5 V 0 to 20 mA, 4 to 20 mA
- Input and output signals are adjustable via DIP switch
- No external calibration required
- Other designs available upon request

CML-UI-UI-G

Circuit diagram



DIPSWITCH SELECTION

INPUT	S1.1	S1.2	S1.3	S1.4	S2.1
0..10V	OFF	ON	OFF	OFF	OFF
2..10V	OFF	ON	OFF	OFF	ON
0..5V	OFF	ON	OFF	ON	OFF
1..5V	OFF	ON	OFF	ON	ON
0..20mA	ON	OFF	ON	OFF	OFF
4..20mA	ON	OFF	ON	OFF	ON

OUTPUT	S2.2	S2.3	S2.4
0..10V	OFF	OFF	OFF
2..10V	OFF	OFF	ON
0..5V	OFF	ON	OFF
1..5V	OFF	ON	ON
0..20mA	ON	OFF	OFF
4..20mA	ON	OFF	ON

Type	**CMS-UI60-UI**	**Qty.**
Cat. no.	**15903.2**	1
Size (L x W x H) with TS 35x7.5 mm	93.1 x 6.2 x 102.5	
Weight, g	66	
General specifications		
EMC specifications	EN 55011 / EN 61326-1	
Electromagnetic properties	In compliance with the EMC Directive 2001/108/EC	
Protection class	IP 20	
Operating temperature	-20 to +55 °C	
Connection type	Screw connection	
Connection cross-section, mm²	0.2-2.5	
Screw connection	AWG 22-14	
Stripping length, mm	12	
Power supply, V DC	24 (± 10 %)	
Current consumption, mA	45 @ no load	
Transmission errors	< 0.2 % of end value	
Conversion errors	< 0.2 % of end value	
Temperature coefficient	< 0.02 % / K	
Insulation voltage (power supply / signal)	1 KV, 50 Hz, 1 min	
Insulation voltage (input / output)	1 KV, 50 Hz, 1 min	
Frequency limit (- 3dB) Hz	10	
Input data		
Input signals (adjustable via DIP switch)	0 (2) to 10 V / 0 (1) to 5 V / 0 (4) to 20 mA (initial setting: 0 to 10 V)	
Max. input signal	20 V / 20 V / 40 mA	
input resistance	> 50 kOhm / > 50 kOhm / 50 Ohm	
Output specifications		
Voltage output signal (adjustable via DIP switch)	0 (2) to 10 V / 0 (1) to 5 V (initial setting: 0 to 10 V)	
Max. voltage output signal, V	approx. 10.5	
Load resistance, kOhm	> 1	
Max. offset, U mV	20	
Current outputs (adjustable via DIP switch), mA	0 to 20 or 4 to 20	
Max. output current, mA	approx. 21	
Load resistance, kOhm	< 500	

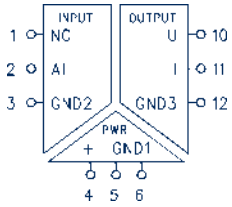
Input	**Output**					
I	**U**				**I**	
	0-5 V	1-5 V	0-10 V	2-10 V	0-20 mA	4-20 mA
U	x	x	x	x	x	x
0_5 V	x	x	x	x	x	x
1_5 V	x	x	x	x	x	x
0_10 V	x	x	x	x	x	x
1_10 V	x	x	x	x	x	x
I						
0_20 mA	x	x	x	x	x	x
4_20 mA	x	x	x	x	x	x

Multi-function signal converter units CMS

- Mounts on TS 35
- Compact design, width: 17.5 mm
- Three-way electrical isolation
- Screw connection
- Multi-function analogue input (U-I)
- Multi-function analogue output (U-I)
- Signal conversion adjustable via DIP switch
- Power supply: 24 VDC

CMS-UI-UI

Circuit diagram



Type Cat. no./Qty.	CMS-UI-UI 15650.2/1
Size (L x W x H) with TS 35 x 7.5	99 x 17.5 x 114.5 mm
Weight	120 g
General specifications	
DIN-VDE specifications	DIN EN 50178: 1987, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Electromagnetic properties	CE compliant
Operating temperature	0 to +55 °C
Connection type	Pluggable Screw connection
Stripping length	7 mm
Wire connect cross-section	0.2 to 2.5 mm²
Screw connection	AWG 22-14
Transmission errors	< 0.1 %
Temperature coefficient	< 0.01 % / K
Frequency limit (- 3 dB)	10 Hz
Power supply	24 V DC ± 25 % / 50 mA
Insulation voltage, input / output	1 KV, 50 Hz, 1 min
Insulation voltage, power supply / signal	1 KV, 50 Hz, 1 min
Functions	Signal doubler / signal inverter / 2-signal converter
Input data	
Input signal (adjustable via DIP switch)	Refer to table (initial setting from 0 to 10 V)
Max. input signal U / I	40 V DC / 25 mA
Input resistance U / I	> 200 k Ω / 50 Ω
Output specifications	
Output signal (adjustable via DIP switch)	Refer to table (initial setting from 0 to 10 V)
Load resistance U / I	> 1 k Ω / < 600 Ω
Offset U / I	< 10 mV / 20 mA
Max. output signal U / I	approx. 11 V / 22 mA

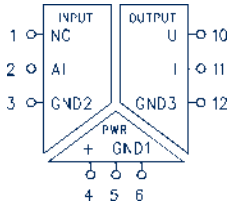
	Output U (V)			I (mA)			
Input	0-10 V	0-5 V	1-5 V	0-5 mA	0-10 mA	0-20 mA	4-20 mA
U							
0 to 1 V	x	x	x	x	x	x	x
0 to 2 V	x	x	x	x	x	x	x
0 to 2.5 V	x	x	x	x	x	x	x
0 to 5 V	x	x	x	x	x	x	x
1 to 5 V	x	x	x	x	x	x	x
0 to 10 V	x	x	x	x	x	x	x
0 to 20 V	x	x	x	x	x	x	x
0 to 40 V	x	x	x	x	x	x	x
I							
0-5 mA	x	x	x	x	x	x	x
0-10 mA	x	x	x	x	x	x	x
0-20 mA	x	x	x	x	x	x	x
4-20 mA	x	x	x	x	x	x	x

Multi-function signal converter units CMS

- Mounts on TS 35
- Compact design, width: 17.5 mm
- Three-way electrical isolation
- Screw connection
- Multi-function analogue input (U-I)
- Multi-function analogue output (U-I)
- Signal conversion adjustable via DIP switch
- Power supply: 24 VDC

CMS-UI60-UI

Circuit diagram



Type Cat. no./Qty.	CMS-UI60-UI 15885.2/1
Size (L x W x H) with TS 35 x 7.5	99 x 17.5 x 114.5 mm
Weight	120 g
General specifications	
DIN-VDE specifications	DIN EN 50178: 1987, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Electromagnetic properties	CE compliant
Operating temperature	0 to +55 °C
Connection type	Pluggable Screw connection
Stripping length	7 mm
Wire connect cross-section	0.2 to 2.5 mm²
Screw connection	AWG 22-14
Transmission errors	< 0.1 %
Temperature coefficient	< 0.01 % / K
Frequency limit (- 3 dB)	10 Hz
Power supply	24 V DC ± 25 % / 50 mA
Insulation voltage, input / output	1 KV, 50 Hz, 1 min
Insulation voltage, power supply / signal	1 KV, 50 Hz, 1 min
Input data	
Input signal (adjustable via DIP switch)	Refer to table (initial setting from 0 to 10 V)
Max. input signal U / I	40 V DC / 25 mA
Input resistance U / I	> 200 kΩ / 50 Ω
Output specifications	
Output signals (adjustable via DIP switch)	Refer to table (initial setting from 0 to 10 V)
Load resistance U / I	> 1 kΩ / < 600 Ω
Offset U / I	< 10 mV / 20 µA
Max. output signal U / I	approx. 11 V / 22 µA

Input	Output U (V) 0-10 V	0-5 V	1-5 V	I (mA) 0-5	mA 0-10	mA 0-20	mA 4-20
U							
0 to 60 mV	x	x	x	x	x	x	x
0 to 100 mV	x	x	x	x	x	x	x
0 to 200 mV	x	x	x	x	x	x	x
0 to 300 mV	x	x	x	x	x	x	x
0 to 500 mV	x	x	x	x	x	x	x
0 to 1 V	x	x	x	x	x	x	x
0 to 2 V	x	x	x	x	x	x	x
0 to 2.5 V	x	x	x	x	x	x	x
0 to 5 V	x	x	x	x	x	x	x
1 to 5 V	x	x	x	x	x	x	x
0 to 10 V	x	x	x	x	x	x	x
0 to 20 V	x	x	x	x	x	x	x
0 to 40 V	x	x	x	x	x	x	x
I							
0-5 mA	x	x	x	x	x	x	x
0-10 mA	x	x	x	x	x	x	x
0-20 mA	x	x	x	x	x	x	x
4-20 mA	x	x	x	x	x	x	x

Multi-function signal converter units CMS

- Mounts on TS 35
- Compact design, width: 17.5 mm
- Three-way electrical isolation
- Screw connection
- Two multi-function analogue inputs (U-I)
- Two multi-function analogue outputs (U-I)
- Functions:
  - Signal doubler
  - Signal inverter
  - 2-channel signal converter
- Signal conversion adjustable via DIP switch
- Power supply 24 VDC

CMS-UI-2UI

Circuit diagram

Type Cat. no./Qty.	CMS-UI-2UI 16121.2/1
Size (L x W x H) with TS 35 x 7.5	99 x 17.5 x 114.5 mm
Weight	120 g
General specifications	
DIN-VDE specifications	DIN EN 50178: 1987, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Electromagnetic properties	CE compliant
Operating temperature	0 to +55 °C
Connection type	Pluggable Screw connection
Stripping length	7 mm
Wire connect cross-section	0.2 to 2.5 mm²
Screw connection	AWG 22-14
Transmission errors	< 0.5 % of end value
Temperature coefficient	< 0.02 % / °C
Frequency limit (- 3 dB)	10 Hz
Power supply	24 V DC ± 25 % / 65 mA
Insulation voltage, input / output	1 KV, 50 Hz, 1 min
Insulation voltage, power supply / signal	1 KV, 50 Hz, 1 min
Functions	Signal doubler / signal inverter / 2-channel conversion
Input data	
Input signal (adjustable via DIP switch)	Refer to table (initial setting from 0 to 10 V)
Max. input signal U / I	12 V / 25 mA
Input resistance U / I	> 50 kΩ / 100 Ω
Output specifications	
Output signal (adjustable via DIP switch)	Refer to table (initial setting from 0 to 10 V)
Load resistance U / I	> 1kΩ / < 600 Ω
Offset U / I	< 20 mV / < 40 µA
Max. output signal U / I	< 10.5 V / < 21 mA

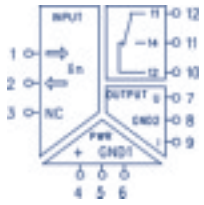
Input	Output U (V)				I (mA)			
U	0-5 V	1-5 V	0-10 V	2-10 V	0-10 mA	2-10 mA	0-20 mA	4-20 mA
0 to 5 V	x	x	x	x	x	x	x	x
1 to 5 V	x	x	x	x	x	x	x	x
0 to 10 V	x	x	x	x	x	x	x	x
2 to 10 V	x	x	x	x	x	x	x	x
I								
0 to 10 mA	x	x	x	x	x	x	x	x
2 to 10 mA	x	x	x	x	x	x	x	x
0 to 20 mA	x	x	x	x	x	x	x	x
4 to 20 mA	x	x	x	x	x	x	x	x

Multi-function high-power converter unit CMS-I10 A

- Mounts on TS 35
- Compact design, width: 17.5 mm
- Three-way electrical isolation
- Screw connection
- Multi-channel high-power input
- Multi-function analogue output (U-I)
- Current conversion is adjustable via DIP switch
- 24 V DC power supply
- Limit-value relay with adjustable setpoint and hysteresis
- Very easy zero-positioning with calibration button

CMS-I10A-UI

Circuit diagram



Type Cat. no./Qty.	CMS-I10A-UI 15901.2/1
Size (L x W x H) with TS 35 x 7.5	99 x 17.5 x 114.5 mm
Weight	130 g
General specifications	
DIN-VDE specifications	DIN EN 50178: 1997; DIN VDE 0110, contamination degree 2, overvoltage cat. III
Electromagnetic properties	CE compliant
Operating temperature	-20 °C to +55 °C
Connection type	Pluggable screw connection, AWG 22-14
Stripping length	7 mm
Wire connect cross-section	0.2 to 2.5 mm²
Transmission error and linearity error	< 0.5 % of In
Temperature coefficient	< 0.05 % / K
Response time	200 ms
Offset voltage @ 3x In overload	< 0.7 % of In
Power supply	24 V DC ± 10 % / 60 mA
Insulation voltage input / output	1 kV, 50 Hz, 1 min
Insulation voltage power supply / signal	1 kV, 50 Hz, 1 min
Input data	
Input voltage	0–250 V AC/DC
Input range	0-0, 5 A, 0-1 A, 0-5 A, 0-10 A AC and DC
Measuring principle	True RMS / Arithmetic mean
Input signals (adjustable via DIP switch)	Refer to table (initial setting 0-10 A)
AC input frequency	45-65 Hz
Output specifications	
Output signals (adjustable via DIP switch)	0-10 V, 0-5V , 1-5 V, 10-0 V, 0-5 mA, 0-10 mA, 0-20 mA, 4-20 mA
Load resistance U/I	U: > 1 kΩ I: < 600 Ω
Offset U/I	< 10 mV/20 µA
Max. output signal U/I	< 11 V/22 mA
Relay contact	1 CO contact
Max. switching voltage	240 V AC
Max. continuous current/inrush current	3 A / 5 A (at resistive load)
Contact material	AgNi
Electrical lifespan at max. contact load	> 1.5 x 10^5
Mechanical lifespan	> 15 x 10^6
Test voltage coil/contact	4 kV

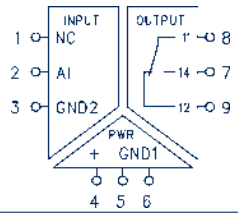
Input I	Output U (V) 0-10 V	0-5 V	1-5 V	10-0 V	I (mA) 0-5	mA 0-10	mA 0-20	mA 4-20
0-500 mA	x	x	x	x	x	x	x	x
0-1 A	x	x	x	x	x	x	x	x
0-5 A	x	x	x	x	x	x	x	x
0-10 A	x	x	x	x	x	x	x	x

Multi-function signal converter units CMS

- Mounts on TS 35
- Compact design, width: 17.5 mm
- Three-way electrical isolation
- Screw connection
- Multi-function analogue input (U-I)
- Relay output, 1 CO contact
- Signal conversion adjustable via DIP switch
- Threshold and hysteresis settings are always accessible on the device
- Power supply: 24 VDC

CMS-UI-R

Circuit diagram



Type **Cat. no.**/Qty.	**CMS-UI-R** **15884.2**/1
Size (L x W x H) with TS 35 x 7.5	99 x 17.5 x 114.5 mm
Weight	120 g
General specifications	
DIN-VDE specifications	DIN EN 50178: 1987, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Electromagnetic properties	CE compliant
Operating temperature	0 to 55 °C
Connection type	Pluggable Screw connection
Stripping length	7 mm
Wire connect cross-section	0.2 to 2.5 mm²
Screw connection	AWG 22-14
Temperature coefficient	< 0.02 % / K
Power supply	24 V DC ± 25 % / 50 mA
Insulation voltage, input / output	4 KV
Insulation voltage, power supply / signal	1 KV, 50 Hz, 1 min
Input data	
Input signals (adjustable via DIP switch)	Refer to table (initial setting from 0 to 10 V)
Max. input signal U / I	40 V DC / 25 mA
Input resistance U / I	> 200 kΩ / 50 Ω
Output specifications	
Relay contact	1 CO contact
Threshold setting range	1 to 90 %
Hysteresis setting range	1 to 90 %
functions	failsafe / not failsafe (default setting: failsafe)
Max. switching voltage	240 V AC
Max. continuous current / inrush current	3 A / 5 A
Max. power rating (ohmic load)	1200 VA at 240 V AC, 5 A
Contact material	AgNi
Electrical lifespan at max. contact load	> 1.5 x 10⁵
Mechanical lifespan	> 15 x 10⁶
Test voltage coil/contact	4 KV

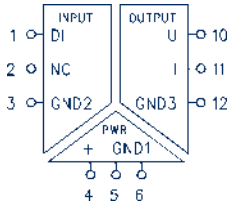
Input **U**	**Output** **Relay**
0 to 1 V	x
0 to 2 V	x
0 to 2.5 V	x
0 to 5 V	x
1 to 5 V	x
0 to 10 V	x
0 to 20 V	x
0 to 40 V	x
I	
0-5 mA	x
0-10 mA	x
0-20 mA	x
4-20 mA	x

Multi-function signal converter units CMS

- Mounts on TS 35
- Compact design, width: 17.5 mm
- Three-way electrical isolation
- Screw connection
- Multi-function frequency input
- Multi-function analogue output (U-I)
- Signal conversion adjustable via DIP switch
- Power supply: 24 VDC

CMS-F-UI

Circuit diagram



Type Cat. no./Qty.	CMS-F-UI 15886.2/1
Size (L x W x H) with TS 35 x 7.5	99 x 17.5 x 114.5 mm
Weight	120 g
General specifications	
DIN-VDE specifications	DIN EN 50178: 1987, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Electromagnetic properties	CE compliant
Operating temperature	0 to +55 °C
Connection type	Pluggable Screw connection
Stripping length	7 mm
Wire connect cross-section	0.2 to 2.5 mm²
Screw connection	AWG 22-14
Transmission errors	< 0.2 %
Temperature coefficient	< 0.02 % / K
Power supply	24 V DC ± 25 % / 50 mA
Insulation voltage, input / output	1 KV, 50 Hz, 1 min
Insulation voltage, power supply / signal	1 KV, 50 Hz, 1 min
Input data	
Input signal (adjustable via DIP switch)	Refer to table (initial setting from 0 to 1.0 kHz)
Frequency range (adjustable via DIP switch)	1.0 Hz to 10.0 kHz
Sensor	2-wire, 3-wire PNP/NPN, NAMUR initiator, push-pull
Threshold / hysteresis	NAMUR: approx. 1.7 mA / approx. 0.2 mA; NPN: approx. 6.5 V / approx. 0.2 V; PNP: approx. 6.7 V / approx. 0.5 V
Resolution	0.1 mHz resp. 5 ppm from measured value
Output specifications	
Output signal	Refer to table (initial setting from 0 to 10 V)
Load resistance U / I	> 1 kΩ / < 600 Ω
Offset U / I	< 10 mV / 20 µA
Max. output signal U / I	< 15 V / 30 mA
Step response time	350 ms + two times the period of the input frequency

Input F	Output U 0-10	U 0-5 V	I(mA) 0-20	mA 4-20
0 to 0.1 Hz	x	x	x	x
0 to 1.1 Hz	x	x	x	x
0 to 9.9 Hz	x	x	x	x
0 to 10 Hz	x	x	x	x
0 to 11 Hz	x	x	x	x
0 to 99 Hz	x	x	x	x
0 to 100 Hz	x	x	x	x

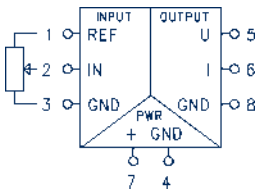
Input F	Output U 0-10 V	U 0-5 V	I(mA) 0-20	mA 4-20
0 to 110 Hz	x	x	x	x
0 to 990 Hz	x	x	x	x
0 to 1000 Hz	x	x	x	x
0 to 1100 Hz	x	x	x	x
0 to 9900 Hz	x	x	x	x
0 to 10000 Hz	x	x	x	x

Potentiometric converter units CML

- Mounts on TS 35
- Compact design, width: 6.2 mm
- Screw connection
- Conversion of potentiometric signals into standard analogue signals
- Suitable for 1 k to 20 kΩ potentiometers
- Three-way output: 0 to 10 V, 0 to 20 mA or 4 to 20 mA
- Output signal adjustable via DIP switch
- OFFSET and SPAN setting is always accessible

CML-POT-UI

Circuit diagram



DIPSWITCH SELECTION

OUTPUT	1	2	3	4
0..10V	X	X	X	X
0..20mA	X	OFF	OFF	X
4..20mA	X	ON	ON	X

X = Don't Care

Type Cat. no./Qty.	CML-POT-UI 15641.2/1
Size (L x W x H) with TS 35 x 7.5	93.1 x 6.2 x 102.5 mm
Weight	66 g
General specifications	
DIN-VDE specifications	DIN EN 50178: 1987, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Electromagnetic properties	CE compliant
Protection class	IP 20
Operating temperature	-20 to +55 °C
Connection type	Screw / tension-spring connection
Stripping length	12 mm / 8 mm
Wire connect cross-section	0.2 to 2.5 mm²
Screw / tension-spring connection	AWG 22-14
Transmission errors	< 0.2 % of end value
Temperature coefficient	< 0.02 % / K
Frequency limit (- 3dB)	10 Hz
Power supply	24 V DC -15 % +10 %/40 mA
Input data	
Potentiometer	0 to 1 kΩ to 0 to 20 kΩ
Minimal use of the potentiometer for OFFSET / SPAN corrections	60 %
Remarks:	initially OFFSET, then set to SPAN
Output specifications	
Voltage of output signal	0 to 10 V (initial setting)
Max. voltage of output signal	approx. 11 V
Load resistance	> 1 kΩ
Current of outputs (adjustable via DIP switch)	0 to 20 or 4 to 20 mA (initial setting is 4 to 20 mA)
Max. output current	approx. 22 mA
Load resistance	< 500 Ω
Offset	< 10 mV/20 µA
Remarks:	when the current and voltage outputs are used simultaneously, the load resistance must be > 10 kΩ on the voltage output.

Multi-function converter unit CMS-BS100

The **CMS-BS100** is a multi-function signal conversion unit featuring multiple inputs and outputs. It can convert analogue voltage, current, RTD and digital signals into analogue or digital outputs. Several of the most helpful functions are already programmed into the standard unit.

The **CMS-BS100** can also be programmed for customer-specific conversion tasks at any time. Thanks to the variety of inputs and outputs, a variety of different functions can be programmed. The measurement inputs as well as the analogue and digital outputs can be combined in any way needed.

The analogue and digital inputs and outputs can be linked as required within the following ranges:

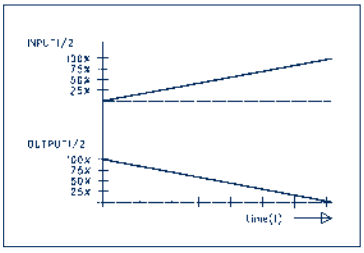
Input	**Output**
U= 0 to 60 V	U= 0 to 11 V
I= 0 to 1 A	I= 0 to 22 mA

Standard programmed features in the CMS-BS100:

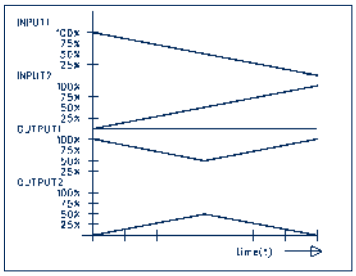
Analogue functions

For 2 similar signals, voltages 0 to 1 V, 0 to 10 V or currents 0(4) to 20 mA

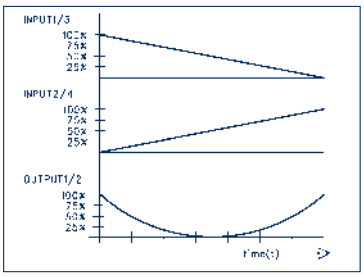
- **Analogue inverter**
  The output delivers the inverted input signal.



- **Highest or lowest input**
  The output always takes the value of the highest or lowest input.



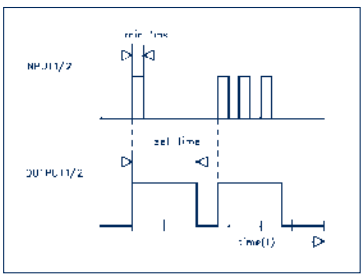
- **Differentiator**
  the absolute difference between the inputs.



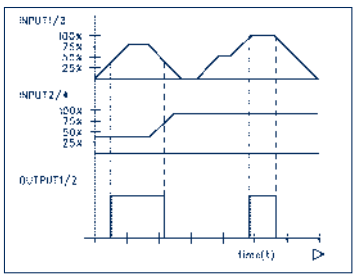
- **Signal duplication**
  input signal on two separate outputs
- **RTD (Ni1000, PT1000) setpoint transmitter**
- **4 potentiometers on analogue output signals**
  Minimal resistance Rpot with 1 potentiometer: 1 kOhm
  with 2 potentiometers: 2 kOhm

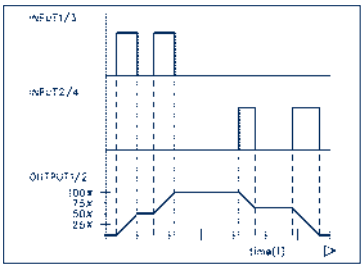
Analogue/digital functionality

- **Pulse extension**
  Output pulse
  1s / 2s / 3s / 4s
  selectable



- **Threshold value for analogue to digital**
  Output 1/2 is switched when input 1>2 and 3>4





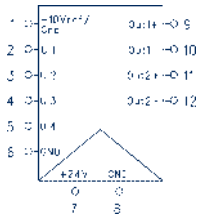
- **Up / down dimmer**
  As soon as input 1 is switched (24 V DC), the output voltage increases to a maximum value of 10 V DC. As soon as input 2 is switched (24 V DC), the output voltage decreases to a minimum value of 0 V. If no input is switched (0 V DC), the output voltage remains stable. The rise and fall of the output voltage takes place after a pre-set linear rate, ranging from 5 seconds to 30 minutes. Inputs 3/4 and output 3 have the same functionality.

Multi-function converter unit CMS-BS100

- Mounts on TS 35
- Compact design, width: 17.5 mm
- Pluggable screw connection
- 4 multi-function analogue/digital inputs
- 2 multi-function analogue/digital outputs
- Many standard features come pre-programmed
- Input and output ranges are adjustable via DIP switch
- Particularly well suited for customized applications
- Power supply: 24 V DC

CMS-BS100

Circuit diagram

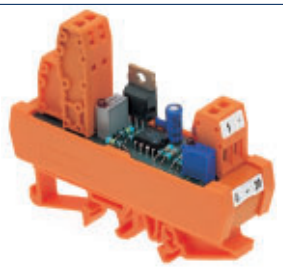


Type Cat. no.	CMS-BS100 15963.2
Size (L x W x H) with TS 35 x 7.5, mm	99 x 17.5 x 114.5
Weight, g	120
General specifications	
EMC specifications	EN 55011 / EN 61326-1
Electromagnetic properties	In compliance with the EMC Directive 2001/108/EC
Protection class	IP 20
Operating temperature	-20 to +55 °C
Connection type	Pluggable Screw connection
Wire connect cross-section mm²	0.2-2.5
Screw connection	AWG 22-14
Stripping length, mm	7
Power supply, V DC	24 (± 20 %)
Current consumption, mA	approx. 25
Conversion errors	< 0.5 % full scale range
Linearity errors	< 0.5 % full scale range
Reaction time, ms	100 ms
Temperature coefficient	< 0.02 % / K
Input data	
4 multi-function analogue/dig. Inputs	0 to 1 V / 0 to 10 V / 0 (4) to 20 mA / RTD / 24 V DC (10 to 30 V) Input type can be selected with jumper
Input resistance (U) kΩ	200 kΩ
Input resistance (I) Ω	200 Ω
Resolution (U/I) bit	10 (10 mV / 20 µA)
Configured resistor (PT/NI1000)	Type: plug-in(Rt) 18K2-0.1% (non included), Temperature range: -20 to +140 °C
Resolution (PT1000 / NI1000) bit	8 (0.6 °C / 0.5 °C)
Reference output voltage for RTD, V	10
Output specifications	
2 multi-function analogue/dig. Outputs	Output type can be selected with jumper
Analogue outputs	0 to 10 V DC or 0(4) to 20 mA, short-circuit and overvoltage (24 V AC/DC) protected
Load resistance U/I	U: > 1 kΩ I: < 500 Ω
Offset U/I	< 10 mV / 20 µA
Digital outputs	Opto-coupler transistor outputs
Max. output current, mA	100
Output voltage V DC	5 to 40

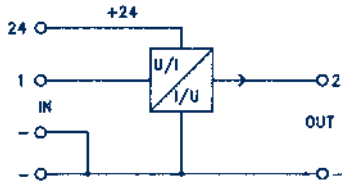
Analogue signal converter modules without electrical isolation CAE

- Mounts on TS 32/TS 35
- Screw connection
- Converts a standard analogue signal value into another, without electrical isolation

CAE/U-I/0-10 mA | **CAE/U-I/0-20 mA** | **CAE/U-I/4-20 mA**



Circuit diagram

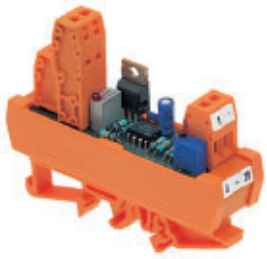


Type Cat. no./Qty.	CAE/U-I/0-10 mA 6751.2/1	CAE/U-I/0-20 mA 6752.2/1	CAE/U-I/4-20 mA 6753.2/1
Size (L x W x H) with TS 35 x 7.5	87 x 25 x 73 mm	87 x 25 x 73 mm	87 x 25 x 73 mm
Weight	50 g	50 g	50 g
General specifications			
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Operating temperature	0 to +50 °C	0 to +50 °C	0 to +50 °C
Stripping length	7 mm	7 mm	7 mm
Wire connect cross-section	0.2 to 2.5 mm²	0.2 to 2.5 mm²	0.2 to 2.5 mm²
Screw connection	AWG 22-14	AWG 22-14	AWG 22-14
Transmission errors	< 0.4 % of end value	< 0.4 % of end value	< 0.4 % of end value
Temperature coefficient	< 0.02 % / K	< 0.02 % / K	< 0.02 % / K
Input data			
Input signal	0 to 10 V	0 to 10 V	0 to 10 V
Max. input signal	12 V	12 V	12 V
input resistance	> 100 kΩ	> 100 kΩ	> 100 kΩ
Output specifications			
Output signal	0 to 10 mA	0 to 20 mA	4 to 20 mA
Max. output signal	12 mA	24 mA	24 mA
Load resistance	< 500 Ω	< 500 Ω	< 500 Ω
Power supply	24 V DC ± 10 % / 25 mA	24 V DC ± 10 % / 25 mA	24 V DC ± 10 % / 25 mA
Max. transmission frequency	100 Hz	100 Hz	100 Hz

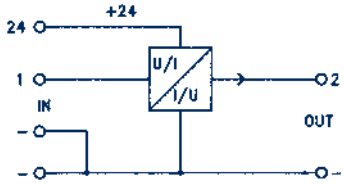
Analogue signal converter modules without electrical isolation CAE

- Mounts on TS 32/TS 35
- Screw connection
- Converts a standard analogue signal value into another, without electrical isolation

CAE/I-U/0-10 mA | **CAE/I-U/0-20 mA** | **CAE/I-U/4-20 mA**



Circuit diagram

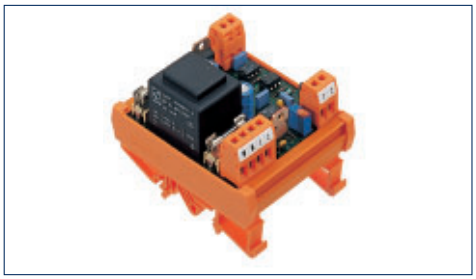


Type Cat. no./Qty.	CAE/I-U/0-10 mA 6754.2/1	CAE/I-U/0-20 mA 6755.2/1	CAE/I-U/4-20 mA 6756.2/1
Size (L x W x H) with TS 35 x 7.5	87 x 25 x 73 mm	87 x 25 x 73 mm	87 x 25 x 73 mm
Weight	50 g	50 g	50 g
General specifications			
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Operating temperature	- 0 to + 50 °C	- 0 to + 50 °C	- 0 to + 50 °C
Stripping length	7 mm	7 mm	7 mm
Wire connect cross-section	0.2 to 2.5 mm²	0.2 to 2.5 mm²	0.2 to 2.5 mm²
Screw connection	AWG 22-14	AWG 22-14	AWG 22-14
Transmission errors	< 0.4 % of end value	< 0.4 % of end value	< 0.4 % of end value
Temperature coefficient	< 0.02 % / K	< 0.02 % / K	< 0.02 % / K
Input data			
Input signal	0 to 10 mA	0 to 20 mA	4 to 20 mA
Max. input signal	15 mA	25 mA	25 mA
input resistance	50 Ω	50 Ω	50 Ω
Output specifications			
Output signal	0 to 10 V	0 to 10 V	0 to 10 V
Max. output signal	12 V	12 V	12 V
Load resistance	> 1 kΩ	> 1 kΩ	> 1 kΩ
Power supply	24 V DC ± 10 % / 25 mA	24 V DC ± 10 % / 25 mA	24 V DC ± 10 % / 25 mA
Max. transmission frequency	100 Hz	100 Hz	100 Hz

Analogue signal converter modules with electrical isolation CAE

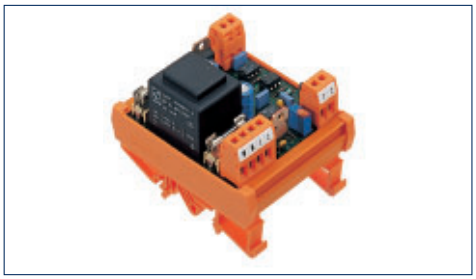
- Mounts on TS 32/TS 35
- Screw connection
- Converts a standard analogue signal value into a different value, with electrical isolation
- The power is supplied via a transformer with secondary separated coils

CAE/U-U/G/230



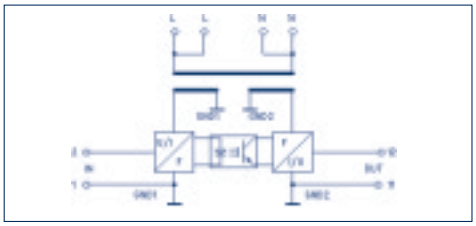
CAE/U-I/G/230

CAE/I-U/G/230

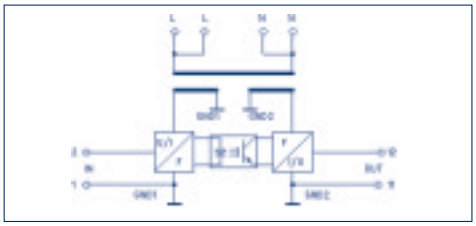


CAE/I-I/G/230

Circuit diagram



Circuit diagram

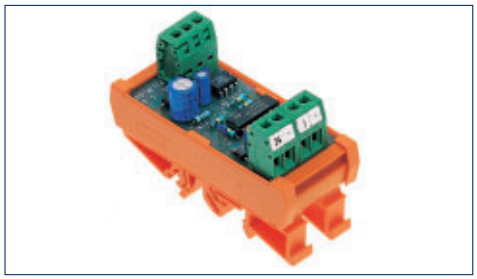


Type Cat. no./Qty.	CAE/U-U/G/230 6761.2/1	CAE/U-I/G/230 6775.2/1	CAE/I-U/G/230 6776.2/1	CAE/I-I/G/230 6777.2/1
Size (L x W x H) with TS 35 x 7.5	87 x 68 x 76 mm	87 x 68 x 76 mm	87 x 68 x 76 mm	87 x 68 x 76 mm
Weight	233 g	236 g	239 g	237 g
General specifications				
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Test voltage input-output	4 kV	4 kV	4 kV	4 kV
Operating temperature	0 to +50 °C	0 to +50 °C	0 to +50 °C	0 to +50 °C
Stripping length	7 mm	7 mm	7 mm	7 mm
Wire connect cross-section	0.2 to 2.5 mm²	0.2 to 2.5 mm²	0.2 to 2.5 mm²	0.2 to 2.5 mm²
Screw connection	AWG 22-14	AWG 22-14	AWG 22-14	AWG 22-14
Transmission errors	< 0.2 % of end value	< 0.2 % of end value	< 0.2 % of end value	< 0.2 % of end value
Temperature coefficient	< 0.02 % / K	< 0.02 % / K	< 0.02 % / K	< 0.02 % / K
Power supply	230 V AC ± 10 % / 50 Hz	230 V AC ± 10 % / 50 Hz	230 V AC ± 10 % / 50 Hz	230 V AC ± 10 % / 50 Hz
Transmission frequency	< 3 Hz	< 3 Hz	< 3 Hz	< 3 Hz
Input data				
Input signal	0 to 10 V	0 to 10 V	4 to 20 mA	0 (4) to 20 mA
Max. input signal	12 V	12 V	25 mA	25 mA
input resistance	> 100 kΩ	> 100 kΩ	62.6 Ω	50 Ω
Output specifications				
Output signal	0 to 10 V	4 to 20 mA	0 to 10 V	4 to 20 mA
Max. output signal	12 V	24 mA	12 V	24 mA
Load resistance	> 1 kΩ	< 500 Ω	> 1 kΩ	< 500 Ω

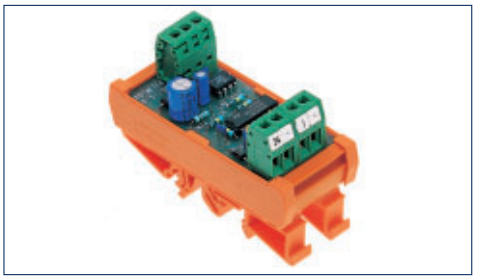
Potentiometric modules CAE/POT

- Mounts on TS 32/TS 35
- Screw connection
- Setpoint selection of an analogue signal via a potentiometer

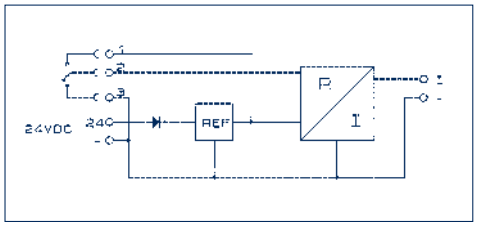
CAE/POT-I



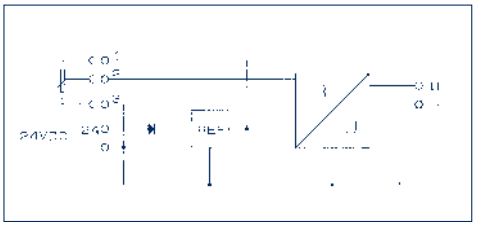
CAE/POT-U



Circuit diagram



Circuit diagram



Type Cat. no./Qty.	CAE/POT-I 6766.2/1	CAE/POT-U 6767.2/1
Size (L x W x H) with TS 35 x 7.5	87 x 36 x 57 mm	87 x 36 x 57 mm
Weight	61 g	67 g
General specifications		
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Operating temperature	0 to +55 °C	0 to +55 °C
Stripping length	7 mm	7 mm
Wire connect cross-section	0.2 to 2.5 mm²	0.2 to 2.5 mm²
Screw connection	AWG 22-14	AWG 22-14
Transmission errors	< 0.2 % of end value	< 0.2 % of end value
Temperature coefficient	< 0.02 % / K	< 0.02 % / K
Power supply	24 V DC ± 10 % -1.1 W	24 V DC ± 10 %-1.1 W
Input data		
Potentiometer	500 Ω to 20 kΩ	500 Ω to 20 kΩ
Min. potentiometer use for OFFSET/SPAN adjustment	60 %	60 %
Output specifications		
Output signal	(0) 4 to 20 mA	0 to 10 V
Load resistance	< 500 Ω	> 1 kΩ
Max. output voltage	-	12 V

Customized solutions for electrical engineering applications

At **CONTA-CLIP**, we are primarily known for our mass-produced functional-electronic products. This includes relay modules, interface units, power supplies and surge protection. But did you know that we also provide customer-specific solutions?

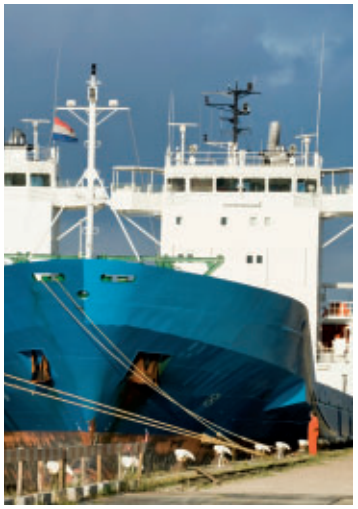
Our experts will work together with you to develop prototypes that match your custom requirements: design, procurement of components, production, delivery and after-sales support.

We are your single-source solutions provider – from design to production, for small or large jobs, and for simple or complex functional units! Let us know if you need assistance with your application challenges and your **CONTA-CLIP** sales representative will contact you to help.

Offshore

Bow thruster controller

This device controls the bow thrusters and enables the precision docking of inland and offshore ships. It ensures that the ailerons and turbines can be controlled without interference from other signals such as those sent out by navigation or radar systems. The bow thruster controller is enclosed in a protective housing so that it can be directly mounted on the bridge or superstructure of a ship. The system uses its Modbus RS485 bus interface to communicate with other networked modules.



Traffic

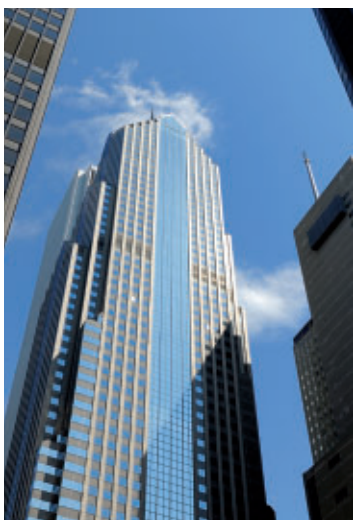
Electronic rattle ticker

The rattle ticker is a system used to help pedestrians at crosswalks. This encapsulated, waterproof module was designed to be used in conjunction with traffic lights. A varying acoustic signal is emitted during traffic light phases. The signal allows visually impaired people to hear when it is safe to cross the street. The intensity and type of signal can be customized to your project's requirements. The system can be delivered as 42 V or 230 V, with or without a control push button, and with or without automatic volume adjustment.

Building automation

I/O module

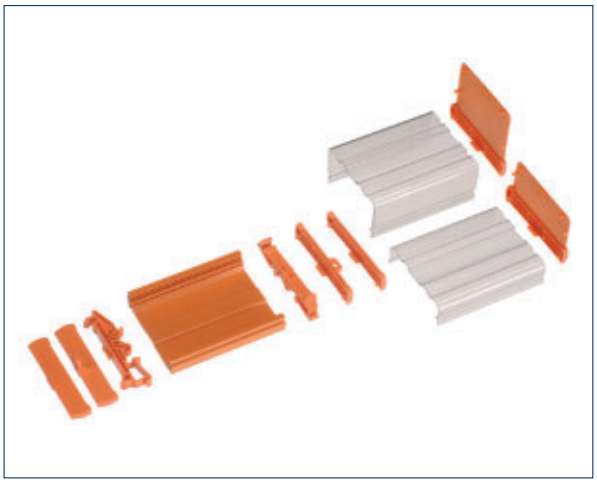
This product was designed to automatically control building blinds and lighting systems. The control system consists of relay and bypass modules that forward signals from a PLC to four groups of eight signals.



Accessories

The **CONTA-CLIP** line of accessories is conceived and designed with the customer in mind. Our accessories allow you to move forward on a great number of technical applications with a minimum of effort and parts.

Accessories



RS-SP locking-base system

CONTA-CLIP's RS-SP locking-base system can be customized to the length of the PCB because of it adjustable **RS-SP** extruded profile. In this way you can implement a variety of electronic switching tasks on the DIN rail.

Fuses SI

G fuses are available in sizes 5x20 and 6.3x32, and in "slow" and "fast-acting" versions.

RS-SP locking-base system

Extruded profiles can be used for the main holders of printed circuit boards.

The **RS-SP 1** and the **RS-SP 2** profiles have two PCB levels and are delivered in two-meter lengths. They can be easily shortened with a saw to the correct length. Of course we can also deliver the profiles according to your exact requirements. The profiles can be shortened freely, without rigid grid divisions, which ensures an individual fit of the enclosure profile to the electronics.

After you shorten the extruded profile to fit the desired module length or available space, you can mount the corresponding end plates and foot elements on to the module.

There are three graded profile versions available for different PCB widths: **RS-SP 0, RS-SP 1** and **RS-SP 2**.

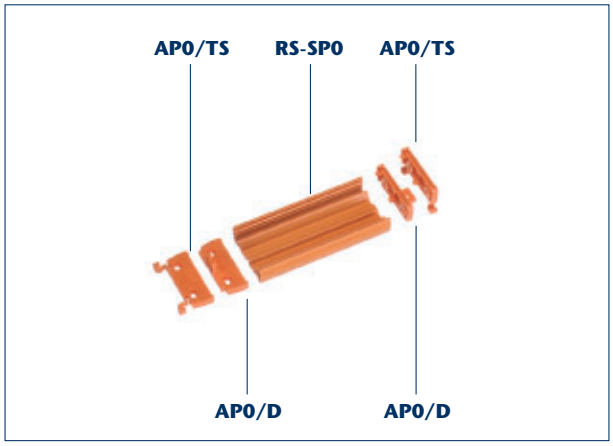
Transparent cover profiles for the **RS-SP 1** system are available as **AD 1** (low version) and **AD 2** (high version) in one meter lengths. The **AP/AD 1** (low version) and **AP/AD 2** (high version) end plates serve as holders. They are fastened to the cover profile by using the **BS-AD** mounting screws. Both the **RS-SP 1** and **RS-SP 2** can be labelled with the **SB** quick marking system by using the marking grooves which are intended for this purpose (refer to CONTA-CONNECT catalogue).

An **RS-SP** profile enclosure can consist of the following parts, depending on the requirements and assembly:

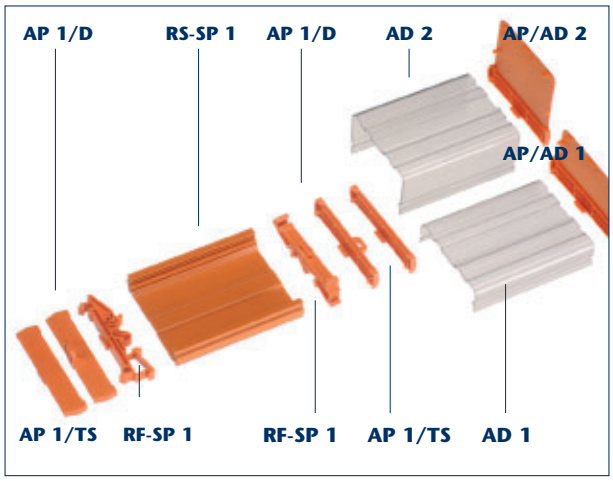
- **RS-SP** extruded profile (**RS-SP0**; **RS-SP 1**; **RS-SP 2** versions)
- **AP** end plates in varying versions:
  - AP/TS (RS-SPO) mount on the TS 35 DIN rail. RS-SP 1 and RS-SP 2 on TS 32/TS 35 rail.
  - AP/D direct mount
  - AP/AD 1 low version is for fastening the transparent AD 1 cover
  - AP/AD 2 high version is for fastening the transparent AD 2 cover
- **RF** mounting foot for mounting on DIN rail with the RS-SP 1 profile and RS-SP 3 onto TS 32/TS 35 DIN rails
- **AD** transparent cover profile
  - AD 1 low version
  - AD 2 high version
- **BS-AD** mounting screw for fastening the AD 1 and AD 2 cover profiles
- **BS-RS** mounting screws for securing the AP end plates (types RS-SPO and RS-SP 2)

The **RS-SP** locking-base system is delivered in the standard orange colour. Other colours are available upon request!

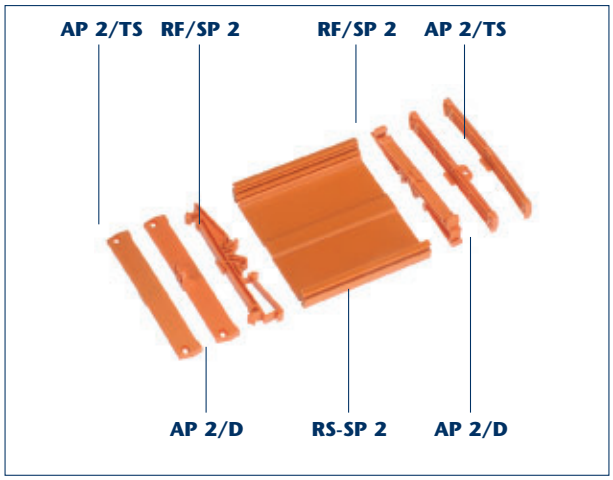
RS-SP0



RS-SP 1

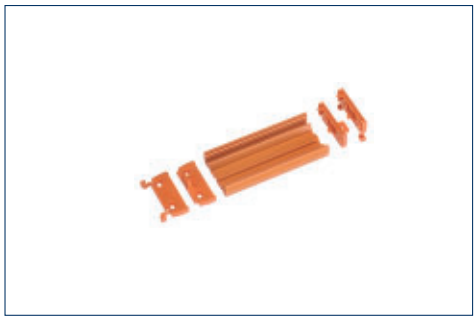


RS-SP 2



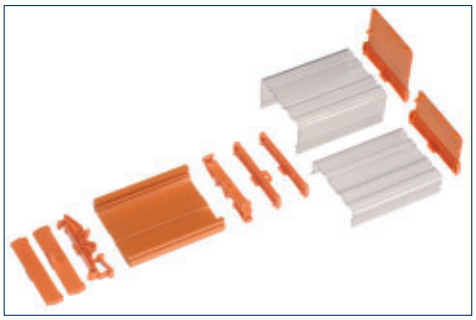
RS-SP locking-base system

RS-SP 0



Components	Type	Cat. no.	Qty.
Extruded profile	**RS-SP 0 orange**	**5675.3**	1
End plate / DIN rail mount	**AP 0/TS orange**	**3133.3**	20
End plate / direct mount	**AP 0/D orange**	**3134.3**	20
End plate for AD 1	–	–	–
End plate for AD 2	–	–	–
Mounting screws BS-RS	**BS/RS**	**4560.0**	100
Cover profile AD-1	–	–	–
Cover profile AD-2	–	–	–
Mounting screws for cover profile BS-AD	–	–	–
Mounting foot for TS 32/35	–	–	–
Size	**mm**	**Thickness mm**	
PCB upper level	42.5/–	1.5 + 0.2	
PCB lower level	–		
Total width	46.5		
Length	2000		
Height on TS 32	–		
Height on TS 35	27		
Height when directly mounted	19.0		
Height of AD 1	–		
Height of AD 2	–		
Materials			
Material	RS-SP = PVC		
	AP/RF = PA 6.6-V 2		

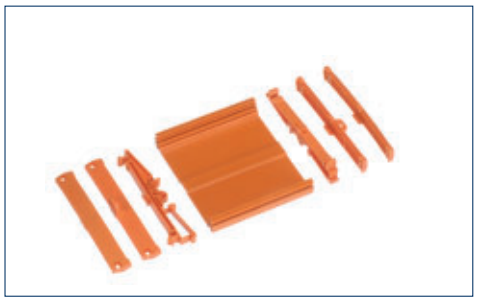
RS-SP 1



Type	Cat. no.	Qty.
RS-SP 1 orange	**5680.3**	1
AP 1/TS orange	**5681.3**	20
AP 1/D orange	**5682.3**	20
AP/AD 1	**5891.0**	20
AP/AD 2	**5895.0**	20
–	–	–
AD 1	**5893.0**	1
AD 2	**5894.0**	1
BS/AD	**2385.0**	100
RF/SP 1 orange	**5683.3**	20
mm	**Thickness mm**	
73 + 0.4 ./. 0.1	1.5 + 0.2	
68 + 0.4 ./. 0.1	1.5 + 0.2	
84		
2000		
43		
40		
17		
25		
45		
RS-SP = PVC		
AP/RF = PA 6.6-V 2		

Locking-base system RS-SP

RS-SP 2



Components	Type	Cat. no.	Qty.
Extruded profile	**RS-SP 2 orange**	**5690.3**	1
End plate / DIN rail mount	**AP 2/TS orange**	**5691.3**	20
End plate / direct mount	**AP 2/D orange**	**5692.3**	20
End plate for AD 1	–	–	–
End plate for AD 2	–	–	–
Mounting screws BS-RS	**BS/RS**	**4560.0**	100
Cover profile AD-1	–	–	–
Cover profile AD-2	–	–	–
Mounting screws for cover profile BS-AD	–	–	–
Mounting foot for TS 32/35	**RF/SP 2 orange**	**5693.3**	20
Size	**mm**	**Thickness mm**	
PCB upper level	108.5 + 0.5 ./. 0.3	1.5 + 0.2	
PCB lower level	100 + 0.5 ./. 0.1	1.5 + 0.2	
Total width	119		
Length	2000		
Height on TS 32	43		
Height on TS 35	40		
Height when directly mounted	17		
Height of AD 1	–		
Height of AD 2	–		
Materials			
Material	RS-SP = PVC		
	AP/RF = PA 6.6-V 2		

Fuses SI

Micro-fuses/G-fuse cartridges 5 x 20 metric 250 V / slow-acting

Construction:
- Transparent glass tube
- Nickel-plated brass contact caps
- IEC 60127-2/2
- EN 60127-2/2
- DIN VDE 0820-2/2

Melting time limits

Rated current	1.5 x In min.	1.5 x In max.	2.75 x In min.	2.75 x In max.	4 x In min.	4 x In max.	10 x In min.	10 x In max.
32 to 100 mA	1 h	2 min.	200 ms	10 s	40 ms	3 s	10 ms	300 ms
125 mA to 10 A	1 h	2 min.	600 ms	10 s	150 ms	3 s	20 ms	300 ms

Type	Cat. no.	Rated current, mA/A	Rated breaking capacity A AC	Voltage drop, mV	Power loss, W	Melting inte-gral A²s	Qty.
SI 0.032 A	**2912.0**	32 mA	35 'L'	3000	0.2	0.010	10
SI 0.040 A	**2913.0**	40 mA	35 'L'	2000	0.2	0.020	10
SI 0.050 A	**2914.0**	50 mA	35 'L'	1500	0.2	0.035	10
SI 0.063 A	**2915.0**	63 mA	35 'L'	1000	0.2	0.05	10
SI 0.080 A	**2916.0**	80 mA	35 'L'	800	0.2	0.12	10
SI 0.100 A	**2917.0**	100 mA	35 'L'	700	0.3	0.16	10
SI 0.125 A	**2918.0**	125 mA	35 'L'	600	0.3	0.24	10
SI 0.160 A	**2919.0**	160 mA	35 'L'	600	0.3	0.4	10
SI 0.200 A	**2920.0**	200 mA	35 'L'	500	0.3	0.7	10
SI 0.250 A	**2921.0**	250 mA	35 'L'	400	0.2	1.4	10
SI 0.315 A	**2922.0**	315 mA	35 'L'	140	0.2	0.35	10
SI 0.400 A	**2923.0**	400 mA	35 'L'	130	0.2	0.49	10
SI 0.500 A	**2924.0**	500 mA	35 'L'	120	0.2	0.9	10
SI 0.630 A	**2925.0**	630 mA	35 'L'	110	0.2	1.4	10
SI 0.800 A	**2926.0**	800 mA	35 'L'	100	0.3	3.2	10
SI 1.000 A	**2927.0**	1 A	35 'L'	90	0.3	6.5	10
SI 1.250 A	**2928.0**	1.25 A	35 'L'	80	0.3	5.0	10
SI 1.600 A	**2929.0**	1.6 A	35 'L'	80	0.4	10	10
SI 2.000 A	**2930.0**	2 A	35 'L'	80	0.5	20	10
SI 2.500 A	**2931.0**	2.5 A	35 'L'	80	0.6	26	10
SI 3.150 A	**2932.0**	3.15 A	35 'L'	80	0.6	44	10
SI 4.000 A	**2933.0**	4 A	40 'L'	80	0.8	72	10
SI 5.000 A	**2934.0**	5 A	50 'L'	80	1.2	130	10
SI 6.300 A	**2935.0**	6.3 A	63 'L'	70	1.3	230	10
SI 8.000 A	**2936.0**	8 A	80 'L'	70	1.8	240	10
SI 10.00 A	**2937.0**	10 A	100 'L'	70	2.4	380	10

Micro-fuses/G-fuse cartridges 6.3 x 32 metric 440 V / 500V / fast-acting

Construction:
- Transparent glass tube
- Nickel-plated brass contact caps
- IEC 60127-2/2
- EN 60127-2/2
- DIN VDE 0820-2/2

Melting time limits

Rated current	1.5 x In min.	1.5 x In max.	2.75 x In min.	2.75 x In max.	4 x In min.	4 x In max.	10 x In min.	10 x In max.
32 to 100 mA	1 h	30 min.	10 ms	500 ms	3 ms	100 ms	-	300 ms
125 mA to 10 A	1 h	30 min.	50 ms	2 s	10 ms	300 ms	-	300 ms
8 to 10 A	1 h	30 min.	50 ms	2 s	10 ms	400 ms	-	300 ms

Type	Cat. no.	Rated current, mA/A	Rated breaking capacity A AC	Voltage drop, mV	Power loss, W	Melting inte-gral A²s	Qty.
SI 0.032 A	**2891.0**	32 mA	35 'L'	10000	0.8	0.0001	10
SI 0.040 A	**2892.0**	40 mA	35 'L'	8000	0.8	0.0002	10
SI 0.050 A	**2893.0**	50 mA	35 'L'	3500	0.4	0.0004	10
SI 0.063 A	**2894.0**	63 mA	35 'L'	3500	0.5	0.0007	10
SI 0.080 A	**2895.0**	80 mA	35 'L'	2500	0.5	0.0017	10
SI 0.100 A	**2896.0**	100 mA	35 'L'	2200	0.6	0.0022	10
SI 0.125 A	**2897.0**	125 mA	35 'L'	350	0.2	0.01	10
SI 0.160 A	**2898.0**	160 mA	35 'L'	310	0.2	0.02	10
SI 0.200 A	**2899.0**	200 mA	35 'L'	290	0.2	0.037	10
SI 0.250 A	**2900.0**	250 mA	35 'L'	280	0.3	0.073	10
SI 0.315 A	**2901.0**	315 mA	35 'L'	230	0.3	0.16	10
SI 0.400 A	**2902.0**	400 mA	35 'L'	200	0.3	0.31	10
SI 0.500 A	**2903.0**	500 mA	35 'L'	160	0.3	0.16	10
SI 0.630 A	**2904.0**	630 mA	35 'L'	140	0.3	0.39	10
SI 0.800 A	**2905.0**	800 mA	35 'L'	130	0.4	0.8	10
SI 1.000 A	**2406.0**	1 A	35 'L'	130	0.5	1.5	10
SI 1.250 A	**2906.0**	1.25 A	35 'L'	120	0.6	2.0	10
SI 1.600 A	**2907.0**	1.6 A	35 'L'	120	0.7	4.1	10
SI 2.000 A	**2407.0**	2 A	35 'L'	120	0.9	6.2	10
SI 2.500 A	**2908.0**	2.5 A	35 'L'	120	1.0	11	10
SI 3.150 A	**2909.0**	3.15 A	35 'L'	120	1.2	20	10
SI 4.000 A	**2408.0**	4 A	40 'L'	100	1.4	25	10
SI 5.000 A	**2938.0**	5 A	50 'L'	100	1.7	42	10
SI 6.300 A	**2409.0**	6.3 A	63 'L'	100	2.0	79	10
SI 8.000 A	**2910.0**	8 A	80 'L'	100	2.2	125	10
SI 10.00 A	**2911.0**	10 A	100 'L'	100	2.4	220	10

Micro-fuses/G-fuse cartridges 6.3 x 32 imperial 250 V / 400 V /500 V / slow-acting

Construction:
- Ceramic tube
- Nickel-plated brass contact caps

Melting time limits

Rated current	1.5 x In min.	1.5 x In max.	2.1 x In min.	2.1 x In max.	2.75 x In min.	2.75 x In max.	4 x In min.	4 x In max.	10 x In min.	10 x In max.
32 to 100 mA	1 h	30 min.	400 ms	80 s	95 ms	5 s	10 ms	300 ms		
125 mA to 10 A	1 h	30 min.	400 ms	80 s	150 ms	5 s	20 ms	300 ms		

Type	Cat. no.	Rated current, mA/A	Rated breaking capacity A AC	Voltage drop, mV	Power loss, W	Melting inte-gral A²s	Qty.
SI 0.100 A/32 T	**4950.0**	100 mA		3600	1.3	0.050	10
SI 0.125 A/32 T	**4951.0**	125 mA		3400	1.4	0.080	10
SI 0.160 A/32 T	**4952.0**	160 mA		3000	1.5	0.12	10
SI 0.200 A/32 T	**4953.0**	200 mA	1.5 kA	2500	1.60	0.20	10
SI 0.250 A/32 T	**4954.0**	250 mA		2000	1.7	0.35	10
SI 0.315 A/32 T	**4955.0**	315 mA	@ 500 V AC	1800	1.8	0.50	10
SI 0.400 A/32 T	**4956.0**	400 mA		1600	2.0	0.80	10
SI 0.500 A/32 T	**4957.0**	500 mA	cos φ = 1	450	0.6	0.35	10
SI 0.630 A/32 T	**4958.0**	630 mA		400	0.7	0.49	10
SI 0.800 A/32 T	**4959.0**	800 mA		350	0.80	0.9	10
SI 1.000 A/32 T	**4960.0**	1 A		350	0.9	1.4	10
SI 1.250 A/32 T	**4961.0**	1.25 A	10 kA @ 400 V AC	300	1.0	3.2	10
SI 1.600 A/32 T	**4962.0**	1.6 A		200	1.1	5.2	10
SI 2.000 A/32 T	**4963.0**	2 A	cos φ = 0.3	180	1.2	10	10
SI 2.500 A/32 T	**4964.0**	2.5 A		160	1.3	19	10
SI 3.150 A/32 T	**4965.0**	3.15 A		150	1.4	37	10
SI 4.000 A/32 T	**4966.0**	4 A		140	1.5	68.0	10
SI 5.000 A/32 T	**4967.0**	5 A		135	2.2	80	10
SI 6.300 A/32 T	**4968.0**	6.3 A		110	2.2	215	10
SI 8.000 A/32 T	**4969.0**	8 A		110	2.6	370	10
SI 10.000 A/32 T	**4970.0**	10 A		100	3.0	620	10

Micro-fuses/G-fuse cartridges 6.3 x 32 imperial 440 V / 500V / fast-acting

Construction:
- Ceramic tube
- Nickel-plated brass contact caps

Melting time limits

Rated current	1.5 x In min.	1.5 x In max.	2.1 x In min.	2.1 x In max.	2.75 x In min.	2.75 x In max.	4 x In min.	4 x In max.	10 x In min.	10 x In max.
160 to 800 mA	1 h	30 min.	20 ms	1.5 s	8 ms	400 ms	-	20 ms		
1 to 25 A	1 h	30 min.	100 ms	5 s	20 ms	1 s	-	50 ms		

When using these G-fuse cartridges with 6.3 A or higher, you must ensure that there is sufficient heat dissipation!

Type	Cat. no.	Rated current, mA/A	Rated breaking capacity A AC	Voltage drop, mV	Power loss, W	Melting inte-gral A²s	Qty.
SI 0.160 A/32 F	**4971.0**	160 mA		7000	2.5	0.0015	10
SI 0.200 A/32 F	**4972.0**	200 mA		6500	2.9	0.0035	10
SI 0.250 A/32 F	**4973.0**	250 mA		6000	3.4	0.0085	10
SI 0.315 A/32 F	**4974.0**	315 mA	1.5 kA	1000	0.90	0.036	10
SI 0.400 A/32 F	**4975.0**	400 mA	@ 500 V AC	900	1	0.07	10
SI 0.500 A/32 F	**4976.0**	500 mA	cos φ = 1	800	1.1	0.19	10
SI 0.630 A/32 F	**4977.0**	630 mA		700	1.3	0.35	10
SI 0.800 A/32 F	**4978.0**	800 mA		600	1.4	0.49	10
SI 1.000 A/32 F	**4979.0**	1 A		400	1.2	0.4	10
SI 1.250 A/32 F	**4980.0**	1.25 A	50 kA	300	1.30	0.8	10
SI 1.600 A/32 F	**4981.0**	1.6 A	@ 500 V AC	300	1.4	1.5	10
SI 2.000 A/32 F	**4982.0**	2 A	cos φ = 1	280	1.6	2.5	10
SI 2.500 A/32 F	**4983.0**	2.5 A		260	1.8	5	10
SI 3.150 A/32 F	**4984.0**	3.15 A		240	2.3	9	10
SI 4.000 A/32 F	**4985.0**	4 A	20 kA	220	2.6	18	10
SI 5.000 A/32 F	**4986.0**	5 A	@ 500 V AC	190	2.9	40	10
SI 6.300 A/32 F	**4987.0**	6.3 A		170	3.2	80	10
SI 8.000 A/32 F	**4988.0**	8 A	1.5 kA	160	3.7	150	10
SI 10.000 A/32 F	**4989.0**	10 A	@ 500 V AC	150	4.0	240	10

Types and catalogue numbers *alphabetic*

Type	Cat. no.	Page
ZPRC LW 220…240V AC	**15495.2**	57
ZPRC LW…125 V AC/DC	**15556.2**	57
ZPRCU 1/125V AC/DC	**15522.2**	57
ZPRCU 1/12V AC/DC	**15518.2**	56
ZPRCU 1/12V DC	**15525.2**	56
ZPRCU 1/240V AC/DC	**15523.2**	57
ZPRCU 1/24V AC/DC	**15519.2**	56
ZPRCU 1/24V DC	**15526.2**	56
ZPRCU 1/48V AC/DC	**15520.2**	57
ZPRCU 1/60V AC/DC	**15521.2**	57
ZPRCU 1/6V DC	**15524.2**	56
ZPRCU 2 12V AC/DC	**15927.2**	65
ZPRCU 2 240V AC/DC	**15929.2**	65
ZPRCU 2 24V AC/DC	**15928.2**	65
ZPRCU LW 1/125V AC/DC	**15551.2**	57
ZPRCU LW 1/240V AC	**15552.2**	57
ZPSCU 1/240V AC/240V AC	**15535.2**	137
ZPSCU 1/240V AC/24V DC	**15543.2**	137
ZPSCU 1/24V DC/240V DC	**15533.2**	137
ZPSCU 1/24V DC/24V DC	**15534.2**	137

Catalogue numbers and types *numerical*

Cat. no.	Type	Page
1		
1086.0	SDB 0.6 x 3.5	54
1343.9	DC-DC/24-0	22
1373.9	DC-DC/10-3	23
2		
2385.0	BS/AD	185
2406.0	SI 1A	186
2407.0	SI 2A	186
2408.0	SI 4A	186
2409.0	SI 6.3 A	186
2891.0	SI/0.032A/F	186
2892.0	SI/0.040A/F	186
2893.0	SI/0.050A/F	186
2894.0	SI/0.063A/F	186
2895.0	SI/0.080A/F	186
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5778.2	RM-S/1W/48V DC	97
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5780.2	RM-SG/1W/48V DC/AC	97
5781.2	RM-S/1W/48V DC/AC	97
5782.2	RM-SR/1W/60V DC	97
5783.2	RM-SG/1W/60V DC	97
5784.2	RM-S/1W/60V DC	97
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6063.2	RIM 8/1W/115V -	101
6064.2	RIM 8/1W/115 ACG	101
6065.2	RIM 8/1W/230 ACG	101
6066.2	RIMD 8/1W/24V +	101
6067.2	RIMD 8/1W/24V -	101
6068.2	RIMD 8/1W/24 ACG	101
6069.2	RIMD 8/1W/48V +	101
6070.2	RIMD 8/1W/48V -	101
6071.2	RIMD 8/1W/115V +	101
6072.2	RIMD 8/1W/115V -	101
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6074.2	RIMD 8/1W/230 ACG	101
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6081.2	RIM 16/1W/115V -	101
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6486.2	PRS 4/12V DC	78
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6587.2	RMD1/2W/12V DC	95
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6590.2	RIM 2 S/1W/230 ACG	103
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6592.2	RIM 4 S/1W/24 ACG	103
6593.2	RIMD 4 S/1W/24 ACG	103
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6595.2	RIMD 4 S/1W/230 ACG	103
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6607.2	RIMD 2-2 S/1W/24 +	103
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CONTA-CONNECT
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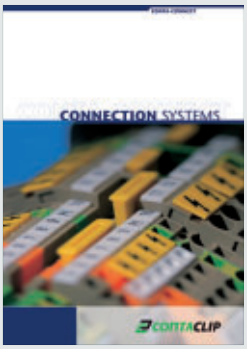

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