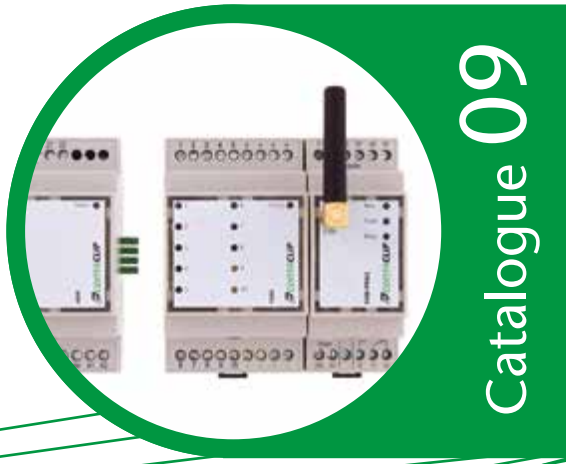
CONTA-ELECTRONICS

Electrical and electronic cabinet components



Catalogue 09

CONTACLIP

CONTA-ELECTRONICS

Overview of the product line

CONTA-CLIP –
Thinking ahead with connection technology

CONTA-CLIP was founded in 1978.
We operate globally as an owner-operated medium-sized company.

Users of electrical and electronic connection systems trust our reliable products and our many years of industrial and global market expertise.

Our company is now one of the most important manufacturers in the field.

For over 40 years, our components and solutions have been used in process and industrial automation applications, including: railway technology, materials handling, building automation, air conditioning, mechanical and facility engineering, measurement and control technology, control panel construction, shipbuilding, transformer construction and environmental technology.

Over the years, we have evolved into an innovator that sets the tone with new ideas and creative impulses.

Our employees come from a wide variety of industries and are true connectivity specialists. They understand the specific problems, requirements and challenges of our customers. This results in communication among equals.

The profits then flow into the development of new products and into modern, efficient manufacturing processes.

High quality standards throughout all departments are our top priority.

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.

Our products are divided into six categories: CONTA-CONNECT for terminals and accessories, CONTA-CABLE cable management systems, CONTA-ELECTRONICS for electrical and electronic cabinet components, CONTA-LABEL for marking systems, CONTA-BOX for housings, and CONTA-CON for PCB terminals and connectors.

We design customer-specific solutions for electronics, provide completely assembled housings and assemblies as needed, assemble terminal blocks for series production, and quickly handle component labelling tasks.

We greet these challenges with passion and enthusiasm, because we see each customer as our partner.

CONTA-CLIP customer representatives are always ready to offer their support to the customer, because service and helpfulness are rooted deeply in our corporate philosophy.

Advantage online: the CONTA-CLIP Online Catalogue

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

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

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

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

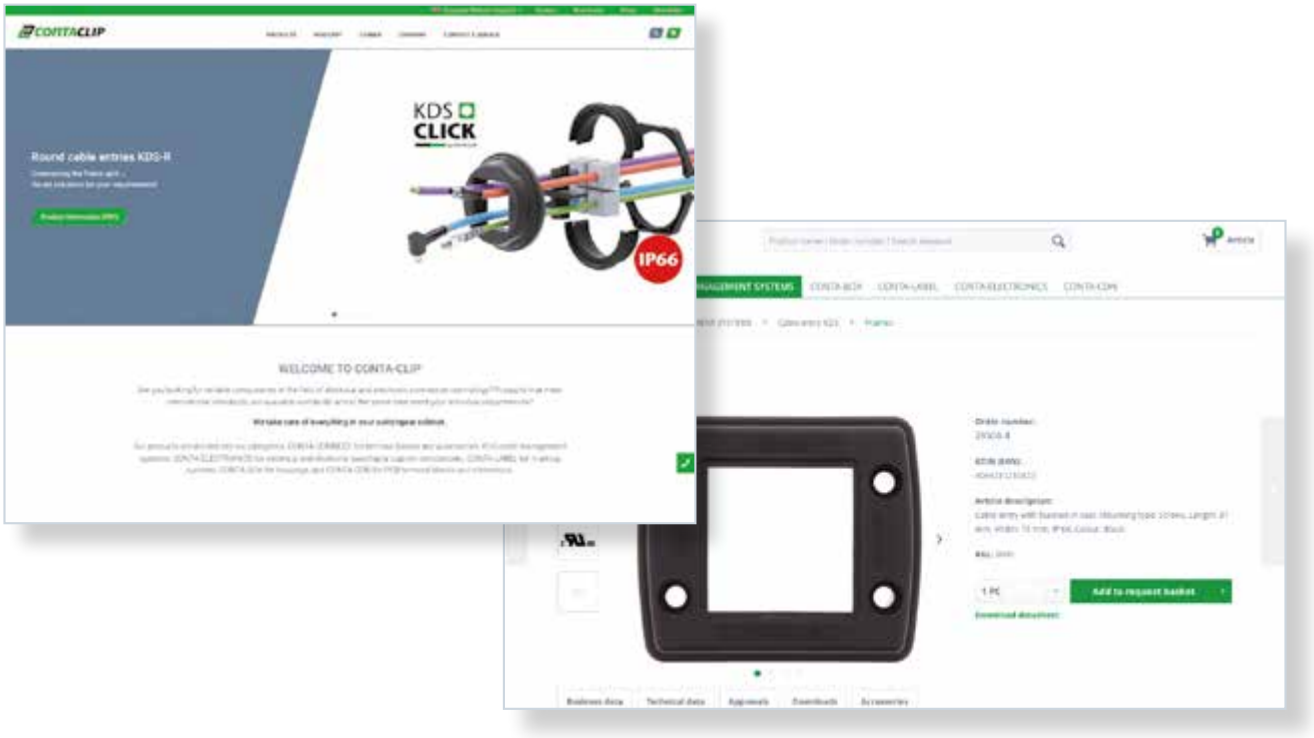
Application films: Complex functions be explained easily and clearly with sounds and images.

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

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

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

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



Globally available for you

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

Our locations in Africa
Algeria
Morocco
South Africa

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

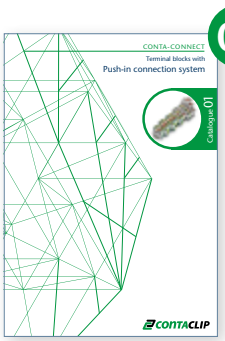
Our locations in Oceania
Australia
New Zealand

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

Our locations in North America
Canada
Mexico
United States

Our locations in South America
Bolivia
Brazil
Chile
Columbia
Ecuador

A complete line of products to meet your demands
The CONTA-CLIP Catalogues



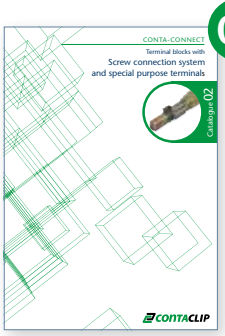
01

CONTA-CONNECT

Terminal blocks with Push-in connection system

Our wide range of innovative PRK and FRK terminal blocks with the Push-in connection system include feed-through terminals, PE terminals, disconnect terminals, fused terminals, multi-level terminals, installation terminals and initiator terminals, for conductor cross-sections from 0.2 mm² to 25 mm².

Cat. no. 98070.2



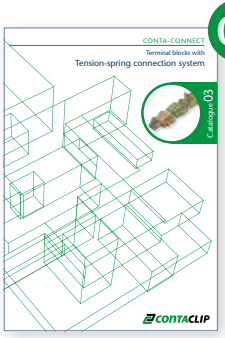
02

CONTA-CONNECT

Terminal blocks with Screw connection system and special purpose terminals

Everything for classic wiring with screw connection system, also for high currents: SRK feed-through and PE terminals, RK high-temperature variants, TK transformer terminals, HSK high-power stud terminals and the SVB series screw distributor blocks.

Cat. no. 98071.2



03

CONTA-CONNECT

Terminal blocks with Tension-spring connection system

Our versatile line of terminals with tension spring connections for conductor cross-sections from 0.2 mm² to 16 mm² includes: the ZRK/ZSL series of feed-through and PE terminals, the double-level ZRKD/ZSLD, the ZIKD three-level terminal blocks, motor-connection terminals, (blade-) disconnect terminals, fused terminals, direct-mount terminals, and initiator/actuator terminals for transmitting positioning, encoder and alert signals.

Cat. no. 98072.2

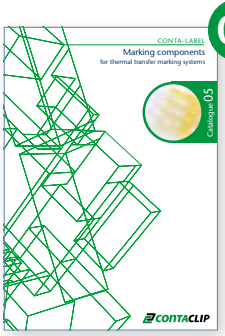
04

CONTA-CONNECT

Installation materials and other accessories for terminal blocks

Our installation products include cabling ducts, assembly tools, cable glands with metric or PG threads, DIN rials, rail cutters and punching tools. The terminal block accessories include different versions of end stops, wire-end ferrules, and connectors.

Cat. no. 98073.2



05

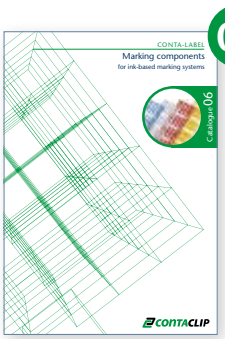
CONTA-LABEL

Marking components for thermal-transfer marking systems

CONTA-CLIP provides the TTPCard thermal-transfer printer and a large selection of PC, PVC and PVCF markers or labels in card format: for professional, permanent labelling of terminals, devices, conductors, cables, facilities and electrical cabinets.

Cat. no. 98074.2

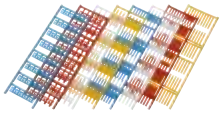
Our catalogues are available in many languages!



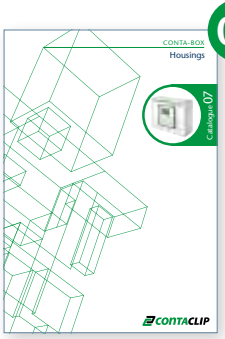
06 CONTA-LABEL

Marking components for ink-based marking systems

The CONTA-LABEL products provide polyamide markers for labelling conductors, cables, devices and facilities with ink print. These markers are available in many shapes and colours: in the classic MC Maxi-Card format for self-printing with the EMS plotter system EMS or other ink-jet systems, or ready-to-use customized printed in the PMC Pocket-Maxi-Card format.



Cat. no. 98075.2



07 CONTA-BOX

Housings

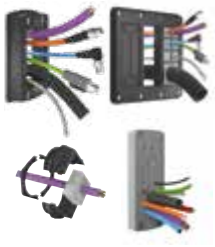
Our wide variety of housings made of polystyrene, polycarbonate, polyester, ABS and aluminium deliver solutions for protecting electronic circuits, integrated devices and terminal blocks. On request, the housings can be custom-processed and assembled with our CONTA-CONNECT, CONTA-ELECTRONICS and CONTA-CON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

Cat. no. 98076.2

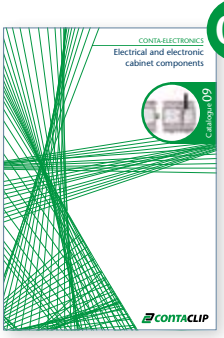
08 CONTA-CABLE

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

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



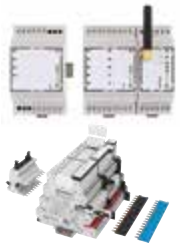
Cat. no. 98077.2



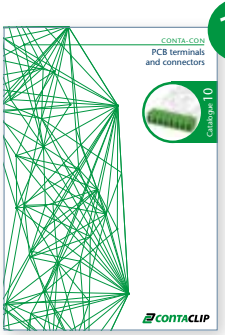
09 CONTA-ELECTRONICS

Electrical and electronic cabinet components

Our CONTA-ELECTRONICS products provide active and passive components for the transfer and conversion of analogue and digital signals at the coupling level. This product line includes power supplies, multi-function timing relays, coupling relays, digital switching modules, interface modules, opto-couplers, signal converters, GSM communication modules and much more.



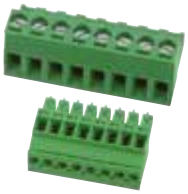
Cat. no. 98078.2



10 CONTA-CON

PCB terminals and connectors

This catalogue presents CONTA-CON's wide range of PCB terminals and plug-in connector systems, as well as the modular feed-through terminal systems of the SDK series. The modular components can be configured for any required number of poles. They are available in the wire connection types: wire protection, eccentric, clamping yoke, and (for demanding operating conditions) with tension-spring or Push-in wire terminations.



Cat. no. 98079.2

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 modu les CML-DCDC

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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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Interference-elimination link modules IF-OF

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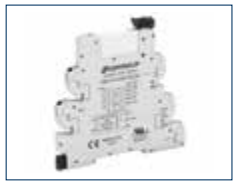
Interface relay compact - IRCU relay terminal, 1 CO contact



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Interface relay compact - IRCPU relay terminal, 1 CO contact

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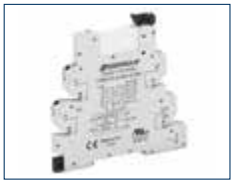
Interface relay compact - IRCIU relay terminal, 1 CO contact

Page 44-45

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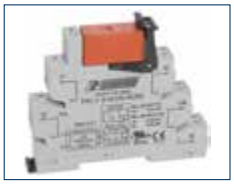
Plug relay compact - PRC 2 Relay terminal, 2 CO contacts



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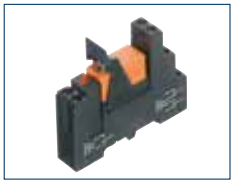
Plug relay system PRS 2 G Screw-connection 2-CO relays



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Plug relay system PRS 4 Screw-connection 4-CO relays

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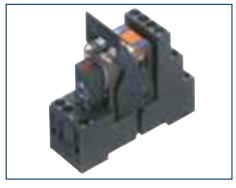
Plug relay system PRS 4 G Screw-connection 4-CO relays



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Plug relay system PRS 4 G eco Screw-connection 4-CO relays

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CONTA-ELECTRONICS

Product overview

Plug relay system PRS XT
1+2 CO contact / tension spring

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Plug relay system PRS 1
1 CO / tension spring

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Plug relay system PRS 2
2 CO contacts / tension-spring

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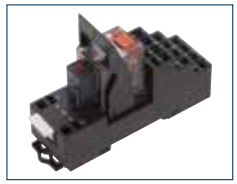
Plug relay system PRS 4
4 CO / tension spring



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Relay modules
1-CO RM 1

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Relay modules
2-CO RM 1/2

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Relay modules
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Relay modules
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Relay modules
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1-CO RIM-16 A

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Relay modules
2-CO RIM

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Multi-function timing
relays MFR 4

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Multi-function timing
relays MFR 5

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Multi-function timing
relays MFR 7

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Clock-pulse generator
dual-timing relays MFR 6

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relays USR 1

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Undervoltage monitoring
relays USR 2

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Communication processor
GSM-PRO2E

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Plug solid-state compact PSC Sol-
id-State terminals

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Opto-coupler modules
OKI DC

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Product overview

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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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Interface modules RJ11-12

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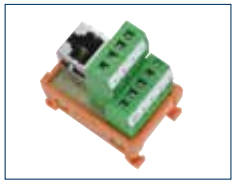
Interface modules RJ 45



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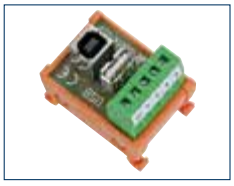
Interface modules USB



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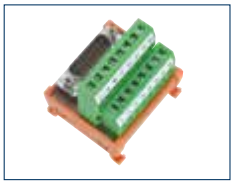
Interface modules SD... C



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Interface modules SD

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Interface modules SD-HD

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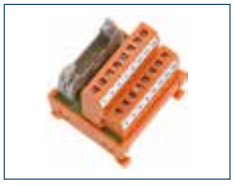
Interface modules FBK... C



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Interface modules OE-E

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Thermocouple / thermal sensor units CMS..UI

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Voltage and current converter units CML-UI-UI

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Multi-function signal converter units CMS-UI-UI

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

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Multi-function signal converter units CMS-UI-R

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Multi-function signal converter unit

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Potentiometric converter units CML-POT-UI

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CAE analogue signal converter modules without electrical

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CAE analogue signal converter modules with electrical isolation

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CONTA-ELECTRONICS

Product overview

Potentiometric modules CAE/POT	Clip-on base system RS-SP	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 6V 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 5 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.

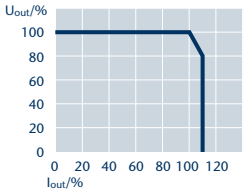
DC power supplies PSPM

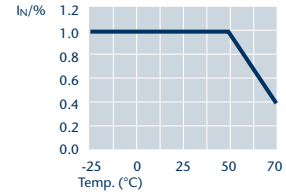
- Primary clocked DC power supply
- Easy to mount on a TS35 DIN rail
- Wide-range input
- Adjustable output voltage
- No-load and short-circuit safe
- Thermal overload protection
- Ambient temperature: -25 to +70°C
- IP 20 protection

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 VPE 16181.2 1
Size (L x W x H) with TS35x7.5 mm	90 x 22.5 x 97.5	90 x 45 x 97.5
Weight	130 g	210 g
Classification	Primary clocked switch-mode power supply	Primary clocked switch-mode power supply
Rail assembly	TS 35 acc. to EN 60715	TS 35 acc. to EN 60715
Wire connect type	Push-in connection	Push-in connection
Connection cross-section	Max. 2.5 mm²	Max. 2.5 mm²
Input data		
Nominal input voltage	100 – 240 Vac	100 – 240 Vac
Input voltage range	85 – 264 Vac (120 – 372 Vdc)*	85 – 264 Vac (120 – 372 Vdc)*
Input voltage derating	-2.5 %/Vac < 95 Vac	-2.5 %/Vac < 95 Vac
Nominal frequency range	47 Hz – 63 Hz / 0 Hz	47 Hz – 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 data		
Output rated voltage	24 Vdc ± 1%	24 Vdc ± 1%
Output voltage range	23 – 28.5 Vdc	23 – 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 – +85 °C	-25 °C – +85 °C
Ambient temperature	-25 °C – +70 °C	-25 °C – +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 information		
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.

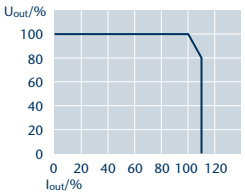
DC power supplies PSPC

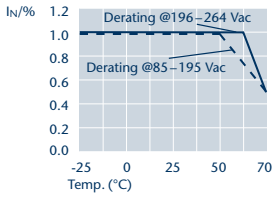
- Primary clocked DC power supply
- Easy to mount on a TS35 DIN rail
- Wide-range input
- Adjustable output voltage
- No-load and short-circuit safe
- Thermal overload protection
- Ambient temperature: -25 to +70°C
- IP 20 protection
- Standards: EN 61558-2-17, EN 60950 (safety); EN 61204-3 (EMC)

PSPC 230/24-5A

PSPC 230/24-10A

Output characteristic curve





Type Cat. no.		PSPC 230/24-5A Qty. 16183.2 1	PSPC 230/24-10A Qty. 16184.2 1
Size (L x W x H) with TS35x7.5 mm		42 x 127 x 126	55 x 127 x 161
Weight		590 g	930 g
Classification		Primary clocked switch-mode power supply	Primary clocked switch-mode power supply
Rail assembly		TS 35 acc. to EN 60715	TS 35 acc. to EN 60715
Wire connect type		Push-in connection	Push-in connection
Connection cross-section		Max. 2.5 mm²	Max. 2.5 mm²
Input data			
Nominal input voltage		100 – 240 Vac	100 – 240 Vac
Input voltage range		85 – 264 Vac (120 – 372 Vdc)*	85 – 264 Vac (120 – 372 Vdc)*
Input voltage derating		-2.5 %/Vac < 97 Vac	-2.5 %/Vac < 100 Vac
Nominal frequency range		47 Hz – 63 Hz / 0 Hz	47 Hz – 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 data			
Output rated voltage		24 Vdc ± 1%	24 Vdc ± 1%
Output voltage range		23 – 28.5 Vdc	23 – 28.5 Vdc
Output current		5 A	10 A
Output current limit	Constant current	5.5 A typ.	typ. 11 – 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 – +85 °C	-25 °C – +85 °C
Ambient temperature		-25 °C – +70 °C	-25 °C – +70 °C
Derating		-5 %/K > +60 °C (196 – 264 Vac) 2.5 %/K > +50 °C (85 – 195 Vac)	-5 %/K > +60 °C (196 – 264 Vac) -2.5 %/K > +50 °C (85 – 195 Vac)
Convection cooling		√	√
Air humidity	No condensation	30 – 85%	30 – 85%
Required minimum clearance (side)		---	---
Required minimum clearance (top/bottom)		50 mm	50 mm
General information			
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		√	√

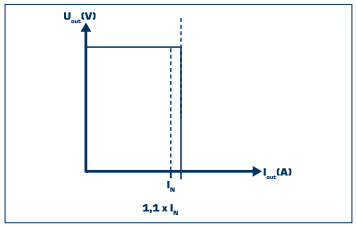
PSPI direct current power supplies

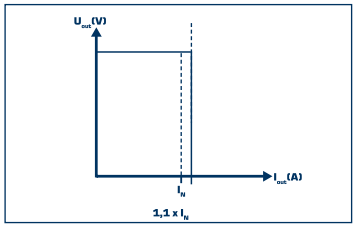
- Primary clocked switch-mode power supply
- Easy to mount on TS35 DIN rail
- Wide-range input
- Adjustable output voltage
- No-load and short-circuit safe
- Thermal overload protection
- Ambient temperature: -25 to 55°C
- IP 20 protection
- Step profile, optimal for small distribution installations
- 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





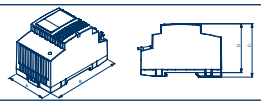
Type Cat. no.	PSPI 230/24-1.3 Qty. 16110.2 1	PSPI 230/24-2.5 Qty. 16111.2 1
Size (L x W x H) with TS35x7.5 mm	89 x 54 x 62	89 x 72 x 62
Weight	170 g	240 g
Classification	Primary clocked switch-mode power supply	Primary clocked switch-mode power supply
Rail assembly	TS 35 acc. to EN 60715	TS 35 acc. to EN 60715
Wire connect type	Tension-spring connection	Tension-spring connection
Connection cross-section	Max. 2.5 mm²	Max. 2.5 mm²
Input data		
Nominal input voltage	100 – 240 V AC	100 – 240 V AC
Input voltage range	85 – 264 V AC (120 – 373 V DC)	85 – 264 V AC (120 – 373 V DC)
Nominal frequency range	44 – 66 Hz	44 – 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 data		
Output voltage	24 V DC ± 2%	24 V DC ± 2%
Output voltage range	22.8 – 26.4 V DC	22.8 – 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 profile, optimal for small distribution installations
- Standards: EN 61558-2-17, EN 60950 (safety);
- EN 61204-3 (EMC)

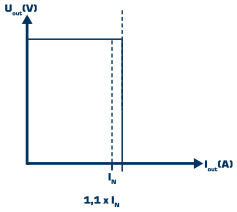
PSPI 230/24-4

Dimensional drawing



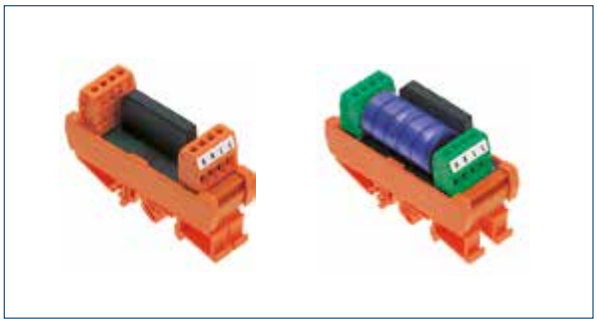
	A	B	C	D
PSPI 230/24-1.3	54	89	59	54
PSPI 230/24-2.5	72	89	59	54
PSPI 230/24-4.0	90	89	59	54

Output characteristic curve



Type	PSPI 230/24-4	Qty.
Cat. no.	16112.2	1
Size (L x W x H) with TS35x7.5 mm	89 x 90 x 62	
Weight	300 g	
Classification	Primary clocked switch-mode power supply	
Rail assembly	TS 35 acc. to EN 60715	
Wire connect type	Tension-spring connection	
Connection cross-section	Max. 2.5 mm²	
Input data		
Nominal input voltage	100 – 240 V AC	
Input voltage range	85 – 264 V AC (120 – 373 V DC)	
Nominal frequency range	44 – 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 data		
Output voltage	24 V DC ± 2%	
Output voltage range	22.8 – 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 - 5V, 12V, 15V and 24V - 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 - 5V, 10V, 12V, 15V and 24V - 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 feature an output which is short-circuit proof. They are available in various output voltages - 5V, 12V, 15V and 24V - and also in various current strengths for every application.

DC power supplies

DC/DC converter units CML-DCDC

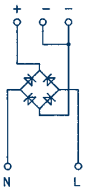
The **CML-DCDC** units can convert an input voltage of up to 65 V DC into a smaller stabilized DC voltage. This provides you with a simple and compact solution for operating sensors or component assemblies which require other operating voltages.

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

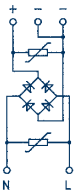
- Mounts on TS 32/TS 35
- Optional varistor circuitry in output and input circuits
- Output side: unbuffered DC voltage

Circuit diagram



1

Circuit diagram



2

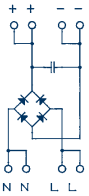
Type Cat. no./Qty.	GM 1-0 500 V AC 15668.2	GM 1-0 5738.2/1	GM 1-V/24 5758.2	GM 1-V/230 5759.2/1
Circuit diagram	1	1	2	2
Wire connect type	Screw connection	Screw connection	Screw connection	Screw connection
Size (L x W x H) with TS 35 x 7.5	87 x 28 x 57 mm	87 x 24 x 57 mm	87 x 24 x 57 mm	87 x 24 x 57 mm
Weight	60 g	46 g	50 g	50 g
General information				
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
Connection cross-section	0.2 – 2.5mm^2/ AWG 22 – 14	0.2 – 2.5mm^2/ AWG 22 – 14	0.2 – 2.5mm^2/ AWG22 – 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 data				
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

Circuit diagram



Type Cat. no./Qty.	GM 1 A/C 6144.2/1
Wire connect type	Screw connection
Size (L x W x H) with TS 35 x 7.5	87 x 30 x 57mm
Weight	84 g
General information	
DIN VDE specifications	DIN EN 50178, DIN VDE 0110, Contamination degree 2, Overvoltage category III
Operating temperature	-20 to +50°C
Important notes	
Stripping length	7 mm
Connection cross-section	0.2 – 2.5 mm²/AWG 22 – 14
Input data	
Max. input voltage	28 V AC
Output data	
Max. current	2 A
Buffer capacitor	2200 µF

AC/DC converter modules ACDCG

- Mounts on TS 32/TS 35
- AC or DC input
- 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

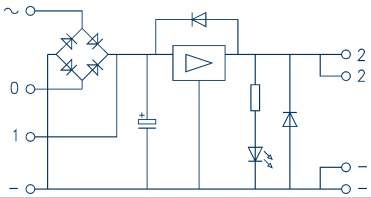
ACDCG/5-1.5

ACDCG/12-1.5

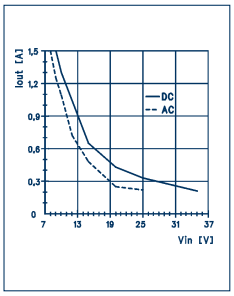
ACDCG/15-1.5

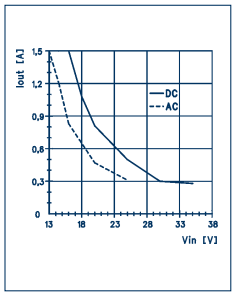
ACDCG/24-1.5

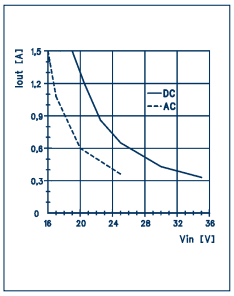
Circuit diagram

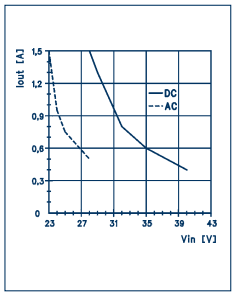


Type **Cat. no.**/Qty.	**ACDCG/5-1.5** **15024.2**/1	**ACDCG/12-1.5** **15025.2**/1	**ACDCG/15-1.5** **15026.2**/1	**ACDCG/24-1.5** **15027.2**/1
Wire connect type	Screw connection	Screw connection	Screw connection	Screw connection
Size (L x W x H) with TS 35 x 7.5	87 x 54 x 87mm	87 x 54 x 87mm	87 x 54 x 87mm	87 x 54 x 87mm
Weight	150 g	150 g	150 g	150 g
General information				
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
Connection 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 data				
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)				





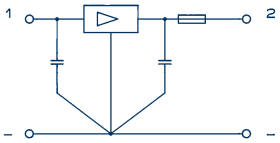




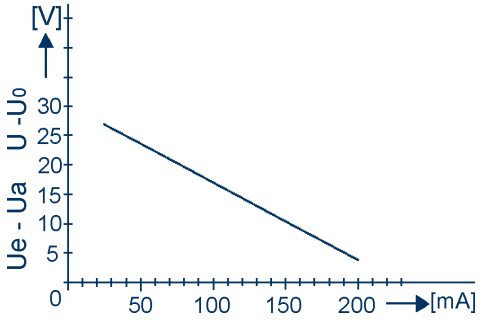
DC/DC stabilized converter modules VSTAB

- Mounts on TS 32/TS 35
- Compact design
- DC/DC power supply
- Output voltages: 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
Wire connect 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 information					
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
Connection 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					

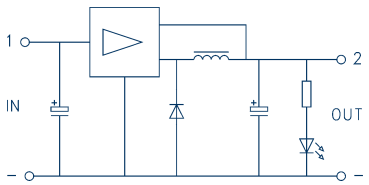


Output data					
Output voltage, ± 5%	5 V DC	10 V DC	12 V DC	15 V DC	24 V DC
Fuse	0.25 A slow-acting (5 x 20mm)	0.25 A slow-acting (5 x 20mm)	0.25 A slow-acting (5 x 20mm)	0.25 A slow-acting (5 x 20mm)	0.25 A slow-acting (5 x 20mm)
Residual ripple	< 50 mV	< 50 mV	< 50 mV	< 50 mV	< 50 mV
Max. output current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

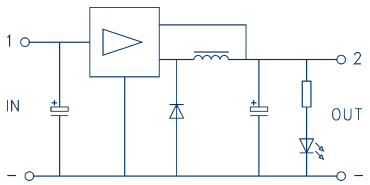


Type Cat. no./Qty.	DC-DC/5-0.5 7791.2/1	DC-DC/10-0.5 6810.0/1	DC-DC/12-0.5 7792.2/1	DC-DC/15-0.5 7793.2/1	DC-DC/24-0.5 1343.9/1
Wire connect type	Screw connection	Screw connection	Screw connection	Screw connection	Screw connection
Size (L x W x H) with TS 35 x 7.5	87 x 18 x 57mm	87 x 18 x 57mm	87 x 18 x 57mm	87 x 18 x 57mm	87 x 18 x 57mm
Weight	39 g	39 g	39 g	39 g	39 g
General information					
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
Connection 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
Zero-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 data					
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



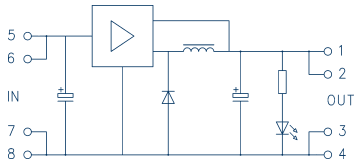
Type Cat. no./Qty.	DC-DC/5-3 7794.2/1	DC-DC/10-3 1373.9/1	DC-DC/12-3 7795.2/1	DC-DC/15-3 7796.2/1	DC-DC/24-3 6937.0/1
Wire connect type	Screw connection	Screw connection	Screw connection	Screw connection	Screw connection
Size (L x W x H) with TS 35 x 7.5	87 x 50 x 88mm	87 x 50 x 88mm	87 x 50 x 88mm	87 x 50 x 88mm	87 x 50 x 88mm
Weight	157 g	157 g	157 g	157 g	157 g
General information					
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
Connection 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
Zero-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 data					
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 information			
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
Wire connect type	**Screw connection**	**Screw connection**	**Screw connection**
Stripping length	12 mm	12 mm	12 mm
Conductor cross-section / Screw connection	0.2 – 2.5 mm^2/AWG 22 – 14	0.2 – 2.5 mm^2/AWG 22 – 14	0.2 – 2.5 mm^2/AWG 22 – 14
Input data			
Input voltage	10 – 65 V DC	15 – 65 V DC	18 – 65 V DC
Zero-load current	< 4 mA	< 5 mA	< 5 mA
Input current with max. load (40 V)	90 mA	155 mA	185 mA
Output data			
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

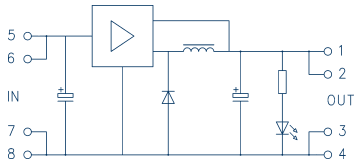
*The required input voltage is dependent on the set output voltage:
For minimum input voltage (Uout min) Uin = Uout + 5 V
For maximum output voltage (Uout max) Uin = Uout + 8 V

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



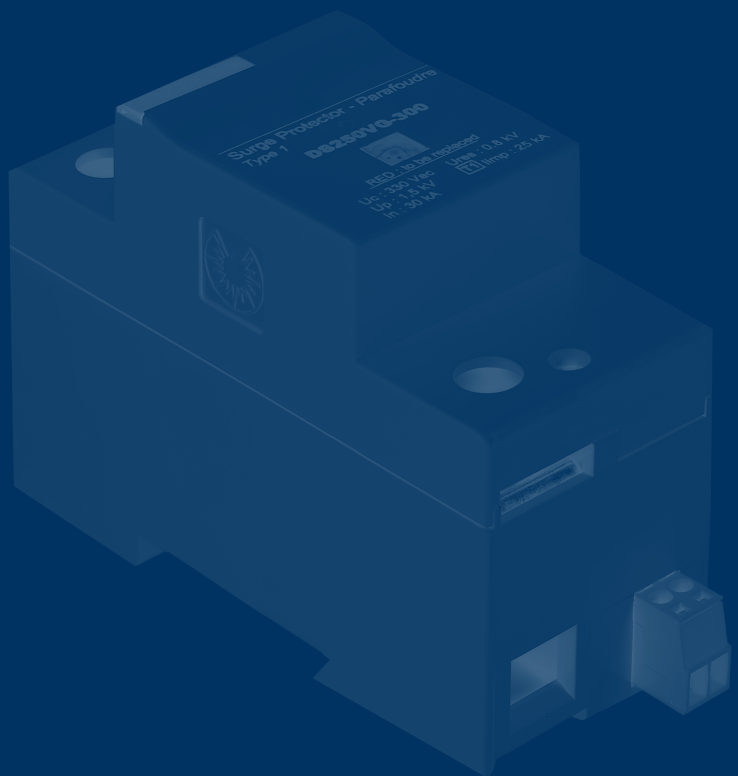
Type **Cat. no.**/Qty.	**CML-DCDC/15-0.5** **15917.2**/1	**CML-DCDC/24-0.5** **15902.2**/1	**CML-DCDC/ADJ-0.5** **15918.2**/1
Size (L x W x H) with TS 35 x 7.5	93.1 x 6.2 x 102.5 mm	93.1 x 6.2 x 102.5 mm	93.1 x 6.2 x 102.5 mm
Weight	66 g	66 g	66 g
Colour	Grey	Grey	Grey
General information			
DIN VDE 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 – 80 %
Switching frequency	560 kHz	530 kHz	170 – 830 kHz
Operating temperature	-20 to +50°C	-20 to +50°C	-20 to +50°C
Wire connect type	**Screw connection**	**Screw connection**	**Screw connection**
Stripping length	12 mm	12 mm	12 mm
Conductor cross-section / Screw connection	0.2 – 2.5 mm^2/AWG 22 – 14	0.2 – 2.5 mm^2/AWG 22 – 14	0.2 – 2.5 mm^2/AWG 22 – 14
Input data			
Input voltage	22 – 65 V DC	32 – 65 V DC	Uout+(5 – 8 V) – 65 VDC*
Zero-load current	< 5 mA	< 5 mA	< 10 mA
Input current with max. load (40 V)	225 mA	350 mA	60 – 350 mA
Output data			
Output voltage	15 V DC ± 5%	24 V DC ± 5%	3 – 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 the VDE and IEC requirements, and sometimes go beyond them. New solutions from CONTA-CLIP offer many advantages for our users.



CONTA-PROTECT overvoltage protection

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.

Overvoltage arrester CDS 98

The **CDS 98** overvoltage arresters, from arrester class 3 (D) provide reliable overvoltage protection for supply lines within switchgear and electrical cabinets. The **CDS 98** overvoltage arrester signals the overload with an LED.

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 EN 61643-11 standards

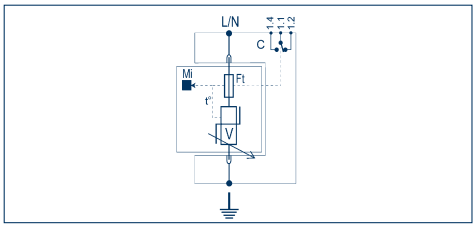
- Mounts on TS 35
- Screw connection

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

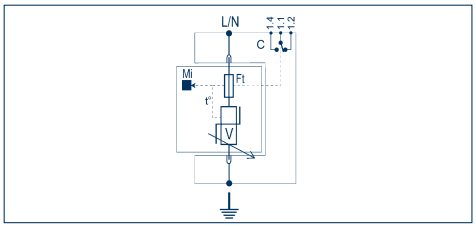
CP V 40-1

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 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 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 network					
		TNC, TNS		TNC, TNS	
Remote signalling					
Remote signalling		-		Potential-free CO contact	
Switching capacity		-		250 V / 0.5 A (AC) | 30V / 2A (DC)	
Connection 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)

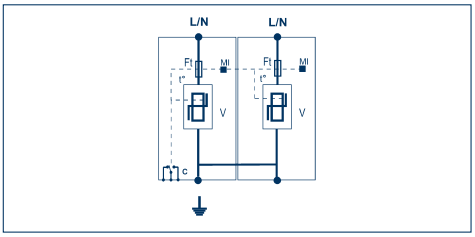
- Mounts on TS 35
- Screw connection
- Leakage currents: I_N: 20 kA/Imax: 40 kA
- Pluggable protective elements
- Remote signalling
- Complies with IEC 61643-1 and EN 61643-11 standards

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

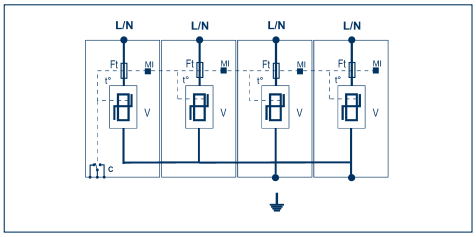
CP VH 40-2

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 suppression 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 – 25 mm²	4 – 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 network			
		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)
Connection 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)

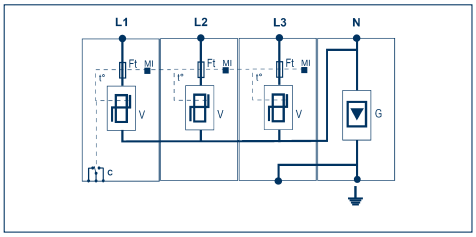
- Mounts on TS 35
- Screw connection
- Leakage currents: I_N: 20 kA/Imax: 40 kA
- Pluggable protective elements
- Remote signalling
- Complies with IEC 61643-1 and EN 61643-11 standards

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

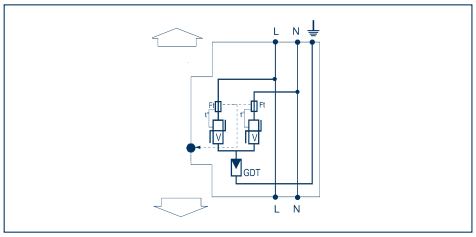
CP VH 40-4 TT

CDS 98

Circuit diagram



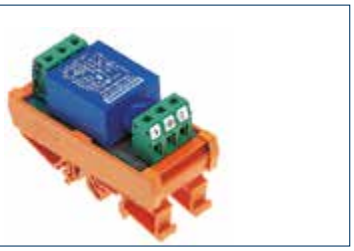
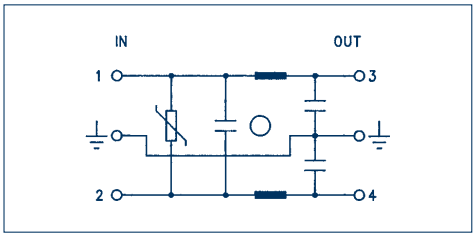
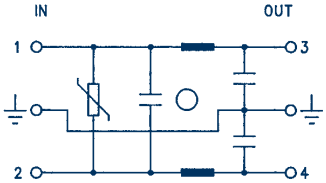
Circuit diagram



1-pole type		**CP VH 40-4 TT**	**CDS 98**
Cat. no./Qty.		**16006.2**/1	**6471.2**/1
Size (L x W x H) with TS 35 x 7.5		100.6 x 72 x 70 mm	90 x 18 x 61 mm
Weight		323 g	70 g
Arrester | Class		**Type 2 | class C**	**Type 3 | Class D**
Technical data			
Rated voltage	Un	230/400 V AC	230/400 V AC
Max. continuous voltage	Uc	280 V AC	400 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	20 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 suppression capacity	Ifi	infinite	infinite
Response time	t_A	< 25 ns	< 25 ns
TOV voltage L-N	U_T	340 V / 5 s	400 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	red LED
Temperature range		-40 to +85 °C	-40 to +85 °C
Wire connect cross-section mm²		4 – 25 mm²	1.5 – 10 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 III test
EN 61643-11, Europe		Low voltage SPD - Class II test	Low voltage SPD - Class III test
UL1449 ed.2, USA		Low voltage TVSS	Low voltage TVSS
Type of mains network			
		For TT systems (3+1)	
Remote signalling			
Remote signalling		Potential-free CO contact	
Switching capacity		250 V / 0.5 A (AC) | 30V / 2A (DC)	
Connection cross-section		max. 1.5 mm²	
Accessories			
Replacement plug, L-N		CP V 40-S	
Cat. no./Qty.		**16007.2**/1	
Earth bridges N-PE		CP V 40-S-N-PE	
Cat. no./Qty.		**16008.2**/1	
Earth bridges, CP E			
Cat. no./Qty.			
Earth bridges, CP E			
Cat. no./Qty.			
Earth bridges, CP E			
Cat. no./Qty.			

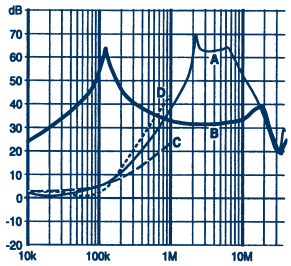
Interference-elimination link modules IF-OF

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

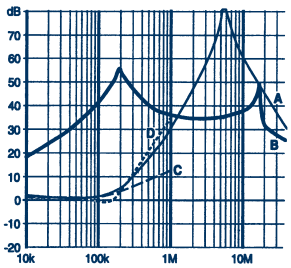
	IF-OF/0.5 A	IF-OF/1 A	IF-OF/3 A	IF-OF/6 A
				
Circuit diagram				
Type **Cat. no.**/Qty.	**IF-OF/0.5 A** **6149.2**/1	**IF-OF/1 A** **6150.2**/1	**IF-OF/3 A** **6151.2**/1	**IF-OF/6 A** **6152.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 40 x 60 mm	87 x 40 x 60 mm	87 x 40 x 60 mm	87 x 40 x 60 mm
Weight	89 g	89 g	89 g	89 g
General information				
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
Connection cross-section	0.2 – 2.5 mm^2	0.2 – 2.5 mm^2	0.2 – 2.5 mm^2	0.2 – 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

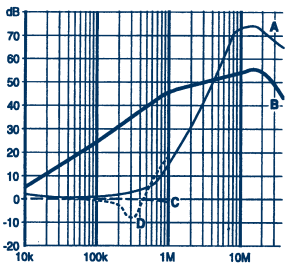
0.5 amp types



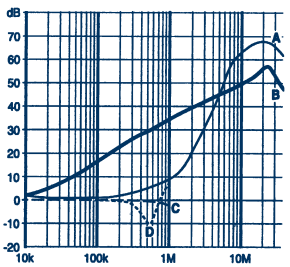
1 amp types



3 amp types



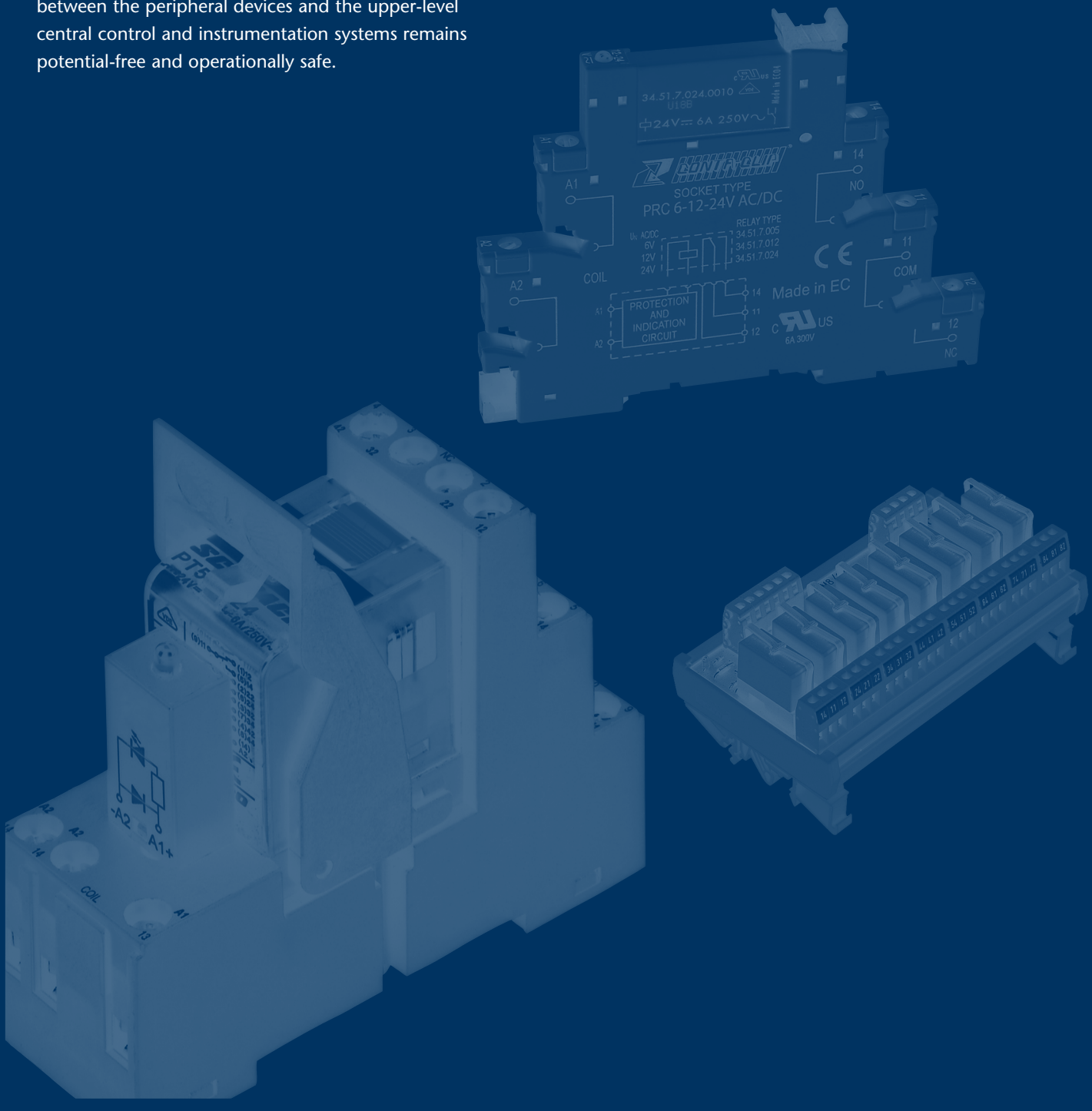
6 amp types



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, Multi-function timing relay MFR IRC

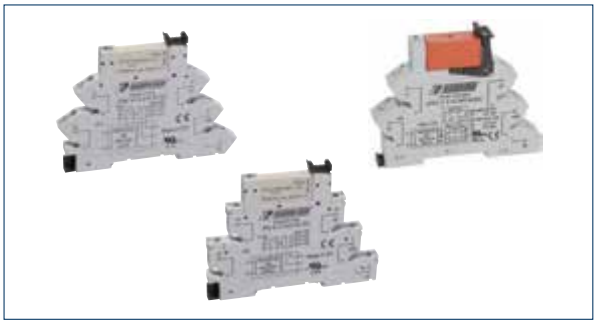
IRC relay couplers and **MFR-IRCP timing relays** embody a new strategy for 6.2 mm coupling relays. Our five different relay versions provide optimized use of space, simple installations, ease of use, and excellent functionality. They can be adapted for various application requirements because of the 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 over-currents (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.

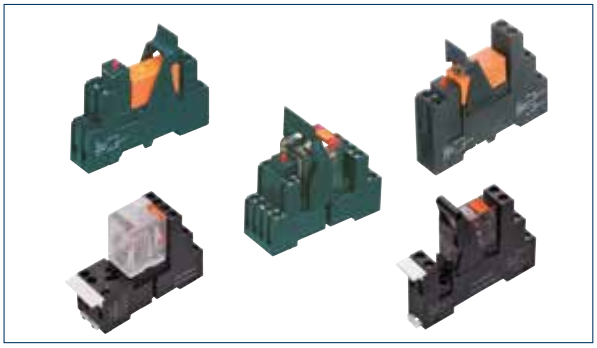
The **MFR-IRCP** is a time-function coupler component with four time ranges and eight time functions. It features an innovative receptacle for holding additional 5x20 mm **SM-IRC** fuse modules. This component functions as a timer relay with a fuse, in a width of 6.2 mm.

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



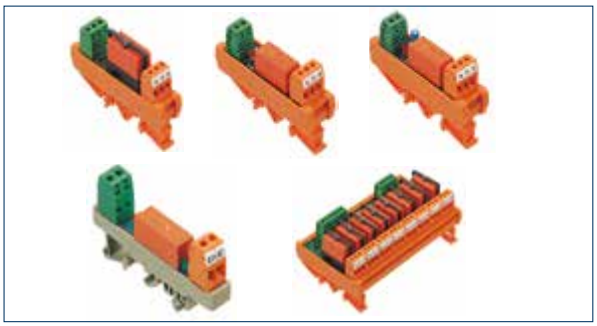
Plug relay compact PRC

PRC relay couplers distinguish themselves by their compact shape in the 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 tracks 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

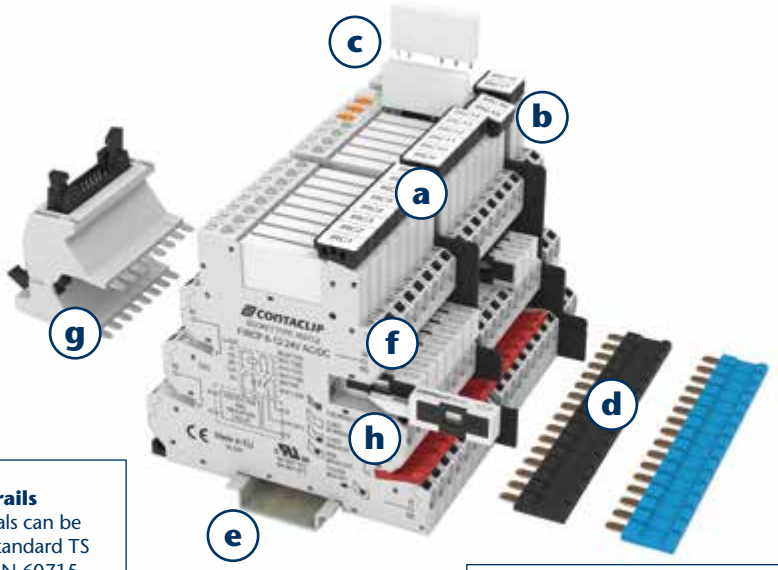
Relay terminals

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!

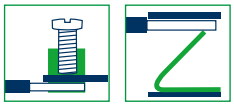
c **Pluggable relay**
Pluggable relays are also available with AgSNO and gold contacts, to fit with the many functions of your individual requirements!



d **Pluggable outer 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 **Wire connection types**
All IRC relay terminals are optionally available with screw connections.
Push-in connection available.



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 module is also available. Thus the coupling relay output can be protected using an individual, replaceable standard micro-fuse (5x20 mm) within the available width of 6.2 mm.

2. Relay types

IRCU and FRCU Basic
All-purpose usage 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

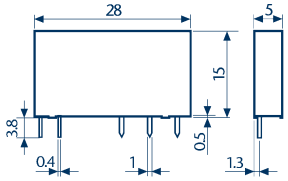
Relay terminals

4. Features

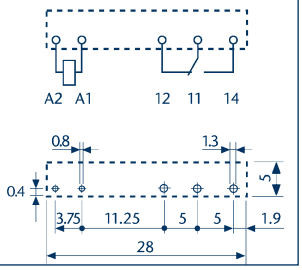
I. Relay

- 5 mm width, extremely narrow monitoring relay
- Sensitive DC coil, 170 mW
- Safe 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

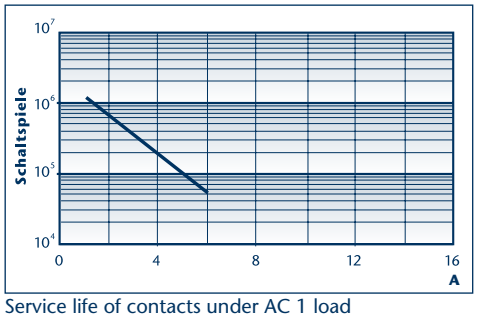
Relay - complete view



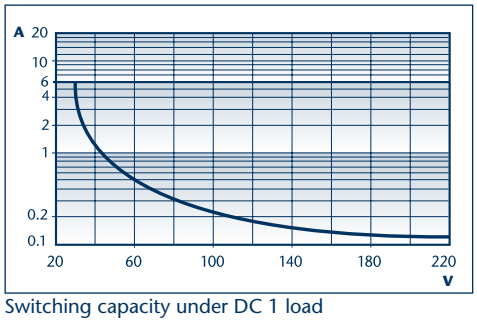
Connection diagram



5. Contact data



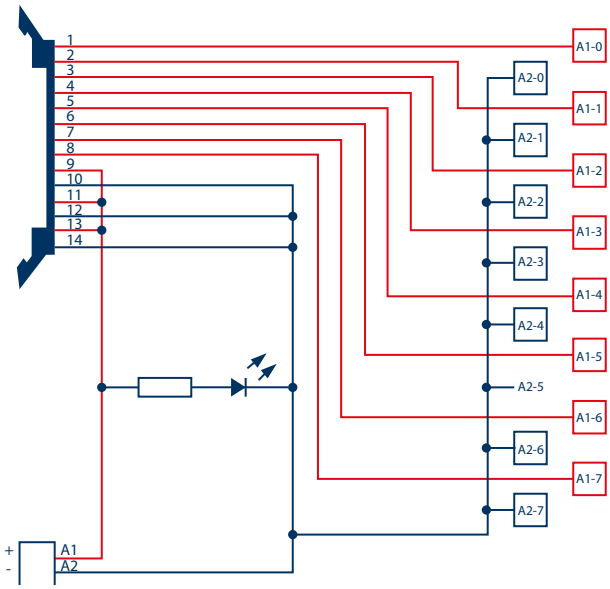
Service life of contacts under AC 1 load



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 ≥ 100,000 switching cycles.
- Under inductive load (DC 13), a free-wheel diode should be switched parallel to the load.

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	
Wire connect type	Flat-ribbon cable plug-in connector, 14-poles acc. to IEC 6060313
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



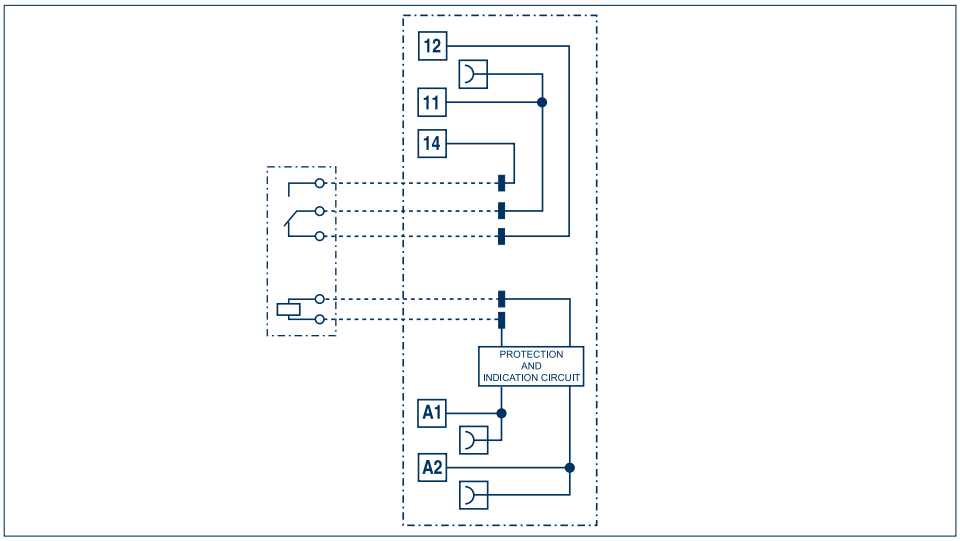
Interface Relay Compact IRC

IRC Basic series

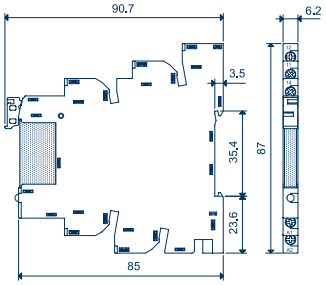
Consisting of:
- Base terminal and pluggable relay
- Mounts on TS 35

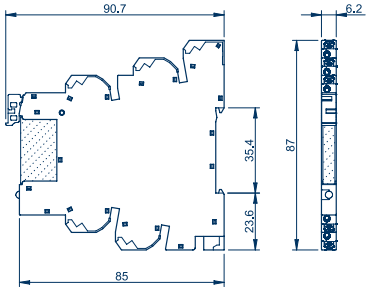
- All-purpose use as coupling relay at PLC input, or in the output of the PLC for controlling actuators
- Internal EMC coil circuitry and LED display
- Pluggable cross-connection (blue, black, red) makes installations easier
- Screw connection or Push-in connection

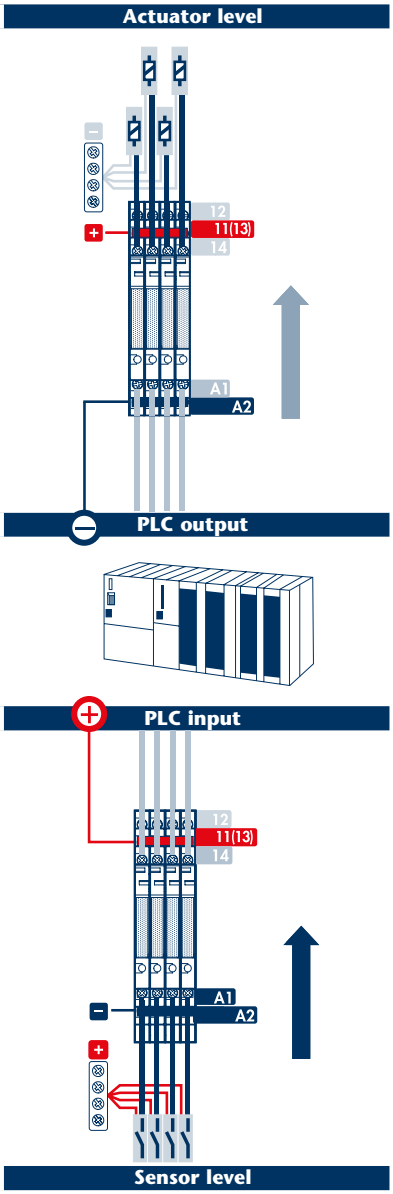
(F)IRCU



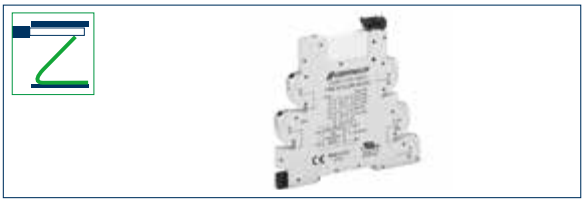
General specifications:			
Mech. service life AC/DC switching cycles	10×10^6		
Electrical service life AC 1switching cycles	60×10^3		
Response/release time	5/6 ms		
Ambient temperature	- 40 °C – + 70 °C		
Relay protection type	IP 20		
Bounce time at the NO of the NO/NC contact	1 ms / 6 ms		
Vibration 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 618101			
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 6100044	4 kV	4 kV	4 kV
Surge (1.2/50 µs) on A1 - A2 according to EN 6100045 (differential mode)	0.8 kV	2 kV	4 kV
Rated data for the base	**Screw connection**	**Push-in 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/DC 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 16234.2 / 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 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 data					
Number of contacts	1 CO	1 CO	1 CO	1 CO	1 CO
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
Single 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**
Single component, plug relay					
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**

Type: Push-in 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 data					
Number of contacts	1 CO	1 CO	1 CO	1 CO	1 CO
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
Single component, Push-in 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**
Single component, plug relay					
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

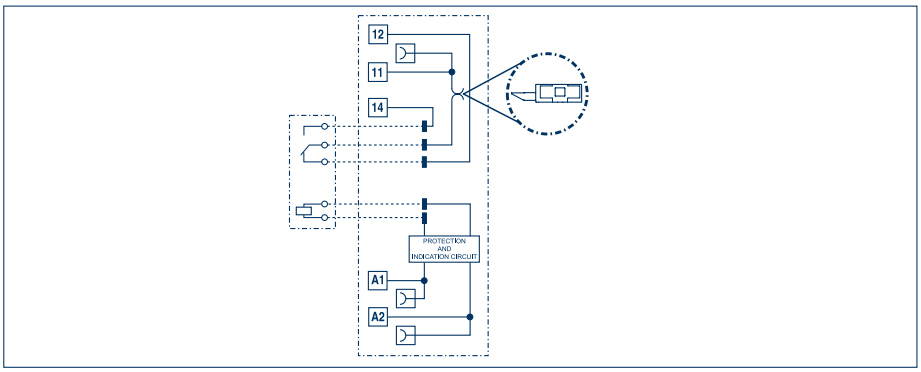
Interface Relay Compact IRC

IRC Plus series

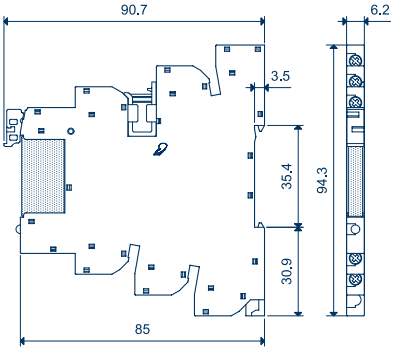
Consisting of:
- Base terminal and pluggable relay
- Mounts on TS 35

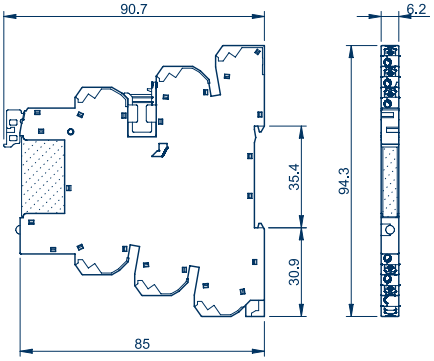
- All-purpose use as coupling relay at PLC input, or in the output of the PLC for controlling actuators
- Output fuse module for individual standard micro-fuse (5x20 mm) available as accessory
- Internal EMC coil circuitry and LED display
- LW version with internal AC residual current suppression and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

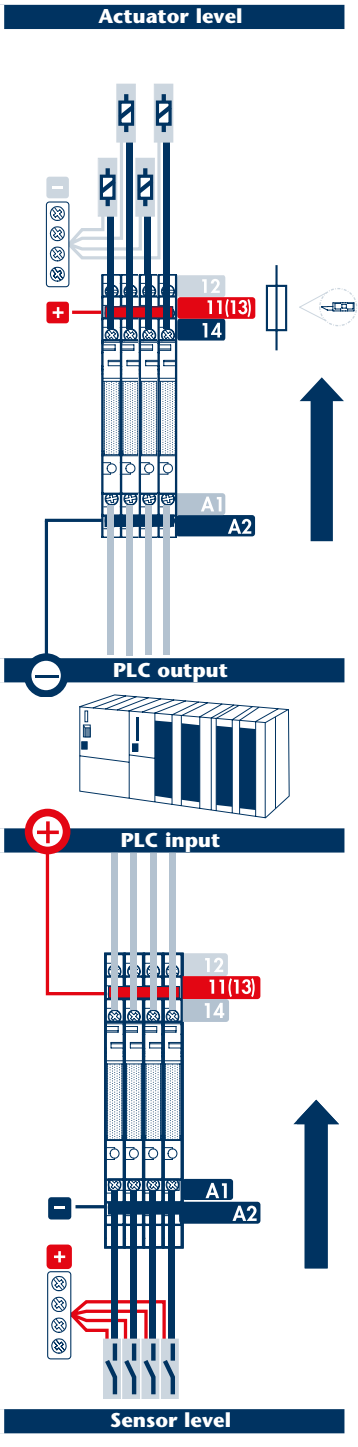
(F)IRCPU



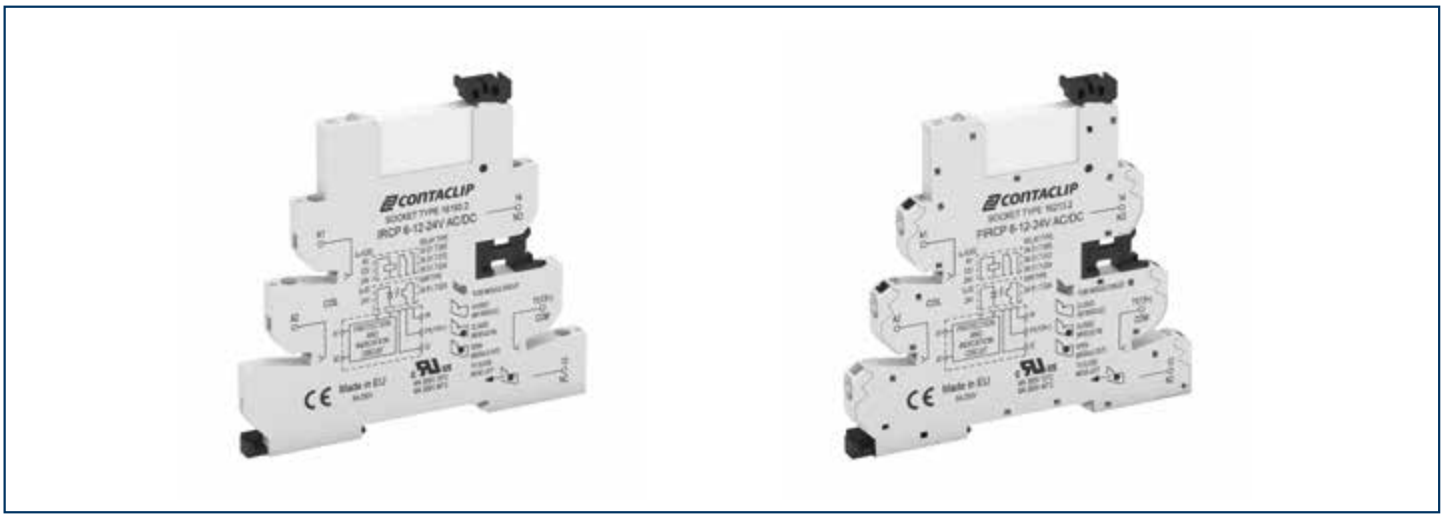
General specifications:			
Mech. service life AC/DC switching cycles	10×10^6		
Electrical service life AC 1switching cycles	60×10^3		
Response/release time	5/6 ms		
Ambient temperature	- 40 °C – + 70 °C		
Relay protection type	IP 20		
Bounce time at the NO of the NO/NC contact	1 ms / 6 ms		
Vibration 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 6100044	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**	**Push-in 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	



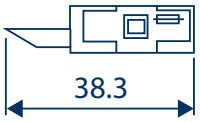


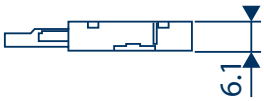


Interface Relay Compact IRC

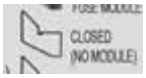


Similar to the IRCU version, the IRCPU with the fuse module can be used in all systems. It is unique in the way it meets the requirement that each coupling relay output must be protected by a replaceable 5x20 mm standard micro-fuse within the available 6.2 mm width.





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.

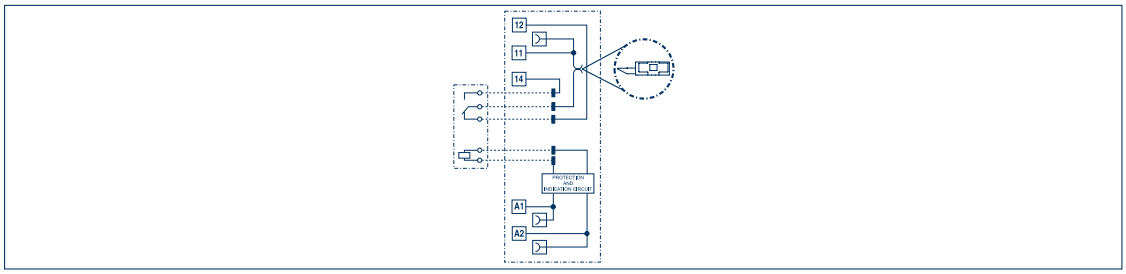
Moving the indicator pin

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 data					
Number of contacts	1 CO	1 CO	1 CO	1 CO	1 CO
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

Single 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**
Single component, plug relay					
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**
Type: Push-in 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 data					
Number of contacts	1 CO	1 CO	1 CO	1 CO	1 CO
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
Single component, Push-in 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**
Single component, plug relay					
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 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 data					
Number of contacts	1 CO	1 CO	1 CO	1 CO	1 CO
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
Single 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
Single component, plug relay					
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

Type: Push-in 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 data					
Number of contacts	1 CO	1 CO	1 CO	1 CO	1 CO
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
Single component, Push-in 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
Single component, plug relay					
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

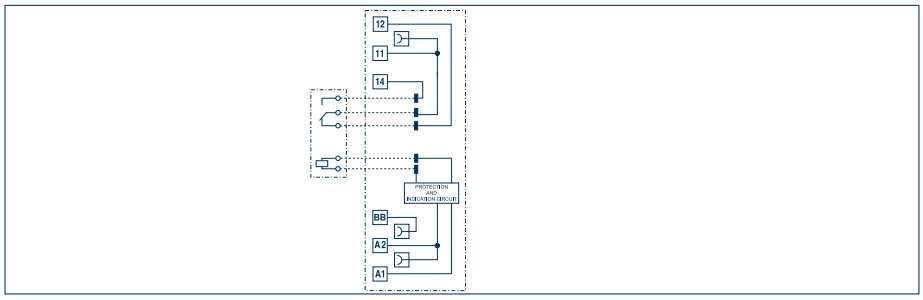
Interface Relay Compact IRC

IRC Input series

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

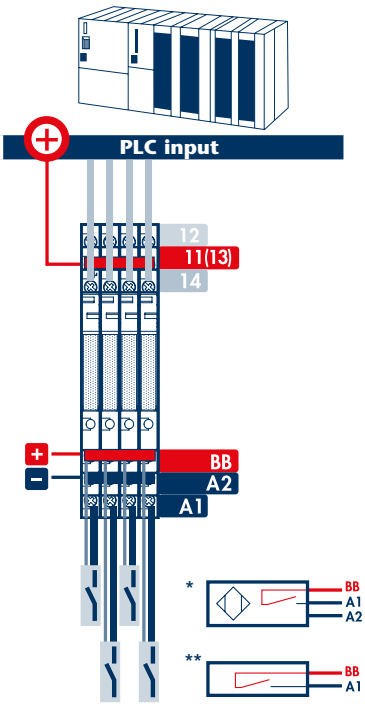
- Advantageous for connecting sensors to the PLC input and sensor's power supply to the same coupling relay
- Internal EMC coil circuitry and LED display
- Pluggable cross-connection (blue, black, red) makes installations easier
- Screw connection or Push-in connection

(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/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	Push-in 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



Sensor level

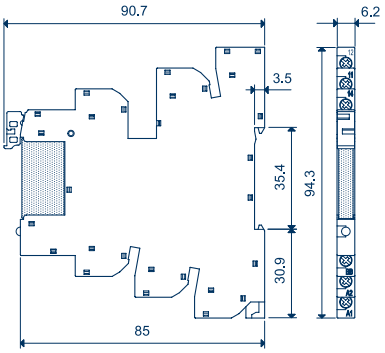
For sensors with 2 connections or for control via the NO contact:

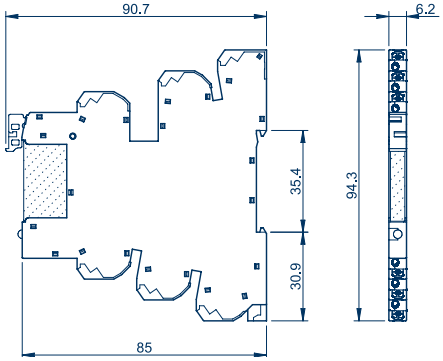
BB = + (plus) for multiple sensors / NO contact is bridgeable
A1 = individual sensor/ NO-contact output

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 data					
Number of contacts	1 CO	1 CO	1 CO	1 CO	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
Single 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
Single component, plug relay					
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

Type: Push-in 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 data					
Number of contacts	1 CO	1 CO	1 CO	1 CO	1 CO
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
Single component, Push-in 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
Single component, plug relay					
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

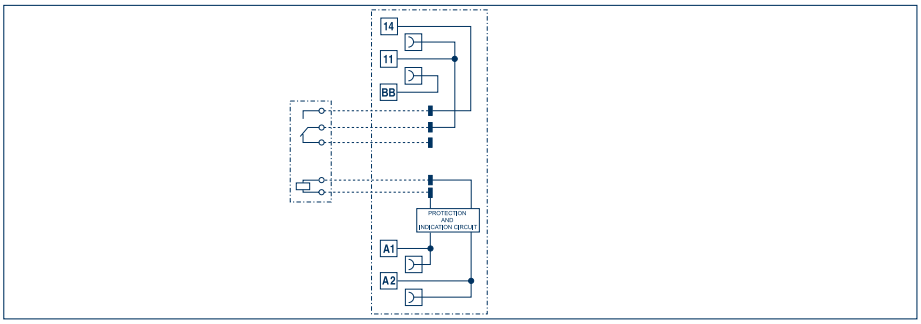
Interface Relay Compact IRC

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 connection or Push-in connection

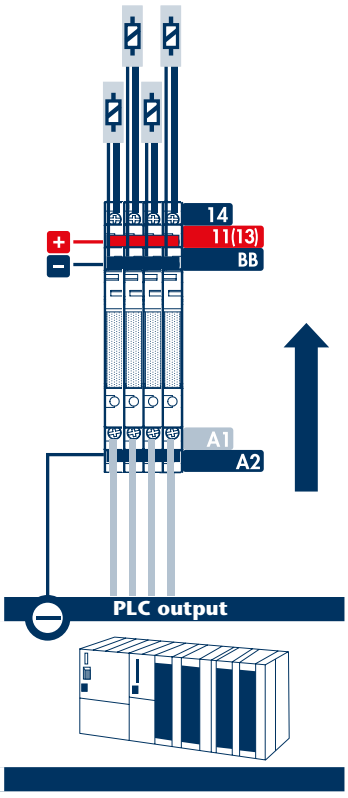
(F)IRCOU



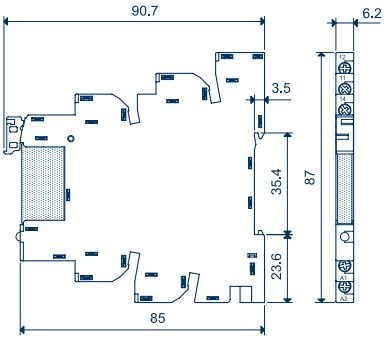
General specifications:			
Mech. service life AC/DC switching cycles	10×10^6		
Electrical service life AC 1 switching cycles	60×10^3		
Response/release time	5/6 ms		
Ambient temperature	- 40 °C – + 70 °C		
Relay protection type	IP 20		
Bounce time at the NO of the NO/NC contact	1 ms / 6 ms		
Vibration 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

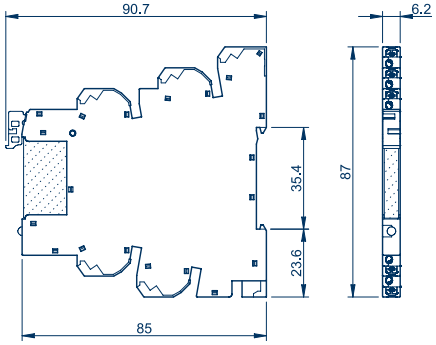
Rated data for the base	Screw connection	Push-in connection
Stripping length	10 mm	8 mm
Torque	0.5 Nm	-
Max. wire cross-section, solid | finely stranded	1 x 2.5 | 1 x 2.5 mm²	1 x 2.5 | 1 x 2.5 mm²
Min. wire cross-section, solid | finely stranded	1 x 0.2 | 1 x 2.5 mm²	1 x 0.2 | 1 x 2.5 mm²
Max. wire cross-section, 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 data					
Number of contacts	1 CO	1 CO	1 CO	1 CO	1 CO
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
Single 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
Single component, plug relay					
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

Type: Push-in connection Cat. no./Qty.	FIRCOU 6 V AC/DC 16280.2 / 10	FIRCOU 12 V AC/DC 16281.2 / 10	FIRCOU 24 V AC/DC 16282.2 / 10	FIRCOU 125 V AC/DC 16283.2 / 10	FIRCOU 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 data					
Number of contacts	1 CO	1 CO	1 CO	1 CO	1 CO
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
Single component, Push-in 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
Single component, plug relay					
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

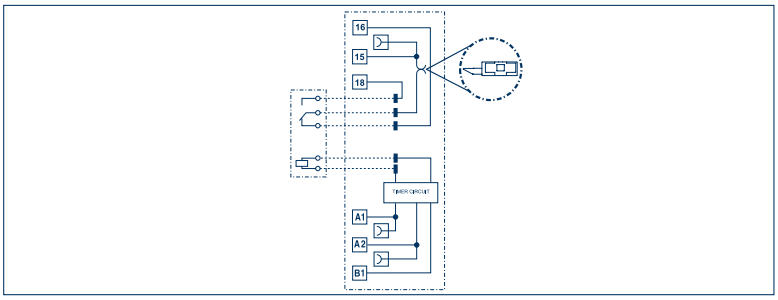
Multi-function timing relay compact MFR-IRCPU

MFR IRCPU series

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

- Multi-function 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 connection or Push-in 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/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 ranges

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.

(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.

(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.

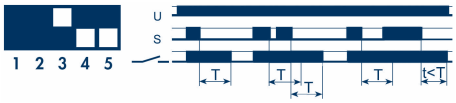
(SW) Flasher ON beginning

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.

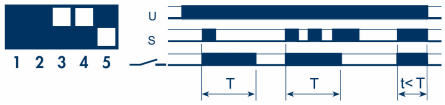


(CE) ON and OFF delay with control contact

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.

(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.



(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) (550 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 Cat. no./Qty.	MFR IRCPU 1/12 V AC/DC 16255.2 / 10	MFR IRCPU 1/ 24 V AC/DC 16256.2 / 10	MFR FIRCPU 1/12 V AC/DC 16285.2 / 10	MFR FIRCPU 1/ 24 V AC/DC 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 – 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
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Functions				
	AI: ON delayed		AI: ON delayed	
	DI: ON pulse		DI: ON pulse	
	GI: Fixed pulse (0.5 s) delayed		GI: Fixed pulse (0.5 s) delayed	
	SW: Flasher ON beginning		SW: Flasher 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 ranges				
	(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				
Wire connect type	Screw connection		Push-in 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 ranges	(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 data				
Number of contacts	1 CO		1 CO	
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	
Single component, socket base				
Type **Cat. no./Qty.**	**MFR IRCP 12-24 V AC/DC** **16207.2 / 10**	**MFR IRCP 12-24 V AC/DC** **16207.2 / 10**	**MFR FIRCP 12-24 V AC/DC** **16227.2 / 10**	**MFR FIRCP 12-24 V AC/DC** **16227.2 / 10**
Single component, plug relay				
Type **Cat. no./Qty.**	**PRC 1/12 V DC** **15501.2 / 10**	**PRC 1/24 V DC** **15502.2 / 10**	**PRC 1/12 V DC** **15501.2 / 10**	**PRC 1/24 V DC** **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

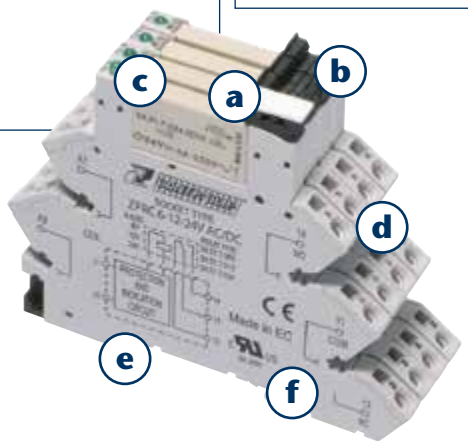
Plug relay compact PRC

Relay terminals with 1 CO relay

1. Overview

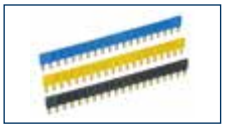
a **Labelling | Marking**
The socket bases have a labelling surface which is optimally suited for our **PMC Pocket-Maxicard (PMC BSTR 6/30)** standard marking systems. In addition to our large variety of standard labels, CONTA-CLIP can also provide "just-in-time" individual labelling for you.

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 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.

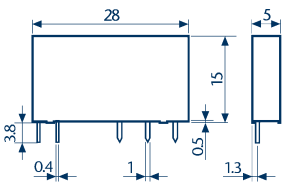
f **Wire connection types**
All of our relay terminals are optionally available with screw or tension-spring connection systems.

2. Approvals (details upon request)

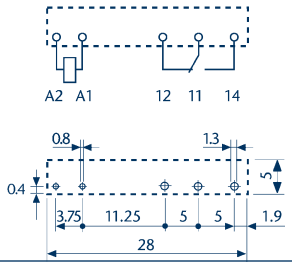
3. Features

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

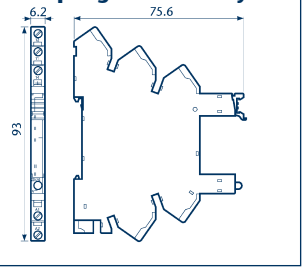


Plug relay compact PRC

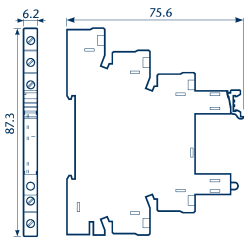
Relay terminals with 1 CO relay

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 system



Screw connection system



4. Specifications

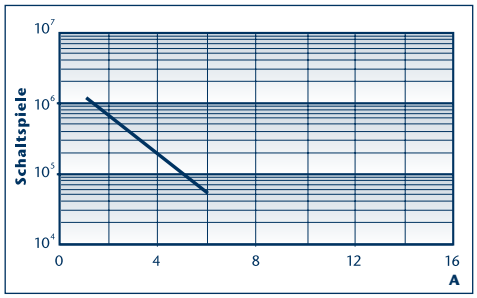
Electro-mechanical relay

Insulation properties		
Insulation coordination, according to EN 618101, VDE 0435 T 201.	Rated insulation voltage	250
	Rated surge voltage, kV	4
	Contamination degree	3
	Overvoltage category	III

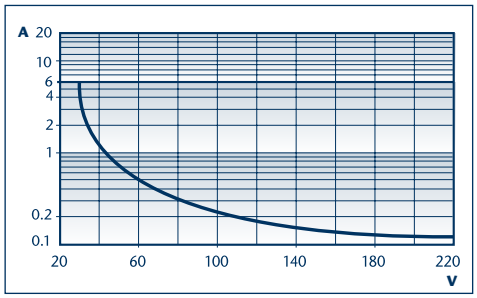
EMC - interference immunity of the control circuit (coil)		
BURST (5 – 50) ns, 5 kHz, on A 1-A 2	EN 61000-4-4	Class 4 (4 kV)
SURGE (1.2/50) µs on A 1-A 2 (differential mode)	EN 61000-4-5	Class 3 (2 kV)

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

5. Contact data



Service life of contacts under AC 1 load



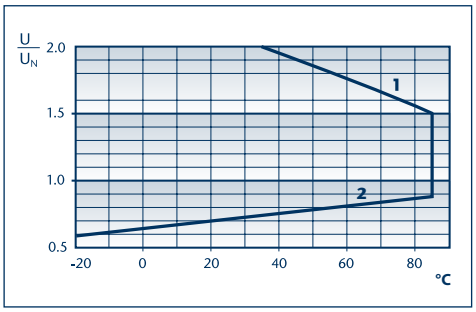
Switching capacity under DC 1 load

- 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 ≥ 100,000 switching cycles.
  punkt von Strom und Spannung unterhalb der Kurve kann von einer elektrischen Lebensdauer von ≥ 100.000 Schaltspielen ausgegangen werden.
- Under inductive load (DC 13), a free-wheel diode should be switched parallel to the load.
  Note: The return period increases.

6. Coil data

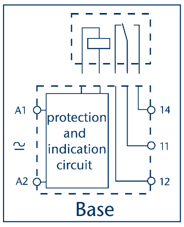
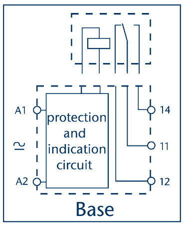
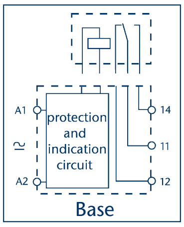
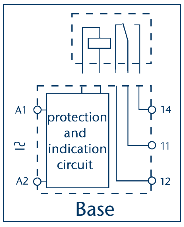
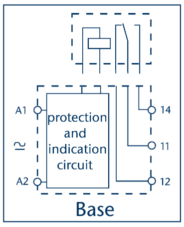
DC version

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

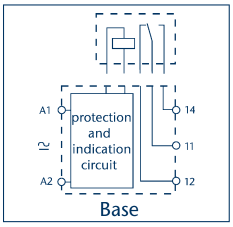
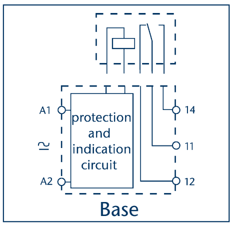
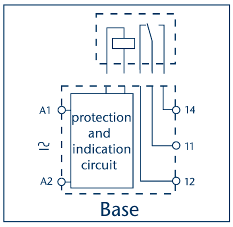
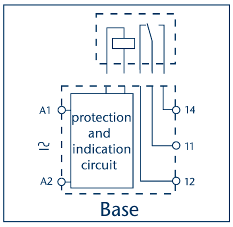
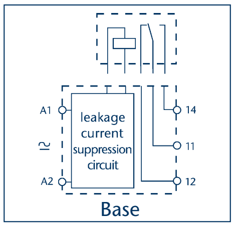
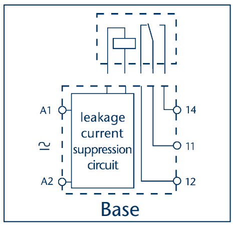
Screw-connection relay terminal	PRCU 1/6V DC	PRCU 1/12V DC	PRCU 1/24V DC	PRCU 1/12V AC/DC	PRCU 1/24V AC/DC
· Consisting of: Base terminal and pluggable relay · Mounts on TS 35					
Connection diagram					
· Internal EMC coil circuitry and LED display · LW version: Internal AC residual current suppression LED display					

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 information					
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/release time	5/6 ms	5/6 ms	5/6 ms	5/6 ms	5/6 ms
Insulation coordination, EN 618105	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 mm²	1x2.5 | 1x2.5 mm²	1x2.5 | 1x2.5 mm²	1x2.5 | 1x2.5 mm²	1x2.5 | 1x2.5 mm²
	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	1 CO	1 CO	1 CO	1 CO
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

Single component, 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
Single component, plug relay					
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 external insulated cross-connection	**AQI/PRC/20**	**AQI/RC/20.8/1**	**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
TW/PRC partition	**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-energize, 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

<table>
<tr><th>PRCU 1/48V AC/DC</th><th>PRCU 1/60V AC/DC</th><th>PRCU 1/125V AC/DC</th><th>PRCU 1/240V AC/DC</th><th>PRCU LW 1/125V AC/DC</th><th>PRCU LW 1/240V AC</th></tr>
<tr><td>  </td><td>  </td><td>  </td><td>  </td><td>  </td><td>  </td></tr>
<tr><td>  </td><td>  </td><td>  </td><td>  </td><td>  </td><td>  </td></tr>
<tr><td>PRCU 1/48 V AC/DC
15509.2/10</td><td>PRCU 1/60 V AC/DC
15510.2/10</td><td>PRCU 1/125 V AC/DC
15511.2/10*2</td><td>PRCU 1/240 V AC/DC
15512.2/10*2</td><td>PRCU LW 1/125 V AC/DC
15553.2/10*2</td><td>PRCU LW 1/240 V AC
15554.2/10*2</td></tr>
<tr><td>87.3 x 6.2 x 79.9 mm</td><td>87.3 x 6.2 x 79.9 mm</td><td>87.3 x 6.2 x 79.9</td><td>87.3 x 6.2 x 79.9 mm</td><td>87.3 x 6.2 x 79.9 mm</td><td>87.3 x 6.2 x 79.9 mm</td></tr>
<tr><td>36 g</td><td>36 g</td><td>36 g</td><td>36 g</td><td>36 g</td><td>36 g</td></tr>
<tr><td>48 V AC/DC</td><td>60 V AC/DC</td><td>125 V AC/DC</td><td>230 V AC/DC</td><td>125 V AC/DC</td><td>230 V AC</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>10 x 10^6/10 x 10^6</td><td>10 x 10^6/10 x 10^6</td><td>10 x 10^6/10 x 10^6</td><td>10 x 10^6/10 x 10^6</td><td>10 x 10^6/10 x 10^6</td><td>10 x 10^6/10 x 10^6</td></tr>
<tr><td>60 x 10^3</td><td>60 x 10^3</td><td>60 x 10^3</td><td>60 x 10^3</td><td>60 x 10^3</td><td>60 x 10^3</td></tr>
<tr><td>5/6 ms</td><td>5/6 ms</td><td>5/6 ms</td><td>5/6 ms</td><td>5/6 ms</td><td>5/6 ms</td></tr>
<tr><td>4 kV/3</td><td>4 kV/3</td><td>4 kV/3</td><td>4 kV/3</td><td>4 kV/3</td><td>4 kV/3</td></tr>
<tr><td>6 kV</td><td>6 kV</td><td>6 kV</td><td>6 kV</td><td>6 kV</td><td>6 kV</td></tr>
<tr><td>1,000 V AC</td><td>1,000 V AC</td><td>1,000 V AC</td><td>1,000 V AC</td><td>1,000 V AC</td><td>1,000 V AC</td></tr>
<tr><td>-40 to +70 °C</td><td>-40 to +70 °C</td><td>-40 to +70 °C</td><td>-40 to +70 °C</td><td>-40 to +70 °C</td><td>-40 to +70 °C</td></tr>
<tr><td>RT II</td><td>RT II</td><td>RT II</td><td>RT II</td><td>RT II</td><td>RT II</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>-40 to +70 °C</td><td>-40 to +70 °C</td><td>-40 to +70 °C</td><td>-40 to +70 °C</td><td>-40 to +70 °C</td><td>-40 to +70 °C</td></tr>
<tr><td>10 mm</td><td>10 mm</td><td>10 mm</td><td>10 mm</td><td>10 mm</td><td>10 mm</td></tr>
<tr><td>1x2.5 | 1x2.5 mm²</td><td>1x2.5 | 1x2.5 mm²</td><td>1x2.5 | 1x2.5 mm²</td><td>1x2.5 | 1x2.5 mm²</td><td>1x2.5 | 1x2.5 mm²</td><td>1x2.5 | 1x2.5 mm²</td></tr>
<tr><td>1x14 | 1x14 AWG</td><td>1x14 | 1x14 AWG</td><td>1x14 | 1x14 AWG</td><td>1x14 | 1x14 AWG</td><td>1x14 | 1x14 AWG</td><td>1x14 | 1x14 AWG</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>1 CO</td><td>1 CO</td><td>1 CO</td><td>1 CO</td><td>1 CO</td><td>1 CO</td></tr>
<tr><td>6/10 A</td><td>6/10 A</td><td>6/10 A</td><td>6/10 A</td><td>6/10 A</td><td>6/10 A</td></tr>
<tr><td>250/400 VAC*</td><td>250/400 VAC*</td><td>250/400 VAC*</td><td>250/400 VAC*</td><td>250/400 VAC*</td><td>250/400 VAC*</td></tr>
<tr><td>1,500 VA</td><td>1,500 VA</td><td>1,500 VA</td><td>1,500 VA</td><td>1,500 VA</td><td>1,500 VA</td></tr>
<tr><td>300 VA</td><td>300 VA</td><td>300 VA</td><td>300 VA</td><td>300 VA</td><td>300 VA</td></tr>
<tr><td>0.185 kW</td><td>0.185 kW</td><td>0.185 kW</td><td>0.185 kW</td><td>0.185 kW</td><td>0.185 kW</td></tr>
<tr><td>6/0.2/0.12 A</td><td>6/0.2/0.12 A</td><td>6/0.2/0.12 A</td><td>6/0.2/0.12 A</td><td>6/0.2/0.12 A</td><td>6/0.2/0.12 A</td></tr>
<tr><td>300 (5/5) mW (V/mA)</td><td>300 (5/5) mW (V/mA)</td><td>300 (5/5) mW (V/mA)</td><td>300 (5/5) mW (V/mA)</td><td>300 (5/5) mW (V/mA)</td><td>300 (5/5) mW (V/mA)</td></tr>
<tr><td>AgNi</td><td>AgNi</td><td>AgNi</td><td>AgNi</td><td>AgNi</td><td>AgNi</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>48 V DC | 48 AC</td><td>60 V DC | 60 AC</td><td>110 to 125 V DC | 110 to 125 AC</td><td>220 to 240 V DC | 220 to 240 AC</td><td>110 to 125 V DC | 110 to 125 AC</td><td>– V DC | 220 to 240 VAC</td></tr>
<tr><td>0.2 W</td><td>0.2 W</td><td>0.2 W</td><td>0.2 W</td><td>1.0 W</td><td>0.5 W</td></tr>
<tr><td>(0.8 to 1.1) U_NAC (50/60 Hz)</td><td>(0.8 to 1.1) U_NAC (50/60 Hz)</td><td>(0.8 to 1.1) U_NAC (50/60 Hz)</td><td>(0.8 to 1.1) U_NAC (50/60 Hz)</td><td>(0.8 to 1.1) U_NAC (50/60 Hz)</td><td>(0.8 to 1.1) U_NAC (50/60 Hz)</td></tr>
<tr><td>(0.8 to 1.2) U_NDC</td><td>(0.8 to 1.2) U_NDC</td><td>(0.8 to 1.2) U_NDC</td><td>(0.8 to 1.2) U_NDC</td><td>(0.8 to 1.2) U_NDC</td><td>(0.8 to 1.2) U_NDC</td></tr>
<tr><td>0.6 U_NAC/0.6 U_NDC</td><td>0.6 U_NAC/0.6 U_NDC</td><td>0.6 U_NAC/0.6 U_NDC</td><td>0.6 U_NAC/0.6 U_NDC</td><td>0.6 U_NAC/0.6 U_NDC</td><td>0.6 U_NAC/- U_NDC</td></tr>
<tr><td>0.1 U_NAC/0.05 U_NDC</td><td>0.1 U_NAC/0.05 U_NDC</td><td>0.1 U_NAC/0.05 U_NDC</td><td>0.1 U_NAC/0.05 U_NDC</td><td>0.1 U_NAC/0.05 U_NDC</td><td>0.1 U_NAC/- U_NDC</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>PRC 48-60V AC/DC
15496.2/10</td><td>PRC 48-60V AC/DC
15496.2/10</td><td>PRC 110... 125V AC/DC
15497.2/10</td><td>PRC 220... 240V AC/DC
15489.2/10</td><td>PRC LW 110... 125V AC/DC
15555.2/10</td><td>PRC LW 220... 240V AC
15491.2/10</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>PRC 1/48V DC
15547.2/10*3</td><td>PRC 1/60V DC
15503.2/10*3</td><td>PRC 1/60V DC
15503.2/10*3</td><td>PRC 1/60V DC
15503.2/10*3</td><td>PRC 1/60V DC
15503.2/10*</td><td>PRC 1/60V DC
15503.2/10*3</td></tr>
<tr><td>AQI/PRC/20</td><td>AQI/PRC/20</td><td>AQI/PRC/20</td><td>AQI/PRC/20</td><td>AQI/PRC/20</td><td>AQI/PRC/20</td></tr>
<tr><td>15545.8/1</td><td>15545.8/1</td><td>15545.8/1</td><td>15545.8/1</td><td>15545.8/1</td><td>15545.8/1</td></tr>
<tr><td>15545.5/1</td><td>15545.5/1</td><td>15545.5/1</td><td>15545.5/1</td><td>15545.5/1</td><td>15545.5/1</td></tr>
<tr><td>15545.4/1</td><td>15545.4/1</td><td>15545.4/1</td><td>15545.4/1</td><td>15545.4/1</td><td>15545.4/1</td></tr>
<tr><td>TW/PRC</td><td>TW/PRC</td><td>TW/PRC</td><td>TW/PRC</td><td>TW/PRC</td><td>TW/PRC</td></tr>
<tr><td>15546.2/1</td><td>15546.2/1</td><td>15546.2/1</td><td>15546.2/1</td><td>15546.2/1</td><td>15546.2/1</td></tr>
<tr><td>PMC BSTR 6/30</td><td>PMC BSTR 6/30</td><td>PMC BSTR 6/30</td><td>PMC BSTR 6/30</td><td>PMC BSTR 6/30</td><td>PMC BSTR 6/30</td></tr>
<tr><td>CONTA-CONNECT</td><td>CONTA-CONNECT</td><td>CONTA-CONNECT</td><td>CONTA-CONNECT</td><td>CONTA-CONNECT</td><td>CONTA-CONNECT</td></tr>
<tr><td>9106.7/300</td><td>9106.7/300</td><td>9106.7/300</td><td>9106.7/300</td><td>9106.7/300</td><td>9106.7/300</td></tr>
<tr><td>9107.7/300</td><td>9107.7/300</td><td>9107.7/300</td><td>9107.7/300</td><td>9107.7/300</td><td>9107.7/300</td></tr>
<tr><td>SDB 0.6 x 3.5</td><td>SDB 0.6 x 3.5</td><td>SDB 0.6 x 3.5</td><td>SDB 0.6 x 3.5</td><td>SDB 0.6 x 3.5</td><td>SDB 0.6 x 3.5</td></tr>
<tr><td>1086.0/1</td><td>1086.0/1</td><td>1086.0/1</td><td>1086.0/1</td><td>1086.0/1</td><td>1086.0/1</td></tr>
</table>

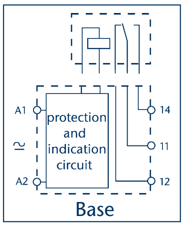
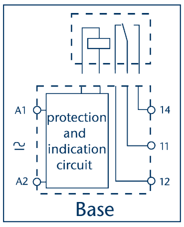
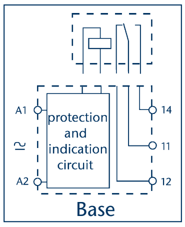
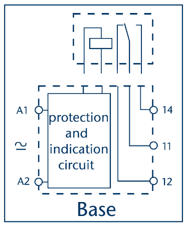
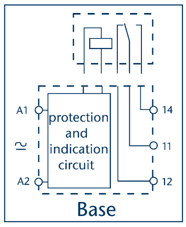
Plug relay compact PRC

Tension-spring relay terminal

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

Connection diagram

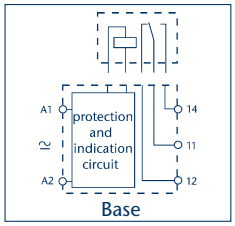
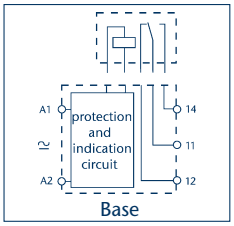
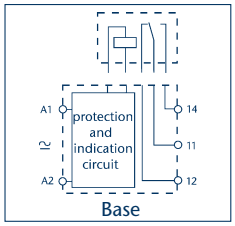
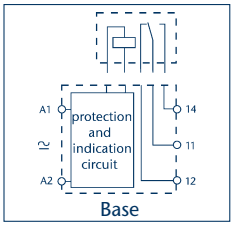
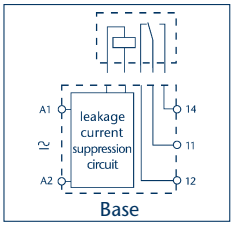
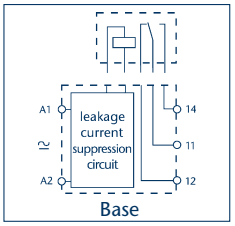
- Internal EMC coil circuitry and
  LED display
- LW version:
  Internal AC residual current suppression
  LED display

ZPRCU 1/6V DC	ZPRCU 1/12V DC	ZPRCU 1/24V DC	ZPRCU 1/12V AC/DC	ZPRCU 1/24V AC/DC
				
				

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 information					
Mech. lifespanAC/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/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 mm²	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	1 CO	1 CO	1 CO	1 CO
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 1.1) 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
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
Single component, 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
Single component, plug relay					
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 external 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
TW/PRC partition	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-energize, 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
48V AC/DC	60V AC/DC	125V AC/DC	230V AC/DC	125V AC/DC	230V 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	1 CO	1 CO	1 CO	1 CO	1 CO
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 – 125 V DC | 110 – 125 AC	220 – 240 V DC | 220 – 240 AC	110 – 125 V DC | 110 – 125 AC	– V DC | 220 – 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

Plug relay compact PRC

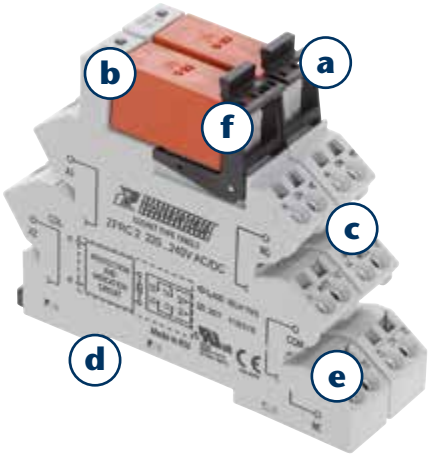
Relay terminals with 2 CO relays

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.

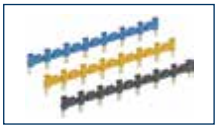
1. Overview

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

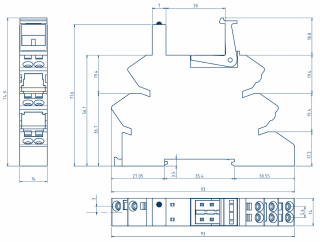
f **Labelling | Marking**
The socket bases have a labelling surface which is optimally suited for our MC Maxicard standard marking systems (**MC GS 6x12 R**). CONTA-CLIP will custom-label your markers for "just in time" delivery.

2. Approvals (details upon request)

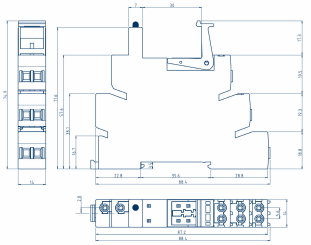
3. Features

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 system



Screw connection system

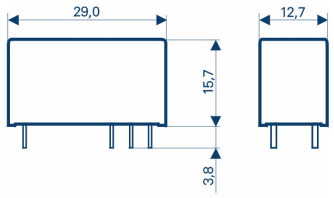


Plug relay compact PRC

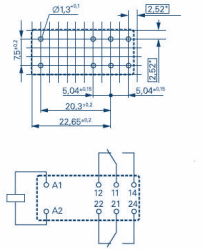
Relay terminals with 2 CO relays

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

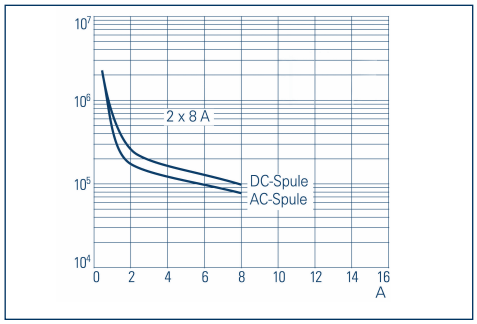


4. Specifications

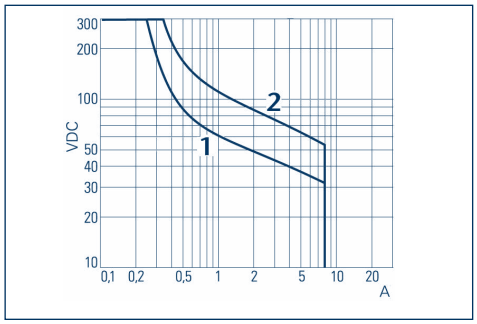
Insulation data		
Dielectric strength	Coil - contact arrangement	5000 Veff
	Opened contact	1000 Veff
	Adjacent contacts	2500 Veff
Clearance / creepage distances	Coil - contact arrangement	≤ 10 / 10 mm
	Adjacent contacts	≤ 3 / 4 mm
Insulating material group		≤ IIIa
Creep resistance of carrier		PTI 250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

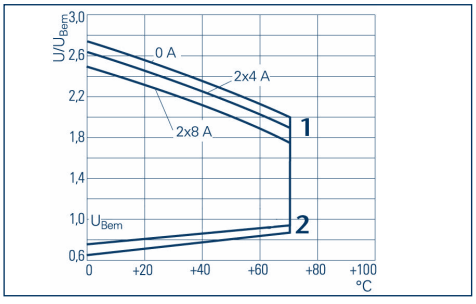


Switching capacity under DC load
Resistive load
1 One contact
2 Two contacts in series

6. Coil data

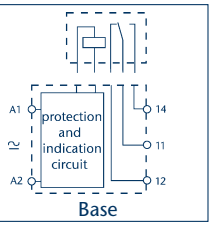
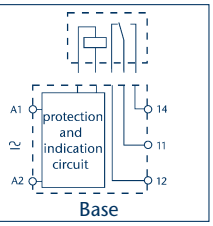
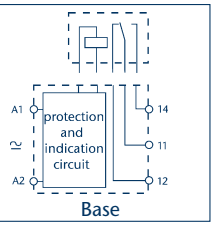
DC version

Rated U_N V	Operating range U_{min} V	U_{max} V	Resistance stand R Ω	Rated voltage current 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

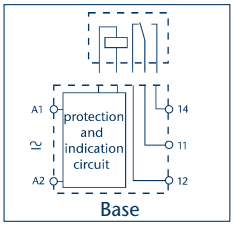
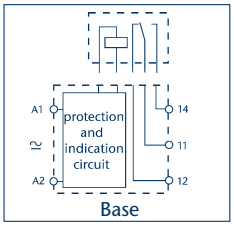
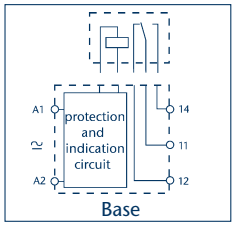


Reliable range of operating voltage
1 Max. permitted coil voltage
2 Response voltage, when coil temperature is equal to ambient temperature

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	**PRCU 2/12V AC/DC**	**PRCU 2/24V AC/DC**	**PRCU 2/240V AC/DC**	
Cat. no./Qty.	**15924.2**/1	**15925.2**/1	**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	**PRS 2/12 V DC**	**PRS 2/24 V DC**	**PRS 2/110 V DC**	
Cat. no./Qty.	**6482.2**/1	**6483.2**/1	**15541.2**/1	
Weight	15 g	15 g	15 g	
General information				
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 data				
Contacts	2 CO	2 CO	2 CO	
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 x 10^6	> 30 x 10^6	> 30 x 10^6	
Type	**PRC 2 6-12-24V AC/DC**	**PRC 2 6-12-24V AC/DC**	**PRC 2 220 – 240V AC/DC**	
Cat. no./Qty.	**15920.2**/10	**15920.2**/10	**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	
Wire connect 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 external 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	
TW/PRC partition	**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

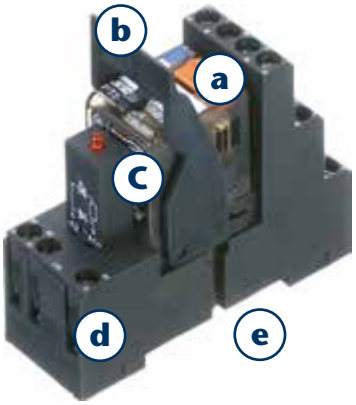
ZPRCU 2/12V AC/DC	ZPRCU 2/24V AC/DC	ZPRCU 2/240V AC/DC			
					
					
ZPRCU 2/12V AC/DC	**ZPRCU 2/24V AC/DC**	**ZPRCU 2/240V AC/DC**			
15927.2/1	**15928.2**/1	**15929.2**/1			
93 x 14 x 82 mm	93 x 14 x 82 mm	93 x 14 x 82 mm			
63 g	63 g	63 g			
PRS 2/12 V DC	**PRS 2/24 V DC**	**PRS 2/110 V DC**			
6482.2/1	**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	2 CO	2 CO			
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			
1.5×10^5	1.5×10^5	1.5×10^5			
4 A @ 230 V AC	4 A @ 230 V AC	4 A @ 230 V AC			
$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$			
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 2.5mm²|	1 x 2.5mm²|	1 x 2.5mm²|			
1 x 14 AWG	1 x 14 AWG	1 x 14 AWG			
1 x 2.5mm²|	1 x 2.5mm²	1 x 2.5mm²|			
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 Ag Ni 90/10 contacts, to fit with the many functions of your individual requirements!

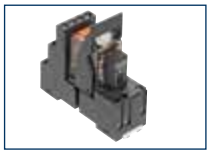


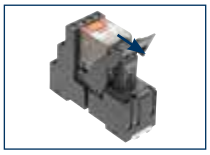
d **External cross-connection AQI/PRS**
The AQI/PRS external cross-connection system enables a time-saving distribution of potentials. With this system, you can save time when coupling multiple relay components.

e **Mounts on standard TS 35 DIN rails**

CONTA-CLIP relay bases can be flexibly mounted on standard TS 35 DIN rails in accordance with EN 50035 and EN 50022.

b **Using the mount/ dismount lever Demontagehebels**
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!





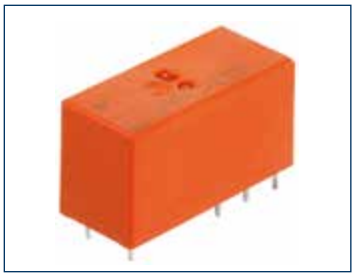
c **Pluggable LED and protective modules**
Pluggable modules allow easy insertion into the base, with reverse-connect protection. The module circuitry is effective in parallel to the coil of the deployed relay.

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.

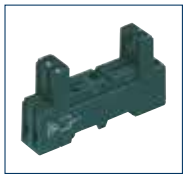
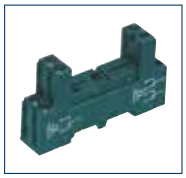
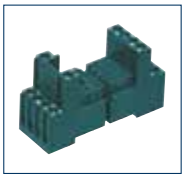
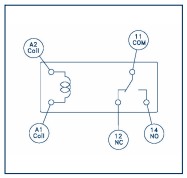
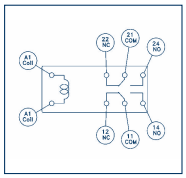
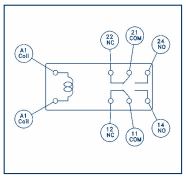
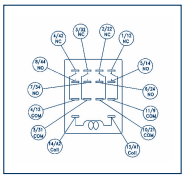
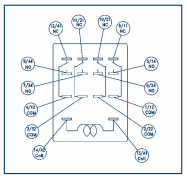


Plug relay system PRS

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

	PRS 1	PRS 2	PRS 2 G	PRS 4	PRS 4 G
					
					

Type Cat. no./Qty.	PRS 1 15135.2/1	PRS 2 15136.2/1	PRS 2 G 15320.2/1	PRS 4 15137.2/1	PRS 4 G 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
Wire connect 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
Connection 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

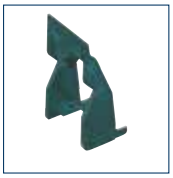
- Plugs simply into the base, reverse-connect protection
- Circuitry parallel to coil

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 clip

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.

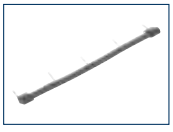
Cat. no./Qty.	Type	Weight	
15138.2/1	PRS C 1/C 2	2 g	15 mm relay height
15140.2/1	PRS C 4	4 g	
15628.2/1	PRS C 4 eco	4 g	
16016.2/1	PRSXT C1/2	4 g	25 mm relay height

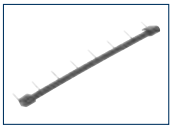


V. Contact bridge

- 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 5 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
Single 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 information				
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
Illuminated display	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 data				
Contacts	1 CO	1 CO	1 CO	1 CO
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 4 s / 30 ms	30 A / 300 A	30 A / 300 A	30 A / 300 A	30 A / 300 A
Max. contact load	4,000 VA	4,000 VA	4,000 VA	4,000 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
Wire connect 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
Connection 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 clip				
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	1 CO				
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				
4,000 VA	4,000 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	56g	56g	56g	56g
Single 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	16g	16g	16g	16g
General information				
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
Illuminated display	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 data				
Contacts	2 CO	2 CO	2 CO	2 CO
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 4 s / 30 ms	15 A / 300 A	15 A / 300 A	15 A / 300 A	15 A / 300 A
Max. contact load	2,000 VA	2,000 VA	2,000 VA	2,000 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
Wire connect 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
Connection 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 clip				
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				
56g	56g				
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				
16g	16g				
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				
24V AC	230V AC				
0.76 VA	0.74 VA				
50 / 60 Hz	50 / 60 Hz				
2 CO	2 CO				
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				
2,000 VA	2,000 VA				
12 V at 10 mA 30 mV at 100 mA / 6 VDC	12 V at 10 mA 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				

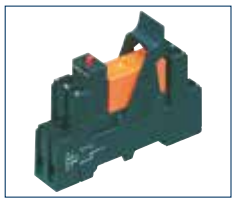
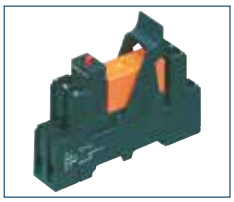
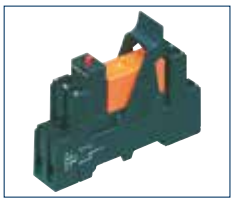
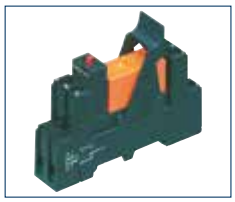
Relay with 1 CO contacts PRS 1

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 **Cat. no.**/Qty.	**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
Single 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 information				
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 data				
Contacts	1 CO	1 CO	1 CO	1 CO
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	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$
Insertion 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
Wire connect 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
Connection 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 clip				
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

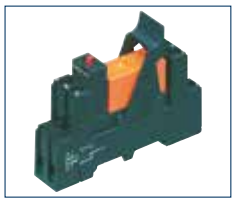
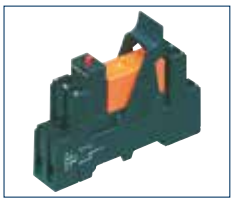
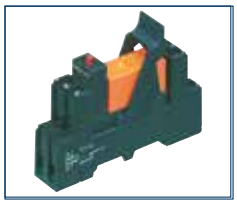
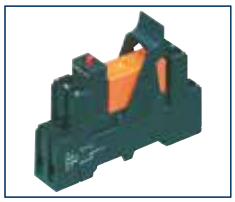
Relay with 1 CO contacts PRS 1

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	1 CO	1 CO	1 CO		
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		

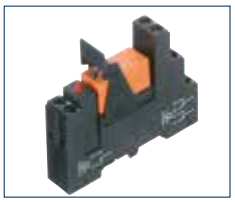
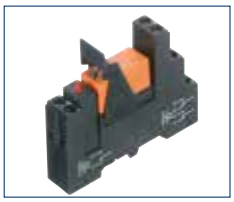
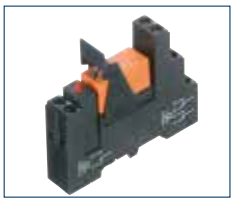
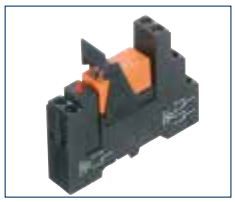
Relay with 2 CO contacts PRS 2

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
Single 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 information				
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 data				
Contacts	2 CO	2 CO	2 CO	2 CO
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	1.5×10^5	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
Insertion 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
Wire connect 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
Connection 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 clip				
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

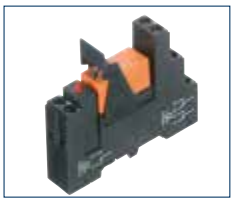
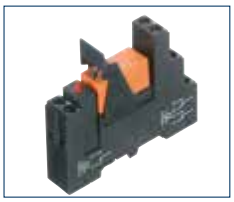
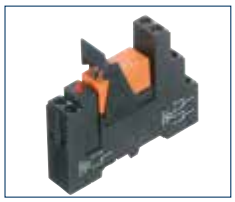
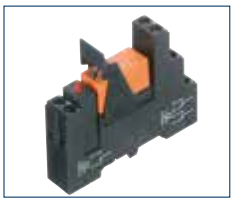
Relay with 2 CO contacts PRS 2

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	2 CO	2 CO	2 CO		
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		

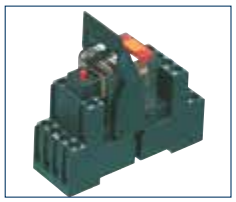
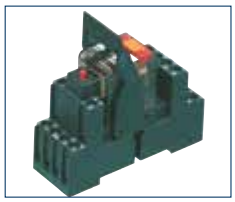
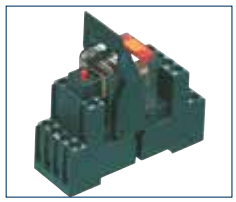
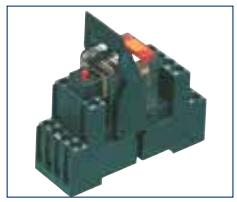
Relay 2 CO contact, PRS 2 G

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
Single 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 information				
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 data				
Contacts	2 CO	2 CO	2 CO	2 CO
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	> 30×10^6	> 30×10^6	> 30×10^6	> 30×10^6
Insertion 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 G** **15320.2**/1	**PRS 2 G** **15320.2**/1	**PRS 2 G** **15320.2**/1	**PRS 2 G** **15320.2**/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
Wire connect 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
Connection 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 clip				
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

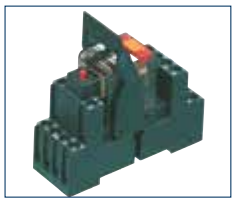
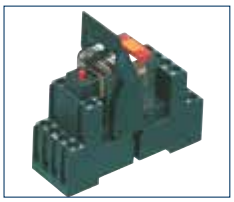
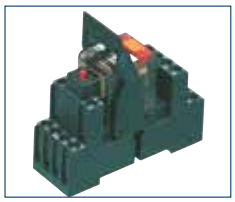
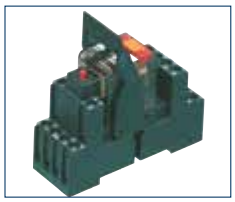
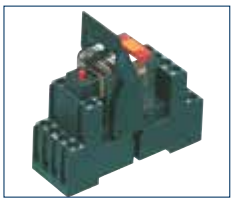
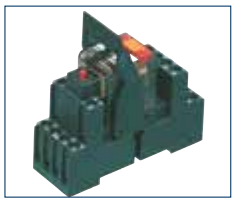
Relay 2 CO contact, PRS 2 G

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	2 CO	2 CO	2 CO		
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		
1.5×10^5	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		
$> 30 \times 10^6$	$> 5 \times 10^6$	$> 5 \times 10^6$	$> 5 \times 10^6$		
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 contacts 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
Single 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 information				
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 data				
Contacts	4 CO	4 CO	4 CO	4 CO
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	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$
Insertion 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
Wire connect 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
Connection 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 clip				
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 contacts 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	4 CO	4 CO	4 CO	4 CO	4 CO
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 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	**PRSU 4 G/12 V DC**	**PRSU 4 G/24 V DC**	**PRSU 4 G/48 V DC**	**PRSU 4 G/60 V DC**
Cat. no./Qty.	**15421.2**/1	**15332.2**/1	**15729.2**/1	**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
Single components				
Relay 4 W, open construction with switch				
Type	**PRS 4/12 V DC**	**PRS 4/24 V DC**	**PRS 4/48 V DC**	**PRS 4/60 V DC**
Cat. no./Qty.	***6486.2***/1	***6487.2***/1	**15461.2**/1	**15336.2**/1
Weight	30 g	30 g	30 g	30 g
General information				
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 data				
Contacts	4 CO	4 CO	4 CO	4 CO
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
Insertion module				
Type	**PRS LED 24 V DC**	**PRS LED 24 V DC**	**PRS LED 110 V DC**	**PRS LED 110 V DC**
Cat. no./Qty.	**15141.2**/1	**15141.2**/1	**15422.2**/1	**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	**PRS 4 G**	**PRS 4 G**	**PRS 4 G**	**PRS 4 G**
Cat. no./Qty.	**15324.2**/1	**15324.2**/1	**15324.2**/1	**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
Wire connect 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
Connection cross-section	2 x 2.5mm^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 clip				
Type	**PRS C 4**	**PRS C 4**	**PRS C 4**	**PRS C 4**
Cat. no./Qty.	**15140.2**/1	**15140.2**/1	**15140.2**/1	**15140.2**/1

Relay 4 CO 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	4 CO	4 CO	4 CO	4 CO	4 CO
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
Single 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 information					
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
Illuminated display		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 data					
Contacts		4 CO	4 CO	4 CO	4 CO
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	1,500 VA	1,500 VA	1,500 VA	1,500 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
Wire connect 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
Connection 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
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 250 V, 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	4 CO	4 CO	4 CO	4 CO	
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	
1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 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

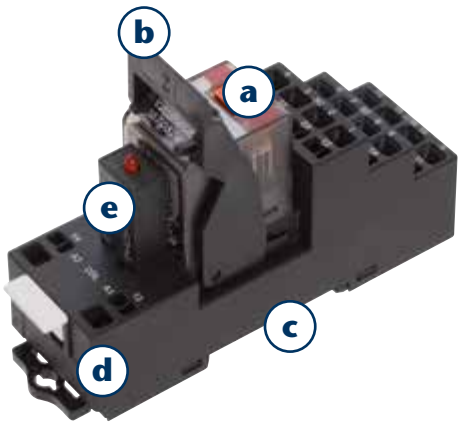
Tension-spring connection

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

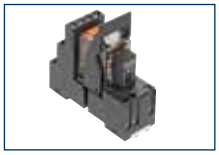
a **Pluggable relay**
Pluggable relays are also available with AgSNO and gold contacts, to fit with the many functions of your individual requirements!

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 **External cross-connection AQI/PRS**
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.

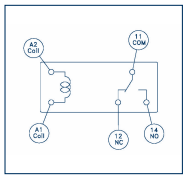
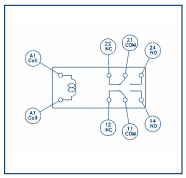
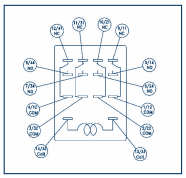
Technical data for the available relays can be found on the following product pages.

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		
Wire connect 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		
Connection cross-section	2 x 0.2 - 1.5 mm²	2 x 0.2 - 1.5 mm²	2 x 0.2 - 1.5 mm²		
With ferrules	2 x 0.2 - 0.75 mm²	2 x 0.2 - 0.75 mm²	2 x 0.2 - 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 clip

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	15 mm relay height
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	25 mm relay height

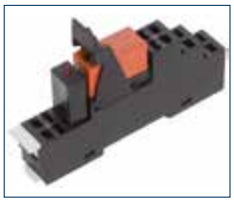
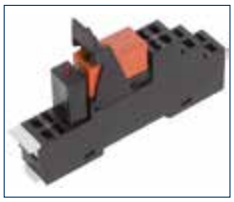
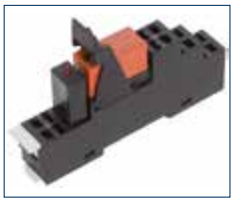
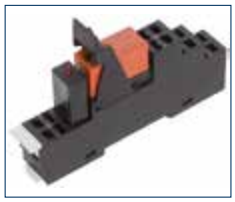
Relay 1-CO PRS 1 XT

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	60g	60g	60g	
Single 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 information				
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	
Illuminated display	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 data				
Contacts	1 CO	1 CO	1 CO	
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 4 s / 30 ms	30 A / 300 A	30 A / 300 A	30 A / 300 A	
Max. contact load	4,000 VA	4,000 VA	4,000 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	50×10^3	50×10^3	50×10^3	
Mechanical lifespan	10×10^6	5×10^6	5×10^6	
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	
Wire connect 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	
Connection 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 clip				
Type **Cat. no.**/Qty.	**PRSXT C1/2** **16016.2**/20	**PRSXT C1/2** **16016.2**/20	**PRSXT C1/2** **16016.2**/20	

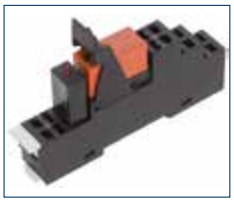
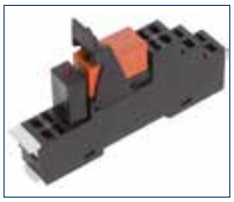
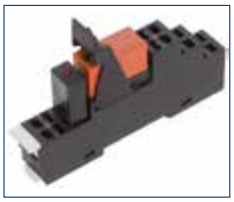
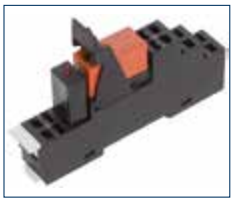
Relay 2-CO PRS 2 XT

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	
Single 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 information				
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	
Illuminated display	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 data				
Contacts	2 CO	2 CO	2 CO	
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 4 s / 30 ms	15 A / 300 A	15 A / 300 A	15 A / 300 A	
Max. contact load	2,000 VA	2,000 VA	2,000 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	
Connection 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 clip				
Type **Cat. no.**/Qty.	**PRSXT C1/2** **16016.2**/20	**PRSXT C1/2** **16016.2**/20	**PRSXT C1/2** **16016.2**/20	

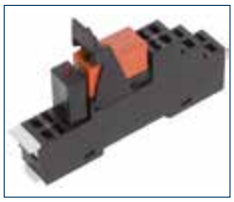
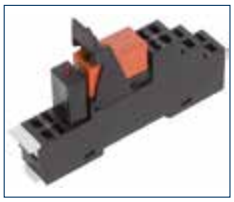
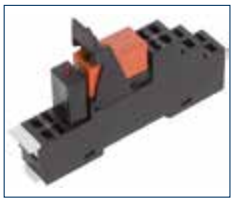
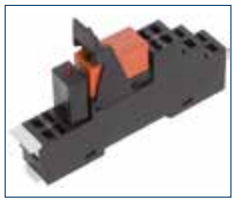
Relay 1 CO contacts, PRS 1 Z

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
Single 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 information				
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 data				
Contacts	1 CO	1 CO	1 CO	1 CO
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	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$
Insertion 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
Wire connect 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
Connection 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	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	2 x 0.2 – 0.75 mm^2
Stripping length	7 mm	7 mm	7 mm	7 mm
Approvals	UL/CSA	UL/CSA	UL/CSA	UL/CSA
Holding clip				
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

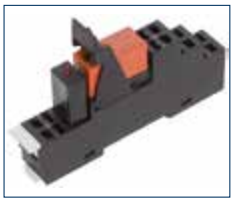
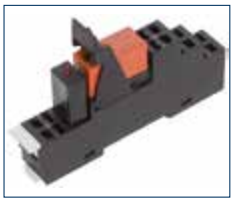
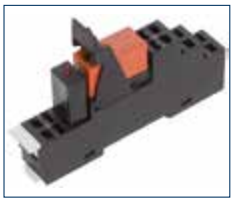
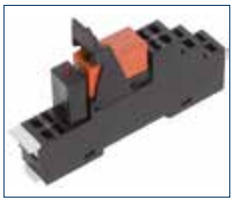
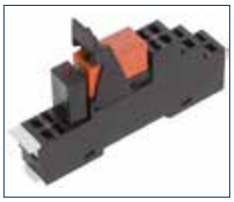
Relay 1 CO contacts, PRS 1 Z

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		
Single 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	1 CO	1 CO	1 CO		
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		
Insertion 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 – 1.5 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 0.2 – 0.75 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		
7 mm	7 mm	7 mm	7 mm		
UL/CSA	UL/CSA	UL/CSA	UL/CSA		
Holding clip					
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		

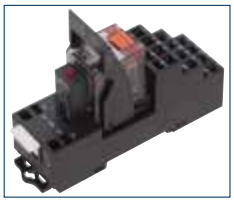
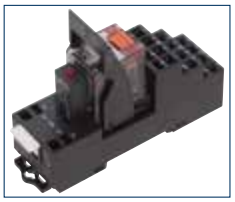
Relay 2 CO contacts, PRS 2 Z

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
Single 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 information				
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 data				
Contacts	2 CO	2 CO	2 CO	2 CO
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	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$
Insertion 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
Wire connect 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
Connection 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	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	2 x 0.2 – 0.75 mm^2
Stripping length	7 mm	7 mm	7 mm	7 mm
Approvals	UL/CSA	UL/CSA	UL/CSA	UL/CSA
Holding clip				
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	
Single 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	2 CO	2 CO	2 CO	2 CO	
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	
$> 30 \times 10^6$	$> 5 \times 10^6$	$> 5 \times 10^6$	$> 5 \times 10^6$	$> 5 \times 10^6$	
Insertion 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 – 1.5 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 0.2 – 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	2 x 0.2 – 0.75 mm^2	2 x 0.2 – 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 clip					
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	

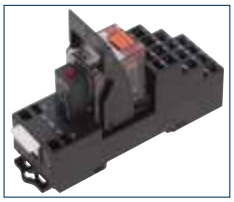
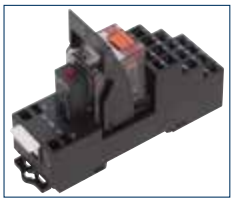
Relay 4 CO contacts, PRS 4 Z

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
Single 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 information				
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 data				
Contacts	4 CO	4 CO	4 CO	4 CO
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	1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5
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	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$

Insertion 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
Wire connect 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
Connection 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	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 x 0.2 – 0.75 mm^2	2 x 0.2 – 0.75 mm^2
Stripping length	7 mm	7 mm	7 mm	7 mm
Approvals	UL/CSA	UL/CSA	UL/CSA	UL/CSA
Holding clip				
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
Single 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	4 CO	4 CO	4 CO	4 CO	4 CO
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
1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5
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
$> 30 \times 10^6$	$> 30 \times 10^6$	$> 20 \times 10^6$	$> 20 \times 10^6$	$> 20 \times 10^6$	$> 20 \times 10^6$
Insertion 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 – 1.5 mm²	2 x 0.2 – 1.5 mm²	2 x 0.2 – 1.5 mm²	2 x 0.2 – 1.5 mm²	2 x 0.2 – 1.5 mm²	2 x 0.2 – 1.5 mm²
2 x 0.2 – 0.75 mm²	2 x 0.2 – 0.75 mm²	2 x 0.2 – 0.75 mm²	2 x 0.2 – 0.75 mm²	2 x 0.2 – 0.75 mm²	2 x 0.2 – 0.75 mm²
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 clip					
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

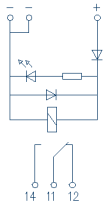
Relay modules with 1 CO RM 1

- 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

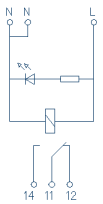
RMD 1/1 W
Soldered relay
1 CO

Circuit diagram



1

Circuit diagram



2

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		
Design	Closed		

General information				
DIN VDE specifications	DIN EN 50178; DIN VDE 0110, Contamination degree 2, Overvoltage category III			
Test voltage coil/contact	4 kV			
Pinning	5mm			
Operating temperature	-20 to +50°C			
Stripping length	7mm			
Connection cross-section	0.2 – 2.5 mm²/AWG 22 – 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 data				
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

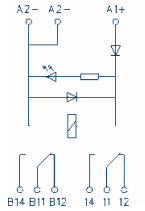
*2 CO relays 6 A/10 A, 1 CO relay 8 A/10A

Relay modules 2 CO RM 1/2

RM 1/2 W
Pluggable relay
2 CO

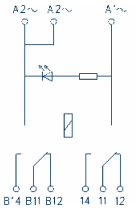
RMD 1/2 W
Soldered relay
2 CO

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
Design	Closed

DIN EN 50178; DIN VDE 0110, Contamination degree 2, Overvoltage category III
4 kV
5mm
-20 to +50°C
7mm
0.2 – 2.5 mm²/AWG 22 – 14

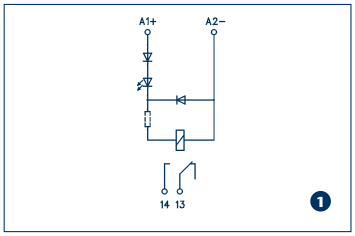
115 V AC	230 VAC	24 V DC (RMD 1 Au)
1.0 VA	1.0 VA	0.4 W
Red	Red	Red
1/2 CO contact	1/2 CO contact	1/2 CO contact
250 V AC	250 V AC	250 V AC
6 A/10 A*	6 A/10 A*	1 A / 1 A
2000 VA at 250 VAC, 8 A	2000 VA at 250 VAC, 8 A	125 VA/30 W
15ms/8ms	15 ms/10 ms	6 ms/5 ms
AgNi	AgNi	AgPd 60/10+10µm Au
> 5 x 10^5	> 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 information	
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
Connection cross-section	0.2 – 2.5 mm²/AWG 22 – 14
Wire cross-section for coil RMS-S	0.2 – 1.5 mm² /AWG 2816
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

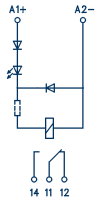
Relay data				
Input data				
Input voltage ±10%	12 V DC	24 V DC	48 V DC	60 V DC
Power consumption ±10%	0.6 W	0.6 W	0.6 W	0.6 W
Output data				
Contacts				
Max. switching voltage	250 V AC	250 V AC	250 V AC	250 V AC
Max. continuous current/inrush current	6 A / 8 A	6 A / 8 A	6 A / 8 A	6 A / 8 A
Max. switching 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

RMS-S
Soldered relay
1 CO

Circuit diagram



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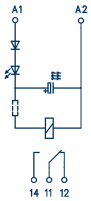
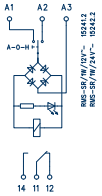


4

Circuit diagram



5

Cat. no./Qty.	Type	Circuit diagram
Dimensions	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}

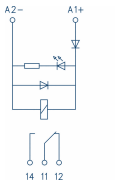
Cat. no./Qty.	Type	Circuit diagram
Dimensions	77 x 11.2 x 59 mm	
Weight	30 g	
red LED		
15241.2	RMS-SR/1 W/12 V AC/DC	5
15242.2	RMS-SR/1 W/24 V AC/DC	5

Relay modules 1 CO RM L

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

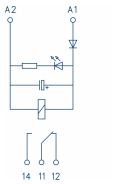
RML/1 W
Soldered relay
1 CO

Circuit diagram



1

Circuit diagram



2

Cat. no./Qty.	**Type**	**Circuit diagram**
Soldered relay		
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
Design	Closed
General information	
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
Connection cross-section	0.2 – 2.5 m^2/AWG 22 – 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 data				
Contacts	1 CO	1 CO	1 CO	1 CO
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

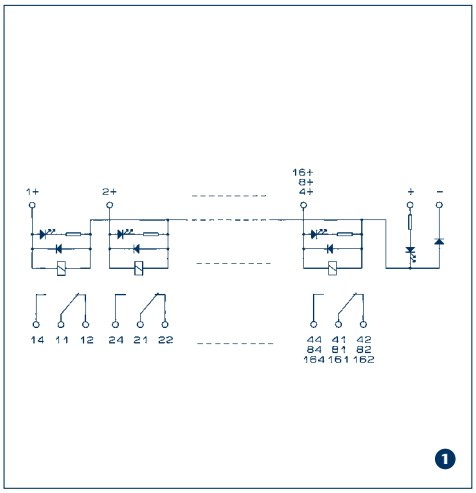
RIMD/1 W
Soldered relay
1 CO

Relay	**Pluggable**	**soldered**
Contacts	**1 CO**	**1 CO**
Design	**Closed**	**Closed**
General information		
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
Connection cross-section	0.2 – 2.5 mm^2/AWG 22 – 14	0.2 – 2.5 mm^2/AWG 22 – 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 data							
Contacts	1 CO	1 CO	1 CO	1 CO	1 CO	1 CO	1 CO
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



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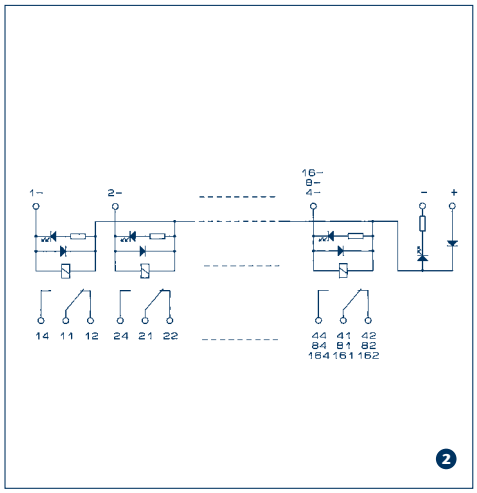
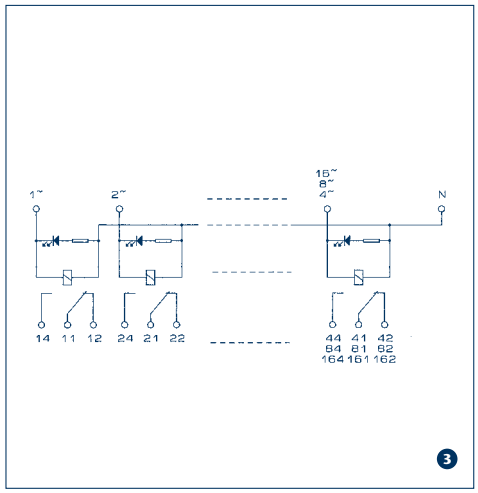


2



3

Modules	Cat. no./Qty. Relay Pluggable	Type	Cat. no./Qty. Relay soldered	Type	Circuit diagram	Dimensions (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

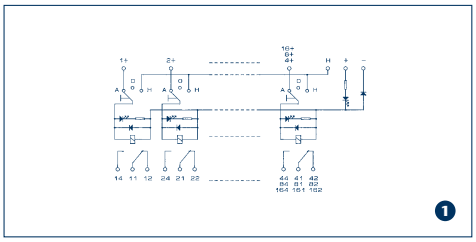
RIMD S/1 W
Soldered relay
1 CO

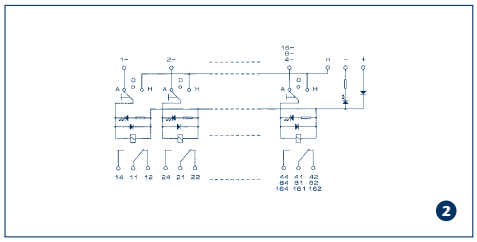
Relay	**Pluggable**	**soldered**
Contacts	**1 CO**	**1 CO**
Design	**Closed**	**Closed**
General information		
DIN VDE specifications	DIN EN 50178, DIN VDE 0110, Contamination degree2, Overvoltage category III	DIN EN 50178, DIN VDE 0110, Contamination degree2, Overvoltage category III
Test voltage coil/contact	4 kV	4 kV
Pinning		
Operating temperature	-20 to +50 °C	-20 to +50 °C
Important notes		
Stripping length	7mm	7mm
Connection cross-section	0.2 – 2.5mm²/AWG 22 – 14	0.2 – 2.5mm²/AWG 22 – 14

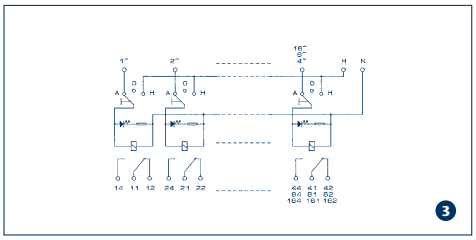
Relay data				
Input data				
Input voltage ±10%	24 V DC	24 V AC	230 V AC	
Power consumption ±10%	0.6 W	1.0 VA	1.0 VA	
Operating voltage indicator LED	Green	-	-	
Status indication per relay (LED)	Red	Red	Red	
Output data				
Contacts	1 CO	1 CO	1 CO	
Max. switching voltage	250 V AC	250 V AC	250 V AC	
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	

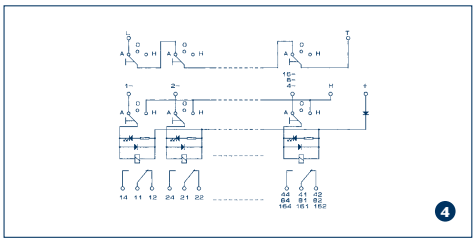
Relay modules 1 CO contact RIM S

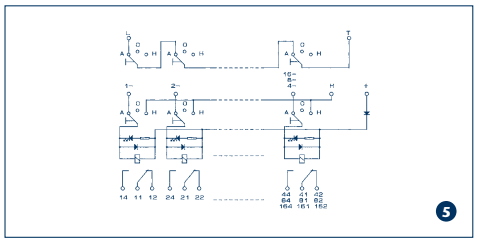
Circuit diagram

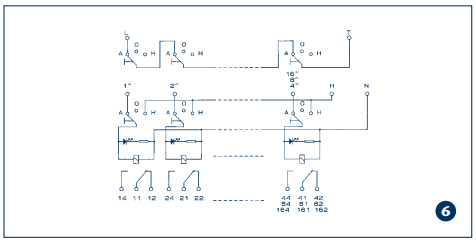












Modules	Cat. no./Qty. Relay Pluggable	Type	Cat. no./Qty. Relay soldered	Type	Circuit diagram	Dimensions (L x W x H) with TS 35 x 7.5	Weight
Modules with 2 relays each with 1 CO contact							
	5900.3/1	RIM 2 S/1 W/24 V +	**5902.3**/1	RIMD 2 S/1 W/24 V +	1	87 x 44 x 74	115 g / 105 g
	5901.3/1	RIM 2 S/1 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

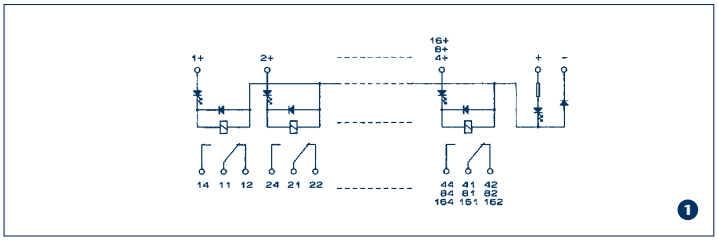
RIMS 16 A/1 W
MANUAL/OFF/AUTOMATIC
1 CO

Relay	**Pluggable**	**soldered**
Contacts	**1 CO**	**1 CO**
Design	**Closed**	**Closed**
General information		
DIN VDE specifications	DIN EN 50178, DIN VDE 0110, Contamination degree2, Overvoltage category III	DIN EN 50178, DIN VDE 0110, Contamination degree2, 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
Connection cross-section	0.2 – 2.5mm²/AWG 22 – 14	0.2 – 2.5mm²/AWG 22 – 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 data		
Contacts	1 CO	1 CO
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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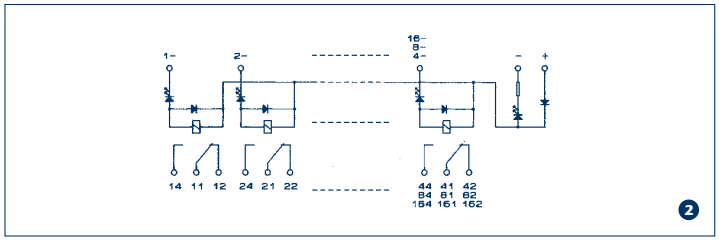

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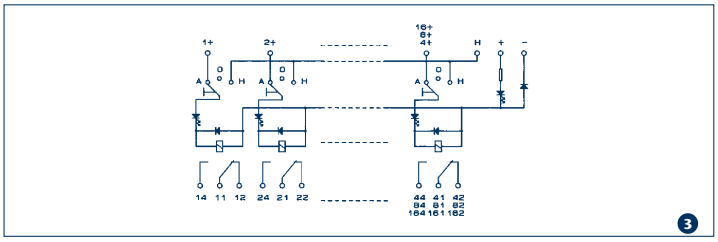

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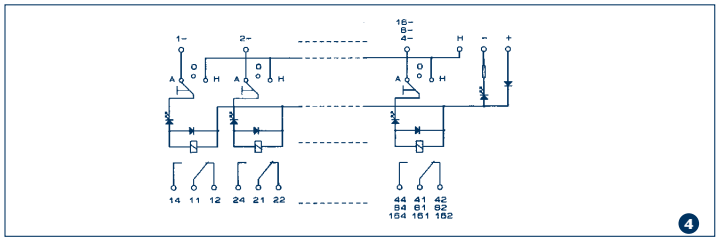


4

Modules	Cat. no./Qty. Relay Pluggable	Type	Cat. no./Qty. Relay soldered	Type	Circuit diagram	Dimensions (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:
  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

RIM/2 W
Pluggable relay
2 CO

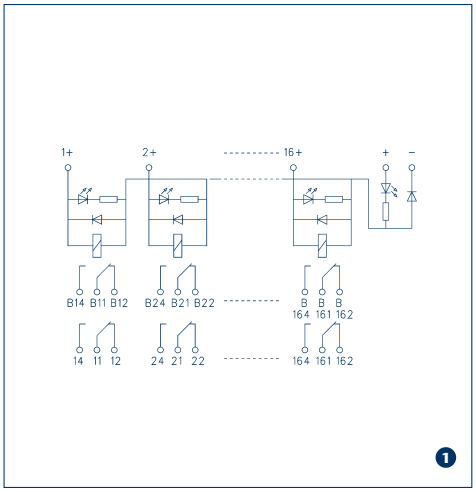
RIMD/2 W
Soldered relay
2 CO

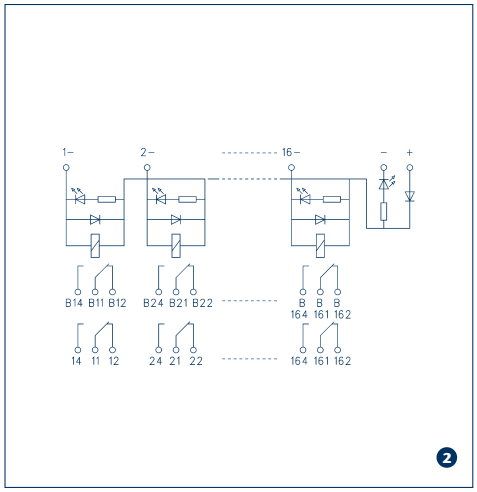
Relay	**Pluggable**	**soldered**
Contacts	**2 CO**	**2 CO**
Design	**Closed**	**Closed**
General information		
DIN VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Test voltage coil/contact	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
Connection cross-section	0.2 – 2.5mm²/AWG 22 – 14	0.2 – 2.5mm²/AWG 22 – 14

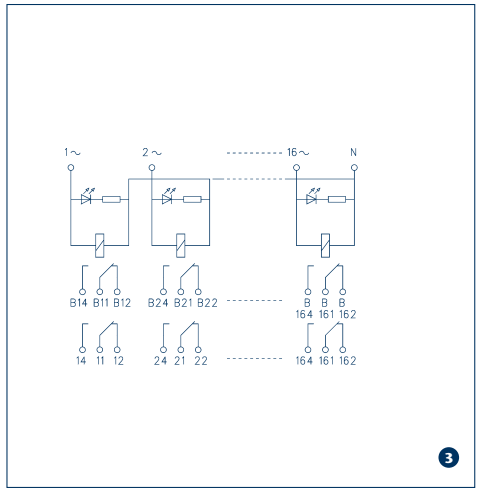
Relay data						
Input data						
Input voltage ±10%	24 V DC	48 V DC	115 V DC	24 V AC	115 V AC	230 V AC
Power consumption ±10%	0.5 W	0.5 W	0.5 W	1.0 VA	1.0 VA	1.0 VA
Operating voltage indicator LED	Green	Green	Green	-	-	-
Status indication per relay (LED)	Red	Red	Red	Red	Red	Red
Contacts	2 CO	2 CO	2 CO	2 CO	2 CO	2 CO
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



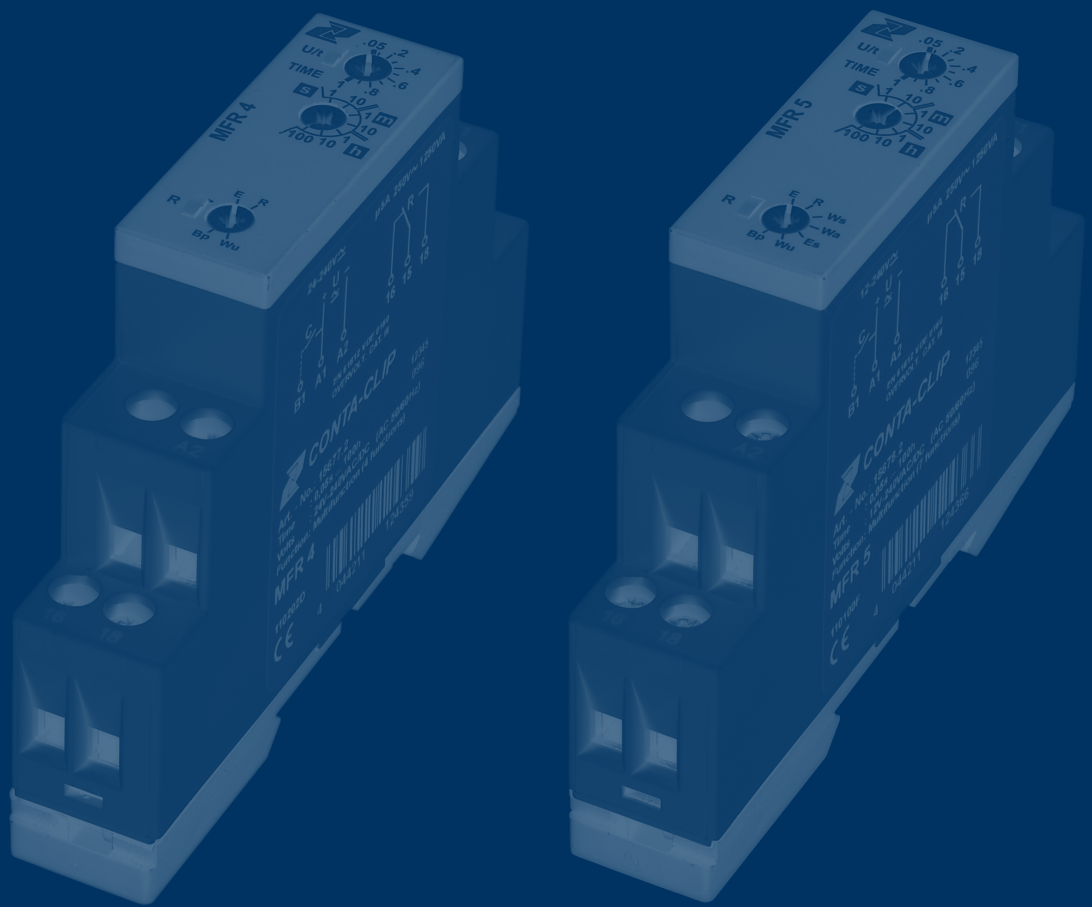




Modules	Cat. no./Qty. Relay Pluggable	Type	Cat. no./Qty. Relay soldered	Type	Circuit diagram	Dimensions (L x W x H) with TS 35 x 7.5	Weight
Modules with 2 relays each with 2 CO contact							
	5566.2/1	RIM 2/2 W/24 V +	**5567.2**/1	RIMD 2/2 W/24 V +	1	87 x 44 x 72	120 g / 110 g
	5568.2/1	RIM 2/2 W/24 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 relay

Automation engineering applications often involve 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 relay

Multi-function timing relay MFR 4 | MFR 5 | MFR 7

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 the operation – either beginning with pulse or beginning with delay.

Undervoltage monitoring relays USR 1 | USR 2

These functional units are used for the undervoltage monitoring of alternating voltages 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 relay

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.

GSM-PRO2

GSM-PRO2(E) – the perfect communicator

CONTA-CLIP's **GSM-PRO2(E)** module provides a 2G/3G remote control and maintenance solution which allows you to monitor and control decentralized facilities. The **GSM-PRO2(E)** module informs you when the process reaches a user-defined status or limit value. Digital and analogue inputs values can 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. The process can be monitored and controlled remotely. Monitoring and controlling the **GSM-PRO2(E)** modules is even easier when you use our iPhone or Android apps. The inputs and outputs of the modules and their desired functions can be configured using an easy-to-understand application.

Multi-function timing relay MFR

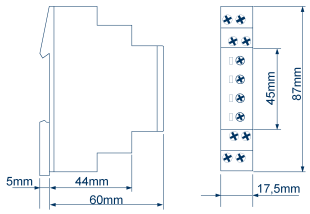
MFR 4 | MFR 5

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 ❶



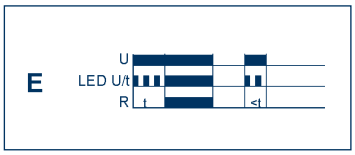
Environmental conditions	
Ambient temperature	-25 to +55 °C (acc. to IEC 68-1) -25 to +40 °C (UL 508)
Storage temperature	-25 to +70 °C
Transportation temperature	-25 to +70 °C
Relative humidity	15 % to 85 % (acc. to IEC 721-3-3 Class 3K3)
Contamination degree	3 (acc. to IEC 664-1)
Vibration resistance	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)

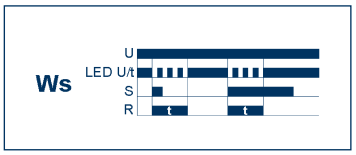
Description of function
- The voltage supply must be disconnected before the time function is selected.
- Please refer to data sheet or information printed on the module for a complete list of the various module functions.

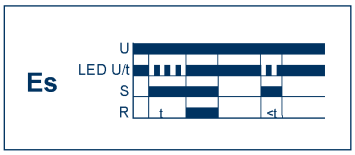
ON delay (E)
The set time t begins to run with the application of the supply voltage U. The green LED U/t flashes. After the time t has passed (the green LED U/t is lit), the output relay R goes on (yellow LED lit). This status is maintained until the supply voltage is interrupted. If the supply voltage 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.





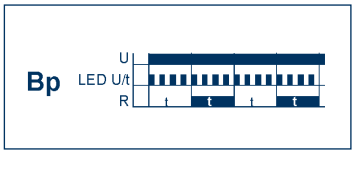


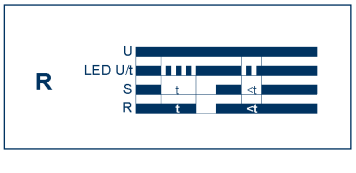
Flasher begin with delay (Bp)
The set time t begins to run with the application of the supply voltage U. The green LED U/t flashes. After the time t has passed, output relay R goes on (the yellow LED lights up), and the set time t begins again. After the time t has passed, the output relay deactivates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

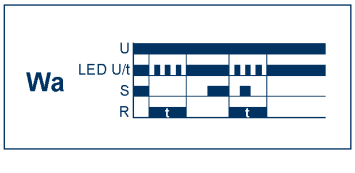
OFF-delay with control contact (R)
The supply voltage U must constantly be applied to device (green LED U/t is lit). The output relay R activates (yellow LED lit) when the control contact S closes. The set time t begins to run when the control contact S is opened. The green LED U/t flashes. The output 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.

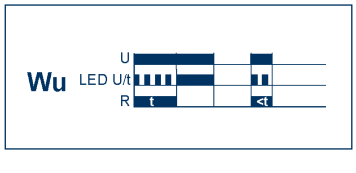
Impulse-OFF with control contact
The supply voltage U must constantly be applied to device (green LED U/t is lit). The closure of control contact S has no influence on the positioning of the output relay R. When the control contact opens, the output relay activates (yellow LED is lit) and the set time 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.



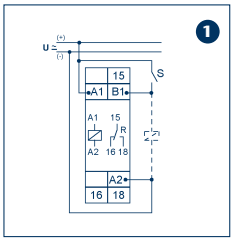




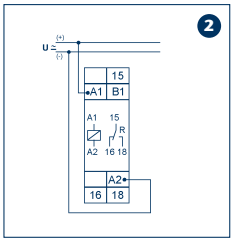


	MFR 4	MFR 5	
			
Type **Cat. no./Qty.**	**MFR 4** **15677.2/1**	**MFR 5** **15678.2/1**	
Dimensions	1	1	
Wiring diagram	1, 2	1, 2	
Dimensions (L x W x H) TS 35 x 7.5	87 x 17.5 x 67.5 mm	87 x 17.5 x 67.5 mm	
Weight (individual packaging:module and packaging)	65 g	65 g	
Short description	**Timing relay**	**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 106 switching cycles	20 x 106 switching cycles	
Electrical lifespan	2 x 105 switching cycles at 1000 VA*	2 x 105 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	
Load capacity	yes	yes	
Response threshold	Automatically adjusted to supply voltage	Automatically adjusted to supply voltage	
Max. line length	10 m	10 m	
Minimum 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

Multi-function timing relay MFR

MFR 7

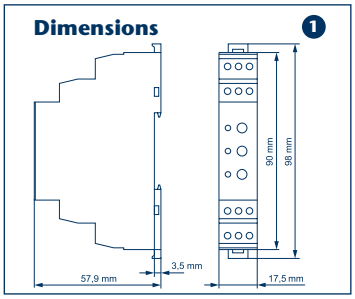
Specifications

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 ferrule
· 1 x 4 mm² without wire-end ferrule
· Torque max. 0.5 Nm



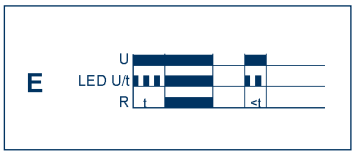
Environmental conditions	
Ambient temperature	-20 to +50 °C
Storage temperature	-40 to +70 °C
Relative humidity	25 % to 75 %
Contamination degree	2

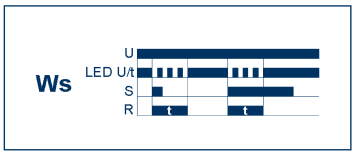
ON delay (E)
The set time t begins to run with the application of the supply voltage U. The green LED U/t flashes. After the time t has passed
(the green LED U/t is lit), the output relay R goes on (yellow LED lit). This status is maintained until the supply voltage is interrupted.
If the supply voltage 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.

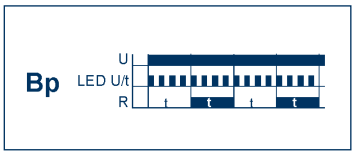
Impulse-ON with control contact (Ws)
The supply voltage U must constantly be applied to device (green LED U/t is lit). The output relay R activates (yellow LED lit)
when the control contact S closes, and the set time t begins (green LED U/t flashes). After the time t has passed
(green LED U/t is lit), 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.

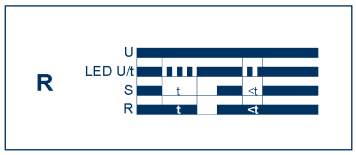
Flasher begin with delay (Bp)
The set time t begins to run with the application of the supply voltage U. The green LED U/t flashes. After the time t has passed,
the output relay R goes on (the yellow LED lights up), and the set time t begins again. After the time t has passed, the output relay
deactivates (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.





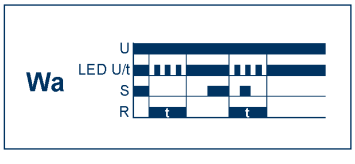


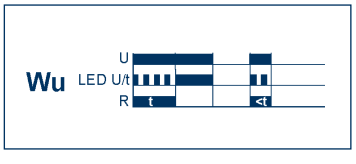


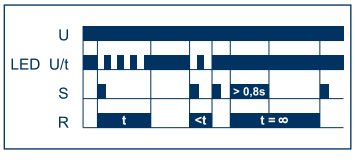
Impulse-OFF with control contact
The supply voltage U must constantly be applied to device (green LED U/t is lit). The closure of control contact S has no influence on the positioning of the output relay R. When the control contact opens, the output relay activates (yellow LED is lit) and the
set time 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.

F-flip-flop (toggle)
Depending on the control pulse duration, the current impulse function may be executed with (< 0.8 s) or without (> 0.8 s) the off-delay. The supply voltage U must constantly be applied to device (green LED U/t is lit). When the control contact S closes, the output relay R switches to ON (yellow LED R lights up). If the off-delay is activated, the set time t starts to elapse (green LED U/t flashes). The output relay deactivates (yellow LED not lit) after the expiration of the set time t (green LED U/t is lit). If the control contact S is activated again before the time t has elapsed, the running time t is aborted and the output relay R drops out (yellow LED is not illuminated). Without an active off-delay (start with a long button press), the output relay R does not drop out until the control contact S is re-activated.

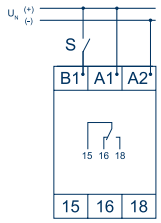




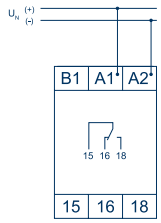


	MFR 7	
		
Type	**MFR 7**	**Qty.**
Cat. no.	**16373.2**	**10**
Dimensions (L x W x H) TS 35 x 7.5	90 x 17.5 x 57.9mm	
Weight	44 g	
Functions		
	E, R, Ws, Wa, Bp, F, Wu (Wu = Ws with bridge A1-B1)	
Time ranges / Setting ranges		
	50 ms to 10 h	
Displays		
	Green LED U/t ON	Supply voltage applied
	Green LED U/t flashing	Indicates time has expired
	Yellow LED R ON/OFF	Position of output relay
Input circuit	**DC**	**AC**
Supply voltage (terminals A1 and A2)	24 to 48 V DC, terminals A1(+) - A2(-)	24 to 240 V AC, terminals A1 - A2
Tolerance	-15 % / + 10 %	-15 % / + 10 %
Rated frequency	-	48 to 63 Hz
Rated consumption	0.4 W	1 W (8 VA)
Power-on duration	100 %	100 %
Stored energy time	< 20 ms	< 60 ms (230 V AC) /< 30 ms (24 V AC)
Recovery time	> 100 ms	> 100 ms
Release voltage	> 30 % of min. Supply voltage	> 30 % of min. Supply voltage
Control contact		
Input	Terminals A1 - B1	
Load capacity	yes	
Minimum control pulse duration	DC min. 50 ms / AC min. 100 ms	
Output circuit		
Contacts	1 CO contact	
Rated voltage	250 V	
Switching capacity	5 A / 250 V	
Contact material	AgNi	
Fuse	5A fast acting	
Mechanical lifespan	1 x 10^6 switching cycles	
Electrical lifespan	1 x 10^5 switching cycles	
Switching frequency with / without load	6/min – 1200/min	
Accuracy		
Basic accuracy	< 1.5 % (from scale reading)	
Setting tolerance	< 5 % (from scale reading)	
Repeat accuracy	< 0.5 % or ± 5 ms	
Temperature influence	< 0.05 % / °C	
General information		
Contamination degree / Overvoltage category (IEC61812-1)	2 / II	
Rated insulation voltage (IEC 61812-1)	300 V (input circuit / output circuit)	
Test surge voltage (IEC 61812-1)	2500 V (input circuit / output circuit)	
Insulation test voltage (IEC 61812-1)	1600 V (input circuit / output circuit)	
Operating temperature / Storage temperature	-20 to +50 °C / -40 to +70 °C	
Relative humidity	25 to 75 %	
Protection class of housing / terminals	IP40 / IP20	
Wire connection type / Connection cross-section	Screw connection / 0.25 to 2.5 mm²	
Stripping length / Tightening torque	7 mm / max. 0.5 Nm	

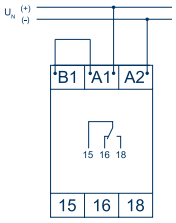
With control contact



Without control contact



Function Wu (WS)



Clock-pulse generator dual-time relays MFR

MFR 6

Specifications

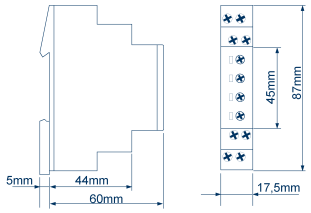
Mechanical design

- 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

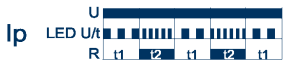


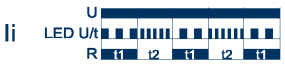
Environmental conditions	
Ambient temperature	-25 to +55 °C (acc. to IEC 68-1) -25 to +40 °C (UL 508)
Storage temperature	-25 to +70 °C
Transportation temperature	-25 to +70 °C
Relative humidity	15 % to 85 % (acc. to IEC 721-3-3 Class 3K3)
Contamination degree	3 (acc. to IEC 664-1)
Vibration resistance	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)

Description of function

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.

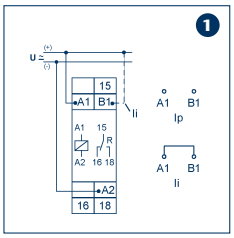
Pulsed begin with pulse (Ii)
The output relay R is activated (yellow LED lit) when the supply voltage U is applied. The set time t1 then begins to run
(green LED U/t flashes slowly). After the time t1 has expired, the output relay is deactivated (yellow LED not lit), and the set time t2 begins to run (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 (individual packaging:module 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 106 switching cycles		
Electrical lifespan	2 x 105 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		
Load capacity	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		

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

*See abbreviations legend

Undervoltage monitoring relays USR

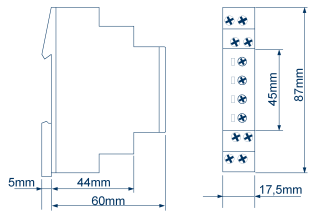
USR 1 | USR 2

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

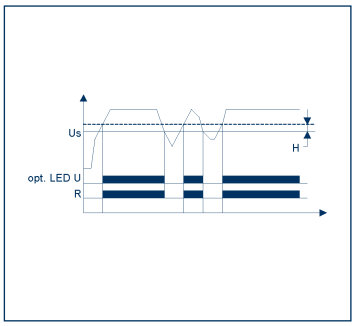
Dimensions 1



Environmental conditions	
Ambient temperature	-25 to +55 °C (acc. to IEC 68-1) -25 to +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	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)

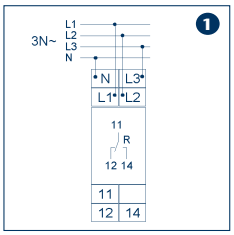
Description of function
Undervoltage monitoring for three-phase AC mains with a fixed (UFR 1) or variable (UFR 2) switching threshold, and a fixed hysteresis. All measuring inputs (L1, L2, and L3) must each be connected to a phase voltage. If three-phase measurements are not desired, then multiple measurement 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).

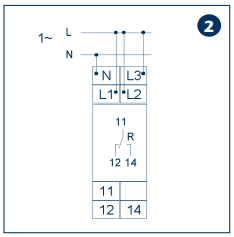


	USR 1	USR 2	
			
Type	**USR 1**	**USR 2**	
Cat. no./Qty.	**15682.2/1**	**15683.2//1**	
Dimensions	1	1	
Wiring diagrams	1, 2	1, 2	
Dimensions (L x W x H) TS 35 x 7.5	87 x 17.5 x 67.5 mm	87 x 17.5 x 67.5 mm	
Weight (individual packaging:module and packaging)	72 g	72 g	
Short description	**Undervoltage 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 106 switching cycles	20 x 106 switching cycles	
Electrical lifespan	2 x 105 switching cycles at 1000 VA*	2 x 105 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	
Measurement circuit			
Measured value	AC sinus, 48 – 68 Hz	AC sinus, 48 – 68 Hz	
Measurement input	= supply voltage	= supply voltage	
Terminals	N-L1-L2-L3	N-L1-L2-L3	
Overload capability	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

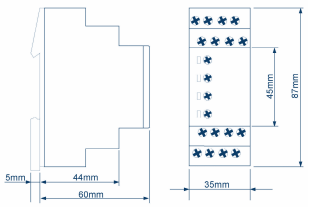
SDSR 2

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

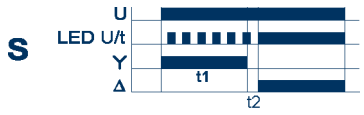
Screw connection
- 1 x 0.5 to 2.5 mm² with/without wire-end ferrules
- 1 x 4 mm² without wire-end ferrules
- 2 x 0.5 to 1.5 mm² with/without wire-end ferrules
- 2 x 2.5 mm² flexible without wire-end ferrules
- Torque max. 1 Nm

Dimensions 1



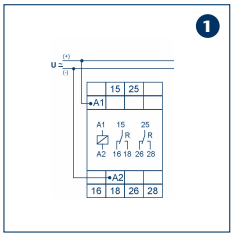
Environmental conditions	
Ambient temperature	-25 to +55 °C (acc. to IEC 68-1) -25 to +40 °C (UL 508)
Storage temperature	-25 to +70 °C
Transportation temperature	-25 to +70 °C
Relative humidity	15 % to 85 % (acc. to IEC 721-3-3 Class 3K3)
Contamination degree	2, in installed condition 3 (acc. to IEC 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)

Description of function
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: module 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 ranges	**Time end range / Setting range**		
Star time	10 s/500 ms to 10 s 30 s/1500 ms to 30 s 1 min/3 s 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 106 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.

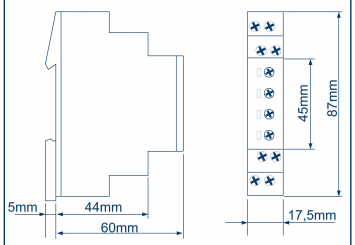
Application areas:

- 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

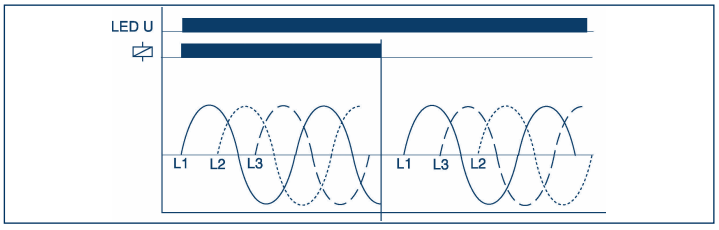
- 1 x 0.5 to 2.5 mm² with/without wire-end ferrules
- 1 x 4 mm² without wire-end ferrules
- 2 x 0.5 to 1.5 mm² with/without wire-end ferrules
- 2 x 2.5 mm² flexible without wire-end ferrules
- Torque max. 1 Nm

Dimensions 1

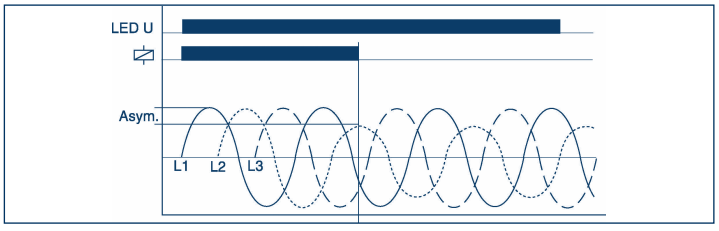


Environmental conditions	
Ambient temperature	-25 to +55 °C (acc. to IEC 68-1) -25 to +40 °C (UL 508)
Storage temperature	-25 to +70 °C
Transportation temperature	-25 to +70 °C
Relative humidity	15 % to 85 % (acc. to IEC 721-3-3 Class 3K3)
Contamination degree	3 (acc. to IEC 664-1)
Vibration resistance	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)

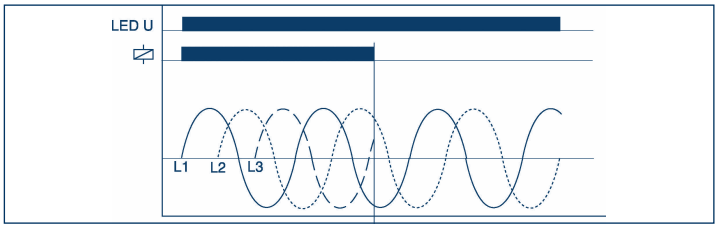
Description of function



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.

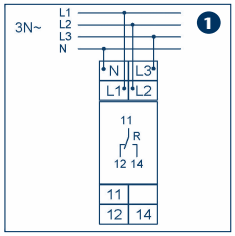


Monitoring for loss of phase
In the event of a phase loss, the output relay R deactivates (yellow LED is not illuminated).

- Mounts on TS 35
- Self-extinguishing plastic housing, IP 40 protection
- Any mounting position is possible
- Screw terminals protected against accidental touch acc. 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: module 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 ranges	
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 s 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 106 switching cycles
Electrical lifespan	2 x 105 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
Measurement circuit	
Measured value	3(N)~, sine, 48 to 63 Hz
Measurement input	(= supply voltage)
Terminals	(N)-L1-L2-L3
Overload capability	Def. by tolerance of the supply voltage
Input resistance	-
Asymmetry	5% – 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

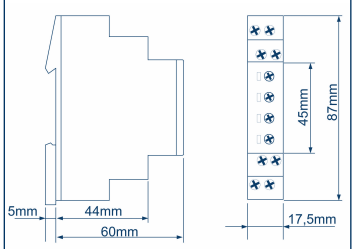
VMR 3

The new **VMR 3** voltage-monitoring relay ensures 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.

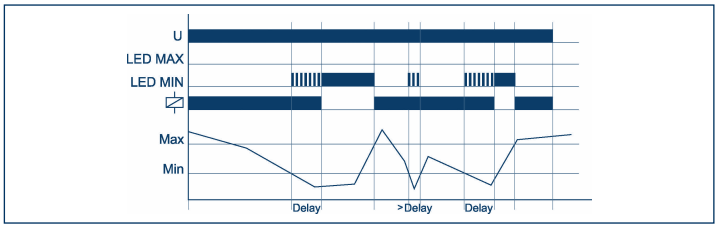
Screw connection
- 1 x 0.5 to 2.5 mm² with/without wire-end ferrules
- 1 x 4 mm² without wire-end ferrules
- 2 x 0.5 to 1.5 mm² with/without wire-end ferrules
- 2 x 2.5 mm² flexible without wire-end ferrules
- Torque max. 1 Nm

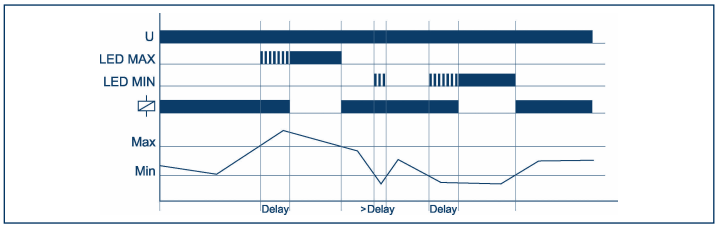
Dimensions 1



Description of function
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).

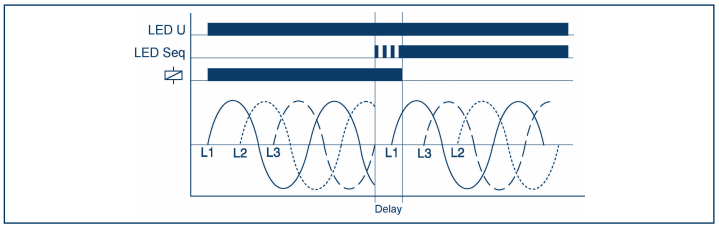
Environmental conditions	
Ambient temperature	-25 to +55 °C (acc. to IEC 68-1) -25 to +40 °C (UL 508)
Storage temperature	-25 to +70 °C
Transportation temperature	-25 to +70 °C
Relative humidity	15 % to 85 % (acc. to IEC 721-3-3 Class 3K3)
Contamination degree	3 (acc. to IEC 664-1)
Vibration resistance	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)



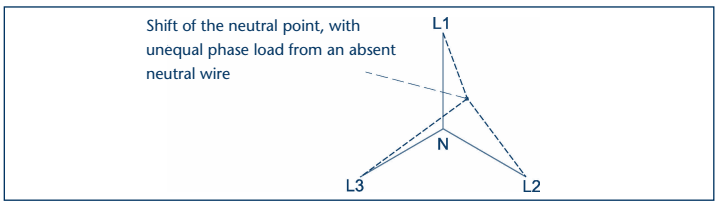


Undervoltage monitoring (UNDER, UNDER+SEQ)
When the measured voltage (one of the phase voltages) falls under the value set at the Min controller, the set triggering delay time begins to run (the red LED Min flashes). The output relay R deactivates (yellow LED not illuminated) after the expiration of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

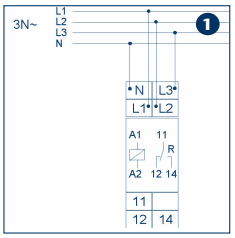


Neutral wire break
The device monitors each phase (L1, L2 and L3) in reference to N. An asymmetrical phase load and a neutral wire breakage in the mains line will result in a dislocation of the neutral point. When one of the phase voltage exceeds the set shutdown threshold (Min. or Max.), the triggering 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).

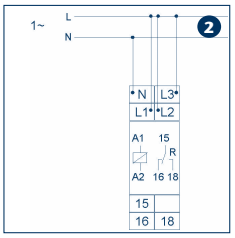
- Mounts on TS 35
- Housing made of self-extinguishing plastic, IP40 protection
- Any mounting position is possible
- Screw terminals protected against accidental touch according to VBG 4
  IP 20 protection

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: module 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 ranges	**Setting range**		
Start-up override	-		
Triggering delay	0.1 s 10 s		
Displays			
Red LED ON/OFF	Error display for corresponding 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 106 switching cycles		
Electrical lifespan	2 x 105 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		
Measurement circuit			
Measured value	3(N)~, Sinus, 48 to 63 Hz		
Measurement input	(= supply voltage)		
Terminals	(N)-L1-L2-L3		
Overload capability	Def. by tolerance of supply voltage		
Input resistance	80% – 130% of UN		
Asymmetry	70% – 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



GSM-PRO2 – the perfect communicator

CONTA-CLIP's **GSM-PRO2** series provides a 4G remote control and maintenance solution which allows you to monitor and control decentralized facilities.

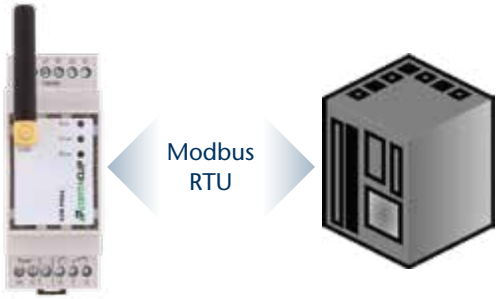
The **GSM-PRO2(E)** module informs you when the process reaches a user-defined status or limit value. Digital and analogue inputs values can also be transmitted via e-mail or SMS (text message). The digital relay outputs can be switched using an SMS sent from the decentralized control room or from the service technician. The process can be monitored and controlled remotely. Monitoring and controlling the **GSM-PRO2(E)** modules is even easier when using our iPhone or Android apps.

The inputs and outputs of the modules and their desired functions can be configured using an easy-to-understand application.

GSM-PRO2 communicates with a PLC

The built-in Modbus RTU interface enables the **GSM-PRO2** to be connected as a slave to other controllers (such as a PLC). Thus, the **GSM-PRO2** can be used to conveniently expand a PLC system with additional GSM functionality. By using predefined registers, the PLC can send an SMS or e-mail using the **GSM-PRO2** as a messenger.

The PLC can also be controlled using the **GSM-PRO2**.
The module can set predefined registers to influence the PLC process (analogue or digital).



Inputs and outputs

Both **GSM-PRO2** modules are equipped with two multi-functional inputs, a relay output and a pulse counter input. The two **GSM-PRO2E** variants are equipped with ten multi-function inputs, four relay outputs and a pulse counter input. The pulse counter input can process a maximum of 1000 pulses per second and enables, for example, a photovoltaic system or a kWh counter to be connected.

Expansion modules

The **GSM-PRO2** modules also allow you to increase the number of available inputs and outputs. Up to 15 I/O expansion modules in 4 different versions can be controlled from each module. Integrated plug-in connectors are used to control and supply power to the modules. The expansion modules can also be configured using an easy-to-understand application.

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-PRO2** module. The **GSM-PRO2** module features OTA (over-the-air) functions for just such instances.

OTA configuration
Whether it is a user's new telephone number, a new I/O setting, a changed module name or any other change: the settings of all **GSM-PRO2** modules can be adjusted comfortably and decentralized throughout the world.

OTA firmware updates
The **GSM-PRO2** module can also update its firmware using OTA, so modules with different versions can always be kept up to date.

Smartphone apps

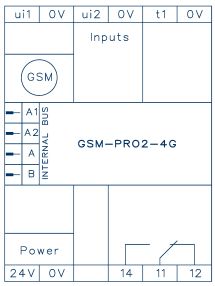
CONTA-CLIP's iPhone and Android smartphone apps for the **GSM-PRO2** modules provide a simple and fast solution so that you can get an overview of each distributed system and application. These apps can show you the status of all inputs and outputs from one or more **GSM-PRO2** modules. They also allow you some control over the process. Module outputs can be controlled easily and directly using this app. The app's buttons provide an intuitive control interface (for controlling the heating, a motor, water pump, etc.).

ANDROID APP ON Google play

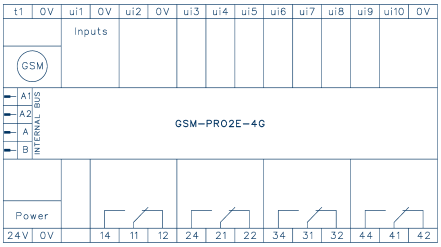
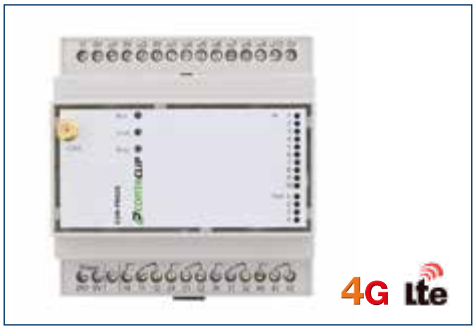
Available on the iPhone App Store

Web Portal software

The **GSM-PRO2**, 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-PRO2** web-based portal software from CONTA-CLIP offers you precisely this possibility. All modules in the field can now be easily monitored and run from a single local site or control panel.

Circuit diagram	GSM-PRO2-4G-EU	GSM-PRO2-4G-US
		

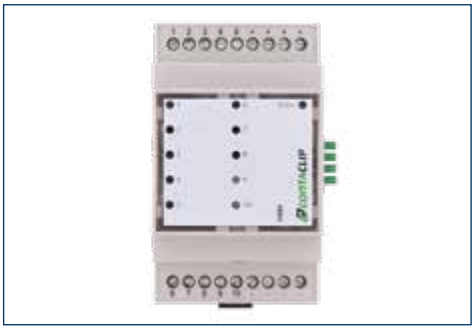
TYPE Cat. no.	GSM-PRO2-4G-EU 16454.2	Qty. 1	GSM-PRO2-4G-US 16456.2	Qty. 1
Dimensions (L x W x H) (TS 35 / direct mount)	95 x 36 x 67 / 65 mm (without antenna)		95 x 36 x 67 / 65 mm (without antenna)	
Weight	135 g		135 g	
Input/output data				
2 multi-function (analogue/digital) inputs	0 – 10 V / 0(4) – 20 mA / 24 V DC (10 – 30 V DC)			
Resolution/accuracy (0 – 10 V) (0 – 20 mA)	20 mV / ± (20 mV +0.3 % of the measured value) -40 µA / ± (40 µA +0.3 % of the measured value)			
Input resistance (0 – 10 V) (0 – 20 mA)	80 kOhm / 500 Ohm			
Input current (dig. inputs)	@10 V: 0.2 mA / @24 V: 0.5 mA / @30 V: 0.6 mA			
UI minimum pulse duration	500 ms			
Threshold of dig. Inputs	Low < 2 V / High > 4 V			
Counter, digital input (pull-down)	1000 pulses/s, Max. pull-down resistance: 24 kOhm			
Pull-down voltage source	Typ. 10 – 30 V DC, unregulated, depending on load			
Relay output	CO universal contact, 250 V ~			
Continuous current / Inrush current (resistive load)	5 A / 5 A			
Max. switching capacity	1200 VA at 240 V AC, 5 A			
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} at continuous current; 1200 min^{-1} without load			
Contact material / Test voltage	AgNi / 4 kV			
GSM specifications				
Frequency bands	2G - GSM/GPRS/EDGE: dual band 900/1800 MHz			
	3G - UMTS/HSPA+: dual band 900 (BdVIII)/ 2100 MHz (BdI)		3G - UMTS/HSPA+: triple band, 850 (BdV)/ AWS (BdIV)/1900 MHz (BdII)	
	4G - LTE CAT1: Penta band 700 (Bd28)/ 800 (Bd20)/900 (Bd8)/1800 (Bd3)/2100 MHz (Bd1)		4G - LTE CAT1: Quad band, 700 (Bd12)/ 850 (Bd5)/AWS (Bd4)/1900 MHz (Bd2)	
SIM card	Nano SIM			
Antenna	50 Ohm impedance, SMA plug			
Bus specifications				
Interface ports	Serial RS485, uninsulated			
Voltage interface	24 V DC, 0.5 A			
Bus protocol	Modbus RTU			
Modbus slave functionality is available	Yes (no other expansion modules can be connected)			
General information				
Voltage supply	10 – 30 V DC			
Current consumption	275 mA DC @ 24 V DC			
Backup power	Internal maintenance-free supercap capacitor			
Operating / storage temperatures	-20 °C to +50 °C / -20 °C to +70 °C			
Max. relative humidity	80 %, non-condensing			
DIN VDE specifications	Low Voltage Directive (LVD) 2014/35/EU, in compliance with EN 50178			
Electromagnetic characteristics	Directive 2014/30/EU, in compliance with EN 55011 and EN 61326-1			
Frequency spectrum	RED 2014/53/EU		CFR Title 47 parts 22 and 24	
Wire cross-section / Stripping length	0.2 – 2.5 mm² screw terminal connection / 6 mm			
Mounting / installation position	DIN rail TS35 or direct mounting / as desired			
Material / Flammability class	Housing: Noryl. Connection terminals: Polyamide 6.6 / UL94 V-0			
Protection class (DIN 40050)	IP 20			
Accessories		**Qty.**		
Antenna GSM	GSM-ANTENNA-4G			
Cat. no.	**16450.2**	1		
External GSM antenna	GSM-ANTENNA-EXTERNAL-4G-3M			
Cat. no.	**16451.2**	1		
External GSM antenna	GSM-ANTENNA-EXTERNAL-4G-5M			
Cat. no.	**16452.2**	1		
Programming cable	GSM-USB-MICRO-cable			
Cat. no.	**16382.2**	1		

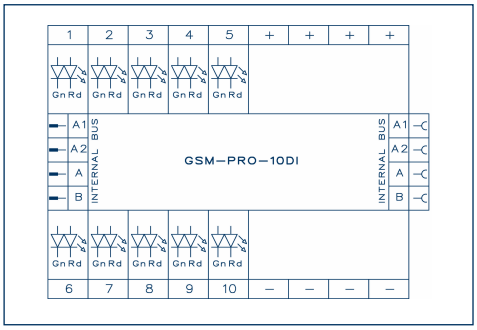
Circuit diagram	GSM-PRO2E-4G-EU	GSM-PRO2E-4G-US
		

TYPE	GSM-PRO2E-4G-EU	Qty.	GSM-PRO2E-4G-US	Qty.
Cat. no.	**16455.2**	**1**	**16457.2**	**1**
Dimensions (L x W x H) (TS 35 / direct mount)	95 x 88 x 67 / 65 mm (without antenna)		95 x 88 x 67 / 65 mm (without antenna)	
Weight	188 g		188 g	
Input/output data				
10 multi-function (analogue/digital) inputs	0 – 10 V / 0(4) – 20 mA / 24 V DC (10 – 30 V DC)			
Resolution/accuracy (0 – 10 V) (0 – 20 mA)	20 mV / ± (20 mV 0.3 % of the measured value) -40 µA / ± (40 µA 0.3 % of the measured value)			
Input resistance (0 – 10 V) (0 – 20 mA)	80 kOhm / 500 Ohm			
Input current (dig. inputs)	@10 V: 0.2 mA / @24 V: 0.5 mA / @30 V: 0.6 mA			
UI minimum pulse duration	500 ms			
Threshold of dig. Inputs	Low < 2 V / High > 4 V			
Counter, digital input (pull-down)	1000 pulses/s, Max. pull-down resistance: 24 kOhm			
Pull-down voltage source	Typ. 10 – 30 V DC, unregulated, depending on load			
4 relay outputs	CO universal contact, 250 V ~			
Continuous current / Inrush current (resistive load)	5 A / 5 A			
Max. switching capacity	1200 VA at 240 V AC, 5 A			
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} at continuous current; 1200 min^{-1} without load			
Contact material / Test voltage	AgNi / 4 kV			
GSM specifications				
Frequency bands	2G - GSM/GPRS/EDGE: dual band 900/1800 MHz			
	3G - UMTS/HSPA+: dual band 900 (BdVIII)/ 2100 MHz (BdI)		3G - UMTS/HSPA+: triple band, 850 (BdV)/ AWS (BdIV)/1900 MHz (BdII)	
	4G - LTE CAT1: Penta band 700 (Bd28)/ 800 (Bd20)/900 (Bd8)/1800 (Bd3)/2100 MHz (Bd1)		4G - LTE CAT1: Quad band, 700 (Bd12)/ 850 (Bd5)/AWS (Bd4)/1900 MHz (Bd2)	
SIM card	Nano SIM			
Antenna	50 Ohm impedance, SMA plug			
Bus specifications				
Interface ports	Serial RS485, uninsulated			
Voltage interface	24 V DC, 0.5 A			
Bus protocol	-			
Modbus slave functionality is available	No			
General information				
Voltage supply	10 – 30 V DC			
Current consumption	275 mA DC @ 24 V DC			
Backup power	Internal maintenance-free supercap capacitor			
Operating / storage temperatures	-20 °C to +50 °C / -20 °C to +70 °C			
Max. relative humidity	80 %, non-condensing			
DIN VDE specifications	Low Voltage Directive (LVD) 2014/35/EU, in compliance with EN 50178			
Electromagnetic characteristics	Directive 2014/30/EU, in compliance with EN 55011 and EN 61326-1			
Frequency spectrum	RED 2014/53/EU		CFR Title 47 parts 22 and 24	
Wire cross-section / Stripping length	0.2 – 2.5 mm² screw terminal connection / 6 mm			
Mounting / installation position	DIN rail TS35 or direct mounting / as desired			
Material / Flammability class	Housing: Noryl; Terminals: polyamide 6.6 / UL94 V-0			
Protection class (DIN 40050)	IP 20			
Accessories		**Qty.**		
Antenna GSM	GSM-ANTENNA-4G			
Cat. no.	**16450.2**	1		
External GSM antenna	GSM-ANTENNA-EXTERNAL-4G-3M			
Cat. no.	**16451.2**	1		
External GSM antenna	GSM-ANTENNA-EXTERNAL-4G-5M			
Cat. no.	**16452.2**	1		
Programming cable	GSM-USB-MICRO-cable			
Cat. no.	**16382.2**	1		

Digital input module	GSM-PRO-10DI	Circuit diagram

- 10 digital inputs, 24 V
- One LED per input

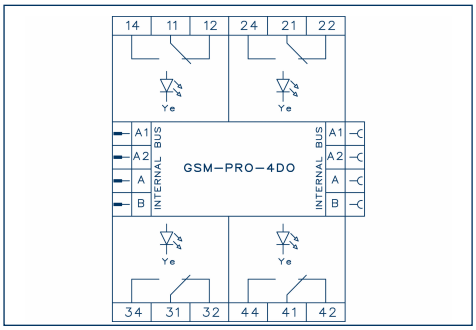




Type	GSM-PRO-10DI	Qty.
Cat. no.	16375.2	1

Digital output module	GSM-PRO-4DO	Circuit diagram

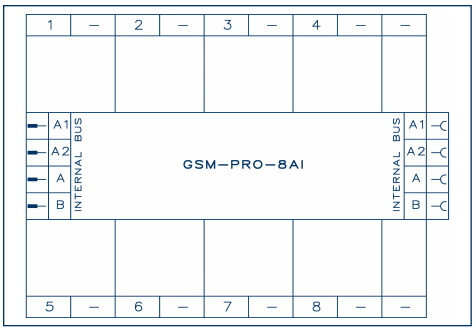
- 4 relay outputs, with one CO contact each
- Max. continuous current per relay: 16 A (contact materials for high inrush currents)
- One yellow status LED per channel



Type	GSM-PRO-4DO	Qty.
Cat. no.	16378.2	1

Analogue input module	GSM-PRO-8AI	Circuit diagram

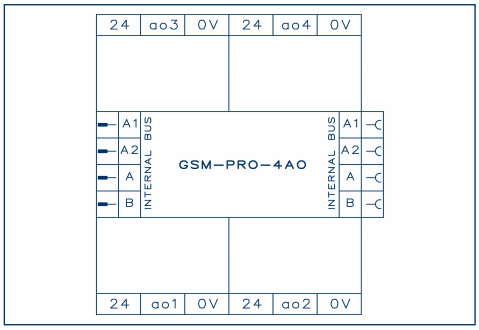
- 8 multi-function analogue inputs: 0 – 10 V, 0(4) – 20 mA, NTC, RTD (PT1000 / NI1000) -40 to +120 °C
- Custom configuration for each input



Type	GSM-PRO-8AI	Qty.
Cat. no.	16377.2	1

Analogue output module	GSM-PRO-4AO	Circuit diagram

- 4 analogue outputs, 0 – 10 V



Type	GSM-PRO-4AO	Qty.
Cat. no.	16376.2	1

GSM-PRO-10DI 16375.2	GSM-PRO-4DO 16378.2	GSM-PRO-8AI 16377.2	GSM-PRO-4AO 16376.2	Technical documentation	
		8		**Multi-function analogue inputs**	0 – 10 V / 0(4) – 20 mA / RTD. Default: RTD input. Input configurable using plug-in resistors
		•		Input resistance (0 – 10V)	Resistance: fixed (200 kOhm)
		•		Input resistance (0(4) – 20 mA)	Resistance: plug-in (Ri), 250 ohms ±0.1% (resistor is not included)*
		•		Input resistance (RTD -40 to +120 °C)	Resistance: plug-in (Rt), sensor-dependent ±0.1% (resistor is not included)*
		•		RTD sensor type	PT1000 (IEC6075) Rt: 5k11 ±0.1%, NI1000 (TK5000 Siemens) Rt: 5k11 ±0.1%, NTC (10K3A1) Rt: 40K ±0.1% *
		•		Resolution / conversion error (0 – 10 V)	10 bit / ± (10 mV + 0.3 % of measured value)
		•		Resolution / conversion error (0(4) – 20 mA)	10 bit / ±(20 µA + 0.4 % of measured value)
		•		Resolution / conversion error (RTD)	14 bit / ±(0.4 °C + 0.5 % of measured value)
		•		Temperature coefficient	< 0.02% °C
10				**Digital input**	Active high (connect the supply voltage or VDD(+) from the module to the input)
•				Input voltage	24 V DC (10 – 30V)
•				Threshold of dig. Inputs	Low < 3 V / High > 6 V
•				Max. frequency	20 Hz
•				Min. pulse length	15 ms
•				Impedance	58 kOhm
•				VDD (+) output	Can only be used for the inputs
•				LED status display	Bi-colour LED per input (green/red/off, programmable)
			4	**Analogue output**	0 – 10 V DC, short-circuit and overvoltage protected (24 V)
			•	Load resistance / Current per channel	> 1 kOhm / < 10 mA
			•	Resolution / Conversion error	10 bit / ± (30 mV + 0.5 % of measured value)
			•	Temperature coefficient	< 0.02 % °C
			•	LED status display	Yellow LED. Light intensity depends on output value; < 1.5 V = not illuminated
	4			**Relay output**	
	•			Contact type	4 x 1 CO
	•			Max. switching voltage	250 V~
	•			Continuous current / Inrush current (resistive load)	16 A / 80 A (20 ms)
	•			Max. module current (all relays)	32 A
	•			Max. switching capacity	4000 VA
	•			Electrical lifespan at nominal / 2 A load	1 x 10^5 / 7 x 10^5 switching operations @ 23 °C and ohmic load
	•			Mechanical lifespan	30 x 10^5 switching operations
	•			Max. switching frequency	6 min^{-1} at continuous current; 1200 min^{-1} without load
	•			Contact material	$AgSnO_2$
	•			Test voltage coil - contact	5 kV
	•			LED status display	Yellow
				Bus specifications	
•	•	•	•	Interface ports	Serial RS485, uninsulated
•	•	•	•	Max. cable length	500 m
•	•	•	•	Terminating resistor	Integrated terminating resistor is activated by jumper (default: off)
•	•	•	•	Protective circuitry	Integrated transient protection
•	•	•	•	Bus connection	Integrated plug-in connector (modules mounted without clearance, no wiring required)
				Bus connector plug (not included)	Plug-in male or female connector 0.2 to 1.0 mm^2, stripping length 7 mm
•	•	•	•	Connection type	Shielded twisted-pair cable
				General information	
•	•	•	•	LED status display (two colours)	Run - no communication - Error
•	•	•	•	Voltage supply	20 – 28 V DC (Power at bus plug: 5A max.)
30	**100**	**50**	**57**	Current consumption, DC	. . . mA typical @ 24 VDC (with all outputs active @ full load)
•	•	•	•	Operating / storage temperatures	0 °C to + 50 °C / -20 °C to + 70 °C
•	•	•	•	Relative humidity	max. 90 %, non-condensing
•	•	•	•	The CE label	Low Voltage Directive (LVD) 2014/35/EU, in compliance with EN 50178
•	•	•	•		EMC Directive 2014/30/EU, in compliance with EN 55011 and EN 61326-1
•	•	•	•	Connection cross-section / Stripping length	0.2 – 2.5 mm² screw connection / 6 mm
•	•	•	•	Mounting / Installation position	DIN rail TS35 or direct mounting, as desired
53	**53**	**53**	**36**	Dimensions (L x W x H)	. . . x 95 x 60 mm
•	•	•	•	Insulating material / Flammability class	Housing and I/O terminals: polycarbonate; Bus connector: polyamide 6.6 / UL94 V-0
•	•	•	•	Construction	Adjacent installation in rows with no gaps (another external power supply is needed after 15 modules)
•	•	•	•	Protection class (DIN 40050)	IP 20
121	**154**	**117**	**64**	Weight, g	

* Plug-in resistors Ri and Rt are available on request

GSM-PRO Antenna 4G / LTE

GSM antenna	GSM-ANTENNA-4G
	
Type	**GSM-ANTENNA-4G**
Cat. no.	**16450.2**
Qty.	**1**
Weight	9 g
General information	
Frequency GSM	800, 850, 900 – 1700, 1800, 1900, 2100 – 2600 MHz
Frequency GPS	–
Antenna type GPS	–
Max. gain	0.1 dBi (689 – 960 MHz) 2.9 dBi (1710 – 2170 MHz) 4.6 dBi (2500 – 2700 MHz)
Impedance	50 Ohm
Wire connect type	SMA male
Cable length	–
Bore hole	–
Antenna diameter	10 mm
Antenna height	49 mm
Total height	71 mm
Temperature range	-20 °C to +65 °C
Material of antenna housing	POM
Mounting type	Screw
Antenna shape	Stubby

GSM antenna	GSM-ANTENNA-EXTERNAL-4G-3M	GSM-ANTENNA-EXTERNAL-4G-5M
		
Type	**GSM-ANTENNA-EXTERNAL-4G-3M**	**GSM-ANTENNA-EXTERNAL-4G-5M**
Cat. no.	**16451.2**	**16452.2**
Qty.	**1**	**1**
Weight	122 g	198 g
General information		
Frequency GSM	689 – 960/1710 – 2690 MHz	689 – 960/1710 – 2690 MHz
Frequency GPS	–	–
Antenna type GPS	–	–
Max. gain	2.5 dBi	2.5 dBi
Impedance	50 Ohm	50 Ohm
Wire connect type	SMA male	SMA male
Cable length	3 meters	5 meters
Bore hole	13 mm	13 mm
Antenna diameter	81.3 mm	81.3 mm
Antenna height	14.6 mm	14.6 mm
Total height	29.6 mm	29.6 mm
Temperature range	-40 °C to +85 °C	-40 °C to +85 °C
Material of antenna housing	ABS	ABS
Mounting type	Screw	Screw
Antenna shape	Puck	Puck

Notes

Opto-coupler

The unambiguous and safe separation of potentials in the different data and control signals: this is the key for trouble-free functioning of equipment and production facilities. The opto-coupler is increasingly 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.

Opto-couplers | Solid-state

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 eight variants, including screw and tension-spring wire connections. They 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.

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 very high output current levels of up to 3 A. Short-term current surges may reach up to 5 A, yet the electrical isolation from the input side is still ensured.

The opto-coupler can simply be inserted onto the **SSOIF** base system and 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 **SSOIF** base can be mounted on the standard **TS 32** and **TS 35** DIN rail systems.

Plug-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!

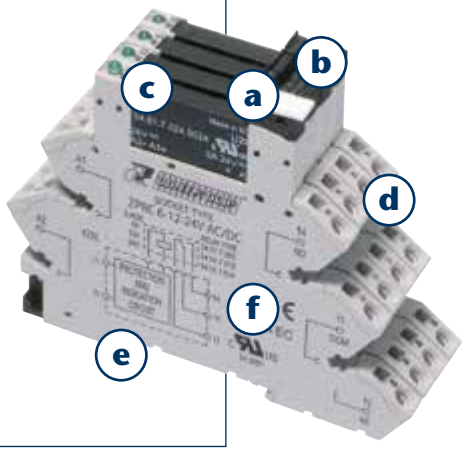
c Pluggable solid-state modules

To match your requirements and wide variety of functions, there are solid-state modules available with a variety of voltage inputs and outputs!

Converting switching relays to solid-state modules

Relay terminals can be converted to solid-state terminals when the expected electrical lifespan is long and when you wish 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 outer cross-connections

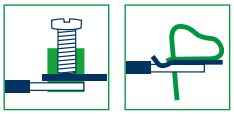
The AQI/PRC pluggable cross-connection system enables a time-saving distribution of potentials. The AQI/PRC is constructed so that it is protected against accidental touch. It is available as a 20-pole unit, in either yellow, blue or black. The cross-connection can be shortened to fewer poles in order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

e Mounts on standard TS 35 rail

CONTA-CLIP relay terminals can be flexibly mounted on standard TS 35 DIN rails, according to EN 50035 and EN 50022.

f Wire connection types

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



2. Approvals (details upon request)

Plug-Solid-State-Compact PSC

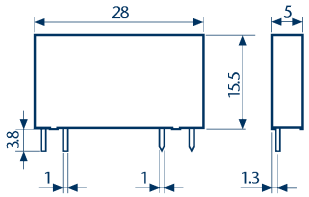
Solid-state terminals

3. Features

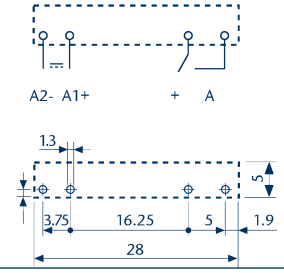
I. Solid-state module

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

The complete view of the solid state module



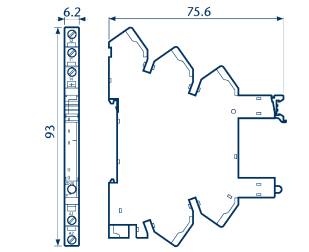
View of connections



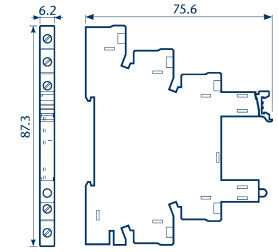
II. Socket base

- 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 system



Screw connection system



4. Specifications

Opto-coupler, semiconductor relay, SSR

Additional data

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

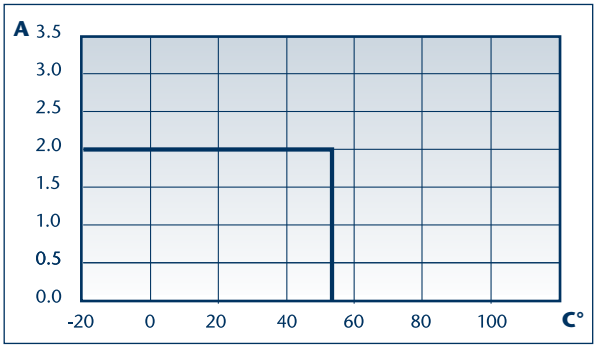
5. Input specifications

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 – 240 VAC	–	184	264	72	5.6 (*)	0.5 (*)

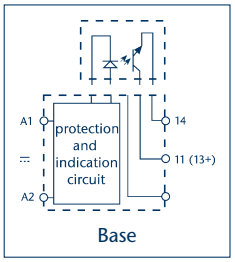
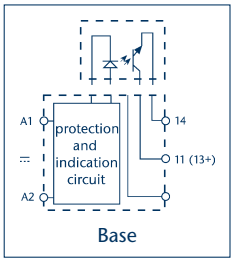
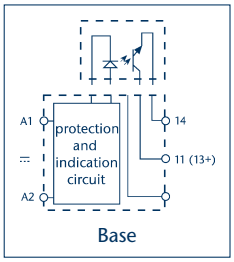
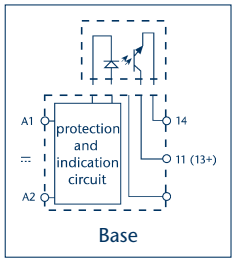
* Rated current and power at UN = 240 V.

6. Output specifications

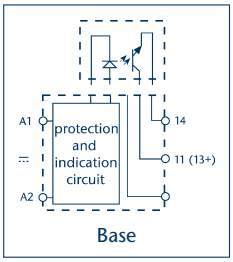
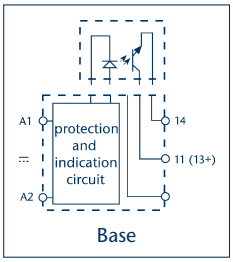
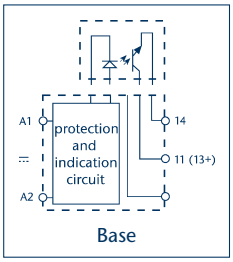
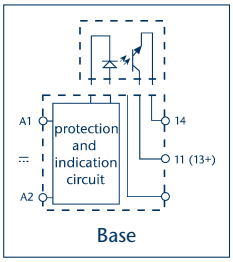


Continuous current, dependent on the ambient temperature.
SSR with 2 A, DC or AC

Plug-Solid-State-Compact PSC

Solid-state terminal, screw connection	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
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 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
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 information				
Response/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 (10 ms)	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
Individual component, 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**
Individual component, 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 external insulated 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**
Partition 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**
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**

Plug-Solid-State-Compact PSC

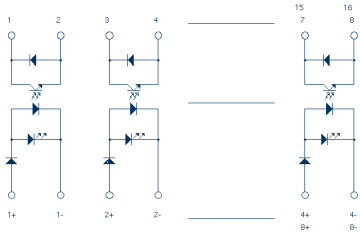
Solid-state terminal, tension-spring connection	ZPSCU 1/24 V DC/24 V DC	ZPSCU 1/24 V DC/240 V AC	ZPSCU 1/240 V AC/24 V DC	ZPSCU 1/240 V AC/240 V AC
consisting of: · Base terminal and pluggable solid-state module · Mounts on TS 35				
Circuit diagram				
· Internal EMC coil circuitry and LED display	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

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

Circuit diagram



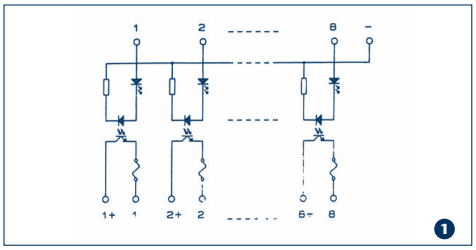
Type Cat. no./Qty.	OKI 4/5 DC 5945.2/1	OKI 8/5 DC 5946.2/1	OKI 4/24 DC 5947.2/1	OKI 8/24 DC 5948.2/1
Size (L x W x H) with TS 35 x 7.5	87 x 48 x 57 mm	87 x 89 x 57 mm	87 x 48 x 57 mm	87 x 89 x 57 mm
Weight	75 g	126 g	75 g	126 g
General information				
DIN VDE specifications	DIN EN 50178, DIN VDE 0110, 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
Connection cross-section	0.2 – 2.5 mm²	0.2 – 2.5 mm²	0.2 – 2.5 mm²	0.2 – 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	15 mW	15 mW	75 mW	75 mW
Power-on voltage	< 4 V DC	< 4 V DC	< 14 V DC	< 14 V DC
Logic dropout voltage	< 2 V DC	< 2 V DC	< 8 V DC	< 8 V DC
Rated current	3 mA	3 mA	5 mA	5 mA
Output data				
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



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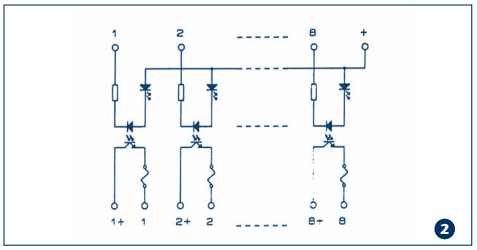
Circuit diagram



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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 TS 35 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 information					
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 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
Connection cross-section	0.2 – 2.5 mm²	0.2 – 2.5 mm²	0.2 – 2.5 mm²	0.2 – 2.5 mm²	0.2 – 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.**				

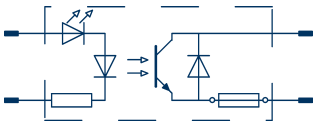
Solid-state relays OPTO 22

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

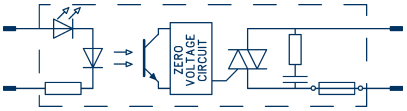
SSR

SSR

Circuit diagram



Circuit diagram



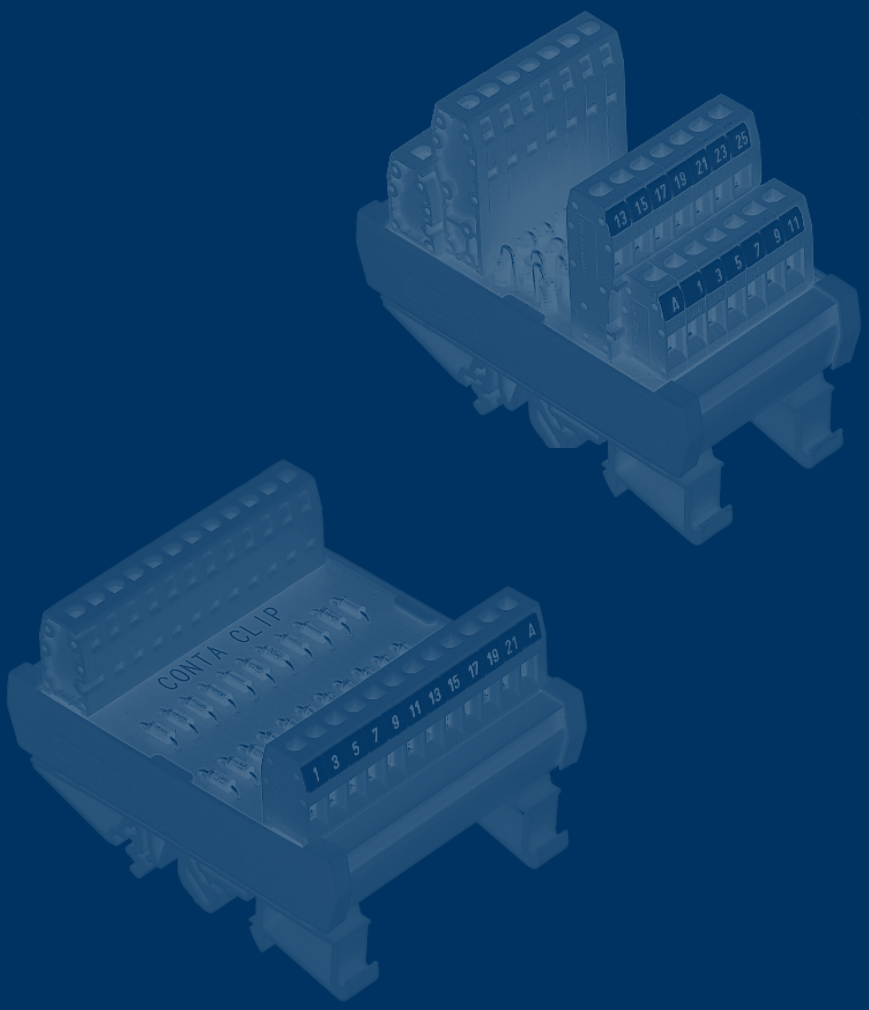
Type Cat. no./Qty.	G 4 ODC 5 5975.0/1	G 4 ODC 24 5976.0/1	G 4 OAC 5 A 5977.0/1	G 4 OAC 24 A 5978.0/1
Weight	27 g	27 g	27 g	27 g
Input data				
Power-on voltage	5 V (2.5 to 8 V)	24 V (18 to 32 V)	5 V (2.5 to 8 V)	24 V (18 to 32 V)
Logic dropout voltage	1 V	1 V	1 V	1 V
Rated current	12 mA	18 mA	12 mA	18 mA
Input resistance	220 Ω	2.2 kΩ	220 Ω	2.2 kΩ
Output data				
Operating voltage	5 – 60 V DC	5 – 60 V DC	24 – 280 V AC	24 – 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. impulse current	5 A / 1 s	5 A / 1 s	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

Notes

Fuse, component, diode and indicator modules

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

These modules can be mounted with their combi-base on either the **TS32** or **TS35** 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-Maxi-card 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

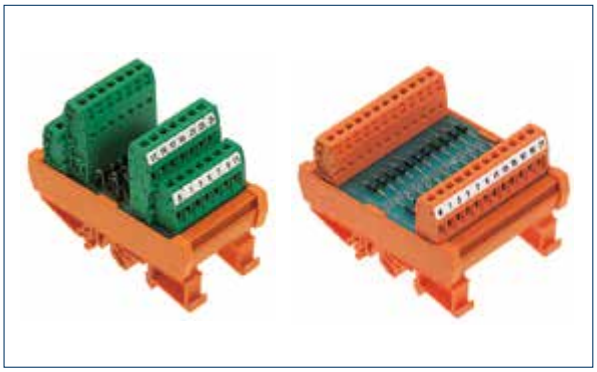
Fuse modules SM

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 **LPM-A** 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.

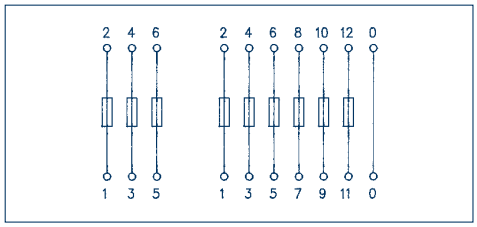
Fuse modules SM

- 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

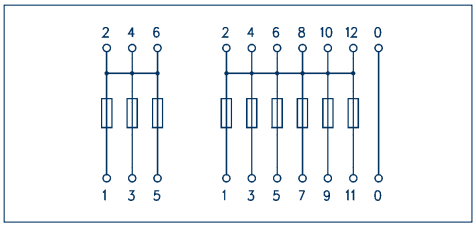
SM E
Individually switchable

SM G
Shared feed-in

Circuit diagram



Circuit diagram

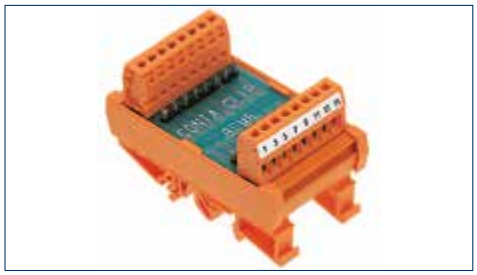


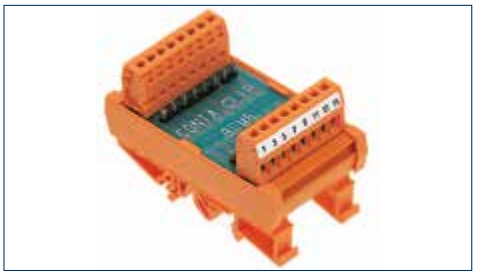
Type **Cat. no.**/Qty.	**SM 3-E** **5712.2**/1	**SM 3-G** **5716.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 24 x 77 mm	87 x 24 x 77 mm
Weight	51 g	51 g
Type **Cat. no.**/Qty.	**SM 6-E** **5714.2**/1	**SM 6-G** **5718.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 47 x 77 mm	87 x 47 x 77 mm
Weight	104 g	104 g
General information		
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	7mm	7mm
Connection cross-section	0.2 – 2.5 mm^2	0.2 – 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

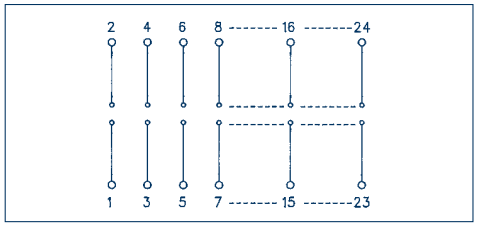
- Mounts on TS 32/TS 35
- Screw connection
- Two rows of soldering pins for versatile assembly with components

BSM

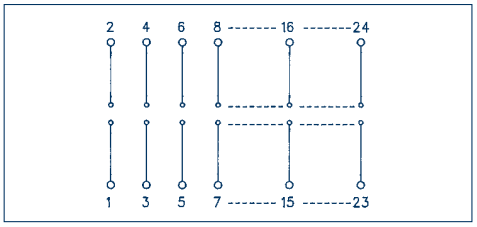




Circuit diagram



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 information			
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	7mm	7mm	7mm
Connection cross-section	0.2 – 2.5 mm²	0.2 – 2.5 mm²	0.2 – 2.5 mm²
Screw connection	AWG 22-14	AWG 22-14	AWG 22-14
Input data			
Distance between pins	35mm	35mm	35mm
Height of soldering pins	approx. 5mm	approx. 5mm	approx. 5mm
Solder pin spacing	5.08mm	5.08mm	5.08mm
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 25 V AC/60 V DC.

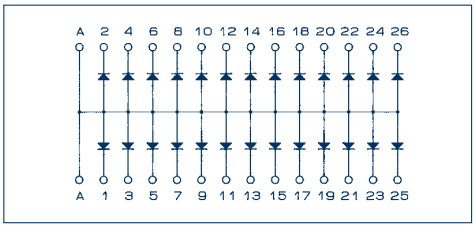
Diode modules DM

- 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

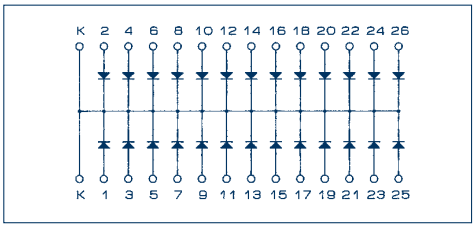
DM 26-A

DM 26-K

Circuit diagram



Circuit diagram

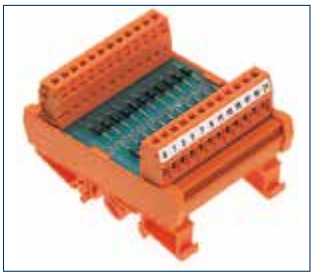
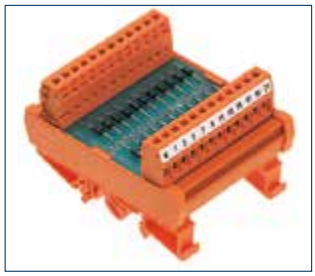
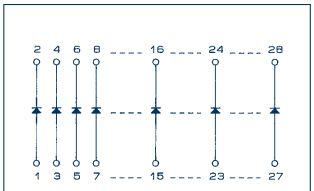
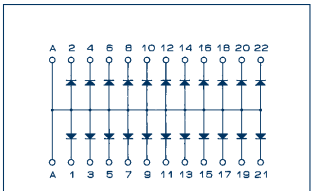
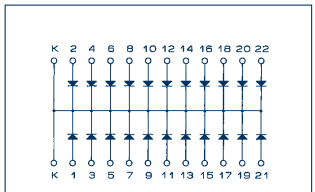


Type **Cat. no.**/Qty.	**DM 26-A*** **6093.2**/1	**DM 26-K*** **6094.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 46 x 72 mm	87 x 46 x 72 mm
Weight	115 g	115 g
Type **Cat. no.**/Qty.	**DM 26-A/AD*** **6093.9**/1	**DM 26-K/AD*** **6094.9**/1
Size (L x W x H) with TS 35 x 7.5	87 x 46 x 72 mm	87 x 46 x 72 mm
Weight	140 g	140 g
General information		
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	7mm	7mm
Connection cross-section	0.2 – 2.5 mm²	0.2 – 2.5 mm²
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 25 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

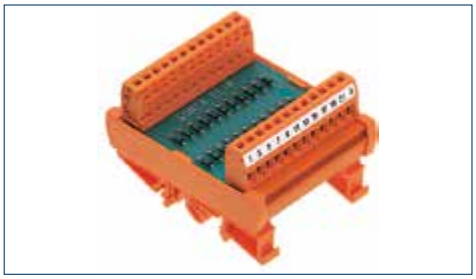
	DM	DM..-A	DM..-K
			
	Circuit diagram	**Circuit diagram**	**Circuit diagram**
			
Type **Cat. no.**/Qty.	**DM 4*** **6318.2**/1	**DM 14-A*** **5704.2**/1	**DM 14-K*** **5706.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 27 x 57 mm	87 x 49 x 57 mm	87 x 49 x 57 mm
Weight	44 g	80 g	80 g
Type **Cat. no.**/Qty.	**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 TS 35 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 information			
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	7mm	7mm	7mm
Connection cross-section	0.2 – 2.5 mm^2	0.2 – 2.5 mm^2	0.2 – 2.5 mm^2
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 25 V AC/60 V DC. Designs with other diode types are available upon request.

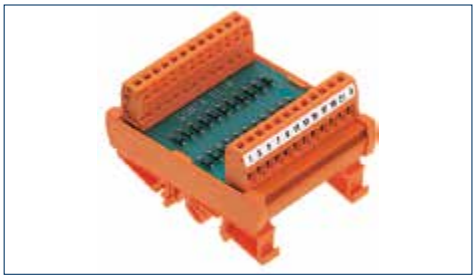
Lamp test modules LPM

- 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.

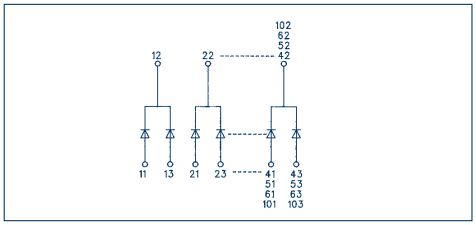
LPM ..K/..



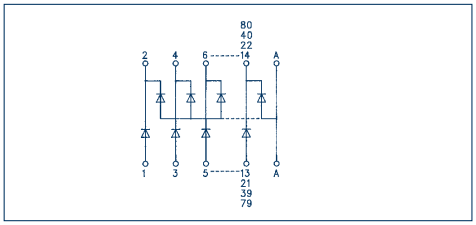
LPM ..-A



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 information		
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	7mm	7mm
Connection cross-section	0.2 – 2.5 mm²	0.2 – 2.5 mm²
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

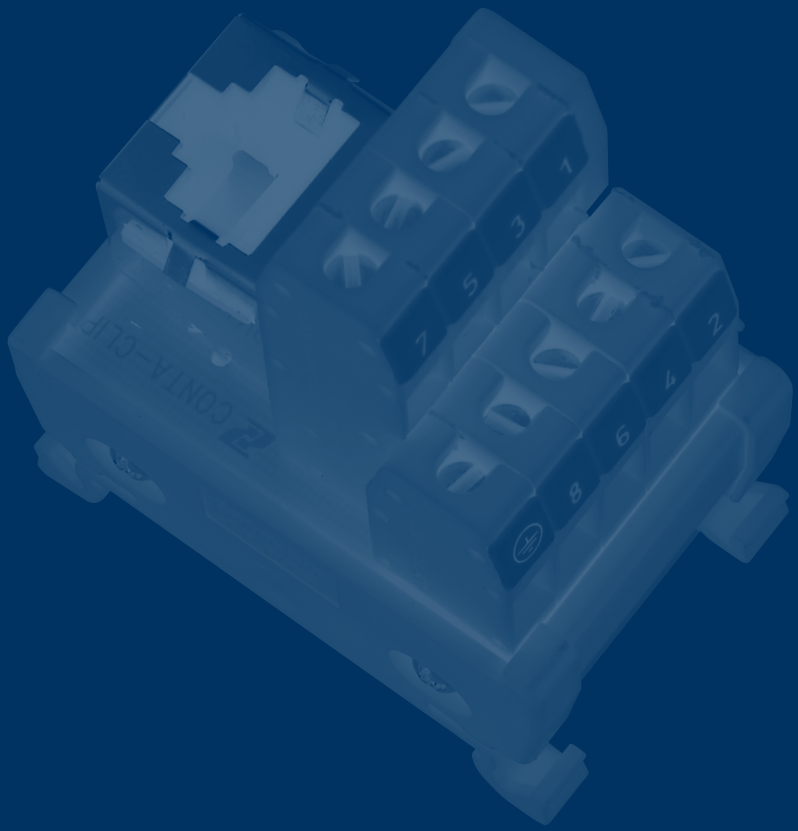
*The .../AD modules must be used when the operating voltage exceeds 25 V AC/60 V DC. Designs with other diode types are available upon request.

Notes

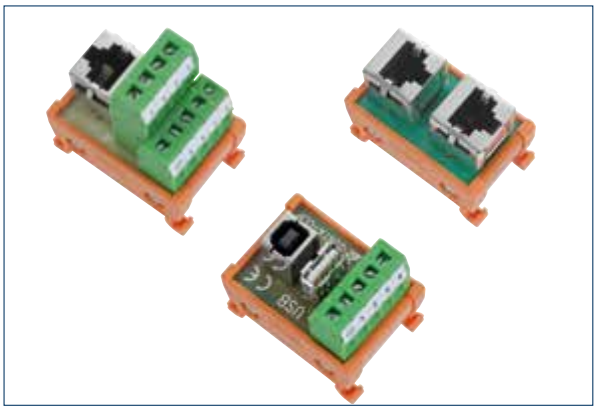
Interface modules

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 on the PCB – from the individual wire via connectors to pre-assembled cables. Thus, the assembly time and associated costs are reduced.

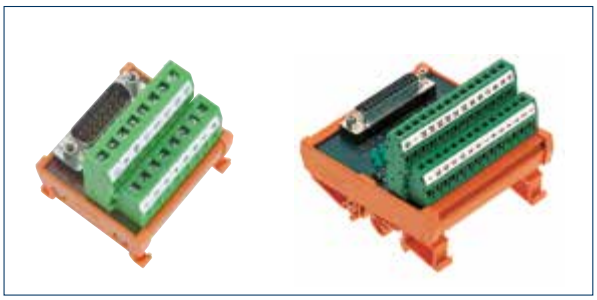
Because of the compact design of the interface modules, their clear terminal labelling, and their simple assembly on TS 32 or TS 35 rails, this system represents an attractive alternative to a pure individual wire approach.



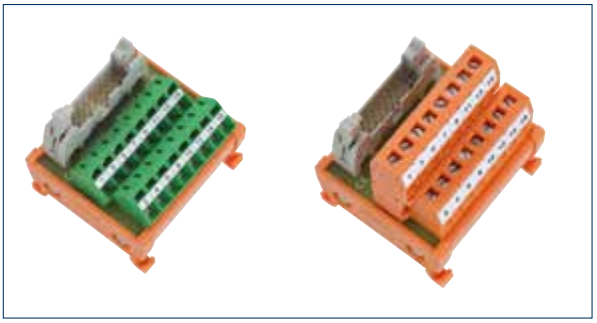
Interface modules



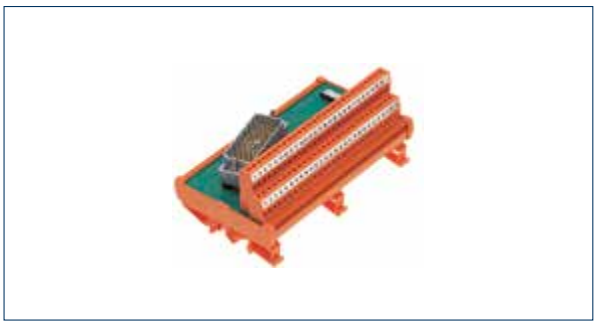
RJ 45 and **USB modules** implement the standardized **RJ 45** Ethernet and USB connectors from bus systems, computer components, laptops or modems on screw PCB terminals. They can be mounted with the compact **RS-SP0** profile on the TS 35 rail.



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.



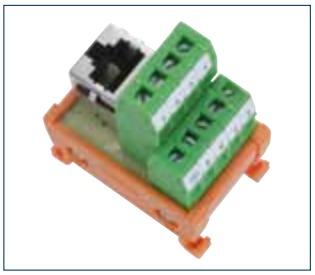
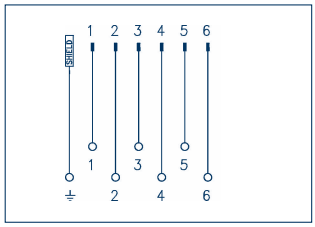
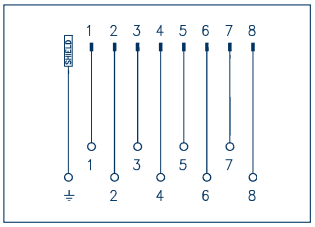
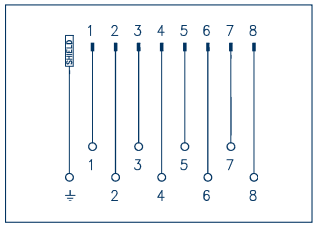
The **FBK modules** enable the assembly of pre-assembled cables with connectors (from 10 to 64 poles) according to IEC 603-1/ DIN 41651, for use with screw or tension-spring PCB terminals.



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.

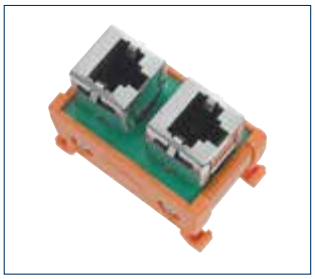
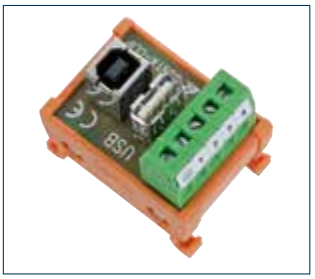
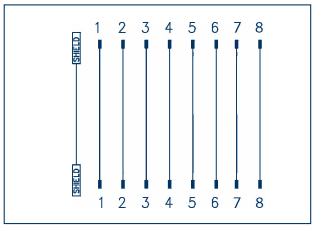
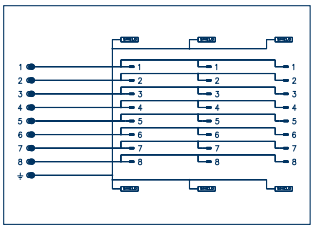
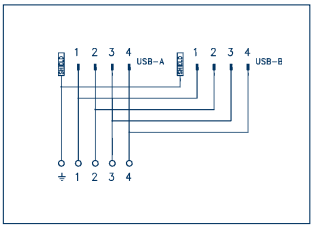
RJ 45 USB interface modules

- 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: 47 mm

	RJU11/RJU12	RJ 45	RJS45-SH
			
Circuit diagram			
Type	**RJU11/RJU12**	**RJS 45 (shielded)**	**RJS45-SH**
Cat. no./Qty.	**15672.2/1**	**15256.2/1**	**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		**RJU 45 (unshielded)**	
Cat. no./Qty.		**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 information			
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
Connection cross-section	0.2 – 2.5 mm^2	0.2 – 2.5 mm^2	1.5 mm^2
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			CATS, 100 Mbps max.
Max. cable length			100 m
Connection cable			Shielded twisted pair, CATS or better
Cable diameter			3 – 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

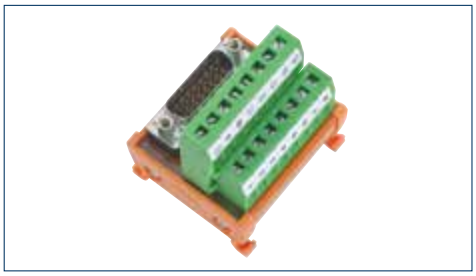
- Mounts on TS 35
- Unshielded RJ 11/12 modules
- RJ 45 module available in shielded and unshielded design
- USB modules features type A and type B connections
- Width: 47 mm

	RJS45-RJS45	RJS45-3	USB-AB
			
Circuit diagram			
Type			
Cat. no./Qty.	**RJS45-RJS45 (shielded)** **15775.2**/1	**RJS45-3** **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 information			
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
Connection cross-section	-	0.14 – 1.0 mm²	0.2 – 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	-

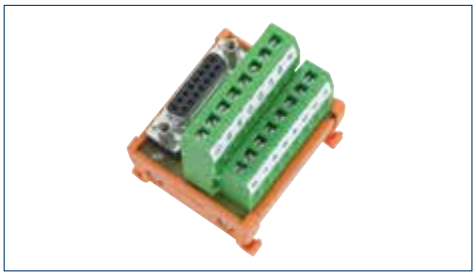
Interface modules SD...C

- 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

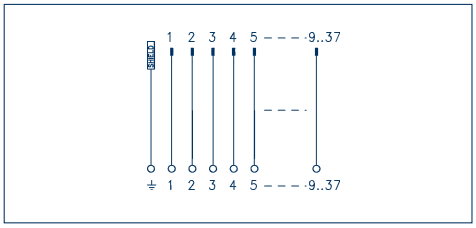
SD-S...C



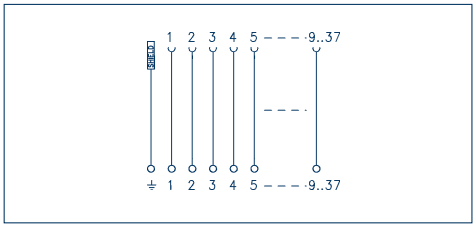
SD-B...C



Circuit diagram



Circuit diagram



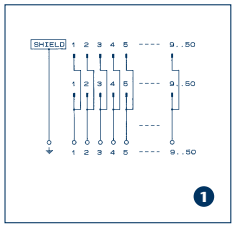
Type **Cat. no.**/Qty.	**D-sub male plug** **SD-S 9 C** **15292.2**/1	**D-sub female plug** **SD-B9C** **15294.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 37 x 61 mm	47 x 37 x 61 mm
Weight	50 g	50 g
Type **Cat. no.**/Qty.	**SD-S 9 CZ** **15293.2**/1	**SD-B 9CZ** **15295.2**/1
Size (L x W x H) with TS 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-S15C** **15296.2**/1	**SD-B15C** **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 15CZ** **15297.2**/1	**SD-B 15CZ** **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-S25C** **15300.2**/1	**SD-B25C** **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 25CZ** **15301.2**/1	**SD-B 25CZ** **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-S37C** **15304.2**/1	**SD-B37C** **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 37CZ** **15305.2**/1	**SD-B 37CZ** **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 information		
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)
Connection cross-section	0.2 – 2.5 mm²	0.2 – 2.5 mm²
Connection	AWG 22-14	AWG 22-14
Connection data		
Display	-	-
Protection against polarity reversal	-	-
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

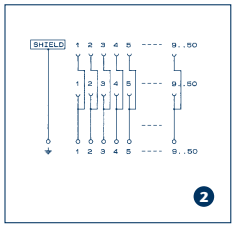
- Mounts on TS 32/TS 35
- D-sub on screw connection
- D-sub connection acc. to MIL-C-24308/ DIN 41652
- Module versions from 9 to 50 connections
- Male (S) / female (B) versions
- Width: 87 mm

SD2..
Dual D-sub connector

Circuit diagram



Circuit diagram

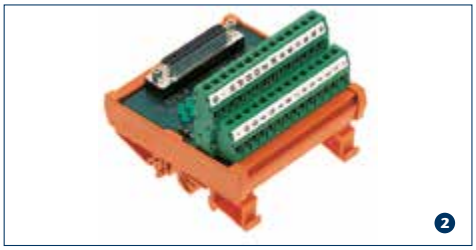


Type **Cat. no.**/Qty.	**D-sub male plug** ❶ **SD2-S9** **6301.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 37 x 72 mm
Weight	77 g
Type **Cat. no.**/Qty.	**SD2-S15** **6302.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 51 x 72 mm
Weight	104 g
Type **Cat. no.**/Qty.	**SD2-S25** **6303.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 77 x 72 mm
Weight	149 g
Type **Cat. no.**/Qty.	**SD2-S37** **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** ❷ **SD2-B9** **6306.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 37 x 72 mm
Weight	77 g
Type **Cat. no.**/Qty.	**SD2-B15** **6307.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 51 x 72 mm
Weight	104 g
Type **Cat. no.**/Qty.	**SD2-B25** **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.	**SD2-B37** **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 information	
DIN VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, overvoltage cat. III
Operating temperature	-20 to +50 °C
Stripping length	7mm
Connection	Screw connection
Connection cross-section	0.2 – 2.5 mm²
Connection	AWG 22-14
Connection data	
Display	-
Protection against polarity reversal	-
Input voltage	125 V AC/DC
Rated current	1 A
Male plug	D-sub connection acc. to MIL-C-24308/DIN 41652
Test voltage	0.67 kV eff.

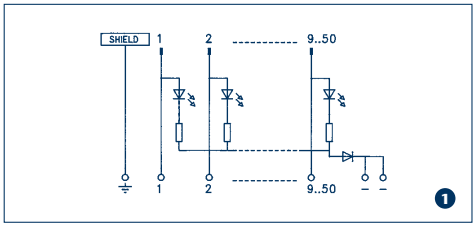
Interface modules SD

- 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

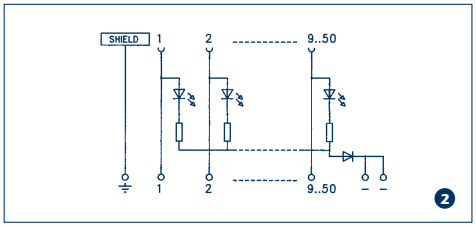
SD.. LA
with illuminated display



Circuit diagram



Circuit diagram



	D-sub male plug ❶
Type	**SD-S9 LA**
Cat. no./Qty.	**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	**SD-S15 LA**
Cat. no./Qty.	**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	**SD-S25 LA**
Cat. no./Qty.	**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	**SD-S37 LA**
Cat. no./Qty.	**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	**SD-B 9 LA**
Cat. no./Qty.	**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	**SD-B15 LA**
Cat. no./Qty.	**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	**SD-B25 LA**
Cat. no./Qty.	**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	**SD-B37 LA**
Cat. no./Qty.	**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 information	
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
Connection cross-section	0.2 – 2.5 mm^2
Connection	AWG 22-14
Connection data	
Display	green LED
Protection against polarity reversal	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.

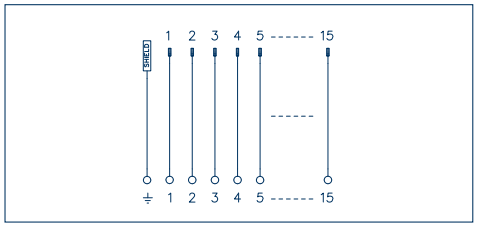
Interface modules SD High Density

- 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

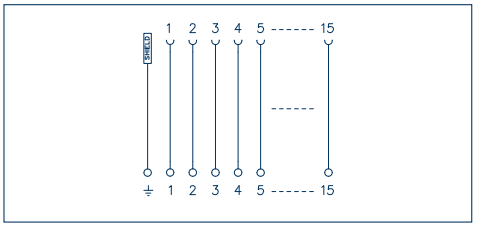
SD-S15..-HD

SD-B15..-HD

Circuit diagram



Circuit diagram

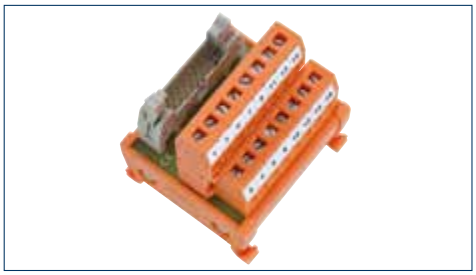


Type **Cat. no.**/Qty.	**D-sub male plug** **SD-S15C-HD** **16105.2 / 1**	**D-sub female plug** **SD-B15C-HD** **16107.2 / 1**
Size (L x W x H) with TS 35 x 7.5	47 x 49 x 61	47 x 49 x 61
Weight	72 g	72 g
Type **Cat. no.**/Qty.	**SD-S15CZ-HD** **16106.2 / 1**	**SD-B15CZ-HD** **16108.2 / 1**
Size (L x 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 information		
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)
Connection cross-section	0.2 – 2.5 mm²	0.2 – 2.5 mm²
Connection	AWG 22-14	AWG 22-14
Connection data		
Display	-	-
Protection against polarity reversal	-	-
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.

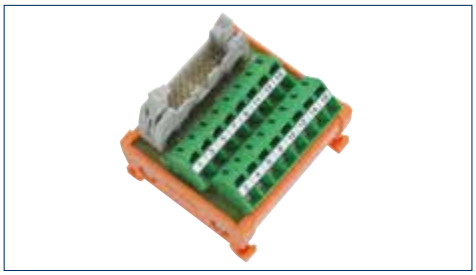
Interface modules FBK...C

- 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

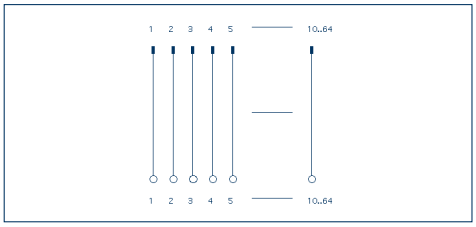
FBK... C



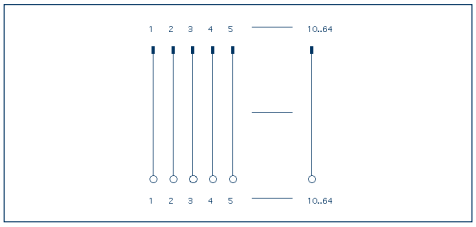
FBK... CZ



Circuit diagram



Circuit diagram



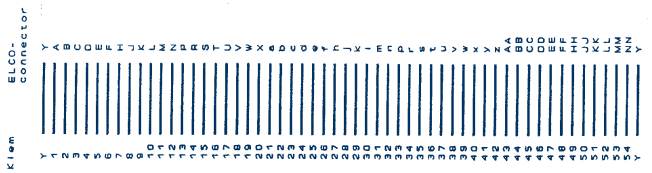
Type Cat. no./Qty.	**FBK 10C 15272.2**/1	**FBK 10CZ 15273.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 36 x 61 mm	47 x 36 x 38 mm
Weight	47 g	32 g
Type Cat. no./Qty.	**FBK 14C 15274.2**/1	**FBK 14CZ 15275.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 46 x 61 mm	47 x 46 x 38 mm
Weight	61 g	43 g
Type Cat. 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 50 CZ 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 60 CZ 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 information		
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	7mm	6mm
Connection	Screw connection	Tension-spring connection
Connection cross-section	0.2 – 2.5 mm²	0.2 – 2.5 mm²
Connection	AWG 22-14	AWG 22-14
Input data		
Display	-	-
Protection against polarity reversal	-	-
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

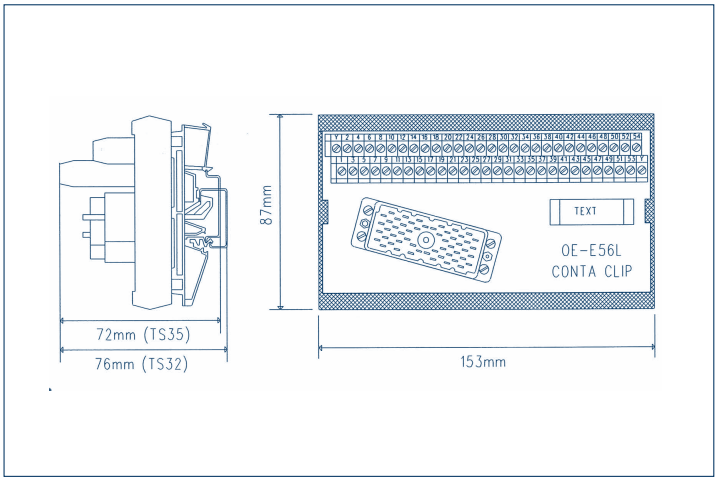
- Mounts on TS 32/TS 35
- EDAC plug connector on screw connection
- The EDAC series 516 is 100% compatible with the ELCO 8016
- Offset arrangement of plug connector
- Does not influence the neighbouring modules
- "Left" and "right" versions are available

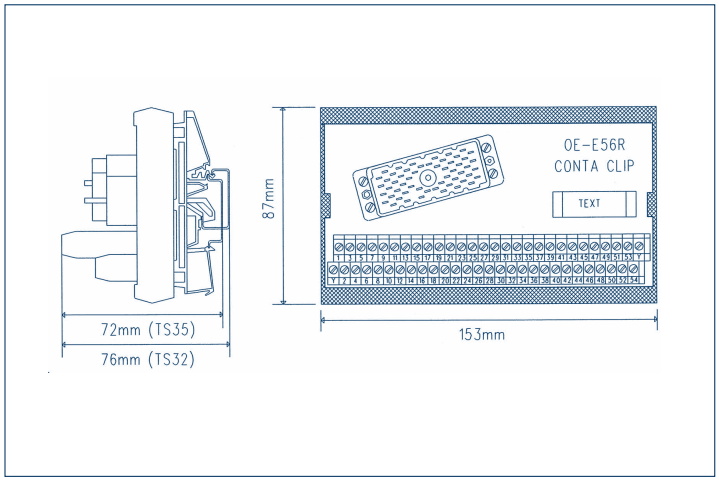
OE-E38/E56

Circuit diagram



Type **Cat. no.**/Qty.	**OE-E38/36L** **15351.2**/1	**OE-E38/36R** **15350.2/1**	**OE-E56L** **15090.2**/1	**OE-E56R** **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 information				
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
Connection cross-section	0.2 – 2.5 mm²	0.2 – 2.5 mm²	0.2 – 2.5 mm²	0.2 – 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 distances: EDAC 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



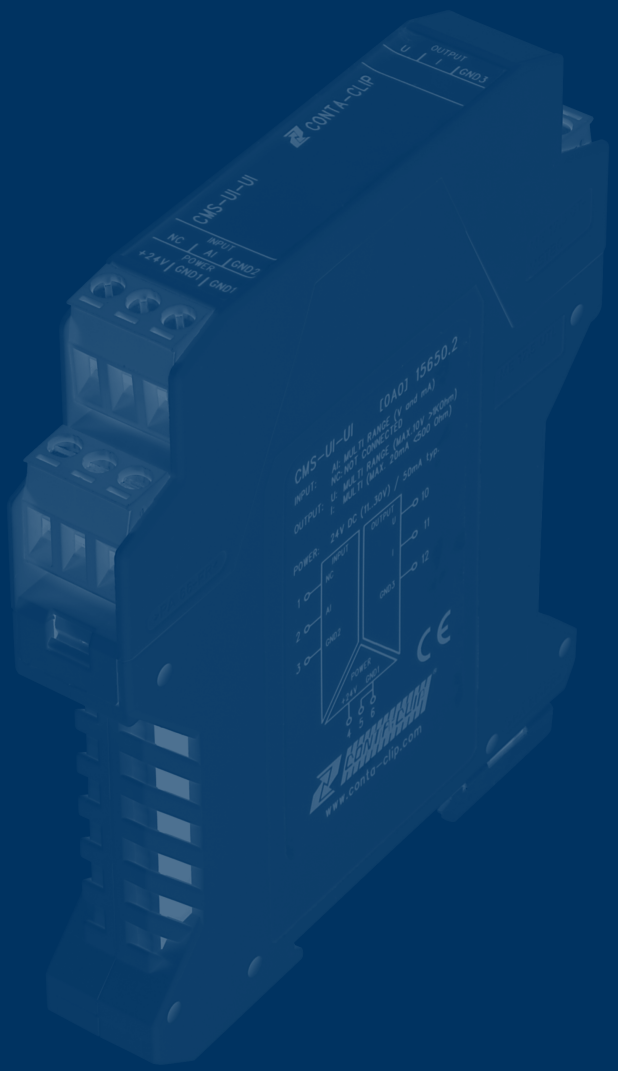


Converter units

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.



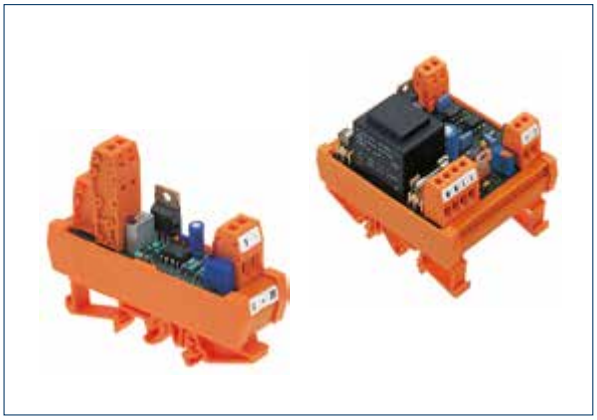
Converter units

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 – 20 mA or 4 – 20 mA and 0 – 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 converter 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

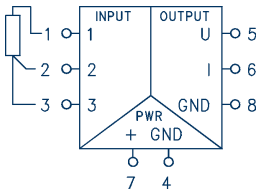
- **CAE/I, U**:
  analogue signal converter modules without electrical isolation
- **CAE/...G/230**:
  analogue signal converter modules without electrical isolation
- **CAE/POT** potentiometric modules

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-PT100-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

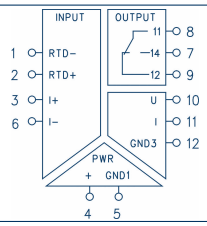
Type **Cat. no.**/Qty.	**CML-PT100-UI** **15752.2/1**
Temperature range	-50 to +50 °C
Type **Cat. no.**/Qty.	**CML-PT100-UI** **15701.2/1x**
Temperature range	0 to +100 °C
Type **Cat. no.**/Qty.	**CML-PT100-UI** **15753.2/1**
Temperature range	0 to +200 °C
Type **Cat. no.**/Qty.	**CML-PT100-UI** **15754.2/1**
Temperature range	0 to +300 °C
Type **Cat. no.**/Qty.	**CML-PT100-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 information	
DIN VDE specifications	DIN EN 50178:1987; DIN VDE 0110 contamination degree 2, overvoltage category III
Electromagnetic properties	CE compliant
Protection class	IP 20
Operating temperature	-20 to +55 °C
Wire connect type	
Stripping length	12 mm
Conductor cross-section	0.2 – 2.5 mm²
Screw connection	AWG 22-14
Transmission error	< 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
Line 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 data	
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 information	
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
Wire connect type	Pluggable screw connection, AWG 22-14
Stripping length	7 mm
Connection cross-section	0.2 – 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 EN60751/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 data	
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

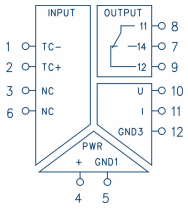
Input Thermal sensor Type	Min. (°C)	Max. (°C)	R0 (Ω)	Output U (V) 0-10 V	0-5 V	1-5 V	10-0 V	I (mA) 0-5	0-10	0-20	0-40
PT100	-50	+ 850	100	x	x	x	x	x	x	x	x
PT500	-50	+ 850	500	x	x	x	x	x	x	x	x
PT1000	-50	+ 850	1000	x	x	x	x	x	x	x	x
NI100	-50	+ 180	100	x	x	x	x	x	x	x	x
NI1000	-50	+ 180	1000	x	x	x	x	x	x	x	x

Multi-function thermocouple unit

- 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 information	
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
Wire connect type	Pluggable screw connection, AWG 22-14
Stripping length	7 mm
Connection cross-section	0.2 – 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 data	
Output signals (adjustable via DIP switch)	0-10V, 0-5V, 1-5V, 10-0V, 0-5mA, 0-10mA, 0-20mA, 4-20mA
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

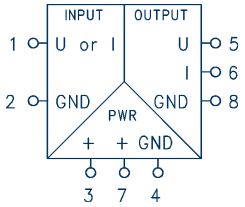
Input Thermocouple TYPE	Min. (°C)	Max. (°C)	Output Standards	U (V) 0-10 V	0-5 V	1-5 V	10-0 V
K	-50	+ 1350	EN 60584	x	x	x	x
J	-50	+ 1200	EN 60584	x	x	x	x
T	-50	+ 400	EN 60584	x	x	x	x
E	-50	+ 1000	EN 60584	x	x	x	x

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 information	
DIN VDE specifications	DIN EN 50178:1987; DIN VDE 0110 contamination degree 2, overvoltage category III
Electromagnetic properties	CE compliant
Protection class	IP 20
Operating temperature	-20 to +55 °C
Wire connect type	Screw connection
Stripping length	12 mm / 8 mm
Connection cross-section	0.2 – 2.5 mm²
Screw / tension-spring connection	AWG 22-14
Transmission error	< 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 data	
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.

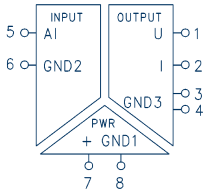
Voltage and current transformer unit CML-UI-UI-G

With electrical isolation

- Mounts on TS 35
- Compact design, width: 6.2 mm
- Screw connection
- Three-way electrical isolation between input, output and supply voltage
- Input: 0–10 V, 2–10 V, 0–5 V, 1–5 V 0–20mA, 4–20mA
- Output: 0–10 V, 2–10 V, 0–5 V, 1–5 V 0–20mA, 4–20mA
- 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 **Cat. no.**	**CML-UI-UI-G** **15903.2**	**Qty.** 1
Size (L x W x H) with TS35x7.5 mm	93.1 x 6.2 x 102.5	
Weight, g	66	
General information		
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	
Wire connect 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 error	< 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 data		
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	

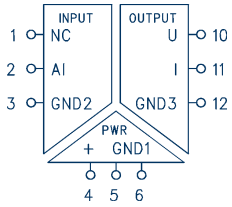
Input **U**	**Output** **U (V)** 0 – 5 V	1 – 5 V	0 – 10 V	2 – 10 V	**I (mA)** 0 – 20 mA	4 – 20 mA
0 – 5 V	x	x	x	x	x	x
1 – 5 V	x	x	x	x	x	x
0 – 10 V	x	x	x	x	x	x
1 – 10 V	x	x	x	x	x	x
I						
0 – 20 mA	x	x	x	x	x	x
4 – 20 mA	x	x	x	x	x	x

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 information	
DIN VDE specifications	DIN EN 50178:1987; DIN VDE 0110 contamination degree 2, overvoltage category III
Electromagnetic properties	CE compliant
Operating temperature	0 to +55 °C
Wire connect type	Pluggable screw connection
Stripping length	7 mm
Connection cross-section	0.2 – 2.5 mm²
Screw connection	AWG 22-14
Transmission error	< 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 data	
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

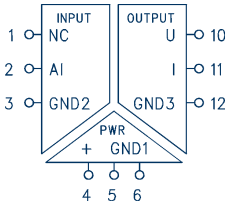
Input	Output U (V)			I (mA)			
	0 – 10 V	0 – 5 V	1 – 5 V	0 – 5 mA	0 – 10 A	0 – 20 mA	4 – 20 mA
U							
0 – 1 V	x	x	x	x	x	x	x
0 – 2 V	x	x	x	x	x	x	x
0 – 2.5 V	x	x	x	x	x	x	x
0 – 5 V	x	x	x	x	x	x	x
1 – 5 V	x	x	x	x	x	x	x
0 – 10 V	x	x	x	x	x	x	x
0 – 20 V	x	x	x	x	x	x	x
0 – 40 V	x	x	x	x	x	x	x
I							
0 – 5 mA	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 information	
DIN VDE specifications	DIN EN 50178:1987; DIN VDE 0110 contamination degree 2, overvoltage category III
Electromagnetic properties	CE compliant
Operating temperature	0 to +55 °C
Wire connect type	Pluggable screw connection
Stripping length	7 mm
Connection cross-section	0.2 – 2.5 mm²
Screw connection	AWG 22-14
Transmission error	< 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 data	
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

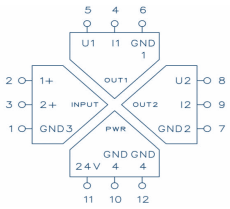
Input	Output U (V) 0 – 10 V	0 – 5 V	1 – 5 V	I (mA) 0-5	mA 0-10	mA 0-20	mA 4-20
U							
0 – 60 mV	x	x	x	x	x	x	x
0 – 100 mV	x	x	x	x	x	x	x
0 – 200 mV	x	x	x	x	x	x	x
0 – 300 mV	x	x	x	x	x	x	x
0 – 500 mV	x	x	x	x	x	x	x
0 – 1 V	x	x	x	x	x	x	x
0 – 2 V	x	x	x	x	x	x	x
0 – 2.5 V	x	x	x	x	x	x	x
0 – 5 V	x	x	x	x	x	x	x
1 – 5 V	x	x	x	x	x	x	x
0 – 10 V	x	x	x	x	x	x	x
0 – 20 V	x	x	x	x	x	x	x
0 – 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
- Four-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 information	
DIN VDE specifications	DIN EN 50178:1987; DIN VDE 0110 contamination degree 2, overvoltage category III
Electromagnetic properties	CE compliant
Operating temperature	0 to +55 °C
Wire connect type	Pluggable screw connection
Stripping length	7 mm
Connection cross-section	0.2 – 2.5 mm²
Screw connection	AWG 22-14
Transmission error	< 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 data	
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

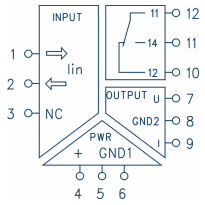
Input	Output U (V)				I (mA)			
U	0 – 5 V	1 – 5 V	0 – 10 V	2 – 10 V	0 – 10 mA	2 – 10 mA	0 – 20 mA	4 – 20 mA
0 – 5 V	x	x	x	x	x	x	x	x
1 – 5 V	x	x	x	x	x	x	x	x
0 – 10 V	x	x	x	x	x	x	x	x
2 – 10 V	x	x	x	x	x	x	x	x
I								
0 – 10 mA	x	x	x	x	x	x	x	x
2 – 10 mA	x	x	x	x	x	x	x	x
0 – 20 mA	x	x	x	x	x	x	x	x
4 – 20 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 information	
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
Wire connect type	Pluggable screw connection, AWG 22-14
Stripping length	7 mm
Connection cross-section	0.2 – 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 data	
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

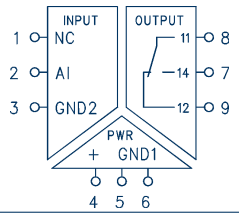
Input I	Output U (V) 0-10 V	0-5 V	1-5 V	10-0 V	I (mA) 0-5	mA 0-10	mA 0-20	mA 4-20
0 – 500 mA	x	x	x	x	x	x	x	x
0 – 1 A	x	x	x	x	x	x	x	x
0 – 5 A	x	x	x	x	x	x	x	x
0 – 10 A	x	x	x	x	x	x	x	x

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 information	
DIN VDE specifications	DIN EN 50178:1987; DIN VDE 0110 contamination degree 2, overvoltage category III
Electromagnetic properties	CE compliant
Operating temperature	0 to 55 °C
Wire connect type	Pluggable screw connection
Stripping length	7 mm
Connection cross-section	0.2 – 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 10V)
Max. input signal U / I	40 V DC / 25 mA
Input resistance U / I	> 200 kΩ / 50 Ω
Output data	
Relay contact	1 CO contact
Threshold setting range	1 – 90 %
Hysteresis setting range	1 – 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

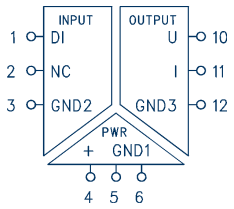
Input U	Output Relay
0 – 1 V	x
0 – 2 V	x
0 – 2.5 V	x
0 – 5 V	x
1 – 5 V	x
0 – 10 V	x
0 – 20 V	x
0 – 40 V	x
I	
0 – 5 mA	x
0 – 10 mA	x
0 – 20 mA	x
4 – 20 mA	x

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 information	
DIN VDE specifications	DIN EN 50178:1987; DIN VDE 0110 contamination degree 2, overvoltage category III
Electromagnetic properties	CE compliant
Operating temperature	0 to +55 °C
Wire connect type	Pluggable screw connection
Stripping length	7 mm
Connection cross-section	0.2 – 2.5 mm²
Screw connection	AWG 22-14
Transmission error	< 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 0 to 1.0 kHz)
Frequency range (adjustable via DIP switch)	1.0 Hz to 10.0 kHz (Uin: 5 – 24 V AC/DC)
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 data	
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 – 0.1 Hz	x	x	x	x
0 – 1.1 Hz	x	x	x	x
0 – 9.9 Hz	x	x	x	x
0 – 10 Hz	x	x	x	x
0 – 11 Hz	x	x	x	x
0 – 99 Hz	x	x	x	x
0 – 100 Hz	x	x	x	x

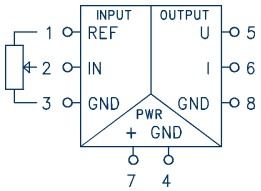
Input F	Output U 0-10 V	U 0-5 V	I (mA) 0-20	mA 4-20
0 – 110 Hz	x	x	x	x
0 – 990 Hz	x	x	x	x
0 – 1000 Hz	x	x	x	x
0 – 1100 Hz	x	x	x	x
0 – 9900 Hz	x	x	x	x
0 – 10000 Hz	x	x	x	x

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

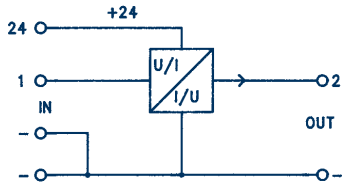
Type Cat. no./Qty.	CML-POT-UI 15641.2/1
Size (L x W x H) with TS 35 x 7.5	93.1 x 6.2 x 102.5 mm
Weight	66 g
General information	
DIN VDE specifications	DIN EN 50178:1987; DIN VDE 0110 contamination degree 2, overvoltage category III
Electromagnetic properties	CE compliant
Protection class	IP 20
Operating temperature	-20 to +55 °C
Wire connect type	Screw / tension-spring connection
Stripping length	12 mm / 8 mm
Connection cross-section	0.2 – 2.5 mm²
Screw / tension-spring connection	AWG 22-14
Transmission error	< 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 data	
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.

CAE analogue signal converter modules without electrical isolation

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

CAE/U-I/010-010 | **CAE/U-I/010-020** | **CAE/U-I/010-420**

Circuit diagram



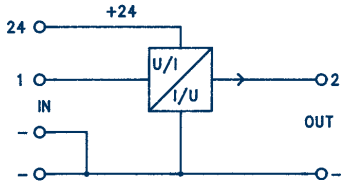
Type Cat. no./Qty.	CAE/U-I/010-010 6751.2/1	CAE/U-I/010-020 6752.2/1	CAE/U-I/010-420 6753.2/1
Size (L x W x H) with TS 35 x 7.5	87 x 25 x 73 mm	87 x 25 x 73 mm	87 x 25 x 73 mm
Weight	50 g	50 g	50 g
General information			
DIN VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, over-voltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, over-voltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, over-voltage cat. III
Operating temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Stripping length	7 mm	7 mm	7 mm
Connection cross-section	0.2 – 2.5 mm²	0.2 – 2.5 mm²	0.2 – 2.5 mm²
Screw connection	AWG 22-14	AWG 22-14	AWG 22-14
Transmission error	< 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 data			
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

CAE analogue signal converter modules without electrical isolation

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

CAE/I-U/010-010 | **CAE/I-U/020-010** | **CAE/I-U/420-010**

Circuit diagram



Type Cat. no./Qty.	CAE/I-U/010-010 6754.2/1	CAE/I-U/020-010 6755.2/1	CAE/I-U/420-010 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 information			
DIN VDE specifications	DIN EN 50178, DIN VDE 0110, contamination degree 2, over-voltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, over-voltage cat. III	DIN EN 50178, DIN VDE 0110, contamination degree 2, over-voltage cat. III
Operating temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Stripping length	7 mm	7 mm	7 mm
Connection cross-section	0.2 – 2.5 mm²	0.2 – 2.5 mm²	0.2 – 2.5 mm²
Screw connection	AWG 22-14	AWG 22-14	AWG 22-14
Transmission error	< 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 data			
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

CAE analogue signal converter modules with electrical isolation

- 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

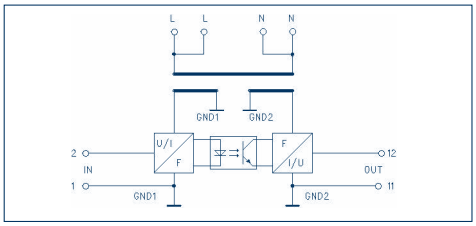
CAE/U-U/G/230

CAE/U-I/G/230

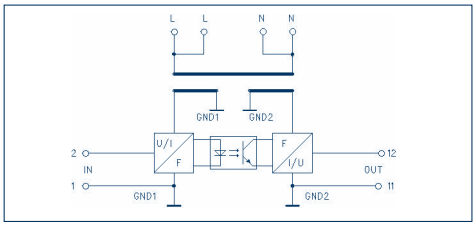
CAE/I-U/G/230

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 information				
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	-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
Connection cross-section	0.2 – 2.5 mm²	0.2 – 2.5 mm²	0.2 – 2.5 mm²	0.2 – 2.5 mm²
Screw connection	AWG 22-14	AWG 22-14	AWG 22-14	AWG 22-14
Transmission error	< 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 data				
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

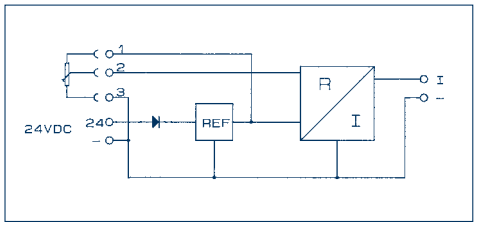
Potentiometric modules CAE/POT

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

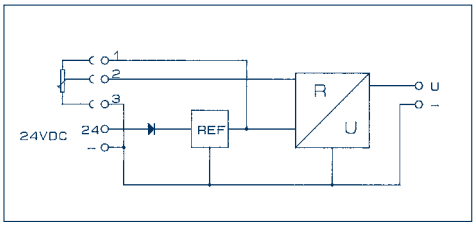
CAE/POT-I

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 information		
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 cross-section	0.2 – 2.5 mm²	0.2 – 2.5 mm²
Screw connection	AWG 22-14	AWG 22-14
Transmission error	< 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 data		
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: including 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.

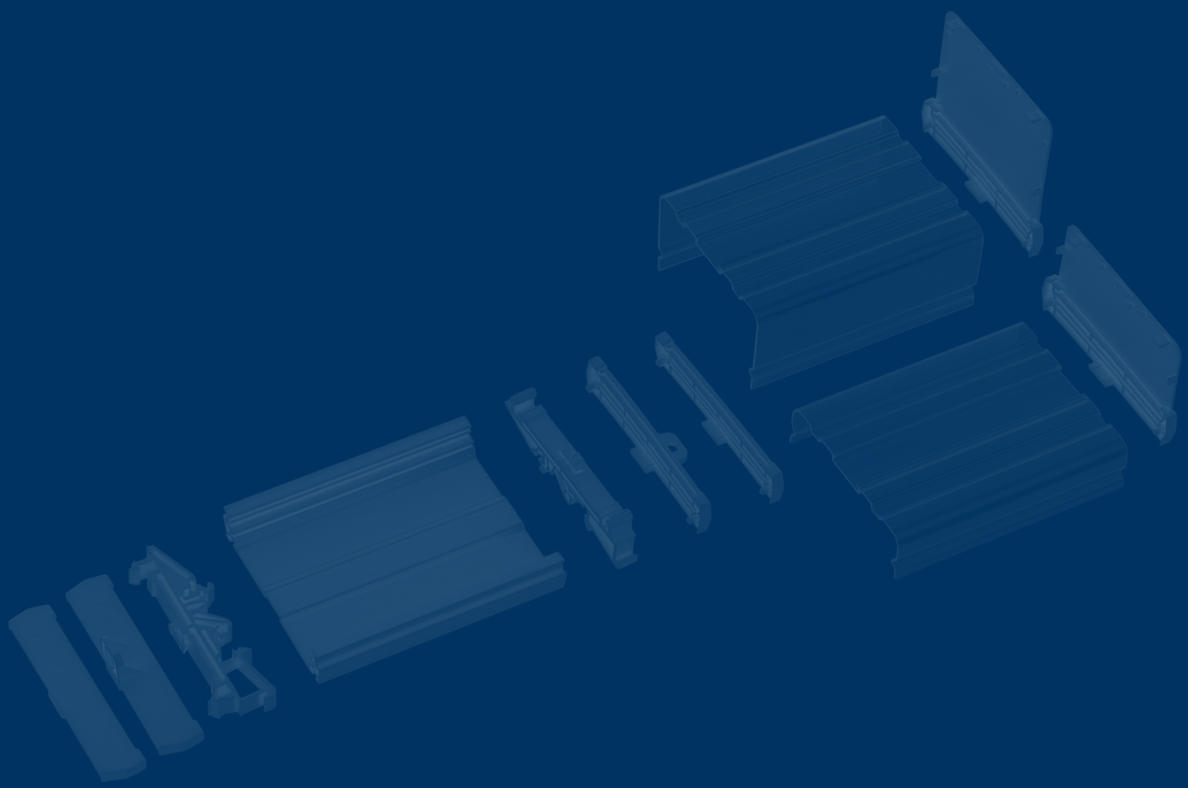
Building automation

I/O module

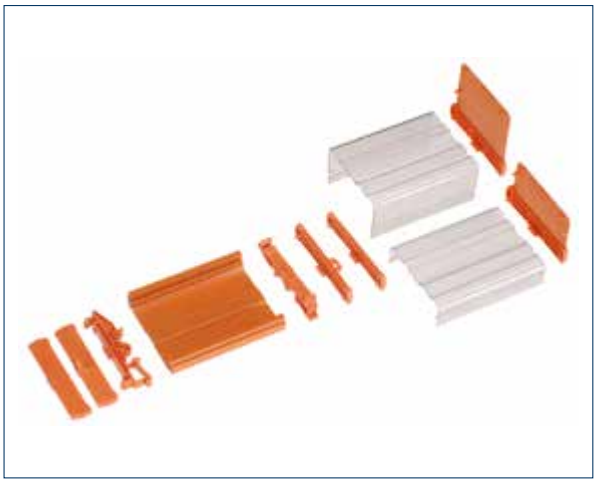
This product was designed to automatically control building blinds and lighting systems. The control system consists of relay and bypass modules that forward signals from a PLC to four groups of eight signals.

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



Locking-base system RS-SP

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.

Locking-base system RS-SP

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**.

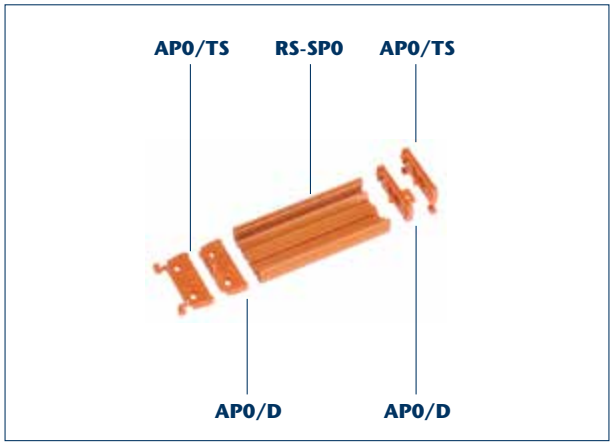
Transparent cover profiles for the **RS-SP 1** system are available as **AD 1** (low version) and **AD 2** (high version) in one meter lengths. The **AP/AD 1** (low version) and **AP/AD 2** (high version) end plates serve as holders. They are fastened to the cover profile by using the **BS-AD** mounting 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 the **CONTA-LABEL** catalogue
Marking components for ink-based marking systems).

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

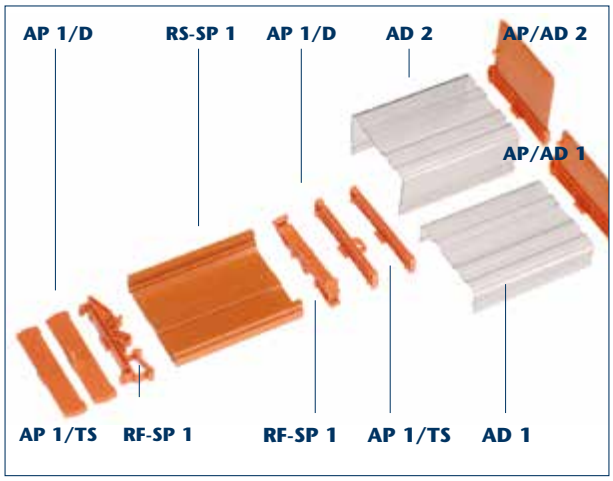
- **RS-SP** extruded profile (**RS-SP0; RS-SP 1; RS-SP 2** versions)
- **AP** end plates in varying versions:
  - **AP/TS (RS-SPO)** mount on the TS 35 DIN rail. **RS-SP 1** and **RS-SP 2** on TS 32/TS 35 rail.
  - **AP/D** direct mount
  - **AP/AD 1** low version is for fastening the transparent **AD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

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

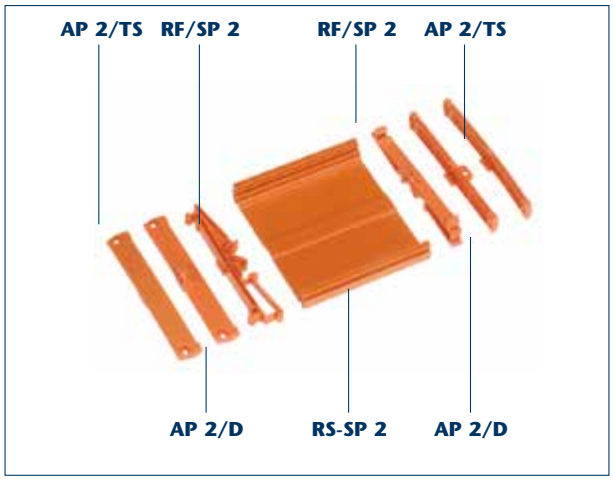
RS-SP0



RS-SP 1



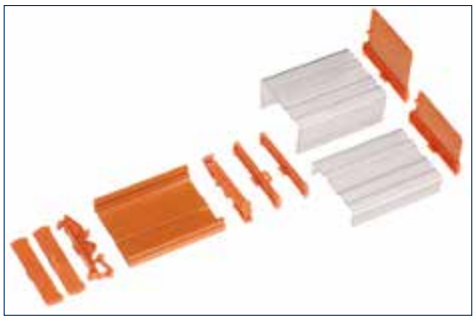
RS-SP 2



Locking-base system RS-SP

RS-SP 0

RS-SP 1



Individual components	Type	Cat. no.	Qty.	Type	Cat. no.	Qty.
Extruded profile	**RS-SP 0 2000 mm orange**	**5675.3**	1	**RS-SP 1 2000 mm orange**	**5680.3**	1
End plate / DIN rail mount	**AP 0/TS orange**	**3133.3**	20	**AP 1/TS orange**	**5681.3**	20
End plate / direct mount	**AP 0/D orange**	**3134.3**	20	**AP 1/D orange**	**5682.3**	20
End plate for AD 1	–	–	–	**AP AD 1**	**5891.0**	20
End plate for AD 2	–	–	–	**AP AD 2**	**5895.0**	20
Mounting screws BS-RS	**BS RS**	**4560.0**	100	–	–	–
Cover profile AD 1	–	–	–	**AD 1/1000 mm**	**5893.0**	1
Cover profile AD 2	–	–	–	**AD 2/1000 mm**	**5894.0**	1
Mounting screws for cover profile BS-AD	–	–	–	**BS AD/M 2.9x6.5**	**2385.0**	100
Mounting foot for TS 32/35	–	–	–	**RF/SP 1 orange**	**5683.3**	20
Dimensions	**mm**	**Thickness mm**		**mm**	**Thickness mm**	
PCB upper level	42.5/–	1.5 + 0.2		73 + 0.4 ./. 0.1	1.5 + 0.2	
PCB lower level	–			68 + 0.4 ./. 0.1	1.5 + 0.2	
Total width	46.5			84		
Length	2000			2000		
Height on TS 32	–			43		
Height on TS 35	27			40		
Height when directly mounted	19.0			17		
Height of AD 1	–			25		
Height of AD 2	–			45		
Material						
Material	RS-SP = PVC			RS-SP = PVC		
	AP/RF = PA 6.6-V 2			AP/RF = PA 6.6-V 2		

Locking-base system RS-SP

RS-SP 2

Individual components	Type	Cat. no.	Qty.
Extruded profile	**RS-SP 2 2000 mm 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
Dimensions	**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	–		
Material			
Material	RS-SP = PVC		
	AP/RF = PA 6.6-V 2		

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	2.1 x In	2.75 x In		4 x In		10 x In	
	min.	max.	min.	max.	min.	max.	min.	max.
32 – 100 mA	1 h	2 min.	200 ms	10 s	40 ms	3 s	10 ms	300 ms
125 mA – 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 integral A²s	Qty.
SI 5x20 0.032A-T	**2912.0**	32 mA	35 'L'	3000	0.2	0.010	10
SI 5x20 0.040A-T	**2913.0**	40 mA	35 'L'	2000	0.2	0.020	10
SI 5x20 0.050A-T	**2914.0**	50 mA	35 'L'	1500	0.2	0.035	10
SI 5x20 0.063A-T	**2915.0**	63 mA	35 'L'	1000	0.2	0.05	10
SI 5x20 0.080A-T	**2916.0**	80 mA	35 'L'	800	0.2	0.12	10
SI 5x20 0.100A-T	**2917.0**	100 mA	35 'L'	700	0.3	0.16	10
SI 5x20 0.125A-T	**2918.0**	125 mA	35 'L'	600	0.3	0.24	10
SI 5x20 0.160A-T	**2919.0**	160 mA	35 'L'	600	0.3	0.4	10
SI 5x20 0.200A-T	**2920.0**	200 mA	35 'L'	500	0.3	0.7	10
SI 5x20 0.250A-T	**2921.0**	250 mA	35 'L'	400	0.2	1.4	10
SI 5x20 0.315A-T	**2922.0**	315 mA	35 'L'	140	0.2	0.35	10
SI 5x20 0.400A-T	**2923.0**	400 mA	35 'L'	130	0.2	0.49	10
SI 5x20 0.500A-T	**2924.0**	500 mA	35 'L'	120	0.2	0.9	10
SI 5x20 0.630A-T	**2925.0**	630 mA	35 'L'	110	0.2	1.4	10
SI 5x20 0.800A-T	**2926.0**	800 mA	35 'L'	100	0.3	3.2	10
SI 5x20 1.000A-T	**2927.0**	1 A	35 'L'	90	0.3	6.5	10
SI 5x20 1.250A-T	**2928.0**	1.25 A	35 'L'	80	0.3	5.0	10
SI 5x20 1.600A-T	**2929.0**	1.6 A	35 'L'	80	0.4	10	10
SI 5x20 2.000A-T	**2930.0**	2 A	35 'L'	80	0.5	20	10
SI 5x20 2.500A-T	**2931.0**	2.5 A	35 'L'	80	0.6	26	10
SI 5x20 3.150A-T	**2932.0**	3.15 A	35 'L'	80	0.6	44	10
SI 5x20 4.000A-T	**2933.0**	4 A	40 'L'	80	0.8	72	10
SI 5x20 5.000A-T	**2934.0**	5 A	50 'L'	80	1.2	130	10
SI 5x20 6.300A-T	**2935.0**	6.3 A	63 'L'	70	1.3	230	10
SI 5x20 8.000A-T	**2936.0**	8 A	80 'L'	70	1.8	240	10
SI 5x20 10.000A-T	**2937.0**	10 A	100 'L'	70	2.4	380	10

Micro-fuses/G-fuse cartridges 5 x 20 metric 250 V / 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	2.1 x In	2.75 x In		4 x In		10 x In	
	min.	max.	min.	max.	min.	max.	min.	max.
32 – 100 mA	1 h	30 min.	10 ms	500 ms	3 ms	100 ms	-	300 ms
125mA – 10 A	1 h	30 min.	50 ms	2 s	10 ms	300 ms	-	300 ms
8 – 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 integral A²s	Qty.
SI 5x20 0.032A- F	**2891.0**	32 mA	35 'L'	10000	0.8	0.0001	10
SI 5x20 0.040A- F	**2892.0**	40 mA	35 'L'	8000	0.8	0.0002	10
SI 5x20 0.050A- F	**2893.0**	50 mA	35 'L'	3500	0.4	0.0004	10
SI 5x20 0.063A- F	**2894.0**	63 mA	35 'L'	3500	0.5	0.0007	10
SI 5x20 0.080A- F	**2895.0**	80 mA	35 'L'	2500	0.5	0.0017	10
SI 5x20 0.100A- F	**2896.0**	100 mA	35 'L'	2200	0.6	0.0022	10
SI 5x20 0.125A- F	**2897.0**	125 mA	35 'L'	350	0.2	0.01	10
SI 5x20 0.160A- F	**2898.0**	160 mA	35 'L'	310	0.2	0.02	10
SI 5x20 0.200A- F	**2899.0**	200 mA	35 'L'	290	0.2	0.037	10
SI 5x20 0.250A- F	**2900.0**	250 mA	35 'L'	280	0.3	0.073	10
SI 5x20 0.315A- F	**2901.0**	315 mA	35 'L'	230	0.3	0.16	10
SI 5x20 0.400A- F	**2902.0**	400 mA	35 'L'	200	0.3	0.31	10
SI 5x20 0.500A- F	**2903.0**	500 mA	35 'L'	160	0.3	0.16	10
SI 5x20 0.630A- F	**2904.0**	630 mA	35 'L'	140	0.3	0.39	10
SI 5x20 0.800A- F	**2905.0**	800 mA	35 'L'	130	0.4	0.8	10
SI 5x20 1.000A- F	**2406.0**	1 A	35 'L'	130	0.5	1.5	10
SI 5x20 1.250A- F	**2906.0**	1.25 A	35 'L'	120	0.6	2.0	10
SI 5x20 1.600A- F	**2907.0**	1.6 A	35 'L'	120	0.7	4.1	10
SI 5x20 2.000A- F	**2407.0**	2 A	35 'L'	120	0.9	6.2	10
SI 5x20 2.500A- F	**2908.0**	2.5 A	35 'L'	120	1.0	11	10
SI 5x20 3.150A- F	**2909.0**	3.15 A	35 'L'	120	1.2	20	10
SI 5x20 4.000A- F	**2408.0**	4 A	40 'L'	100	1.4	25	10
SI 5x20 5.000A- F	**2938.0**	5 A	50 'L'	100	1.7	42	10
SI 5x20 6.300A- F	**2409.0**	6.3 A	63 'L'	100	2.0	79	10
SI 5x20 8.000A- F	**2910.0**	8 A	80 'L'	100	2.2	125	10
SI 5x20 10.000A- F	**2911.0**	10 A	100 'L'	100	2.4	220	10

Fuses SI

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	2.1 x In	2.75 x In		4 x In		10 x In	
	min.	max.	min.	max.	min.	max.	min.	max.
32 – 100 mA	1 h	30 min.	400 ms	80 s	95 ms	5 s	10 ms	300 ms
125 mA – 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 integral A²s	Qty.
SI 6.3x32 0.100A-T	**4950.0**	100 mA		3600	1.3	0.050	10
SI 6.3x32 0.125A-T	**4951.0**	125 mA		3400	1.4	0.080	10
SI 6.3x32 0.160A-T	**4952.0**	160 mA		3000	1.5	0.12	10
SI 6.3x32 0.200A-T	**4953.0**	200 mA	1.5 kA	2500	1.60	0.20	10
SI 6.3x32 0.250A-T	**4954.0**	250 mA		2000	1.7	0.35	10
SI 6.3x32 0.315A-T	**4955.0**	315 mA	@ 500 V AC	1800	1.8	0.50	10
SI 6.3x32 0.400A-T	**4956.0**	400 mA		1600	2.0	0.80	10
SI 6.3x32 0.500A-T	**4957.0**	500 mA	cos φ = 1	450	0.6	0.35	10
SI 6.3x32 0.630A-T	**4958.0**	630 mA		400	0.7	0.49	10
SI 6.3x32 0.800A-T	**4959.0**	800 mA		350	0.80	0.9	10
SI 6.3x32 1.000A-T	**4960.0**	1 A		350	0.9	1.4	10
SI 6.3x32 1.250A-T	**4961.0**	1.25 A	10 kA @ 400 V AC	300	1.0	3.2	10
SI 6.3x32 1.600A-T	**4962.0**	1.6 A		200	1.1	5.2	10
SI 6.3x32 2.000A-T	**4963.0**	2 A	cos φ = 0.3	180	1.2	10	10
SI 6.3x32 2.500A-T	**4964.0**	2.5 A		160	1.3	19	10
SI 6.3x32 3.150A-T	**4965.0**	3.15 A		150	1.4	37	10
SI 6.3x32 4.000A-T	**4966.0**	4 A		140	1.5	68.0	10
SI 6.3x32 5.000A-T	**4967.0**	5 A		135	2.2	80	10
SI 6.3x32 6.300A-T	**4968.0**	6.3 A		110	2.2	215	10
SI 6.3x32 8.000A-T	**4969.0**	8 A		110	2.6	370	10
SI 6.3x32 10.000A-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	2.1 x In	2.75 x In		4 x In		10 x In	
	min.	max.	min.	max.	min.	max.	min.	max.
160 – 800 mA	1 h	30 min.	20 ms	1.5 s	8 ms	400 ms	-	20 ms
1 – 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 integral A²s	Qty.
SI 6.3x32 0.160A-F	**4971.0**	160 mA		7000	2.5	0.0015	10
SI 6.3x32 0.200A-F	**4972.0**	200 mA		6500	2.9	0.0035	10
SI 6.3x32 0.250A-F	**4973.0**	250 mA		6000	3.4	0.0085	10
SI 6.3x32 0.315A-F	**4974.0**	315 mA	1.5 kA	1000	0.90	0.036	10
SI 6.3x32 0.400A-F	**4975.0**	400 mA	@ 500 V AC	900	1	0.07	10
SI 6.3x32 0.500A-F	**4976.0**	500 mA	cos φ = 1	800	1.1	0.19	10
SI 6.3x32 0.630A-F	**4977.0**	630 mA		700	1.3	0.35	10
SI 6.3x32 0.800A-F	**4978.0**	800 mA		600	1.4	0.49	10
SI 6.3x32 1.000A-F	**4979.0**	1 A		400	1.2	0.4	10
SI 6.3x32 1.250A-F	**4980.0**	1.25 A	50 kA	300	1.30	0.8	10
SI 6.3x32 1.600A-F	**4981.0**	1.6 A	@ 500 V AC	300	1.4	1.5	10
SI 6.3x32 2.000A-F	**4982.0**	2 A	cos φ = 1	280	1.6	2.5	10
SI 6.3x32 2.500A-F	**4983.0**	2.5 A		260	1.8	5	10
SI 6.3x32 3.150A-F	**4984.0**	3.15 A		240	2.3	9	10
SI 6.3x32 4.000A-F	**4985.0**	4 A	20 kA	220	2.6	18	10
SI 6.3x32 5.000A-F	**4986.0**	5 A	@ 500 V AC	190	2.9	40	10
SI 6.3x32 6.300A-F	**4987.0**	6.3 A		170	3.2	80	10
SI 6.3x32 8.000A-F	**4988.0**	8 A	1.5 kA	160	3.7	150	10
SI 6.3x32 10.000A-F	**4989.0**	10 A	@ 500 V AC	150	4.0	240	10

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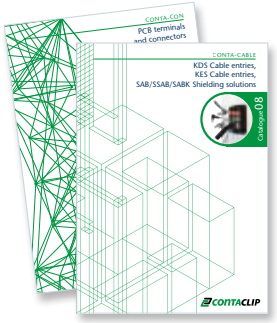

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