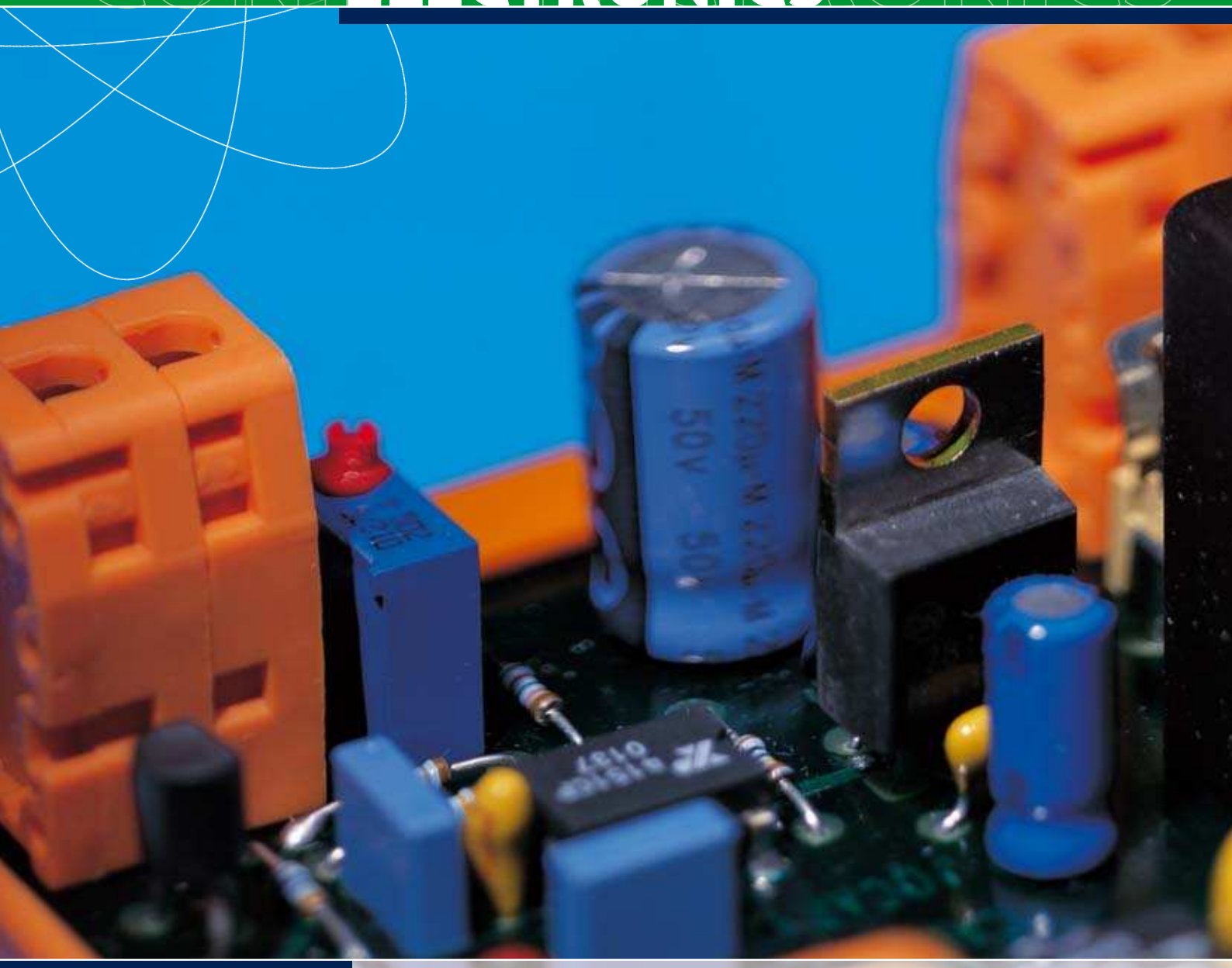
ELECTRONICS



CONTA-CLIP®

CONTA-ELECTRONICS

Program Overview

CONTA-CLIP

The Company

We are your global partner for electrical and electronic connection technology, customised system solutions and marking components.

CONTA-CLIP is the perfect solution for anyone in the electrical technology business, and for good reason.

CONTA-CLIP has been developing products for control and automation engineering for decades.

With its resolute product development and pricing strategies, **CONTA-CLIP** is able to offer a comprehensive line of connection systems, electronic functional modules and marking solutions. For years, **CONTA-CLIP** has been an established name in systems and mechanical engineering. This has been achieved through exceptional levels of versatility and the highest standards of quality.

CONTA-CLIP products are tested and certified by all well-known certifying institutes around the world. In order to ensure that our products remain at the cutting edge of technological development, we have been successfully cooperating for years with experts at TÜV Rheinland Product Safety GmbH. They test our products to ensure conformity with international (IEC) and European standards (EN). These tests are documented in inspection reports. At the beginning of 1994, our company was certified for the first time to DIN ISO 9001 by the DQS, an independent, German based institute for quality management system certification. In 2004, we successfully gained certification in accordance with DIN ISO 9001/2000.

We have provided objective proof that we are in full control of the technical, administrative and human factors that influence the quality of our products and services. Within the framework of our continually growing marketing network, our top quality products and services are being offered in all of the key world markets.

Our company philosophy is characterised by clear-cut principles! Our qualified and motivated staff is our company's most important asset in our quest for success. The company management supports and demands initiative and commitment. This results in a high level of individual responsibility. That in turn enables us to recognise customer-requirements and market trends at an early stage and respond with high-quality **CONTA-CLIP** product solutions.
Over many years, a corporate culture has developed whose most important virtues are reliability, fairness and loyalty – a corporate culture that is mirrored in our motto – *"Technology that connects"*.

CONTA-CLIP

on the Internet

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

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

www.conta-clip.com

in Germany:
www.conta-clip.de

in France:
www.conta-clip.fr

in Holland:
www.conta-clip.nl

in Italy:
www.conta-clip.it

USA
www.contaclipinc.com

CONTA-CLIP

Overview

***CONTA-CLIP**: for many years, this name has stood for innovative products in the field of mechanical and systems engineering. With its wide variety of electrical connection system products, **CONTA-CLIP** has been the industry partner for decades. You can find solutions to your applications quickly by using the clear organization in our catalogs, which divide the products into three areas.*

CONTA-CONNECT
- Connection level for the switchgear cabinet and control engineering
- Tools for working with conductors and cables
- Branch and terminal housing in a variety of designs and materials
- **CONTA-LABEL** marking systems for labeling terminal blocks, devices, conductors and cables

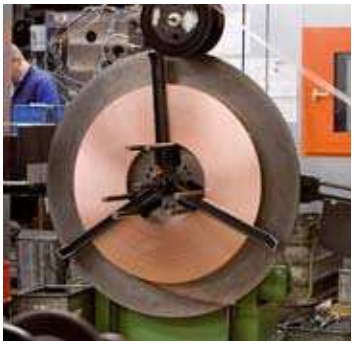
CONTA-CON
- Connection level for the PCB
- PCB terminals and PCB connectors

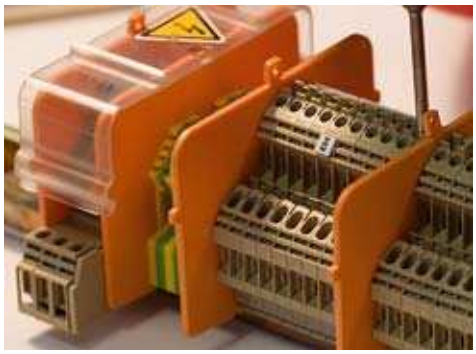
CONTA-ELECTRONICS
- Passive and active coupling level for analog and digital signals

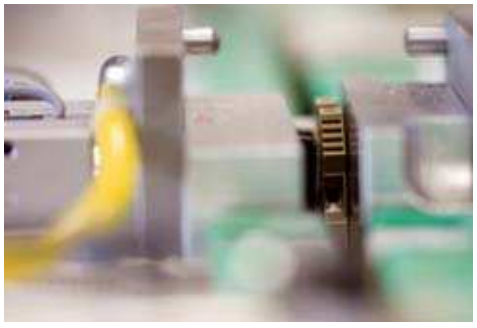
Our workers and production facilities are your guarantee for permanent and continuous quality. This quality has been repeatedly proven to be a level above the national and international certifications of well-known testing institutions.

The plastic materials that we use are specialized for the demands of electro-technical systems, and are free from toxic contaminants.

You are assured of a trouble-free electrical connection because of our combination of materials which are specially fit to each other, and the high quality surfaces of the metal parts.







CONTA-ELECTRONICS

Product Overview

Product Overview

Star-delta switching relays SDSR 2

Page 53

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

Page 54

Analog output modules AO-1-2 S

Page 56

Analog output modules AO-4-2 S

Page 57

Digital switch modules with HAND/OFF/AUTOMATIC operation MGW

Page 58

Digital switch modules with HAND/OFF/AUTOMATIC operation RIM

Page 59

Digital switch modules with HAND/OFF/AUTOMATIC operation OD

Page 60

Digital switch modules with HAND/OFF/AUTOMATIC operation ASB

Page 61

Digital switch modules with HAND/OFF/AUTOMATIC operation HLS

Page 62

Digital switch modules with HAND/OFF/AUTOMATIC operation HLSW

Page 62

Digital switch modules with HAND/OFF/AUTOMATIC operation and watchdog IM

Page 63

Digital switch modules with HAND/OFF/AUTOMATIC operation and watchdog ASBW

Page 63

Digital switch modules with HAND/OFF/AUTOMATIC operation AU

Page 64-65

Indication modules LED 8

Page 66

Fault warning modules ST

Page 67

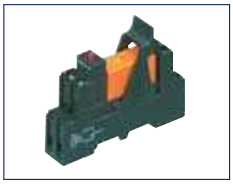
Compact plug relays ZPRC Tension-spring relay terminals

Page 72-73

Compact plug relays PRC Screw-connection relay terminals

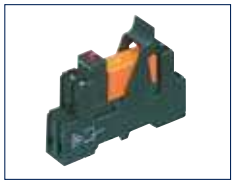
Page 74-75

Plug relay system PRS 1 Screw-connection 1 CO relays



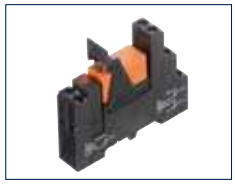
Page 78-79

Plug relay system PRS 2 Screw-connection 2 CO relays



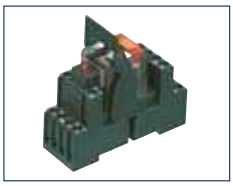
Page 80-81

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



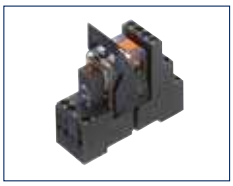
Page 82-83

Plug relay system PRS 4 Screw-connection 4 CO relays



Page 84-85

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



Page 86-87

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

Page 88-89

Relay modules 1 CO RM 1

Page 90

CONTA-ELECTRONICS

Product Overview

Relay modules
2 CO RM 1/2

Page 91

Relay modules
RM-S

Page 92-93

Relay modules
1 CO RML

Page 94

Relay modules
1 CO RIM F

Page 95

Relay modules
1 CO RIM

Page 95-96

Relay modules
1 CO RIM S

Page 98-99

Relay modules
1 CO RIM-16 A

Page 100-101

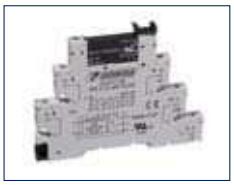
Relay modules
2 CO RIM

Page 102-103

Solid-state compact PSC
Solid-state terminals, tension-spring connection

Page 108

Solid-state compact PSC
Solid-state terminals, screw-clamp



Page 109

Opto-coupler modules
OKI AC/DC

Page 110

Opto-coupler modules
OKI DC

Page 111

Solid-state output modules
SSOIF

Page 112

Solid-state relays
OPTO 22

Page 112

Fuse modules
SM

Page 116

Component modules
BSM

Page 117

Diode modules DM

Page 118-119

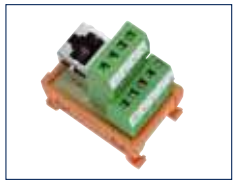
Lamp test modules LPM

Page 120

Lamp test modules LTRS

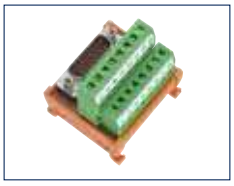
Page 121

Interface modules
RJ 45 USB



Page 124

Interface modules
SD... C

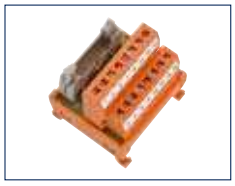


Page 125

Interface modules
SD

Page 126-127

Interface modules
FBK... C



Page 128

Interface modules
FBK 2/FBK LA

Page 129

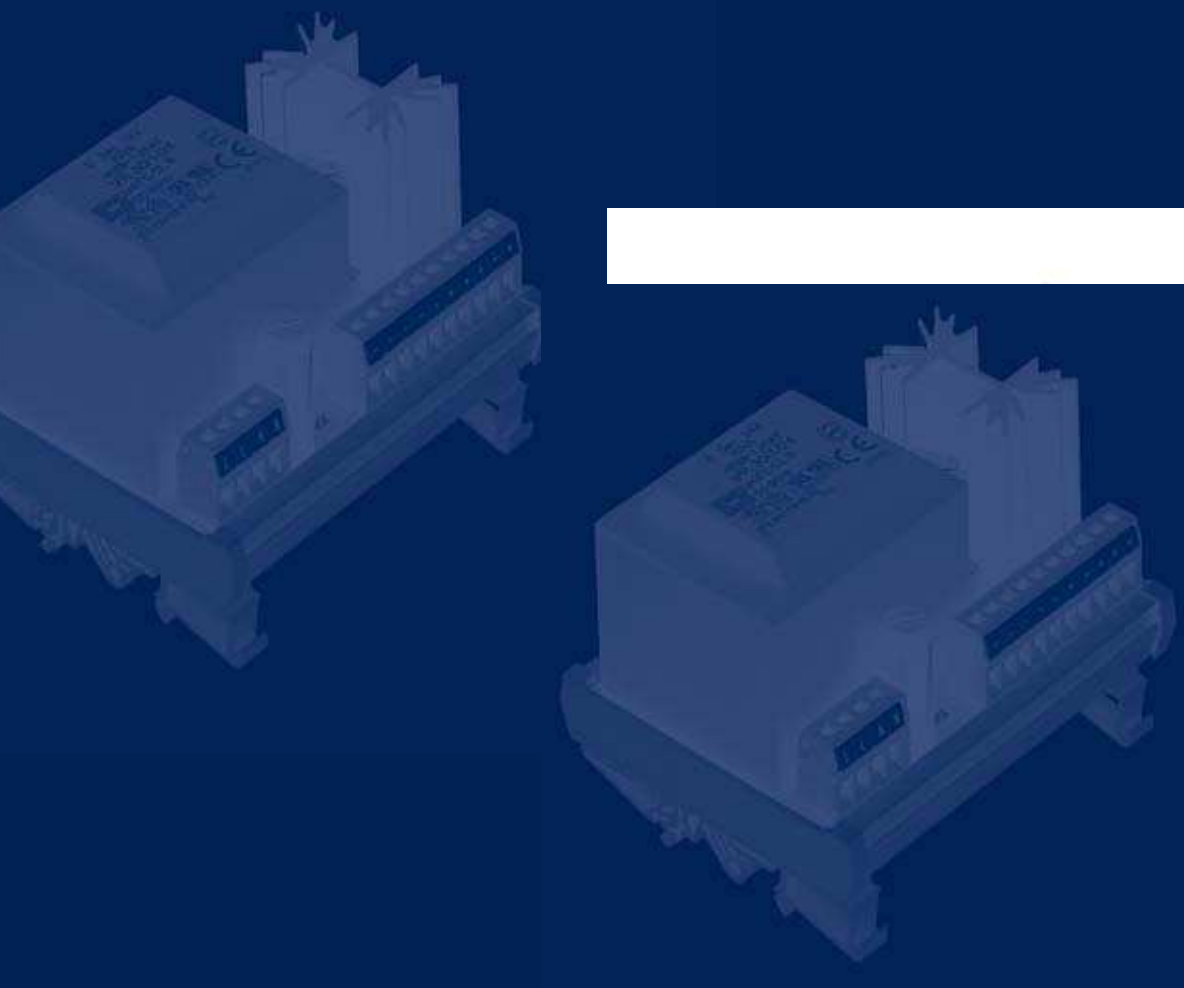
Product Overview

DC Power Supplies

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

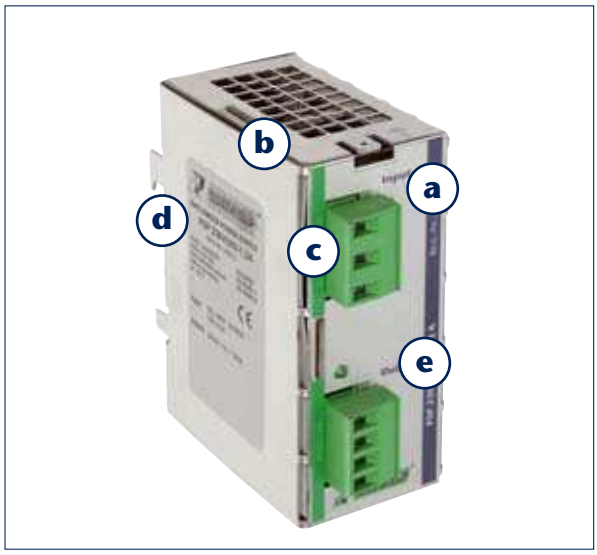


Primary Clocked DC Power Supplies PGSV

CONTA-CLIP distinguishes between one-phase and three-phase devices with the **PGSV** primary clocked DC power supplies.These are primary accessed via a wide-range input. This wide-range input enables the **PGSV** power supplies to be globally compatible in a wide variety of applications.

In addition, this product line is characterised by high efficiency, light weight, small size. They are no-load safe, can be switched in parallel, and have outputs which are short-circuit protected.

Overview



- **a** Global use with wide-range input.
- **b** A sturdy metal enclosure with IP 20 protection and higher efficiency.
- **c** High-quality connection terminals from **CONTA-CLIP**.
- **d** Easy mounting to a TS 35 rail.
- **e** Adjustable output voltage/ no-load and short-circuit safe.

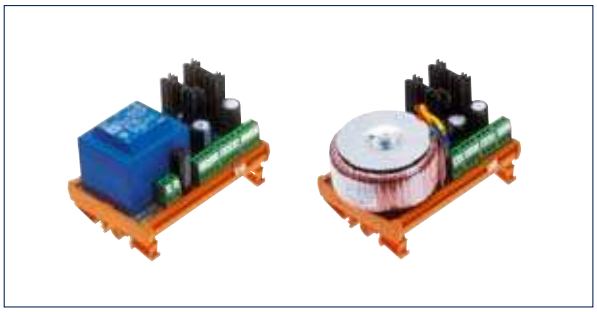
Features

- High efficiency, light weight, and small size - achieved with primary switched-mode regulator technology.
- All-round use in grid - fulfils the high EMC demands of the residential and industrial sectors.
- Extra-low safety voltage output with non-grounded circuit for safer isolation.
- Outlet is switchable in parallel or series.
- Outlet is no-load safe and has permanent short-circuit protected.
- Overvoltage protection.

DC Power Supplies

VMG AC/DC stabilized power supply modules

VMG power supply modules convert the mains voltage from 230 V into a linear-stabilized DC voltage. They are available in varying output voltages – 5 V, 12 V, 15 V, and 24 V – with various high-performance transformers. A module is also available which features adjustable outlet voltage from 1.5 V to 26 V.



VMGS AC/DC stabilized power supply modules

VMGS power supply modules convert the mains voltage from 230 V into two linear stabilized DC voltages. They are available in various output voltages – 2 x 5 V, 2 x 12 V, 2 x 15 V, and 2 x 24 V – with varying high-performance transformers.

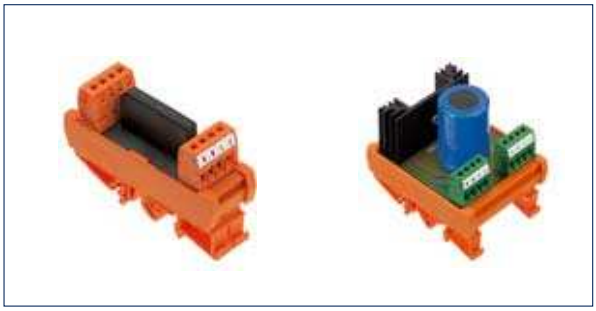
VMO AC/DC unstabilized power supply modules

VMO power supply modules converts the mains voltage from 230 V into a buffered DC voltage. They are available in 12 V and 24 V output voltage versions, with various high-performance transformers.

VMAC AC/AC transformer power supply modules

VMAC AC/AC power supply modules offer the simplest possibility to implement a AC control-voltage level for the switchgear cabinet. All modules are secured with a safety fuse on the primary and secondary sides. They are available in 12 V and 24 V versions, with various high-performance transformers.

DC Power Supplies



GM AC/DC rectifier modules

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

VSTAB stabilized DC/DC converter modules

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

DC-DC stabilized DC/DC converter modules

DC/DC converter modules make possible the conversion of an existing large DC voltage into a smaller DC voltage. An extra power supply is no longer necessary. All modules offer an output which is short-circuit proof. They are available in various output voltages – 5 V, 12 V, 15 V and 24 V – and also in various current strengths for every application.

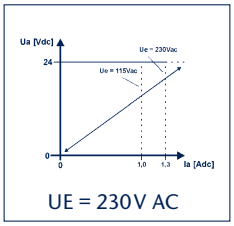
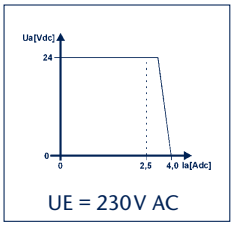
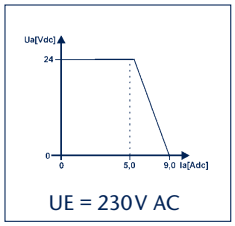
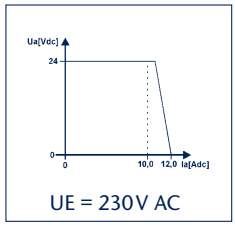
ACDCG UC/DC converter modules

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

One-phase DC power supplies PGSV

One-phase primary clocked DC power supplies

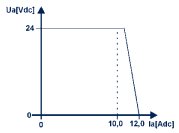
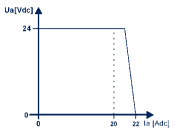
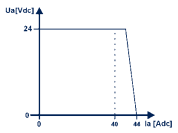
- Mount on TS 35
- Primary clocked DC power supply according to IEC 60950, DIN EN 60950, VDE 0805, UL 60950
- Wide-range input
- Optimized for 30 to 240 watts
- No-load and short-circuit safe
- Thermal overload protection
- U-I characteristic curve
- Sturdy metal enclosure
- Self-cooling via natural convection in horizontal mounting position

	PSP 230 V/24 V-1.3 A	PSP 230 V/24 V-2.5 A	PSP 230 V/24 V-5 A	PSP 230 V/24 V-10 A
				
Characteristic curve	 UE = 230 V AC	 UE = 230 V AC	 UE = 230 V AC	 UE = 230 V AC
Type **Cat. no.**/Qty. p.pck.	**PSP 230 V/24 V-1.3 A** **15193.2**/1	**PSP 230 V/24 V-2.5 A** **15194.2**/1	**PSP 230 V/24 V-5 A** **15195.2**/1	**PSP 230 V/24 V-10 A** **15337.2**/1
Connection type	connector	connector	connector	connector
Size (L x W x H) with TS 35 x 7.5	78 x 40 x 95 mm	130 x 56 x 112 mm	130 x 71 x 112 mm	95 x 115 x 120 mm
Weight	300 g	700 g	900 g	1,100 g
Mechanical design				
Fastening to rail	TS 35 (EN 50022)	TS 35 (EN 50022)	TS 35 (EN 50022)	TS 35 (EN 50022)
Cooling	self-cooling	self-cooling	self-cooling	self-cooling
Shockproof	VBG 4	VBG 4	VBG 4	VBG 4
Enclosure	encapsulated for use in switch cabinet	encapsulated for use in switch cabinet	encapsulated for use in switch cabinet	encapsulated for use in switch cabinet
Protection	IP 20	IP 20	IP 20	IP 20
Protect. class	I	I	I	I
Electrical design				
Prim. clocked switched power adapter Electrical safety	acc. to VDE 0805, DIN EN 60950, IEC 60950, UL 60950	acc. to VDE 0805, DIN EN 60950, IEC 60950, UL 60950	acc. to VDE 0805, DIN EN 60950, IEC 60950, UL 60950	acc. to VDE 0805, DIN EN 60950, IEC 60950, UL 60950
Disturbance emission	EN 50081-1 (residential)	EN 50081-1 (residential)	EN 50081-1 (residential)	EN 50081-1 (residential)
Interference immunity	EN 50082-2 (industrial)	EN 50082-2 (industrial)	EN 50082-2 (industrial)	EN 50082-2 (industrial)
Test voltage	4 kV	4 kV	4 kV	4 kV
Ambient temperature	0 to +50°C	0 to +60°C	0 to +50°C	0 to +50°C
Storage temperature	-25 to +85°C	-25 to +85°C	-25 to +85°C	-25 to +85°C
Efficiency	78 %	81 %	82 %	83 %
Thermal overload protection	yes	yes	yes	yes
No-load and short-circuit safe	yes	yes	yes	yes
Input circuit				
Input voltage	230 V AC	230 V AC	230 V AC	230 V AC
Input voltage range	90-264 V AC	90-264 V AC	90-264 V AC	97-130/195-264 V AC
Frequency	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz
Input current (230 V AC)	0.3A typ.	0.6 A typ.	1.2 A typ.	2.5 A typ.
Inrush current	< 10 As typ.	< 10 As typ.	< 10 As typ.	< 30 As typ.
Mains failure bridging	> 20 ms at rated voltage	> 20 ms at rated voltage	> 20 ms at rated voltage	> 20 ms at rated voltage
Overvoltage protection	varistor in primary circuit	varistor in primary circuit	varistor in primary circuit	varistor in primary circuit
Connection cross-section	2.5 mm^2	2.5 mm^2	2.5 mm^2	2.5 mm^2
Connections	connector	connector	connector	connector
Output circuit				
Output voltage	24 V DC, SELV	24 V DC, SELV	24 V DC, SELV	24 V DC, SELV
Output voltage range	-	22-28.8 V DC, adjustable	22-28.8 V DC, adjustable	22 - 28.8 V DC, adjustable
Output current	1.3 A DC	2,5 A DC	5.0 A DC	10.0 A DC
Ripple	< 100 m Vss	< 100 m Vss	< 100 m Vss	< 100 m Vss
Current limitation	see characteristic curve	see characteristic curve	see characteristic curve	see characteristic curve
Connection cross-section	2.5 mm^2	2.5 mm^2	2.5 mm^2	2.5 mm^2
Connections	connector	connector	connector	connector

Three-phase DC power supplies PGSV

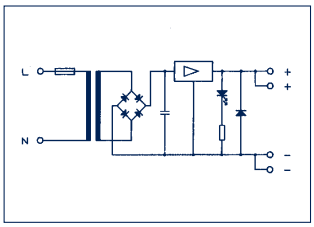
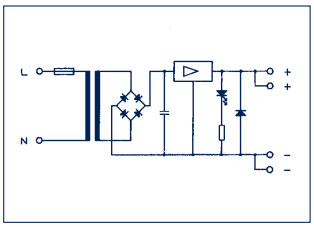
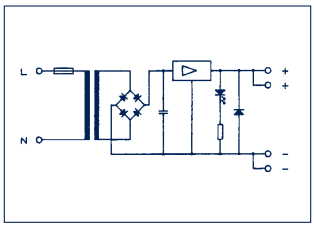
Three-phase primary clocked DC power supplies

- Mount on TS 35
- Primary clocked DC power supply acc. to IEC 60950, DIN EN 60950, VDE 0805, UL 60950
- Wide-range input
- Optimized for 120 to 960 watts
- No-load and short-circuit safe
- Thermal overload protection
- U-I characteristic curve
- Sturdy metal enclosure
- Self-cooling via natural convection in horizontal mounting position

	PSP 500 V/24 V-10 A	PSP 500 V/24 V-20 A	PSP 500 V/24 V-40 A	
Characteristic curve				
	UE = 500 V AC	UE = 500 V AC	UE = 500 V AC	
Type	**PSP 500 V/24 V-10 A**	**PSP 500 V/24 V-20 A**	**PSP 500 V/24 V-40 A**	
Cat. no./Qty. p.pck.	**15338.2**/1	**15369.2**/1	**15370.2**/1	
Connection type	connector	connector	connector	
Size (L x W x H) with TS 35 x 7.5	95 x 115 x 120 mm	95 x 220 x 120 mm	115 x 260 x 120 mm	
Weight	950 g	2.000 g	3.800 g	
Mechanical design				
Fastening to rail	TS 35 (EN 50022)	TS 35 (EN 50022)	TS 35 (EN 50022)	
Cooling	self-cooling	self-cooling	self-cooling	
Shockproof	VBG 4	VBG 4	VBG 4	
Enclosure	encapsulated for use in switch cabinet	encapsulated for use in switch cabinet	encapsulated for use in switch cabinet	
Protection	IP 20	IP 20	IP 20	
Protect. class	I	I	I	
Electrical design				
Prim. clocked switched power adapter Electrical safety	acc. to VDE 0805, DIN EN 60950, IEC 60950, UL 60950	acc. to VDE 0805, DIN EN 60950, IEC 60950, UL 60950	acc. to VDE 0805, DIN EN 60950, IEC 60950, UL 60950	
Disturbance emission	EN 50081-1 (residential)	EN 50081-1 (residential)	EN 50081-1 (residential)	
Interference immunity	EN 50082-2 (industrial)	EN 50082-2 (industrial)	EN 50082-2 (industrial)	
Test voltage	4 kV	4 kV	4 kV	
Ambient temperature	0 to +50°C	0 to +50°C	0 to +50°C	
Storage temperature	-25 to +85°C	-25 to +85°C	-25 to +85°C	
Efficiency	82 %	87 %	88 %	
Thermal overload protection	yes	yes	yes	
No-load and short-circuit safe	yes	yes	yes	
Input circuits				
Input voltage	3 x 500 V AC	3 x 500 V AC	3 x 500 V AC	
Input voltage range	325-550 V AC	325-550 V AC	325-550 V AC	
Frequency	50-60 Hz	50-60 Hz	50-60 Hz	
Input current (400 V AC)	3 x 0.6 A typ.	3 x 1.2 A typ.	3 x 2.4 A typ.	
Inrush current	< 20 As typ.	< 30 As typ.	< 30 As typ.	
Mains failure bridging	> 10 ms at rated voltage	> 10 ms at rated voltage	> 10 ms at rated voltage	
Overvoltage protection	varistor in primary circuit	varistor in primary circuit	varistor in primary circuit	
Connection cross-section	2.5 mm²	2.5 mm²	2.5 mm²	
Connections	connector	connector	connector	
Output circuit				
Output voltage	24 V DC	24 V DC	24 V DC	
Output voltage range	22.8 to 28.8 V DC, adjustable	22.8 - 28.8 V DC, adjustable	22.8 - 28.8 V DC, adjustable	
Output current	10,0 A DC	20,0 A DC	40.0 A DC	
Ripple	< 100 m Vss	< 100 m Vss	< 100 m Vss	
Current limitation	see characteristic curve	see characteristic curve	see characteristic curve	
Connection cross-section	2.5 mm²	2.5 mm²	6 mm²	
Connections	connector	connector	connector	

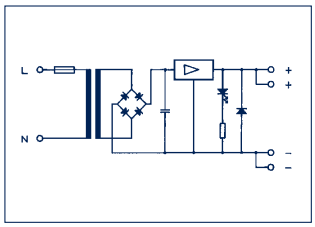
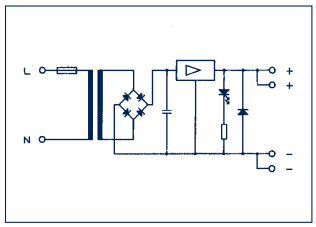
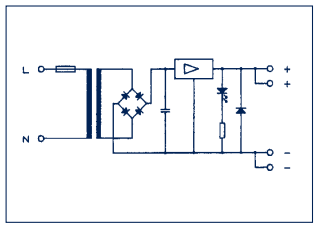
AC/DC regulated power supply modules VMG

- Mount on TS 32/TS 35
- AC/DC power supply
- Linear regulated on output side
  DC voltage VMG 1x... V DC
- Input voltage: 230 V AC
- Thermal overload protection
- Short-circuit safe output
- Other input and output voltages available on request

	VMG/5-0.8	VMG/5-2	VMG/12-0.5	VMG/12-1
				
	Circuit diagram	Circuit diagram	Circuit diagram	
				
Type **Cat. no.**/Qty. p.pck.	**VMG/5-0.8** **5880.3**/1	**VMG/5-2** **5882.3**/1	**VMG/12-0.5** **5884.3**/1	**VMG/12-1** **5885.3**/1
Image	1	3	1	2
Connection type	screw-clamp	screw-clamp	screw-clamp	screw-clamp
Size (L x W x H) with TS 35 x 7.5	87 x 83 x 73 mm	87 x 167 x 110 mm	87 x 83 x 73 mm	87 x 109 x 86 mm
Weight	420 g	1.105 g	480 g	965 g
General information				
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage cat. III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage cat. III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage cat. III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage cat. III, DIN VDE 0551
Test voltage transformer	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
Important notes				
Insulation stripping length	7 mm	7 mm	7 mm	7 mm
Conductor cross-section	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	0.2-2.5 mm^2/AWG 22-14
Input data				
Input voltage	230 V AC +10%	230 V AC +10%	230 V AC +10%	230 V AC +10%
Rated consumption	10 VA	35 VA	10 VA	28 VA
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Primary fuse	63 mA slow-acting	0.25 A slow-acting	63 mA slow-acting	0.2 A slow-acting
Output data				
Output voltage, ± 5%	5 V ±5%	5 V ±5%	12 V ±5%	12 V ±5%
Max. output current	0.55 A	2 A	0.3 A	1 A
Max. residual ripple	< 40 mV pp	< 60 mV pp	< 40 mV pp	< 40 mV pp
Short-circuit safe	yes	yes	yes	yes

AC/DC regulated power supply modules VMG

- Mount on TS 32/TS 35
- AC/DC power supply
- Linear regulated on output side
  DC voltage VMG 1x... V DC
- Input voltage: 230 V AC
- Thermal overload protection
- Short-circuit safe output
- Other input and output voltages available on request

	VMG/12-2	VMG/15-0.4	VMG/15-1	VMG/24-0.3
				
Circuit diagram				

Type **Cat. no.**/Qty. p.pck.	**VMG/12-2** **5886.3**/1	**VMG/15-0.4** **6541.2**/1	**VMG/15-1** **6542.2**/1	**VMG/24-0.3** **5888.3**/1
Image	3	1	2	1
Connection type	screw-clamp	screw-clamp	screw-clamp	screw-clamp
Size (L x W x H) with TS 35 x 7.5	87 x 167 x 110 mm	87 x 83 x 73 mm	87 x 109 x 86 mm	87 x 83 x 73 mm
Weight	975 g	800 g	750 g	420 g
General information				
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551
Test voltage transformer	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
Important notes				
Insulation stripping length	7 mm	7 mm	7 mm	7 mm
Conductor cross-section	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	0.2-2.5 mm^2/AWG 22-14
Input data				
Input voltage	230 V AC +10%	230 V AC +10%	230 V AC +10%	230 V AC +10%
Rated consumption	58 VA	10 VA	28 VA	10 VA
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Primary fuse	0.5 A slow-acting	63 mA slow-acting	0,2 A slow-acting	63 mA slow-acting
Output data				
Output voltage, ± 5 %	12 V ±5%	15 V ±5%	15 V ±5%	24 V ±5%
Max. output current	2 A	0.27 A	1 A	0.2 A
Max. residual ripple	< 60 mV pp	< 60 mV pp	< 40 mV pp	< 40 mV pp
Short-circuit safe	yes	yes	yes	yes

AC/DC regulated power supply modules VMG

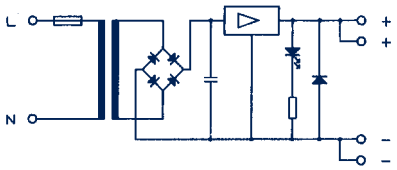
- Mount on TS 32/TS 35
- AC/DC power supply
- Output side: linear regulated DC voltage (VMG/24-3) or switched DC voltage
- Input voltage: 230 V AC
- Thermal overload protection
- Short-circuit safe output
- Other input and output voltages available on request

VMG/24-1

VMG/24-2

VMG/24-3

Circuit diagram



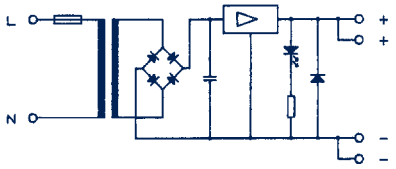
Type **Cat. no.**/Qty. p.pck.	**VMG/24-1** **5889.3**/1	**VMG/24-2** **5890.3**/1	**VMG/24-3** **6416.2**/1
Image	1	2	3
Connection type	screw-clamp	screw-clamp	screw-clamp
Size (L x W x H) with TS 35 x 7.5	87 x 109 x 86 mm	87 x 167 x 110 mm	87 x 168 x 96 mm
Weight	970 g	1.495 g	1.735 g
General information			
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551
Test voltage transformer	4 kV	4 kV	4 kV
Operating temperature	-20 to +50°C	-20 to +50°C	-20 to +50°C
Important notes			
Insulation stripping length	7 mm	7 mm	7 mm
Conductor cross-section	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	230 V AC +10%	230 V AC +10%	230 V AC +10%
Rated consumption	35 VA	90 VA	132 VA
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Primary fuse	0.25 A slow-acting	0.8 A slow-acting	1.25 A slow-acting
Output data			
Output voltage, ± 5%	24 V ±5%	24 V ±5%	24 V ±5%
Max. output current	0.8 A	2 A	3 A
Max. residual ripple	< 40 mV pp	< 60 mV pp	< 240 mV pp
Short-circuit safe	yes	yes	yes
Max. short-circuit current	-	-	5.3 A

Regulated power supply modules VMG/ADJ

- Mount on TS 32/TS 35
- AC/DC power supply
- Output side: switched DC voltage
- Output side: adjustable VMG/ADJ-3 1.5 to 26 V DC
- Input voltage: 230 V AC
- Thermal overload protection
- Short-circuit safe output
- Other input and output voltages available on request

VMG/ADJ-3

Circuit diagram

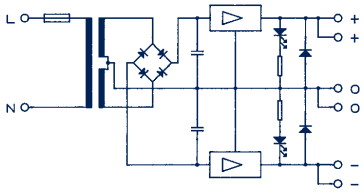


Type **Cat. no.**/Qty. p.pck.	**VMG/ADJ-3** **15049.2**/1			
Connection type	screw-clamp			
Size (L x W x H) with TS 35 x 7.5	87 x 168 x 96 mm			
Weight	1.735 g			
General information				
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551			
Test voltage transformer	4 kV			
Operating temperature	0 to +50 °C			
Important notes				
Insulation stripping length	7 mm			
Conductor cross-section	0.2-2.5 mm^2/AWG 22-14			
Input data				
Input voltage	230 V AC ±10%			
Rated consumption	135 VA			
Frequency	50/60 Hz			
Primary fuse	1.25 A slow-acting			
Output data				
Output voltage, ± 5%	1.5 to 26 V DC			
Max. output current	3 A			
Max. residual ripple	< 250 mV pp (typically 50 mV)			
Short-circuit safe	yes			
Max. short-circuit current	5.3 A			

AC/DC regulated power supply modules VMGS

- Mount on TS 32/TS 35
- AC/DC power supply
- Linear regulated on output side
  DC voltage VMG 2x... V DC
- Input voltage: 230 V AC
- Thermal overload protection
- Short-circuit safe output
- Other input and output voltages available on request

Circuit diagram

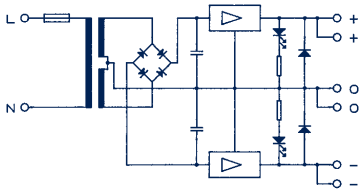


Type **Cat. no.**/Qty. p.pck.	**VMGS/5-1** **6543.2**/1	**VMGS/12-0.6** **6544.2**/1	**VMGS/15-0.5** **6545.2**/1	**VMGS/24-0.4** **6546.2**/1
Connection type	screw-clamp	screw-clamp	screw-clamp	screw-clamp
Size (L x W x H) with TS 35 x 7.5	87 x 137 x 88 mm	87 x 137 x 88 mm	87 x 137 x 88 mm	87 x 137 x 88 mm
Weight	1.060 g	1.060 g	1.060 g	1.060 g
General information				
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551
Test voltage transformer	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
Important notes				
Insulation stripping length	7 mm	7 mm	7 mm	7 mm
Conductor cross-section	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	0.2-2.5 mm^2/AWG 22-14
Input data				
Input voltage	230 V AC +10%	230 V AC +10%	230 V AC +10%	230 V AC +10%
Rated consumption	28 VA	35 VA	35 VA	35 VA
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Primary fuse	0.2 A slow-acting	0.25 A slow-acting	0.25 A slow-acting	0.25 A slow-acting
Output data				
Output voltage, ± 5%	2 x 5 V ±5%	2 x 12 V ±5%	2 x 15 V ±5%	2 x 24 V ±5%
Max. output current	2 x 0.6 A	2 x 0.6 A	2 x 0.5 A	2 x 0.4 A
Max. residual ripple	< 40 mV pp	< 40 mV pp	< 40 mV pp	< 40 mV pp
Short-circuit safe	yes	yes	yes	yes

AC/DC regulated power supply modules VMGS

- Mount on TS 32/TS 35
- AC/DC power supply
- Linear regulated on output side
  DC voltage VMG 2x... V DC
- Input voltage: 230 V AC
- Thermal overload protection
- Short-circuit safe output
- Other input and output voltages available on request

Circuit diagram



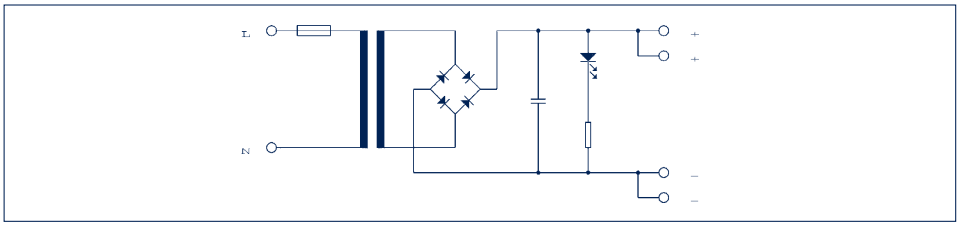
Type **Cat. no.**/Qty. p.pck.	**VMGS/12-1** **6547.2**/1	**VMGS/15-1** **6548.2**/1	**VMGS/24-1** **6549.2**/1
Connection type	screw-clamp	screw-clamp	screw-clamp
Size (L x W x H) with TS 35 x 7.5	87 x 181 x 88 mm	87 x 181 x 88 mm	87 x 181 x 88 mm
Weight	1.207 g	1.457 g	1.457 g
General information			
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551
Test voltage transformer	4 kV	4 kV	4 kV
Operating temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Important notes			
Insulation stripping length	7 mm	7 mm	7 mm
Conductor cross-section	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	230 V AC +10%	230 V AC +10%	230 V AC +10%
Rated consumption	58 VA	58 VA	90 VA
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Primary fuse	0.5 A slow-acting	0.5 A slow-acting	0.8 A slow-acting
Output data			
Output voltage, ± 5 %	2 x 12 V ±5%	2 x 15 V ±5%	2 x 24 V ±5%
Max. output current	2 x 1 A	2 x 1 A	2 x 1 A
Max. residual ripple	< 40 mV pp	< 40 mV pp	< 40 mV pp
Short-circuit safe	yes	yes	yes

AC/DC unregulated power supply modules VMO

- Mount on TS 32/TS 35
- Compact design
- AC/DC power supply
- Output side: buffered DC voltage 12 V DC or 24 V DC
- Input voltage: 230 V AC

VMO/12-2.5	VMO/12-4	VMO/24-1.5	VMO/24-2.5	VMO/24-4
				

Circuit diagram



Type **Cat. no.**/Qty. p.pck.	**VMO/12-2.5** **5868.3**/1	**VMO/12-4** **5869.3**/1	**VMO/24-1.5** **5874.3**/1	**VMO/24-2.5** **5875.3**/1	**VMO/24-4** **5876.3**/1
Image	1	-	1	2	-
Connection type	screw-clamp	screw-clamp	screw-clamp	screw-clamp	screw-clamp
Size (L x W x H) with TS 35 x 7.5	87 x 102 x 88 mm	87 x 152 x 105 mm	87 x 102 x 88 mm	87 x 133 x 77 mm	87 x 152 x 105 mm
Weight	954 g	1.155 g	910 g	1.333 g	1.608 g
General information					
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551
Test voltage transformer	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
Important notes					
Insulation stripping length	7 mm	7 mm	7 mm	7 mm	7 mm
Conductor cross-section	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	0.2-2.5 mm^2/ AWG 22-14	0.2-2.5 mm^2/ AWG 22-14
Input data					
Input voltage	230 V AC +10%	230 V AC +10%	230 V AC +10%	230 V AC +10%	230 V AC +10%
Rated consumption	35 VA	58 VA	35 VA	90 VA	132 VA
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Primary fuse	0.25 A slow-acting	0.5 A slow-acting	0.25 A slow-acting	0.8 A slow-acting	1.25 A slow-acting
Output data					
Output voltage, ± 5%	12 V DC	12 V DC	24 V DC	24 V DC	24 V DC
Max. output current	2 A	4 A	1.5 A	2.5 A	4 A
Residual ripple	< 5%	< 5%	< 5%	< 5%	< 5%

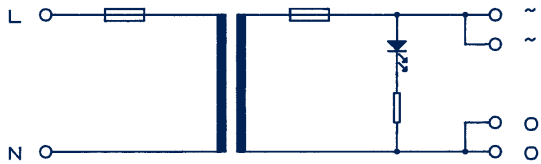
AC/AC transformer power supply modules VMAC

- Mount on TS 32/TS 35
- Compact design
- AC/DC power supply
- Output voltage: 12 V AC or 24 V AC
- Input voltage: 230 V AC
- Other input and output voltages available on request

VMAC/12-2.5

VMAC/12-4 | **VMAC/12-6.3** | **VMAC/12-10**

Circuit diagram



Type **Cat. no.**/Qty. p.pck.	**VMAC/12-2.5** **5860.3**/1	**VMAC/12-4** **5861.3**/1	**VMAC/12-6.3** **5862.3**/1	**VMAC/12-10** **5863.3**/1
Image	1	2	2	2
Connection type	Screw-clamp	screw-clamp	screw-clamp	screw-clamp
Size (L x W x H) with TS 35 x 7.5	87 x 75 x 88 mm	87 x 120 x 77 mm	87 x 125 x 77 mm	87 x 125 x 91 mm
Weight	857 g	904 g	1.098 g	1.500 g
General information				
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551
Test voltage transformer	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
Important notes				
Insulation stripping length	7 mm	7 mm	7 mm	7 mm
Conductor cross-section	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	0.2-2.5 mm^2/AWG 22-14
Input data				
Input voltage	230 V ±10%	230 V ±10%	230 V ±10%	230 V ±10%
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated consumption	35 VA	58 VA	90 VA	132 VA
Primary fuse F1	0.25 A slow-acting	0.5 A slow-acting	0.8 A slow-acting	1.25 A slow-acting
Output data				
Output voltage	12 V AC	12 V AC	12 V AC	12 V AC
Max. output current	2.5 A	4 A	6.3 A	10 A
Max. power	30 VA	50 VA	80 VA	120 VA
Secondary fuse F2	2.5 A slow-acting	4 A slow-acting	6.3 A slow-acting	10 A slow-acting

AC/AC transformer power supply modules VMAC

- Mount on TS 32/TS 35
- Compact design
- AC/DC power supply
- Output voltage: 12 V AC or 24 V AC
- Input voltage: 230 V AC
- Other input and output voltages available on request

VMAC/24-1.2

1

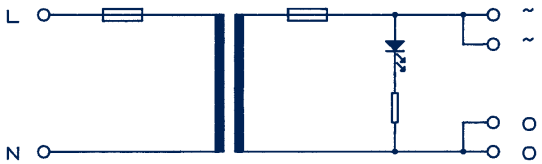
VMAC/24-2

VMAC/24-3.3

2

VMAC/24-5

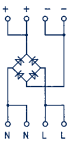
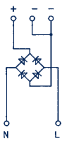
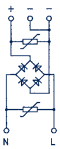
Circuit diagram



Type **Cat. no.**/Qty. p.pck.	**VMAC/24-1.2** **5864.3**/1	**VMAC/24-2** **5865.3**/1	**VMAC/24-3.3** **5866.3**/1	**VMAC/24-5** **5867.3**/1
Image	1	2	2	2
Connection type	screw-clamp	screw-clamp	screw-clamp	screw-clamp
Size (L x W x H) with TS 35 x 7.5	87 x 75 x 88 mm	87 x 120 x 77 mm	87 x 125 x 77 mm	87 x 125 x 91 mm
Weight	873 g	900 g	1.070 g	1.507 g
General information				
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551
Test voltage transformer	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
Important notes				
Insulation stripping length	7 mm	7 mm	7 mm	7 mm
Conductor cross-section	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	0.2-2.5 mm^2/AWG 22-14
Input data				
Input voltage	230 V ±10%	230 V ±10%	230 V ±10%	230 V ±10%
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Rated consumption	35 VA	58 VA	90 VA	132 VA
Primary fuse F1	0.25 A slow-acting	0.5 A slow-acting	0.8 A slow-acting	1.25 A slow-acting
Output data				
Output voltage	24 V AC	24 V AC	24 V AC	24 V AC
Max. output current	1.2 A	2 A	3.3 A	5 A
Max. power	30 VA	50 VA	80 VA	120 VA
Secondary fuse F2	1.25 A slow-acting	2 A slow-acting	4 A slow-acting	6.3 A slow-acting

AC/DC rectifier modules GM

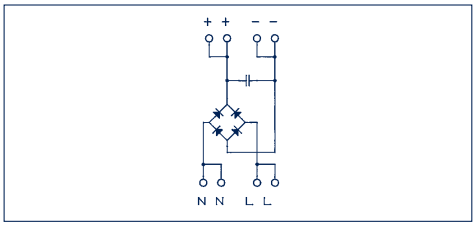
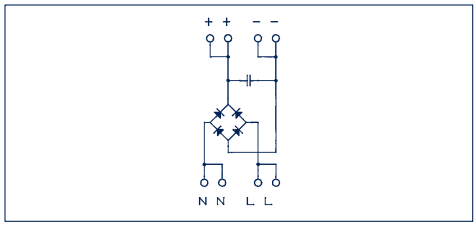
- Mount on TS 32/TS 35
- Optional varistor circuitry in output and input circuits
- Unbuffered DC output voltage

	GM 1	GM 1-0	GM 1-V/24	GM 1-V/230
				
Circuit diagram	 1	Circuit diagram  2		Circuit diagram  3

Type **Cat. no.**/Qty. p.pck.	**GM 1** **6111.2**/1	**GM 1-0** **5738.2**/1	**GM 1-V/24** **5758.2**/1	**GM 1-V/230** **5759.2**/1
Circuit diagram	1	2	3	3
Connection type	screw-clamp	screw-clamp	screw-clamp	screw-clamp
Size (L x W x H) with TS 35 x 7.5	87 x 27 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, pollution Degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution 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				
Insulation stripping length	7 mm	7 mm	7 mm	7 mm
Conductor cross-section	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	0.2-2.5 mm^2/AWG 22-14
Input data				
Max. input voltage	230 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	2 A
Varistor	-	-	S 14 K 30	S 14 K 275

AC/DC rectifier modules GM

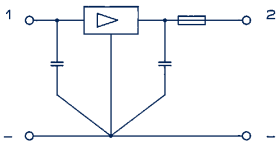
- Mount on TS 32/TS 35
- 2A and 4A versions
- Buffer capacitor circuitry in output circuit
- Buffered DC output voltage

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

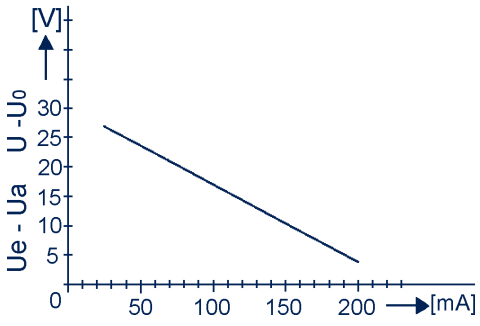
DC/DC stabilized converter modules VSTAB

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

Circuit diagram



Type Cat. no./Qty. p.pck.	VSTAB 5 6139.2/1	VSTAB 10 6140.2/1	VSTAB 12 6141.2/1	VSTAB 15 6142.2/1	VSTAB 24 6143.2/1
Connection type	screw-clamp	screw-clamp	screw-clamp	screw-clamp	screw-clamp
Size (L x W x H) with TS 35 x 7.5	87 x 24 x 57 mm	87 x 24 x 57 mm	87 x 24 x 57 mm	87 x 24 x 57 mm	87 x 24 x 57 mm
Weight	45 g	45 g	45 g	45 g	45 g
General information					
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution 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					
Insulation stripping length	7 mm	7 mm	7 mm	7 mm	7 mm
Conductor 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
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					

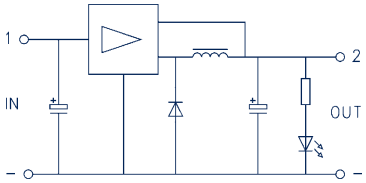


Output data					
Output voltage, ± 5%	5 V DC	10 V DC	12 V DC	15 V DC	24 V DC
Fuse	0.25 A slow-acting (5 x 20 mm)	0.25 A slow-acting (5 x 20 mm)	0.25 A slow-acting (5 x 20 mm)	0.25 A slow-acting (5 x 20 mm)	0.25 A slow-acting (5 x 20 mm)
Residual ripple	< 50 mV	< 50 mV	< 50 mV	< 50 mV	< 50 mV
Max. output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

Stabilized DC/DC converter modules DC-DC

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

Circuit diagram

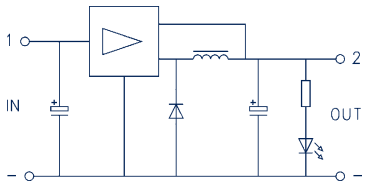


Type **Cat. no.**/Qty. p.pck.	**DC-DC/5-0.5** **7791.2**/1	**DC-DC/10-0.5** **6810.0**/1	**DC-DC/12-0.5** **7792.2**/1	**DC-DC/15-0.5** **7793.2**/1	**DC-DC/24-0.5** **1343.9**/1
Connection type	screw-clamp	screw-clamp	screw-clamp	screw-clamp	screw-clamp
Size (L x W x H) with TS 35 x 7.5	87 x 18 x 57 mm	87 x 18 x 57 mm	87 x 18 x 57 mm	87 x 18 x 57 mm	87 x 18 x 57 mm
Weight	39 g	39 g	39 g	39 g	39 g
General information					
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category 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					
Insulation stripping length	7 mm	7 mm	7 mm	7 mm	7 mm
Conductor cross-section	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	0.2-2.5 mm^2/AWG 22-14	0.2-2.5 mm^2/AWG 22-14
Input data					
Input voltage	7.5 to 40 V DC	14.5 to 40 V DC	14.5 to 40 V DC	17.5 to 40 V DC	25.5 to 40 V DC
Neutral load current	5 mA	5 mA	5 mA	5 mA	5 mA
Input current with max. load	475 mA	480 mA	480 mA	485 mA	485 mA
Output 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 safe	yes	yes	yes	yes	yes

Regulated DC/DC converter modules DC-DC

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

Circuit diagram



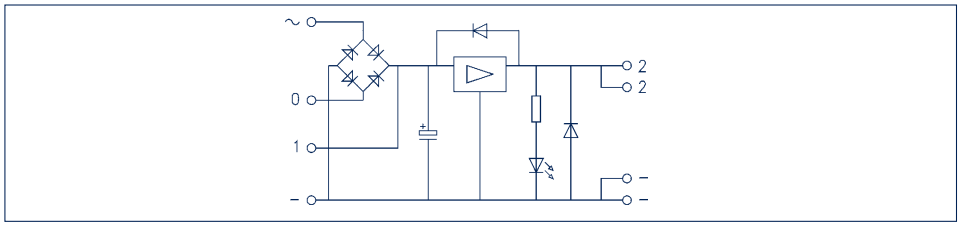
Type **Cat. no.**/Qty. p.pck.	**DC-DC/5-3** **7794.2**/1	**DC-DC/10-3** **1373.9**/1	**DC-DC/12-3** **7795.2**/1	**DC-DC/15-3** **7796.2**/1	**DC-DC/24-3** **6937.0**/1
Connection type	screw-clamp	screw-clamp	screw-clamp	screw-clamp	screw-clamp
Size (L x W x H) with TS 35 x 7.5	87 x 50 x 88 mm	87 x 50 x 88 mm	87 x 50 x 88 mm	87 x 50 x 88 mm	87 x 50 x 88 mm
Weight	157 g	157 g	157 g	157 g	157 g
General information					
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category 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					
Insulation stripping length	7 mm	7 mm	7 mm	7 mm	7 mm
Conductor cross-section	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	0.2-2.5 mm^2/AWG 22-14	0.2-2.5 mm^2/AWG 22-14
Input data					
Input voltage	7.5 to 40 V DC	12.5 to 40 V DC	14.5 to 40 V DC	17.5 to 40 V DC	27 to 40 V DC
Neutral load current	8 mA	25 mA	20 mA	25 mA	25 mA
Input current with max. load	2.9 A	2.9 A	2.9 A	2.9 A	2.9 A
Output 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 safe	yes	yes	yes	yes	yes

AC/DC converter modules ACDCG

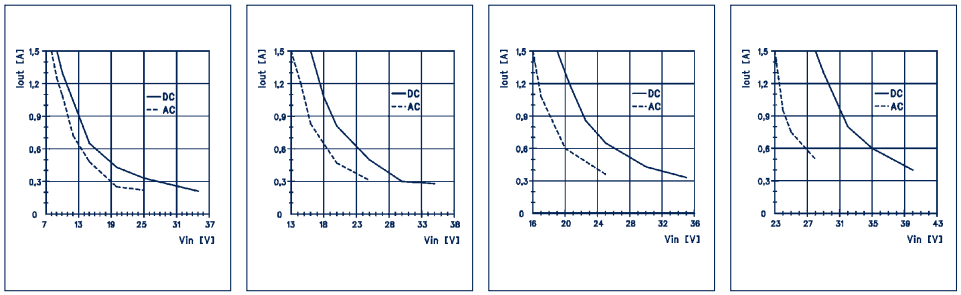
- Mount on TS 32/TS 35
- AC or DC input
- Linear regulated DC voltage on output side
- Short-circuit safe output
- Green LED indicator for displaying operational status
- Other input and output voltages available on request

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

Circuit diagram



Type **Cat. no.**/Qty. p.pck.	**ACDCG/5-1.5** **15024.2**/1	**ACDCG/12-1.5** **15025.2**/1	**ACDCG/15-1.5** **15026.2**/1	**ACDCG/24-1.5** **15027.2**/1
Connection type	screw-clamp	screw-clamp	screw-clamp	screw-clamp
Size (L x W x H) with TS 35 x 7.5	87 x 54 x 87 mm	87 x 54 x 87 mm	87 x 54 x 87 mm	87 x 54 x 87 mm
Weight	150 g	150 g	150 g	150 g
General information				
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution 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				
Insulation stripping length	7 mm	7 mm	7 mm	7 mm
Conductor 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 safe	yes	yes	yes	yes
Derating curve				
(Input voltage vs. output current)				



Notes

Overvoltage Protection CONTA-PROTECT

When choosing the correct device for overvoltage protection, it is important to consider the regulations VDE 110-1, IEC 61643-1, EN 61643-331 and VDE 0185 section 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. The new solutions from **CONTA-CLIP** offer many advantages to the user.

Overvoltage Protection CONTA-PROTECT

Overvoltage arrester CP DS 250 VG

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

Overvoltage arresters CP *5* and CP *5* H

The **CP *5*** and **CP *5* H** overvoltage arresters, from arrester class 2 (C) enable reliable protection of electrical facilities. The **CP *5***, with its one-piece design, is also available as the **CP *5* H** with remote signaling for a potential-free CO contact. When an overload occurs, the integrated monitoring unit signals this: the visible outer label field turns red, thus showing that it must be replaced as soon as possible.
The **CP *5*** and **CP *5* H** overvoltage arresters are equipped with a dual-function terminal. This allows it to be connected to live conductors or to comb rails.

Overvoltage arresters CP V 40 and CP VH 40

The **CP V 40** and **CP VH 40** overvoltage arresters, from arrester class 2 (C) enable reliable protection of electrical facilities. The **CP V 40**, with its two-piece design, is also available as the **CP VH 40** with remote signaling for a potential-free CO contact. When an overload occurs, the integrated monitoring unit signals this: 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.

Overvoltage arresters CP V 10 and CDS VH 98

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

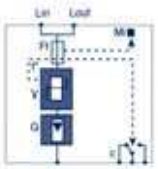
Overvoltage Protection CONTA-PROTECT

Overvoltage arresters, type 1|2|3| (B|C|D)

- Mount on TS 35
- Screw connection
- Overvoltage protection arrester
- Type 1|2|3 (class B|C|D) in one device
- Remote signaling contact

CP DS 250 VG

Circuit diagram



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

1-pole type **Cat. no.**/Qty. p.pck.	**CP DS 250 VG** **15617.2**/1
Size (L x W x H) with TS 35 x 7.5	90 x 36 x 68.4 mm
Weight	238 g
Arrester | Class	**Type 1|2|3 B|C|D**
Technical data	
Rated voltage	230 V AC
Max. operating voltage	330 V AC
Uninterrupted current	0,01 A
Follow-on current	none
Rated discharge surge current (8/20) µs	30 kA
Max. discharge surge current (8/20) µs	70 kA
Lightning surge current (10/350) s	25 kA
Response time	20 ns
Residual voltage	0.8 kV
Temperature range	-40 to +80°C
Protection	IP 20
Max. series fuse	250 A gl/gG
Protection level	1.5 kV
Rail assembly	TS 35
Connection cross-section	2.5-50 mm²
Flammability class	UL 94 V-0
CP DS 250 VG remote signaling contact	
Remote signaling contact	CO contact
Switching capacity, AC	250 V /0.5 A
Connection cross-section	max 1.5 mm²
Accessories	
Earth bridge CP E	**CP 250 E-4**
Cat. no./Qty. p.pck.	**15616.2**/1

Features

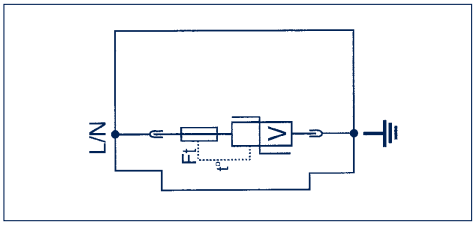
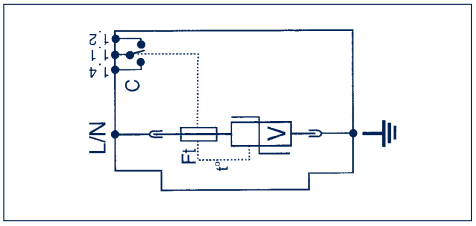
- Reliable overvoltage protection for use in main and sub-distribution with low-voltage levels of 230 V/ 400 V.
- Arrester, class 1|2|3 (B|C|D)
- Signals a failure via a red label field.
- Multi-pole versions can be constructed by using external insulated earth bridges.
- The CP DS 250 VG is equipped with a potential-free CO contact for remote diagnosis.

Overvoltage Protection CONTA-PROTECT

Overvoltage arresters, type 2 (C)

- Mount on TS 35
- Screw connection
- Overvoltage protection arrester
- Type 2 (class C)
- Remote signaling contact (CP 5 H)

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

	CP 5	CP 5 H
		
	Circuit diagram	Circuit diagram
		
1-pole type **Cat. no.**/Qty. p.pck.	**CP 5** **15469.2**/10	**CP 5 H** **15470.2**/10
Size (L x W x H) with TS 35 x 7.5	90 x 18 x 68.4 mm	97.5 x 18 x 68.4 mm
Weight	75 g	102 g
Arrester | Class	**Type 2 | Class C**	**Type 2 | Class C**
Technical data		
Rated voltage	230 V AC	230 V AC
Max. operating voltage	320 V AC	320 V AC
Rated discharge surge current (8/20) µs	20 kA	20 kA
Max. discharge surge current (8/20) µs	40 kA	40 kA
Response time	≤ 25 ns	≤ 25 ns
Residual voltage	1.6 kV	1.6 kV
Temperature range	-40 to +80°C	-40 to +80°C
Protection	IP 20	IP 20
Max. series fuse	125 A gl	125 A gl
Rail assembly	TS 35	TS 35
Connection cross-section	4-25 mm²	4-25 mm²
Flammability class	UL 94 V-0	UL 94 V-0
CP 5 H remote signaling contact		
Remote signaling contact	-	CO contact
Switching capacity, AC	-	250 V/0.5 A
Connection cross-section	-	max. 1.5 mm²
Accessories		
Spare plugging unit	-	-
Cat. no./Qty. p.pck.	-	-
Earth bridge CP E	**CP 5 E-4**	**CP 5 E-4**
Cat. no./Qty. p.pck.	**15602.2**/1	**15602.2**/1

Features

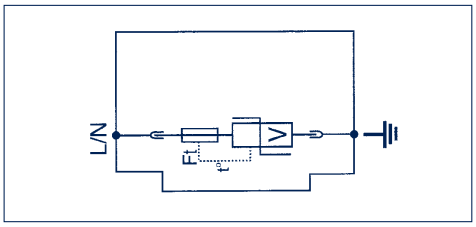
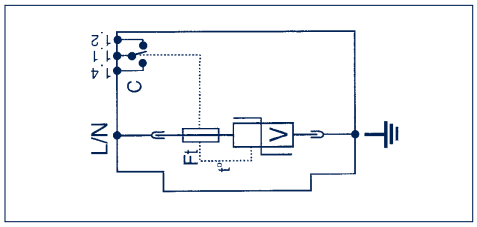
- Reliable overvoltage protection for use in main and sub-distribution with low-voltage levels of 230 V/ 400 V.
- Arrester, class C (Type 2 | mid-level protection)
- Signals a failure via a red label field.
- Multi-pole versions can be constructed by using external insulated earth bridges.
- The CP 5 H is also equipped with a potential-free CO contact for remote diagnosis.

Overvoltage Protection CONTA-PROTECT

Overvoltage arresters, type 2 (C)

- Mount on TS 35
- Screw connection
- Overvoltage protection arrester
- Type 2 (class C)
- Pluggable protective elements
- Remote signaling contact (CP VH 40)

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

	CP V 40	CP VH 40
		
	Circuit diagram	Circuit diagram
		
1-pole type **Cat. no.**/Qty. p.pck.	**CP V 40** **6862.0**/1	**CP VH 40** **6863.0**/1
Size (L x W x H) with TS 35 x 7.5	90 x 18 x 68.4 mm	97.5 x 18 x 68.4 mm
Weight	108 g	120 g
Arrester | Class	**Type 2 | Class C**	**Type 2 | Class C**
Technical data		
Rated voltage	230 V AC	230 V AC
Max. operating voltage	320 V AC	320 V AC
Rated discharge surge current (8/20) µs	20 kA	20 kA
Max. discharge surge current (8/20) µs	40 kA	40 kA
Response time	≤ 25 ns	≤ 25 ns
Residual voltage	1.3 kV	1.3 kV
Temperature range	-40 to +80°C	-40 to +80°C
Protection	IP 20	IP 20
Max. series fuse	125 A gl	125 A gl
Rail assembly	TS 35	TS 35
Connection cross-section	4-25 mm²	4-25 mm²
Flammability class	UL 94 V-0	UL 94 V-0
CP VH 40 remote signaling contact		
Remote signaling contact	-	CO contact
Switching capacity, AC	-	250 V / 0.5 A
Connection cross-section	-	max. 1.5 mm²
Accessories		
Spare plugging unit	**CP V 40 S**	**CP V 40 S**
Cat. no./Qty. p.pck.	**6864.0**/1	**6864.0**/1
Earth bridge CP E	**CP E-2**	**CP E-2**
Cat. no./Qty. p.pck.	**6865.0**/1	**6865.0**/1
Earth bridge CP E	**CP E-3**	**CP E-3**
Cat. no./Qty. p.pck.	**6866.0**/1	**6866.0**/1
Earth bridge CP E	**CP E-4**	**CP E-4**
Cat. no./Qty. p.pck.	**6867.0**/1	**6867.0**/1

Features

- Reliable overvoltage protection for use in main and sub-distribution with low-voltage levels of 230 V/ 400 V.
- Varistor technology
- Arrester, class C (Type 2 | mid-level protection)
- Signals a failure via a red label field.
- Multi-pole versions can be constructed by using external insulated earth bridges.
- The CP VH 40 is also equipped with a potential-free CO contact for remote diagnosis.

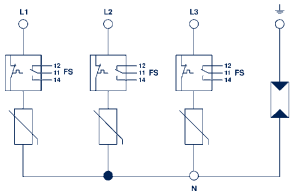
Overvoltage Protection CONTA-PROTECT

Overvoltage arresters, type 2 (C)

- Mount on TS 35
- Screw connection
- Four-pole overvoltage arrester
- Type 2 (class C)
- Pluggable protective elements
- 3+1 switching for earth-earth networks

CP VHG 40-TT

Circuit diagram



4-pole type **Cat. no.**/Qty. p.pck.	**CP VHG 40-TT** **6868.0**/1
Size (L x W x H) with TS 35 x 7.5	97.5 x 72 x 68.4 mm
Weight	410 g
Arrester | Class	**Type 2 | Class C**
Technical data	
Rated voltage	230 V AC
Max. operating voltage	320 V AC
Rated discharge surge current (8/20) µs	20/80 kA
Max. discharge surge current (8/20) µs	40/160 kA
Response time	≤ 25 ns
Residual voltage	1.3 kV
Temperature range	-40 to +80°C
Protection	IP 20
Max. series fuse	125 A gl
Rail assembly	TS 35
Connection cross-section	4-25 mm²
Flammability class	UL 94 V-0
CP VHG 40 remote signaling contact	
Remote signaling contact	3 CO contact
Switching capacity, AC	250 V/0.5 A
Connection cross-section	max. 1.5 mm²
Accessories	
Spare plugging unit	**CP V 40 S**
Cat. no./Qty. p.pck.	**6864.0**/1

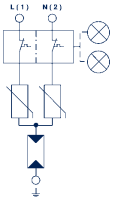
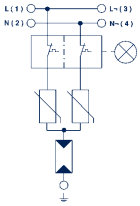
Features

- Reliable overvoltage protection for protection of low-voltage consumer facilities in 3 + 1 switching for use in earth-earth networks.
- On the three-pole varistor arresters, a total-load gas-filled arrester is installed on an additional pole.
- Arrester, class C (Type 2 | mid-level protection)
- Signals a defect plug unit, via a red label field (only varistor modules).
- Each varistor module is also equipped with a potential-free CO contact for remote diagnosis.

Overvoltage Protection CONTA-PROTECT

Overvoltage arresters, type 3 (D)

- Mount on TS 35
- Screw connection
- 2/1-pole overvoltage protection arrester
- Type 3 (class D)
- Pluggable protective elements (CP V 10)
- Varistor/gas-filled arrester technology

	CP V 10	CDS 98
		
	Circuit diagram	Circuit diagram
		
1-pole type 2-pole type Cat. no./Qty. p.pck.	**CP V 10 6869.0**/1	**CDS 98 6471.2**/1
Size (L x W x H) with TS 35 x 7.5	90 x 18 x 68.4 mm	90 x 18 x 68.4 mm
Weight	108 g	70 g
Arrester | Class	**Type 3 | Class D**	**Type 3 | Class D**
Technical data		
Rated voltage	230 V AC	230 V AC
Max. operating voltage	320 V AC	275 V AC
Rated discharge surge current (8/20) µs	5 kA	5 kA
Max. discharge surge current (8/20) µs	10 kA	10 kA
Response time	≤ 25 ns	≤ 25 ns
Residual voltage	1.2 kV	1.2 kV
Temperature range	-40 to +80°C	-40 to +80°C
Protection	IP 20	IP 20
Max. series fuse	16 A gl	125 A gl
Rail assembly	TS 35	TS 35
Connection cross-section	1.5-16 mm²	1.5-16 mm²
Flammability class	UL 94 V-0	UL 94 V-0
Remote signaling contact		
Remote signaling contact	-	-
Switching capacity, AC	-	-
Connection cross-section	-	-

Features

CP V 10

- Two-part: base and pluggable sections
- Protection against overvoltage on the power supply lines within the switchgear and control cabinets
- Varistor/gas-filled arrester technology, no leakage current
- Thermal and dynamic monitoring of the protective elements
- Arrester disconnector for overload, with guaranteed continued supply of power
- Integrated monitoring display, red = replace
- Thin design

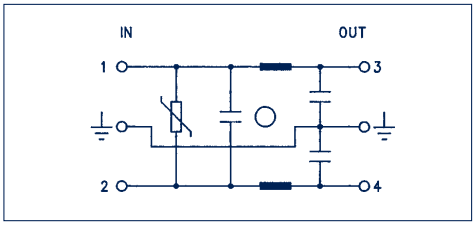
CDS 98

- One-part
- Protection against overvoltage on the power supply lines within the switchgear and control cabinets
- Varistor/gas-filled arrester technology, no leakage current
- Thermal and dynamic monitoring of the protective elements
- Arrester disconnector for overload, with guaranteed continued supply of power
- Integrated monitoring display, red = replace
- Thin design

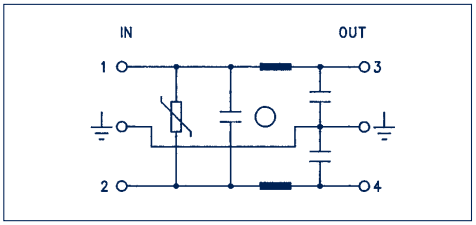
Interference-elimination link modules IF-OF

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

Circuit diagram



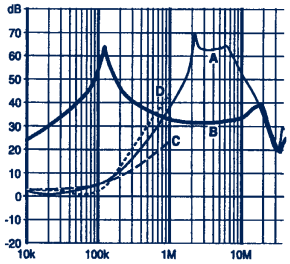
Circuit diagram



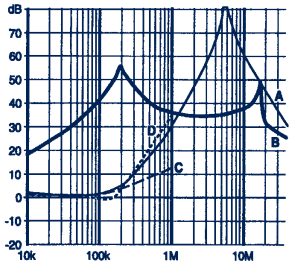
Type **Cat. no.**/Qty. p.pck.	**IF-OF/0.5 A** **6149.2**/1	**IF-OF/1 A** **6150.2**/1	**IF-OF/3 A** **6151.2**/1	**IF-OF/6 A** **6152.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 40 x 60 mm	87 x 40 x 60 mm	87 x 40 x 60 mm	87 x 40 x 60 mm
Weight	89 g	89 g	89 g	89 g
General information				
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III, DIN VDE 0551	DIN EN 50178, DIN VDE 0110, pollution 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				
Insulation stripping length	7 mm	7 mm	7 mm	7 mm
Conductor 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
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 a 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

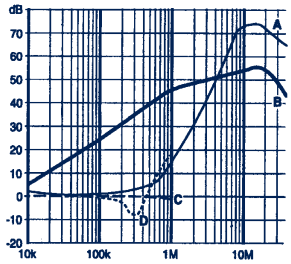
0.5 amp types



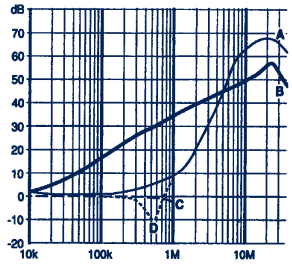
1 amp types



3 amp types



6 amp types



Functional Relays

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

Functional Relays

MFR 1 | MFR 4 | MFR 5 Timing relays

Instead of timing components with only one function, these components 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 component is needed for all applications.

The MFR 6 clock-pulse generator dual-time relays

This functional component is equipped with a definable variable-time flash function. The output relay is controlled in accordance with both set times, until the supply voltage is interrupted. You can select operation - either beginning with pulse or beginning with delay.

TSR 1 | TSR 2 Staircase lighting time-limit switch

Electronic step-light time-limit switches with an advance-OFF warning function are functional relays that are often used in building installations. The device can be turned on by pressing the connected push-button. It can be turned off by holding the push-button down. The set time can be increased greatly by repeatedly pressing a push-button.

Functional Relays

USR 1 | USR 2 Undervoltage-monitor relays

The undervoltage monitoring of alternating voltage in 3- or 1-phase supply systems can be accomplished with these functional components. 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.

SDSR 1 | SDSR 2 Star-delta switching relays

Star-delta switching is a commonly used function in motor-control engineering. These 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.

RM/HA/24 VUC | AUTO-ON-OFF-RELAY

This compact relay component acts as the interface between the encoder, input, control signals and the control or factory-level. It also enables simple switching from automatic mode to OFF or manual mode.

Because of the coil construction for the 24 V AC/DC input voltage, the component has a wide variety of uses. A potential-free check-back contact for control allows for convenient monitoring of the operating status. The status is also shown with an integrated LED.

The integrated relay is designed with a switching capacity of up to 2500 VA at a rated voltage of 250 V.

Functional Relays

Intervention modules

Despite the rising level of automation in the sectors of building control, direct digital control, and PLC (programmable logic control), it is still sometimes necessary to intervene in the process during interruptions or servicing.

With the Intervention product family, **CONTA-CLIP** offers a comprehensive line offers many possibilities for automatisation tasks. The Intervention modules are designed for the interface between the encoder, input, controls signals and the control/factory level. Selected operating modes (such as AUTOMATIC and HAND) are shown via colour LEDs. They can also be sent transmitted back to the corresponding factory-level or controller using a feedback circuit (a potential-free contact).

Program overview

- Analog output modules **AO**
- Digital switch modules without HAND/OFF/AUTOMATIC switch **RIM 4**
- Digital switch modules with HAND/OFF/AUTOMATIC switch **OD, ASB, HLS** and **MG**
- Digital switch modules with HAND/OFF/AUTOMATIC switch and watchdog **IM, ASBW** and **MGW**
- Digital switch modules with HAND/OFF/AUTOMATIC switch **AU**
- Display modules **LED**
- Monitoring modules **ST**

Multi-functional timing relays

MFR 1 | MFR 4 | MFR 5

Specifications

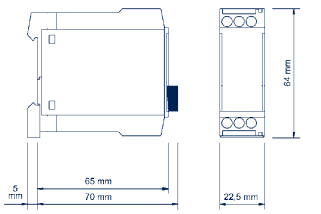
Mechanical design

- Mount on TS 35
- Housing made of self-extinguishing plastic, IP40 protection
- Any mounting position possible
- Screw connections protected against accidental touch, according to VBG 4, IP20 protection

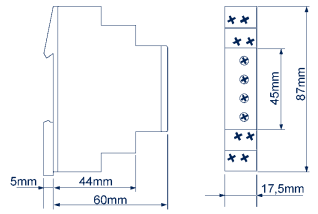
Screw connection

- 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
- Tightening torque max. 1 Nm

Dimensions 1



Dimensions 2



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
Transport temperature	-25 to +70°C
Relative humidity	15% to 85% (acc. to IEC 721-3-3 Class 3K3)
Pollution 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

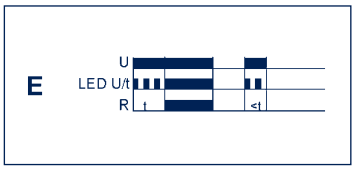
- The module must be disconnected from the power supply before selection of the timing function
- Please refer to data sheet or information printed on the module for a complete list of the various module functions

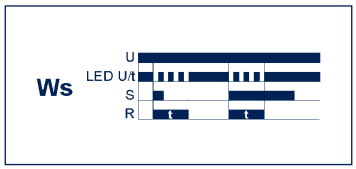
ON delay (E)
The set time t begins to run with the application of the supply voltage U. The green LED U/t flashes. After the time t has passed (the green LED U/t is lit), the output relay R goes on (yellow LED lit). This status is maintained until the supply voltage is interrupted. If the supply voltage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

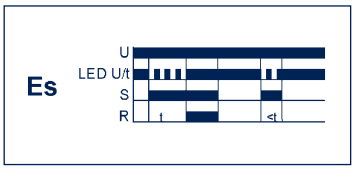
Impulse-ON with control contact (Ws)
The supply voltage U must constantly be applied to device (green LED U/t is lit). The output relay R activates (yellow LED lit) when the control contact S closes, and the set time t begins (green LED U/t flashes). After the time t has passed (green LED U/t is lit),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

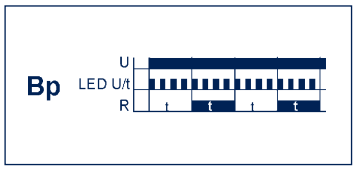
ON-delay with control contact (Es)
The supply voltage U must constantly be applied to device (green LED U/t is lit). The set time t begins when the control contact S is closed. The green LED U/t flashes. The output relay R activates (yellow LED is lit) after the expiration of the time t (green LED U/t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

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







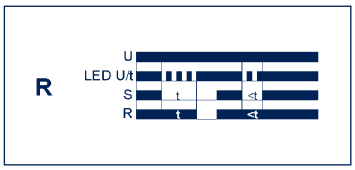


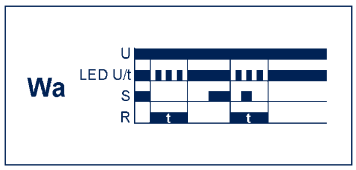
OFF-delay with control contact (R)
The supply voltage U must constantly be applied to device (green LED U/t is lit). The output relay R activates (yellow LED lit) when the control contact S closes. The set time t begins to run when the control contact S is opened. The green LED U/t flashes. The output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

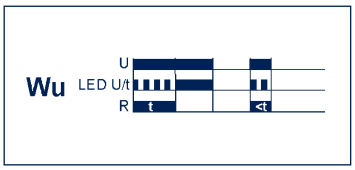
Impulse-OFF with control contact (Wa)
The supply voltage U must constantly be applied to device (green LED U/t is lit). The closure of control contact S has no influence on the positioning of the output relay R. When the control contact opens, the output relay activates (yellow LED is lit) and the set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

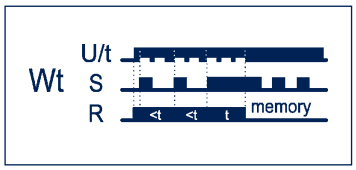
Impulse-ON voltage controlled (Wu)
The output relay R is activated (yellow LED lit) when the supply voltage is applied. The set time then begins to run (green LED U/t flashes). The output relay deactivates (yellow LED not lit) after the expiration of the time t (green LED U/t is lit). This status is 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.

Pulse monitoring (Wt)
The output relay R activates (yellow LED is lit) after the supply voltage is applied (green LED U/t is lit). The set time t begins when the control contact S is closed. The green LED U/t flashes. In order to keep the output relay activated, the control contact must be opened and then closed during the set time t. If this does not occur, the output relay is deactivated, and all further pulses to the control contact are ignored. In order to re-start this function, the supply voltage must be interrupted and re-applied.



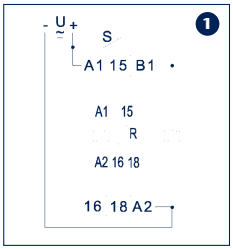




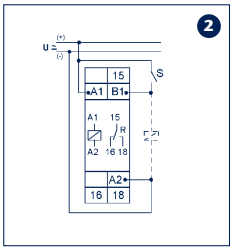


	MFR 1	MFR 4	MFR 51
			
Type **Cat. no.**/Qty. p.pck.	**MFR 1** **15100.2**/1	**MFR 4** **15677.2**/1	**MFR 5** **15678.2**/1
Dimensions	1	2	2
Wiring diagram	1	2, 3	2, 3
Dimensions (L x W x H) TS 35 x 7.5	64 x 22.5 x 77.5 mm	87 x 17.5 x 67.5 mm	87 x 17.5 x 67.5 mm
Weight (individual packaging:module and packaging)	65 g	65 g	65 g
Short description	**Timing relay**	**Timing relay**	**Timing relay**
	Multi-functional	Multi-functional	Multi-functional
	8 functions	4 functions	7 functions
	8 time delay ranges	7 time delay ranges Wide-range input	7 time delay ranges Wide-range input
	1 CO contact	1 CO contact	1 CO contact
	Width 22.5 mm	Width 17.5 mm	Width 17.5 mm
	Industrial construction	Installation design	Installation design
Functions			
	E, R, Ws, Wa, Es, Wu, Bp, Wt*	E, R, Wu, Bp*	E, R, Ws, Wa, Es, Wu, Bp*
Time ranges / setting ranges			
	50 ms to 10 d	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 ON*
	Green LED U/t flashes*	Green LED U/t flashes*	Green LED U/t flashes*
	Yellow LED R ON/OFF*	Yellow LED R ON/OFF*	Yellow LED R ON/OFF*
Input circuit			
Supply voltage	24 V DC, terminals A1(+)-A2(-), switch engaged 24 V DC, terminals A1-A2, Switch engaged 110 to 240 V AC, terminals A1-A2, switch dis-engaged	24 to 240 V AC/DC, terminals A1(+)-A2(-)	12 to 240 V AC/DC terminals A1(+)-A2(-)
Tolerance	24 V DC ± 10 % 24 V AC -15% to +10% 110 to 240 VAC -15% to +10%	24 V -15 % to 240 V +10%	12 V -10% to 240 V +10%
Rated frequency	48 to 63 Hz	48 to 63 Hz	48 to 63 Hz
Rated consumption	24 V AC/DC 1.5 VA (1 W) 110 V AC 2 VA (1 W) 240 V AC 8 VA (1.3 W)	4 VA (1.5 W)	4 VA (1.5 W)
ON duration	100 %	100 %	100 %
Recovery time	250 ms	100 ms	100 ms
Residual ripple with DC	10 %	10 %	10 %
Release voltage	> 30% of the min. Supply voltage	> 30% of the min. Supply voltage	> 30% of the min. Supply voltage
Overvoltage category	III (acc. to IEC 664-1)	III (acc. to IEC 664-1)	III (acc. to IEC 664-1)
Rated impulse voltage	4 kV	4 kV	4 kV
Output circuit	1 potential-free CO contact	1 potential-free CO contact	1 potential-free CO contact
Rated voltage	250 V AC	250 V AC	250 V AC
Switching capacity of module mounted side-by-side (gap < 5 mm)	1250 VA (5 A/250 V AC)	2000 VA (8 A/250 V AC)	2000 VA (8 A/250 V AC)
Switching capacity of module not mounted side-by-side (gap < 5 mm)	2000 VA (8 A/250 V AC)	2000 VA (8 A/250 V AC)	2000 VA (8 A/250 V AC)
Fusing	8 A fast	8 A fast	8 A fast
Mechanical life span	20 x 10^6 switching cycles	20 x 10^6 switching cycles	20 x 10^6 switching cycles
Electrical service life	2 x 10^5 switching cycles at 1000 VA*	2 x 10^5 switching cycles at 1000 VA*	2 x 10^5 switching cycles at 1000 VA*
Switching frequency	Max. 60/min at 100 VA* Max. 6/min at 1000 VA* (acc. to IEC 947-5-1)	Max. 60/min at 100 VA* Max. 6/min at 1000 VA* (acc. to IEC 947-5-1)	Max. 60/min at 100 VA* Max. 6/min at 1000 VA* (acc. to IEC 947-5-1)
Rated insulation voltage	250 VAC (acc. to IEC 664-1)	250 VAC (acc. to IEC 664-1)	250 VAC (acc. to IEC 664-1)
Overvoltage category	III (acc. to IEC 664-1)	III (acc. to IEC 664-1)	III (acc. to IEC 664-1)
Rated impulse voltage	4 kV	4 kV	4 kV
Process times (without relay switching times) ON delay OFF delay Stored energy time when voltage fails	 AC 25-55 ms, DC 35-45 ms AC/DC 10-20 ms Max. 10 ms		
Control contact			
Input	Non-floating, terminals A1-B1	Non-floating, terminals A1-B1	Non-floating, terminals A1-B1
Load capacity	Parallel load, min. 1 VA (0.5 W) Terminals A2-B1	Yes	Yes
Response threshold		Automatically adjusted to supply voltage	Automatically adjusted to supply voltage
Maximum cable length	10 m	10 m	10 m
Minimum pulse duration	AC/DC 50 ms	DC 50 ms/AC 100 ms	DC 50 ms/AC 100 ms
Accuracy			
Basic accuracy	± 1% (from scale reading)	± 1% (from scale reading)	± 1% (from scale reading)
Setting tolerance	≤ 5% (from scale reading)	≤ 5% (from scale reading)	≤ 5% (from scale reading)
Repeat accuracy	< 0.5% or ± 5 ms	< 0.5% or ± 5 ms	< 0.5% or ± 5 ms
Voltage influence	-	-	-
Temperature influence	≤ 0.01% /°C	≤ 0.01% /°C	≤ 0.01 % /°C

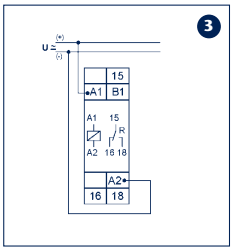
Connection diagram



With control contact



Without control contact



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 delay
Wt Pulse monitoring
**with control contact*

Green LED U/t ON: Supply voltage applied
Green LED U/t flashing: Indicates timing period
Yellow LED R ON/OFF: Position of output relay

Output circuit
VA resistive load

** see legend*

Clock-pulse generator dual-timing relays

MFR 6

Specifications

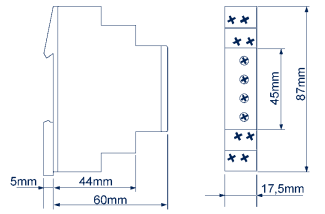
Mechanical design

- Mount on TS 35
- Housing made of self-extinguishing plastic, IP40 protection
- Any mounting position possible
- Screw connections protected against accidental touch, according 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
- Tightening torque max. 1 Nm

Dimensions 1

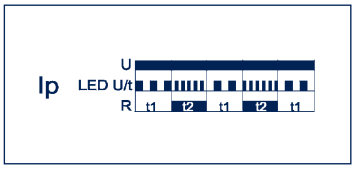


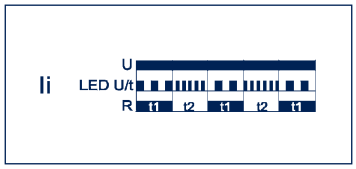
Environmental conditions	
Ambient temperature	-25 to +55°C (acc. to IEC 68-1) -25 to +40°C (UL 508)
Storage temperature	-25 to +70°C
Transport temperature	-25 to +70°C
Relative humidity	15% to 85% (acc. to IEC 721-3-3 Class 3K3)
Pollution degree	3 (acc. to IEC 664-1)
Vibration resistance	10 to 55 Hz 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.

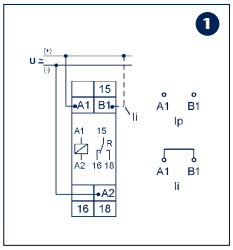




	MFR 6		
			
Type **Cat. no.**/Qty. p.pck.	**MFR 6** **15679.2**/1		
Dimensions	1		
Wiring diagram	1		
Dimensions (L x W x H) TS 35 x 7.5	87 x 17.5 x 67.5 mm		
Weight (individual packaging:module and packaging)	72 g		
Short description	**Clock pulse generator**		
	7 time delay ranges		
	Wide-range input		
	1 CO contact		
	Width 17.5 mm		
	Installation design		
Functions			
	Ip Pulsed begin with delay		
	Ii Pulsed begin with pulse		
	(with jumper A1-B1)		
Time ranges / setting ranges			
	50 ms to 100 h		
Display			
	Green LED U/t ON*		
	Green LED V/t flashes slowly*		
	Green LED V/t flashes 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)		
ON duration	100 %		
Recovery time	100 ms		
Residual ripple with DC	10 %		
Release voltage	> 30 % of the 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 module mounted side-by-side (gap < 5 mm)	2000 VA (8 A/250 V AC)		
Switching capacity of module not mounted side-by-side (gap < 5 mm)	2000 VA (8 A/250 V AC)		
Fusing	8 A fast		
Mechanical life span	20 x 10^6 switching cycles		
Electrical service life	2 x 10^5 switching cycles at 1000 VA*		
Switching frequency	Max. 60/min at 100 VA* Max. 6/min at 1000 VA* (acc. to IEC 947-5-1)		
Overvoltage category	III (acc. to IEC 664-1)		
Rated impulse voltage	4 kV		
Control contact			
Input	Non-floating, terminals A1-B1		
Load capacity	Yes		
Response threshold	Automatically adjusted to supply voltage		
Maximum cable length	10 m		
Accuracy			
Basic accuracy	± 1% (from scale reading)		
Setting tolerance	< 5 % (from scale reading)		
Repeat accuracy	< 0.5% or ± 5 ms		
Voltage influence	-		
Temperature influence	≤ 0.01% /°C		

** see legend*

Connection diagram



Legend:

Green LED U/t ON:
Supply voltage applied
Green LED U/t flashes slowly:
Indicates timing period t1
Green LED U/t flashes quickly:
Indicates timing period t2
Yellow LED R ON/OFF:
Position of output relay

Output circuit
VA resistive load

Staircase lighting time-limit switch

TSR 1 | TSR 2

Specifications

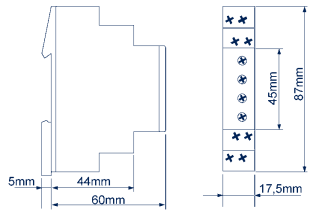
Mechanical design

- Mount on TS 35
- Housing made of self-extinguishing plastic, IP40 protection
- Any mounting position possible
- Screw connections protected against accidental touch, according 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
- Tightening 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
Transport temperature	-25 to +70°C
Relative humidity	15% to 85% (acc. to IEC 721-3-3 Class 3K3)
Pollution 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)

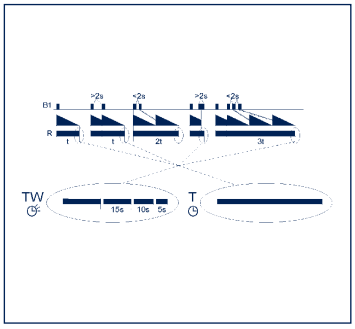
Description of function

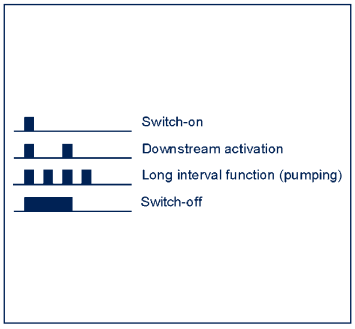
Electronic staircase lighting time-limit switches with an advance-OFF warning function. The control input allows for a connection of push-buttons with up to a total of 100 mA glow-lamp current. It can be used in three- or four-cable circuits. The device can be re-triggered by pressing the connected push-buttons or turned off by pressing down for a longer time on the push-button (energy-saving function). Rapid multiple pressing ("pumping") of the button extends the interval by the set time t. Depending on the design version, the following operating modes can be selected with the front control unit:

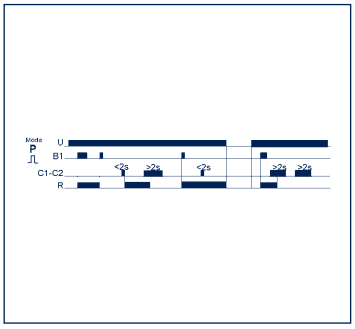
The automatic timing function (T, TW)
After pressing the button B1, the output relay R closes (terminals L-18) and the set time t begins to run. If the button is pressed again before the time t expires, then the time begins anew (the re-start function complies with EN 60669-2-3). Quick multiple pressing of the button (pumping) adds two, three, or more intervals to extend the time up to 60 minutes. Prolonged pressing of the button (more than two seconds) then aborts the running interval, and the relay turns off (energy saving function). The TW mode the device provides a switch-off warning (complies with DIN 180-15-2) by generating short pulses (flashes) at 30, 15, and 5 seconds before switch-off.

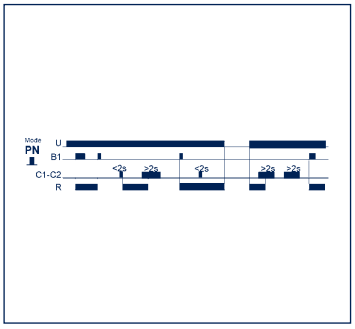
Operational possibilities with B1 in automatic timing
The additional control inputs C1-C2 is used in the T and TW modes to control the staircase lighting timer using a voltage from 8 - 230 V AC/DC. This input can be used to start and restart the time cycle. It can not be used for switch-off (energy saving) or for programming longer intervals (pumping).

Impulse switch mode (P), (PN)
In impulse switch mode, every button press (on B1) switches (toggles) the output relay T. In the P function, the output relay R remains in the off-position when the supply voltage is applied. In the PN function, the output relay R switches to on-position immediately after the supply voltage is applied, if the relay was on before the last power stoppage. The output relay R switches to on-position (central ON), if a short (< 2 sec.) voltage impulse is applied to the additional control input C1-C2. A longer voltage impulse (> 2 sec.) turns off the output relay R (central OFF).







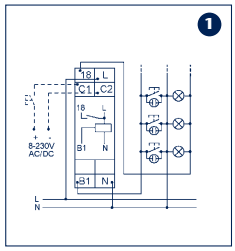


	TSR 1	TSR 2	
			
Type **Cat. no.**/Qty. p.pck.	**TSR 1** **15680.2**/1	**TSR 2** **15681.2**/1	
Dimensions	1	1	
Wiring diagrams	1, 2	1, 2	
Dimensions (L x W x H) TS 35 x 7.5	87 x 17.5 x 67.5 mm	87 x 17.5 x 67.5 mm	
Weight (individual packaging:module and packaging)	106 g	106 g	
Short description	**Staircase light timer, electronic**	**Staircase light timer, electronic**	
	Advance turn-off warning	Advance turn-off warning	
	Retrigger function, extended time function	Retrigger function, extended time function	
	Energy saving	Energy saving	
	Selectable impulse relay mode	Selectable impulse relay mode	
	Low switching noise	Low switching noise	
	High switching capacity 80 A inrush current peak	High switching capacity, 80 A inrush current peak	
	Automatic 3 or 4 cable recognition	Automatic 3 or 4 cable recognition	
	Glow lamp load up to 100 mA	Glow lamp load up to 100 mA	
	Width 17.5 mm	Width 17.5 mm	
	Installation design	Installation design	
Functions			
	Tw, P, 1, 0	TW, T, 1, 0, P, PN	
Time ranges / setting ranges	Time delay	Time delay	
	0.5 to 12 min (in function T, TW)	0.5 to 12 min (in function T, TW)	
Display			
	Green LED U/t ON*	Green LED U/t ON*	
	Yellow LED R ON/OFF*	Yellow LED R ON/OFF*	
Input circuit			
Supply voltage	Terminals L - N	Terminals L - N	
Rated voltage	230 V AC	230 V AC	
Tolerance	-15 % to +10 %	-15 % to +10 %	
Rated frequency	48 to 63 Hz	48 to 63 Hz	
Rated consumption	2 VA (1.0 W)	2 VA (1.0 W)	
ON duration	100 %	100 %	
Recovery time	500 ms	500 ms	
Stored energy time	-	-	
Residual ripple with DC	-	-	
Release voltage	> 30 %	> 30 %	
Overvoltage category	III (acc. to IEC 664-1)	III (acc. to IEC 664-1)	
Rated impulse voltage	4 kV	4 kV	
Output circuit	1 NO contact, terminals L - 18	1 NO contact, terminals L - 18	
Rated voltage	250 V AC	250 V AC	
Switching capacity of module mounted side-by-side (gap < 5 mm)	10 A continuous current	10 A continuous current	
Switching capacity of module not mounted side-by-side (gap < 5 mm)	16 A continuous current	16 A continuous current	
Inrush current peak (20 ms)	80 A	80 A	
Mechanical life span	30 x 10^6 switching cycles	30 x 10^6 switching cycles	
Electrical service life Resistive load Glow lamp load	 2 x 10^5 switch. cycles at 16 A/250 V 80,000 switch. cycles at 1000 W/250 V	 2 x 10^5 switch. cycles at 16 A/250 V 80,000 switch. cycles at 1000 W/250 V	
Overvoltage category	III (acc. to IEC 664-1)	III (acc. to IEC 664-1)	
Rated impulse voltage	4 kV	4 kV	
Control contact	Control input B1	Control input B1	
Connection	Non-floating, push-button B1-N (3-cable circuit), push-button B1-L (4-cable circuit)	Non-floating, push-button B1-N (3-cable circuit), push-button B1-L (4-cable circuit)	
Glow lamp load	Max. 100 mA parallel to the push-buttons	Max. 100 mA parallel to the push-buttons	
Overload protection	Yes, electronic	Yes, electronic	
Additional control input			
Connection	-	Control voltage on terminals C1(+)-C2	
Control voltage	-	8 to 230 V AC/DC	
Electrical isolation	-	Yes, basic insulation	
Overvoltage category	-	III (acc. to IEC 60664-1)	
Rated impulse voltage	-	4 kV	
Accuracy			
Basic accuracy	± 5 % (from scale reading)	± 5 % (from scale reading)	
Setting tolerance	< 15 % (from scale reading)	< 15 % (from scale reading)	
Repeat accuracy	< 2 %	< 2 %	
Voltage influence	-	-	
Temperature influence	≤ 1 %	≤ 1 %	

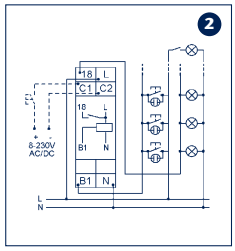
** see legend*

Connection diagram

3-cable circuit



4-cable circuit with attic illumination



Legend:

TW:
Automatic timing function with advance turn-off warning
T:
Automatic timing function without advance turn-off warning
1:
Continuous lighting
0:
Switched off
P:
Impulse relay without timing function
PN:
Impulse relay Neutral-voltage safe

Green LED U/t ON:
Supply voltage applied
Yellow LED R ON/OFF:
Position of output relay

Undervoltage monitoring relays

USR 1 | USR 2

Specifications

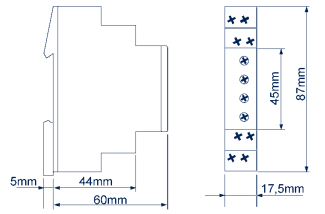
Mechanical design

- Mount on TS 35
- Housing made of self-extinguishing plastic, IP40 protection
- Any mounting position possible
- Screw connections protected against accidental touch, according 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
- Tightening torque max. 1 Nm

Dimensions 1



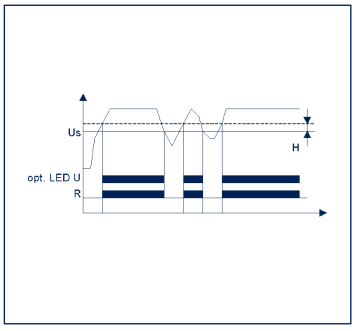
Environmental conditions	
Ambient temperature	-25 to +55°C (acc. to IEC 68-1) -25 to +40°C (UL 508)
Storage temperature	-25 to +70°C
Transport temperature	-25 to +70°C
Relative humidity	15% to 85% (acc. to IEC 721-3-3 Class 3K3)
Pollution degree	3 (acc. to IEC 664-1)
Vibration resistance	10 to 55 Hz 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

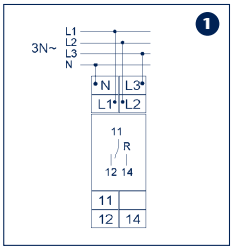
The output relay activates (yellow LED lit) when the measured voltage of all connected phases exceeds the threshold Us by more than the hysteresis. When the voltage of one of the connected phases falls below the fixed threshold value, the output relay is deactivated (yellow LED not lit).



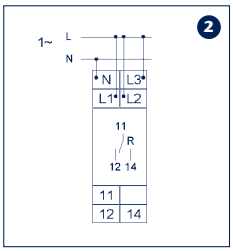
	USR 1	USR 2	
			
Type **Cat. no.**/Qty. p.pck.	**USR 1** **15682.2**/1	**USR 2** **15683.2**/1	
Dimensions	1	1	
Wiring diagrams	1, 2	1, 2	
Dimensions (L x W x H) TS 35 x 7.5	87 x 17.5 x 67.5 mm	87 x 17.5 x 67.5 mm	
Weight (individual packaging:module and packaging)	72 g	72 g	
Short description	**Undervoltage Monitoring relay**	**Undervoltage Monitoring relay**	
	Voltage monitoring 3-phase	Voltage monitoring 3-phase	
	Undervoltage monitoring of supply voltage = measured voltage	Undervoltage monitoring of supply voltage = measured voltage	
	Switching threshold fixed for systems acc. to VDE0108	Switching threshold, variable	
	1 CO contact	1 CO contact	
	Width 17.5 mm	Width 17.5 mm	
	Installation design	Installation design	
Time ranges / setting ranges	Output delay	Output delay	
	Quick, approx. 200 ms	Quick, approx. 200 ms	
Display			
	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	= measured voltage	= measured 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 % from Un	-30 % to +10 % from Un	
Rated frequency	48 to 63 Hz	48 to 63 Hz	
Rated consumption	5 VA (0.6 W)	8 VA (0.8 W)	
ON duration	100 %	100 %	
Recovery time	500 ms	500 ms	
Stored energy time	-	-	
Release voltage	Defined by measurement function	Defined by measurement 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 module mounted side-by-side (gap < 5 mm)	1250 VA (5 A/250 V AC)	1250 VA (5 A/250 V AC)	
Switching capacity of module not mounted side-by-side (gap < 5 mm)	1250 VA (5 A/250V AC)	1250 VA (5 A/250 V AC)	
Fusing	5 A fast	5 A fast	
Mechanical life span	20 x 10^6 switching cycles	20 x 10^6 switching cycles	
Electrical service life	2 x 10^5 switching cycles at 1000 VA*	2 x 10^5 switching cycles at 1000 VA*	
Switching frequency	Max. 60/min at 100 VA* Max. 6/min at 1000 VA* (acc. to IEC 947-5-1)	Max. 60/min at 100 VA* Max. 6/min at 1000 VA* (acc. to IEC 947-5-1)	
Overvoltage category	III (acc. to IEC 664-1)	III (acc. to IEC 664-1)	
Rated impulse voltage	4 kV	4 kV	
Measurement circuit			
Measured quantity	AC sinusoidal, 48 to 68 Hz	AC sinusoidal, 48 to 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 installations 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 % of rated voltage	± 5 % of rated voltage	
Setting tolerance	-	-	
Repeat accuracy	≤ 2 %	≤ 2 %	
Voltage influence	-	-	
Temperature influence	≤ 1 %	≤ 1 %	

** see legend*

Connection diagram



Connection diagram



Legend:

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

Output circuit
VA resistive load

Star-delta switching relays

Specifications

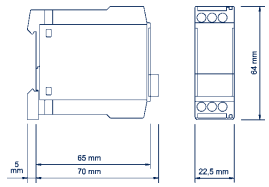
Mechanical design

- Mount on TS 35
- Housing made of self-extinguishing plastic, IP40 protection
- Any mounting position possible
- Screw connections protected against accidental touch, according to VBG 4, IP20 protection

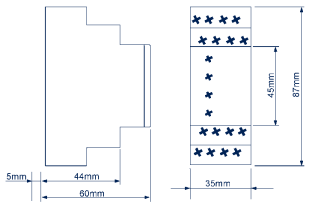
Screw connection

- 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
- Tightening torque max. 1 Nm

Dimensions 1



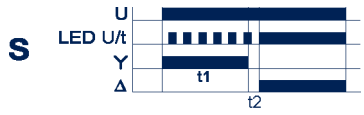
Dimensions 2



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
Transport temperature	-25 to +70°C
Relative humidity	15% to 85% (acc. to IEC 721-3-3 Class 3K3)
Pollution 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

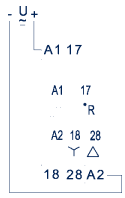
When supply voltage U is applied, the output relay for the star protection activates (yellow LED is lit), and the set star time (t1) begins to run (green LED U/t flashes). After the star time expires (green LED U/t is lit), the output relay for the star protection is deactivated (yellow LED is not lit), 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 1	SDSR 2	
			
Type **Cat. no.**/Qty. p.pck.	**SDSR 1** **15776.2**/1	**SDSR 2** **15777.2**/1	
Dimensions	1	2	
Connection diagram	1	2	
Dimensions (L x W x H) TS 35 x 7.5	64 x 22.5 x 77.5 mm	87 x 35 x 67.5 mm	
Weight (individual packaging:module and packaging)	65 g	106 g	
Short description	**Star-delta start-up**	**Star-delta start-up**	
	2 NO	2 CO contact	
		Wide-range input	
	Width 22.5 mm	Width 35 mm	
	Industrial design	Installation design	
Functions			
	S star-delta start-up	S star-delta start-up	
Time delay range	**Time end range/setting range**	**Time end range/setting range**	
Star time	10 sec/500 ms to 10 sec 30 sec/1500 ms to 30 sec 1 min/3 sec to 1 min	10 sec/500 ms to 10 sec 30 sec/1500 ms to 30 sec 1 min/3 sec to 1 min	
Transit time (fast)			
	40 ms	40 ms	
	60 ms	60 ms	
	80 ms	80 ms	
	100 ms	100 ms	
Display			
	Green LED ON*	Green LED ON*	
	Green LED flashes*	Green LED flashes*	
	Yellow LED R ON/OFF*	Yellow LED R ON/OFF*	
Supply circuit			
Supply voltage	24 V DC, terminals A1(+)-A2(-), switch engaged 24 V DC, terminals A1-A2, Switch engaged 110 to 240 V AC, terminals A1-A2, switch dis-engaged	12 to 240 V AC/DC terminals A1(+)-A2(-)	
Tolerance	24 V DC ± 10 % 24 V AC -15% to +10% 110 to 240 VAC -15% to +10%	12 V -10% to 240 V +10%	
Rated frequency	48 to 63 Hz	48 to 63 Hz	
Rated consumption	24 V AC/DC 1.5 VA (1 W) 110 V AC/DC 2 VA (1 W) 240 V AC 8 VA (1.3W)	4 VA (1.5 W)	
ON duration	100%	100%	
Recovery time	100 ms	100 ms	
Residual ripple with DC	10%	10%	
Release voltage	> 30 % of the min. supply voltage	> 30 % of the min. supply voltage	
Overvoltage category Rated impulse voltage	III (acc. to IEC 664-1) 4 kV	III (acc. to IEC 664-1) 4 kV	
Output circuit		2 potential-free CO contact	
Rated voltage	250 V AC	250 V AC	
Switching capacity of module mounted side-by-side (gap < 5 mm)	1250 VA (5A/250V AC)	2000 VA (8A/250V AC)	
Switching capacity of module not mounted side-by-side (gap < 5 mm)	2000 VA (8A/250V AC)	2000 VA (8A/250V AC)	
Fusing	8A fast	8A fast	
Mechanical life span	20 x 10^6 switching cycles	20 x 10^6 switching cycles	
Electrical service life	2 x 10^5 switching cycles at 1000 VA resistive load	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)	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 VAC (acc. to IEC 664-1)	250 VAC (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	
Accuracy			
Basic accuracy	± 1% (from scale reading)	± 1% (from scale reading)	
Setting tolerance	≤ 25% (from scale reading)	≤ 25% (from scale reading)	
Repeat accuracy	< 0.5% or ± 5 ms	< 0.5% or ± 5 ms	
Voltage influence	-	-	
Temperature influence	≤ 20.01% /°C	≤ 20.01% /°C	

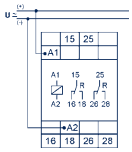
Connection diagram

1



Connection diagram

2



Legend:

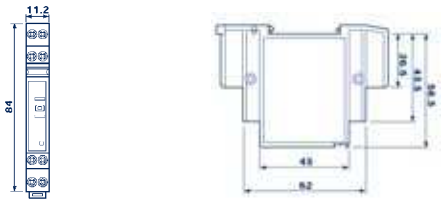
Green LED ON*:
Supply voltage activated
Output relay for delta protection is activated
Green LED flashes*:
Indicates expiration of star time
Yellow LED R ON/OFF*:
Position of output relay for star protection

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

- Mount on TS 35
- Installation design, width 11.2 mm
- IP 20 protection
- Screw connections protected against accidental contact, according to VBG 4
- Switch for HAND/OFF/AUTOMATIC operation
- LED for indicating the switching status
- Basic insulation, according to VDE 0435/ EN 61810-1

RM/HA/24 VUC

Dimensions



Type **Cat. no.**/Qty. p.pck.	**RM/HA/24 VUC** **15561.2**/1	
Size (L x W x H) with TS 35 x 7.5	84 x 11.2 x 64 mm	
Weight	45 g	
General information **Insulation properties**		
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	
Dielectric strength of coil/contacts (1.2/50 µs)	4 kV	
Dielectric strength between mains voltage and contacts	3,000 V AC	
with open contact	1000 V AC	
Operating temperature	-10 to +50°C	
Relay protection type	IP 20	
Insulation stripping length	7 mm	
Max. connection cross-section for screw-clamp	solid core	stranded
mm²	1 x 6/2 x 2.5	1 x 4/2 x 1.5
AWG	1 x 10/2 x 14	1 x 12/2 x 16
Torque	0.5 Nm	
Ambient heat dissipation without contact current	0.4 W	
with continuous current	1.8 W	
Coil input data		
Rated voltage (UN)	24 V AC/DC	
Power rating AC/DC	0.6 VA (50 Hz) / 0.4 W	
Operating range	19.2 V to 26.4 V AC/DC	
Contacts output data		
Number of contacts	1 CO contact	
Max continuous current/max inrush current	10 A/15 A	
Rated voltage/max. switching voltage	250/400 V AC	
Max. power rating AC 1	2500 VA	
Max. power rating AC 15 (230 V AC)	500 VA	
1-phase motor load, AC 3 - operation (230 V AC)	0.44 kW	
Max. switching current DC 1: 30/110/220 V	10 A/0.3 A/0.12 A	
Min. switching load	300 mW (5 V/5 mA)	
Contact material	AgSnO 2	
Mechanical life span	10 x 10^6 switching cycles	
Electrical life span AC 1	100 x 10^3 switching cycles	
Contact data		
Permissible contact load of glow lamps (230 V)	1000 W	
Fluorescent lamps, compensated (230 V)	350 W	
Fluorescent lamps, uncompensated (230 V)	500 W	
Halogen lamps (230 V)	1000 W	

Approvals (details upon request)

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

Circuit diagram

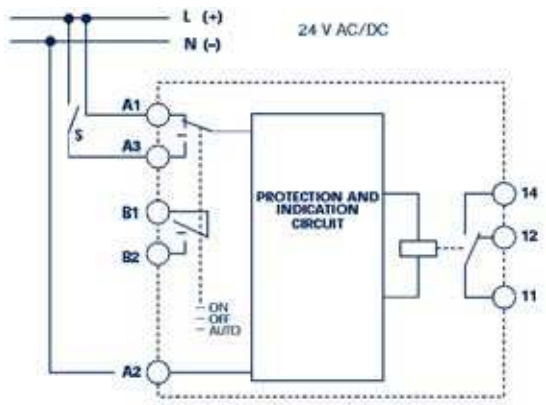


Table of functions

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

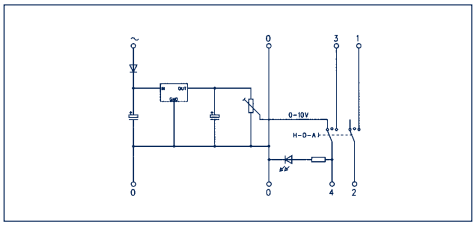
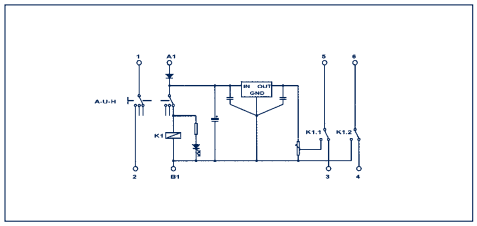
Functional principle

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

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

Analog output modules A0-1

- Mount on TS32/TS 35
- Screw-clamp connection
- Switch for HAND/AUTOMATIC or HAND/OFF/AUTOMATIC
- With and without feedback loop

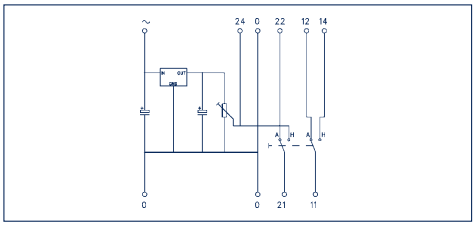
	A0-1	A0-1-2 S
		
	Circuit diagram	Circuit diagram
		
Type **Cat. no.**/Qty. p.pck.	**A0-1** **6550.2**/1	**A0-1-2 S** **6551.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 31 x 68 mm	87 x 31 x 68 mm
Weight	61 g	94 g
General information		
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage coil/contact	-	4 kV
Operating temperature	0 to +55 °C	0 to +55 °C
Insulation stripping length	7 mm	7 mm
Conductor cross-section	0,2-2,5 mm^2 / AWG 22-14	0,2-2,5 mm^2 / AWG 22-14
Switch contact material	silver, gold plated	silver, gold plated
Mechanical life span switch	> 100 000 switching cycles	> 100 000 switching cycles
Max. voltage/current switch	24 V / 2 A	24 V / 2 A
Input data		
Input signal ±10%	0 to 10 V	0 to 10 V
Power consumption per input	-	-
LED lights when	> 1 V	-
Output data		
Output signal	0 to 10 V ±5%, or the input signal	0 to 10 V ±5%, or the input signal
Load resistance	> 500 Ω	> 500 Ω
Max. switching voltage	-	24 V AC / DC
Max continuous current/inrush current	-	4 A / 4 A
Max. power rating (ohmic load)	-	100 VA / 100 W
Typical response time/release time	-	20 ms / 100 ms
Contact material	-	AgNi
Electrical life span at max. contact load	-	>2 x 10^5 switching cycles
Mechanical life span	-	>3 x 10^7 switching cycles
Power supply	24 V AC / DC ±10% - 30 mA, (terminal ~, 0)	24 V AC / DC ±10% - 30 mA, (terminal A1, B1)

Analog output modules A0

- Mount on TS32/TS 35
- Screw-clamp connection
- Switch for HAND/AUTOMATIC or HAND/OFF/AUTOMATIC
- With and without feedback loop

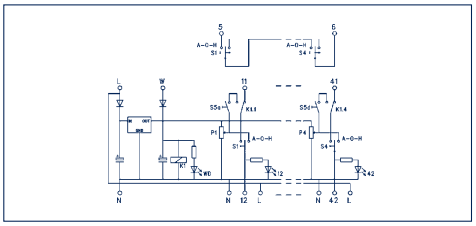
AO/0-10 V/SCHAK

Circuit diagram



AOW-4-2 S

Circuit diagram



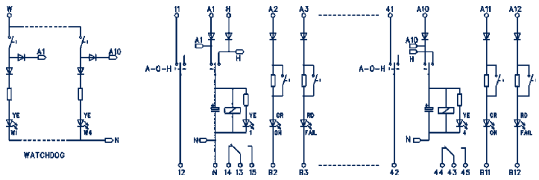
Type **Cat. no.**/Qty. p.pck.	**AO/0-10 V/SCHAK** **6568.2**/1	**AOW4-2 S** **6411.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 39 x 68 mm	87 x 77 x 68 mm
Weight	71 g	216 g
General information		
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage coil/contact	-	-
Operating temperature	0 to +55°C	0 to +55°C
Insulation stripping length	7 mm	7 mm
Conductor cross-section	0,2-2,5 mm²/AWG 22-14	0,2-2,5 mm²/AWG 22-14
Switch contact material	silver, gold plated	silver, gold plated
Mechanical life span switch	> 100 000 switching cycles	> 100 000 switching cycles
Max. voltage/current switch	24 V/2 A	24 V/2 A
Input data		
Input signal ±10%	0 to 10 V	0 to 10 V
Power consumption per input	-	6 VA/4 W (terminal W, N)
LED lights when	-	> 1 V
Output data		
Output signal	0 to 10 V ±5%, or the input signal	0 to 10 V ±5%, or the input signal
Load resistance	> 500 Ω	> 500 Ω
Max. switching voltage	-	-
Max continuous current/inrush current	-	-
Max. power rating (ohmic load)	-	-
Typical response time/release time	-	-
Contact material	-	-
Electrical life span at max. contact load	-	-
Mechanical life span	-	-
Power supply	24 V AC/DC ±10% - 30 mA, (terminal~, 0)	24 V AC/DC ±10% - 200 mA

Digital switch modules with HAND/OFF/AUTOMATIC operation

- Mount on TS32/TS 35
- Screw-clamp connection
- Switch for HAND/OFF/AUTOMATIC operation per channel
- Feedback loop for automatic operation per channel
- MGW 4-3 L: integrated Watchdog, adjustable via DIP switch
- Transparent cover plate, i.e. for fastening labelling fields
- LED indicator for displaying operational status
- Input suitable for AC and DC voltage

MGW 4-3 L | MG 4-3 L

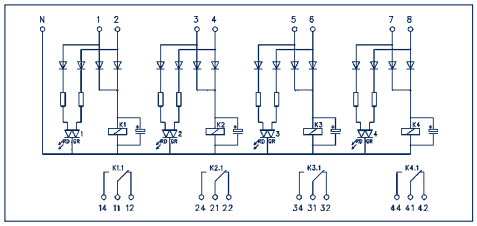
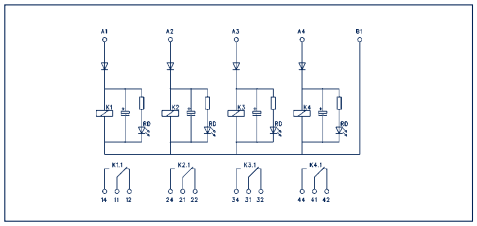
Circuit diagram



Type **Cat. no.**/Qty. p.pck.	**MGW 4-3 L** **15099.2**/1
Type **Cat. no.**/Qty. p.pck.	**MG 4-3 L** **6884.0**/1
Size (L x W x H) with TS 35 x 7.5	87 x 151 x 72 mm
Weight	274 g
General information	
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage coil/contact	4 kV
Operating temperature	0 to +55 °C
Insulation stripping length	7 mm
Conductor cross-section	0,2-2,5 mm²/AWG 22-14
Switch contact material	silver, gold plated
Mechanical life span switch	> 100 000 switching cycles
Max. voltage/current switch	24 V/2 A
Input data	
Max. input signal ±10%	24 V AC/DC
Power consumption per input	1 VA/0.5 W
LED "Watchdog-No." (only MGW 4-3 L/"channel no."/"Bedrijf"/"Storing")	yellow/yellow/green/red
Rated/Max. LED current (channel "Bedrijf" [1] and "Storing" [2])	5 mA/10 mA
Changeover contact for series or parallel operation (channel "Bedrijf" [1] and "Storing" [2])	ON position: resistance (4 k 7) is short-circuited. Caution: | LED MAX = 15 mA!
Power supply for manual operation (terminal H and N)	24 V AC/DC
Output data	
Max. switching voltage	250 V AC/DC
Max continuous current/inrush current	6 A/8 A
Max. power rating (ohmic load)	2000 VA at 250 V AC, 8 A/192 W at 24 V DC
Typical response time/release time	10 ms/50 ms
Contact material	AgNi
Electrical life span at max. contact load	>3 x 10^4 switching cycles
Mechanical life span	>30 x 10^6 switching cycles

Digital switch modules with HAND/AUTOMATIC operation

- Mount on TS32/TS 35
- Screw connection
- LED for signaling the operational status (bi-colour or red)
- Input suitable for AC and DC voltage

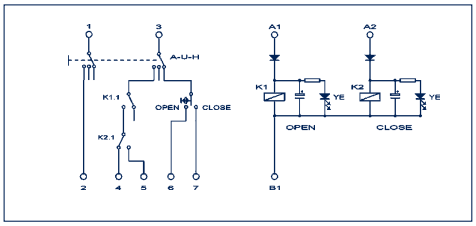
	RIM 4/24 BC	RIM 4/24 EG
		
	Circuit diagram	Circuit diagram
		
Type **Cat. no.**/Qty. p.pck.	**RIM 4/24 BC** **6274.2**/1	**RIM 4/24 EG** **6555.2**/1
Type **Cat. no.**/Qty. p.pck.	**RIM 4/24 BC/DC** **7976.2**/1	
Size (L x W x H) with TS 35 x 7.5	87 x 77 x 57 mm	87 x 77 x 57 mm
Weight	212 g	137 g
General information		
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage coil/contact	4 kV	4 kV
Operating temperature	0 to +55°C	0 to +55°C
Insulation stripping length	7 mm	7 mm
Conductor cross-section	0.2-2.5 mm^2/AWG 22-14	0.2-2.5 mm^2/AWG 22-14
Switch contact material	-	-
Mechanical life span switch	-	-
Max. voltage/current switch	-	-
Input data		
Max. input signal ±10%	24 V AC/DC (RIM 4/24 BC/DC)	24 V AC/DC
Power consumption per input	1 VA/0.5 W	1 VA/0.5 W
Signaling the operational status	bi-colour LED: 1, 3, 4, 7 red / 2, 4, 6, 8 green	red LED
Output data		
Max. switching voltage	250 V AC/DC	250 V AC/DC
Max continuous current/inrush current	6 A/8 A	6 A/8 A
Max. power rating (ohmic load)	2000 VA at 250 V AC, 8 A/192 W at 24 V DC	2000 VA at 250 V AC, 8 A/192 W at 24 V DC
Typical response time/release time	20 ms/100 ms	20 ms/100 ms
Contact material	AgNi	AgNi
Electrical life span at max. contact load	>1.5 x 10^5 switching cycles	>1.5 x 10^5 switching cycles
Mechanical life span	>1 x 10^7 switching cycles	>1 x 10^7 switching cycles

Digital switch modules with HAND/OFF/AUTOMATIC operation

- Mount on TS32/TS 35
- Screw connection
- LED indicator for displaying operational status
- HAND/OFF/AUTOMATIC switch and additional switch with switch settings OPEN/STOP/CLOSE
- Input suitable for AC and DC voltage

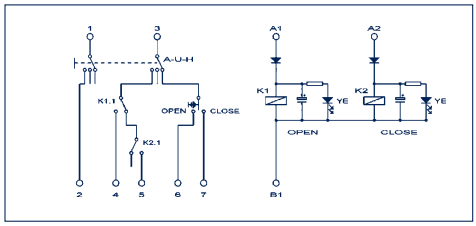
OD-1

Circuit diagram



OD-2

Circuit diagram



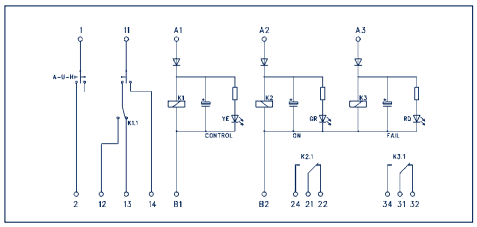
Type **Cat. no.**/Qty. p.pck.	**OD-1** ***6558.2***/1	**OD-2** ***6559.2***/1
Type **Cat. no.**/Qty. p.pck.		
Size (L x W x H) with TS 35 x 7.5	87 x 66 x 63 mm	87 x 66 x 63 mm
Weight	103 g	103 g
General information	**General information**	**General information**
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage coil/contact	4 kV	4 kV
Operating temperature	0 to +55 °C	0 to +55 °C
Insulation stripping length	7 mm	7 mm
Conductor cross-section	0.2-2.5 mm^2/AWG 22-14	0.2-2.5 mm^2/AWG 22-14
Switch contact material	silver, gold plated	silver, gold plated
Mechanical life span switch	> 100 000 switching cycles	> 100 000 switching cycles
Max. voltage/current switch	24 V/2 A	24 V/2 A
Input data		
Max. input signal ±10%	24 V AC/DC	24 V AC/DC
Power consumption per input	1 VA/0.5 W	1 VA/0.5 W
Signaling the operational status	-	-
Output data		
Max. switching voltage	24 V AC/DC	24 V AC/DC
Max continuous current/inrush current	2 A/2 A	2 A/2 A
Max. power rating (ohmic load)	48 VA at 24 V AC, 2 A/48 W at 24 V DC, 2 A	48 VA at 24 V AC, 2 A/48 W at 24 V DC, 2 A
Typical response time/release time	20 ms/100 ms	20 ms/100 ms
Contact material	AgNi	AgNi
Electrical life span at max. contact load	>1.5 x 10^5 switching cycles	>1.5 x 10^5 switching cycles
Mechanical life span	>1 x 10^7 switching cycles	>1 x 10^7 switching cycles

Digital switch modules with HAND/OFF/AUTOMATIC operation

- Mount on TS32/TS 35
- Screw connection
- LED indicator for displaying operational status
- Switch for HAND/OFF/AUTOMATIC operation
- With feedback loop
- Input suitable for AC and DC voltage

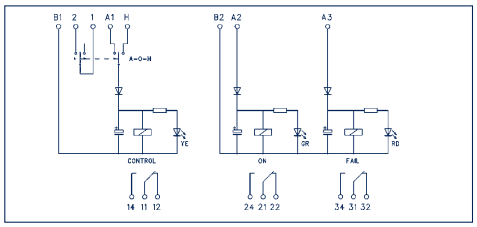
ASB-1

Circuit diagram



ASB-2

Circuit diagram



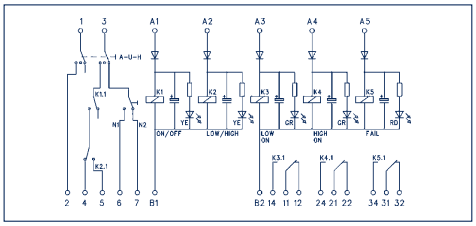
Type **Cat. no.**/Qty. p.pck.	**ASB-1** **6760.2**/1	**ASB-2** **6995.0**/1
Type **Cat. no.**/Qty. p.pck.	**ASB-1/DC** **7974.2**/1	
Size (L x W x H) with TS 35 x 7.5	87 x 83 x 63 mm	87 x 59 x 63 mm
Weight	131 g	116 g
General information		
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage coil/contact	4 kV	4 kV
Operating temperature	0 to +55°C	0 to +55°C
Insulation stripping length	7 mm	7 mm
Conductor cross-section	0.2-2.5 mm^2/AWG 22-14	0.2-2.5 mm^2/AWG 22-14
Switch contact material	silver, gold plated	silver, gold plated
Mechanical life span switch	> 100 000 switching cycles	> 100 000 switching cycles
Max. voltage/current switch	24 V/2 A or both poles 250 V AC/2 A	24 V/2 A
Input data		
Max. input signal ±10%	24 V AC/DC (ASB-1/DC: 24 V DC)	24 V AC/DC
Power consumption per input	1 VA/0.5 W	1 VA/0.5 W
Output data		
Max. switching voltage	250 V AC/DC	250 V AC/DC
Max continuous current/inrush current	6 A/8 A	6 A/8 A
Max. power rating (ohmic load)	2000 VA at 250 V AC, 8 A/192 W at 24 V DC	2000 VA at 250 V AC, 8 A/192 W at 24 V DC
Typical response time/release time	20 ms/100 ms	20 ms/100 ms
Contact material	AgNi	AgNi
Electrical life span at max. contact load	>1.5 x 10^5 switching cycles	>1.5 x 10^5 switching cycles
Mechanical life span	>1 x 10^7 switching cycles	>1 x 10^7 switching cycles

Digital switch modules with HAND/OFF/AUTOMATIC operation

- Mount on TS32/TS 35
- Screw connection
- LED indicator for displaying operational status
- Switch for HAND/OFF/AUTOMATIC operation
- HLSW-3: integrated Watchdog
- Feedback loop
- Input suitable for AC and DC voltage

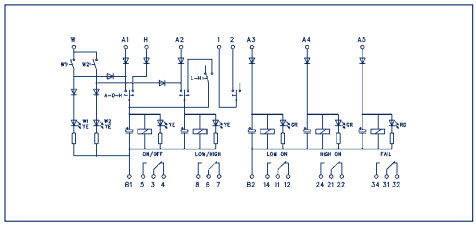
HLS-2

Circuit diagram



HLSW-3

Circuit diagram



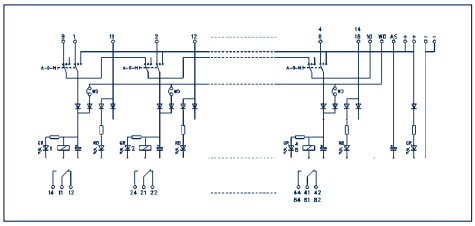
Type **Cat. no.**/Qty. p.pck.	**HLS-2** **7877.2**/1	**HLSW-3** **15042.2**/1
Type **Cat. no.**/Qty. p.pck.		
Size (L x W x H) with TS 35 x 7.5	87 x 93 x 63 mm	87 x 96 x 63 mm
Weight	172 g	176 g
General information		
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage coil/contact	4 kV	4 kV
Operating temperature	0 to +55 °C	0 to +55 °C
Insulation stripping length	7 mm	7 mm
Conductor cross-section	0.2-2.5 mm^2/AWG 22-14	0.2-2.5 mm^2/AWG 22-14
Switch contact material	silver, gold plated	silver, gold plated
Mechanical life span switch	> 100 000 switching cycles	> 100 000 switching cycles
Max. voltage/current switch	24 V/2 A	24 V/2 A
Input data		
Max. input signal ±10%	24 V AC/DC	24 V AC/DC
Power consumption per input	1 VA/0.5 W	1 VA/0.5 W
Output data		
Max. switching voltage	250 V AC/DC	250 V AC/DC
Max continuous current/inrush current	6 A/8 A	6 A/8 A
Max. power rating (ohmic load)	2000 VA at 250 V AC, 8 A/192 W at 24 V DC	2000 VA at 250 V AC, 8 A/192 W at 24 V DC
Typical response time/release time	20 ms/100 ms	20 ms/100 ms
Contact material	AgNi	AgNi
Electrical life span at max. contact load	>1.5 x 10^5 switching cycles	>1.5 x 10^5 switching cycles
Mechanical life span	>1 x 10^7 switching cycles	>1 x 10^7 switching cycles

Digital switch modules with HAND/OFF/AUTOMATIC operation and Watchdog

- Mount on TS32/TS 35
- Screw connection
- Switch for HAND/OFF/AUTOMATIC per-channel operation
- Feedback loop for automatic operation
- ASBW-2: Transparent cover plate, i.e. for fastening labelling fields
- IM 4 module with 4 relays, IM 8 modules with 8 relays
- LED indicator for displaying operational status per-channel
- Input suitable for AC and DC voltage

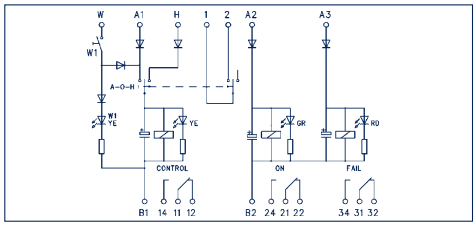
IM 4 / IM 8

Circuit diagram



ASBW-2

Circuit diagram



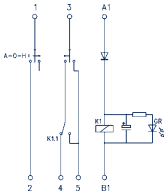
Type **Cat. no.**/Qty. p.pck.	**IM 4** **6280.2**/1	**ASBW-2** **15097.2**/1
Type **Cat. no.**/Qty. p.pck.	**IM 8** **6281.2**/1	
Size (L x W x H) with TS 35 x 7.5	122 x 122/186 x 68 mm	87 x 59 x 68 mm
Weight	216 g/382 g	126 g
General information		
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage coil/contact	4 kV	4 kV
Operating temperature	0 to +55°C	0 to +55°C
Insulation stripping length	7 mm	7 mm
Conductor cross-section	0.2-2.5 mm^2/AWG 22-14	0.2-2.5 mm^2/AWG 22-14
Switch contact material	silver, gold plated	silver, gold plated
Mechanical life span switch	> 100 000 switching cycles	> 100 000 switching cycles
Max. voltage/current switch	24 V/2 A	24 V/2 A
Input data		
Rated input voltage ±10%	24 V AC/DC	24 V AC/DC
Rated power consumption per relay	1 VA/0.5 W	1 VA/0.5 W
"WD" watchdog input signal	24 V AC/DC; 80 mA ±10%	24 V AC/DC; 80 mA ±10%
Output data		
Max. switching voltage	250 V AC/DC	250 V AC/DC
Max continuous current/inrush current	6 A/8 A	6 A/8 A
Max. power rating (ohmic load)	2000 VA at 250 V AC, 8 A/192 W at 24 V DC	2000 VA at 250 V AC, 8 A/192 W at 24 V DC
Typical response time/release time	20 ms/50 ms	20 ms/50 ms
Contact material	AgNi	AgNi
Electrical life span at max. contact load	>1.5 x 10^5 switching cycles	>1.5 x 10^5 switching cycles
Mechanical life span	>1 x 10^7 switching cycles	>1 x 10^7 switching cycles

Digital switch modules with HAND/OFF/AUTOMATIC operation

- Mount on TS32/TS 35
- Screw connection
- LED indicator for displaying operational status
- Switch for HAND/OFF/AUTOMATIC operation
- Optionally with feedback loop
- Input suitable for AC and DC voltage

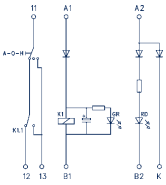
AU-1

Circuit diagram



AU-1/L

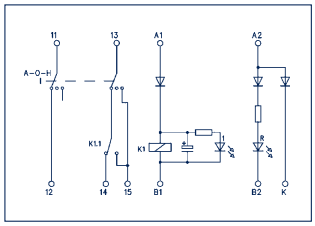
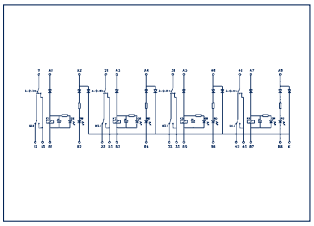
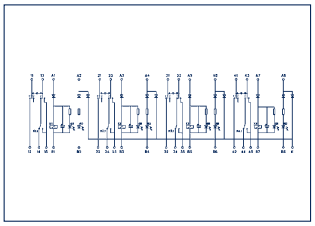
Circuit diagram



Type **Cat. no.**/Qty. p.pck.	**AU-1** **6562.2**/1	**AU-1/L** **6563.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 43 x 63 mm	87 x 34 x 63 mm
Weight	71 g	65 g
General information		
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage coil/contact	4 kV	4 kV
Operating temperature	0 to +55 °C	0 to +55 °C
Insulation stripping length	7 mm	7 mm
Conductor cross-section	0.2-2.5 mm^2/AWG 22-14	0.2-2.5 mm^2/AWG 22-14
Switch contact material	silver, gold plated	silver, gold plated
Mechanical life span switch	> 100 000 switching cycles	> 100 000 switching cycles
Max. voltage/current switch	24 V/2 A or both poles 250 V AC/2 A	250 V AC/2 A
Input data		
Max. input signal ±10%	24 V AC/DC	24 V AC/DC
Power consumption per input	1 VA/0.5 W	1 VA/0.5 W
Output data		
Max. switching voltage	250 V AC/DC	250 V AC/DC
Max continuous current/inrush current	2 A/2 A	2 A/2 A
Max. power rating (ohmic load)	500 VA at 250 V AC, 2 A/ 48 W at 24 V DC, 2 A	500 VA at 250 V AC, 2 A/ 48 W at 24 V DC, 2 A
Typical response time/release time	20 ms/100 ms	20 ms/100 ms
Contact material	AgNi	AgNi
Electrical life span at max. contact load	>1.5 x 10^5 switching cycles	>1.5 x 10^5 switching cycles
Mechanical life span	>1 x 10^7 switching cycles	>1 x 10^7 switching cycles

Digital switch modules with HAND/OFF/AUTOMATIC operation

- Mount on TS32/TS 35
- Screw connection
- LED indicator for displaying operational status
- Switch for HAND/OFF/AUTOMATIC operation
- Optionally with feedback loop
- Input suitable for AC and DC voltage

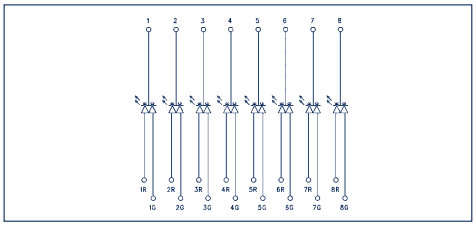
	AU 1/2 L	AU 4/L	AU 4/2 L
			
	Circuit diagram	Circuit diagram	Circuit diagram
			
Type **Cat. no.**/Qty. p.pck.	**AU 1/2 L** **6430.2**/1	**AU 4/L** **6564.2**/1	**AU 4/2 L** **6431.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 34 x 63 mm	87 x 118 x 63 mm	87 x 118 x 63 mm
Weight	70 g	198 g	216 g
General information			
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage coil/contact	4 kV	4 kV	4 kV
Operating temperature	0 to +55°C	0 to +55°C	0 to +55°C
Insulation stripping length	7 mm	7 mm	7 mm
Conductor cross-section	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
Switch contact material	silver, gold plated	silver, gold plated	silver, gold plated
Mechanical life span switch	> 100 000 switching cycles	> 100 000 switching cycles	> 100 000 switching cycles
Max. voltage/current switch	24 V/2 A or both poles 250 V AC/2 A	250 V AC/2 A	24 V/2 A or both poles 250 V AC/2 A
Input data			
Max. input signal ±10%	24 V AC/DC	24 V AC/DC	24 V AC/DC
Power consumption per input	1 VA/0.5 W	1 VA/0.5 W	1 VA/0.5 W
Output data			
Max. switching voltage	250 V AC/DC	250 V AC/DC	250 V AC/DC
Max continuous current/inrush current	2 A/2 A	2 A/2 A	2 A/2 A
Max. power rating (ohmic load)	500 VA at 250 V AC, 2 A/ 48 W at 24 V DC, 2 A	500 VA at 250 V AC, 2 A/ 48 W at 24 V DC, 2 A	500 VA at 250 V AC, 2 A/ 48 W at 24 V DC, 2 A
Typical response time/release time	20 ms/100 ms	20 ms/100 ms	20 ms/100 ms
Contact material	AgNi	AgNi	AgNi
Electrical life span at max. contact load	>1.5 x 10^5 switching cycles	>1.5 x 10^5 switching cycles	>1.5 x 10^5 switching cycles
Mechanical life span	>1 x 10^7 switching cycles	>1 x 10^7 switching cycles	>1 x 10^7 switching cycles

Indication modules LED 8

- Mount on TS 32 and TS 35
- Screw connection
- Indication module for indicating switching status and signaling via bi-colour LED, or via normal LED.
- LED 8 BC green, orange, or red LED per channel, selectable via connection terminals:
  1 R to 8 R = red; 1 G to 8 G = green;
  1 R + 1 G to 8 R + 8 G = orange.
- If the terminals R and G are activated together, then the external resistance must be switched in both anodes.
- LED 8 D-R red LED, LED 8 D-G green LED

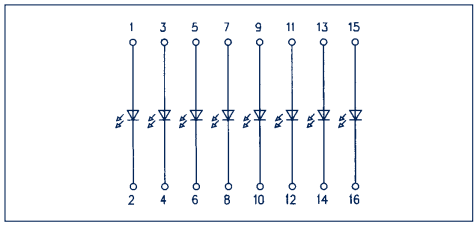
LED 8 BC

Circuit diagram



LED 8 D

Circuit diagram



Type **Cat. no.**/Qty. p.pck.	**LED 8 BC** **15045.2**/1	**LED 8 D-R** **6458.2**/1
Type **Cat. no.**/Qty. p.pck.	**LED 8 BC/24 V AC/DC** **15075.2**/1	**LED 8 D-G** **6459.2**/1
Size (L x W x H) with TS 35 x 7.5	122 x 54 x 72 mm	122 x 67 x 57 mm
Weight	120 g	108 g
General information		
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Operating temperature	0 to +55 °C	0 to +55 °C
Insulation stripping length	7 mm	7 mm
Conductor cross-section	0.2-2.5 mm²/AWG 22-14	0.2-2.5 mm²/AWG 22-14
Input data		
Operating voltage	LED 8 BC: < 60 V DC, LED 8 BC 24 V AC/DC: 24 V AC/DC	< 60 V DC
LED current*	LED 8 BC: < 15 mA, LED 8 BC 24 V AC/DC: 5 mA	< 15 mA
LED type	Ø 5 mm white diffused	Ø 5 mm red or green

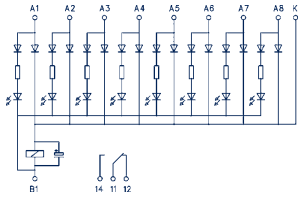
*The current must be limited externally.

Fault warning modules ST

- Mount on TS32/TS 35
- Screw connection
- The number of signals can be expanded with DM...-K modules (see page 119)
- A compact and inexpensive system for collecting error messages

ST 4, 8

Circuit diagram

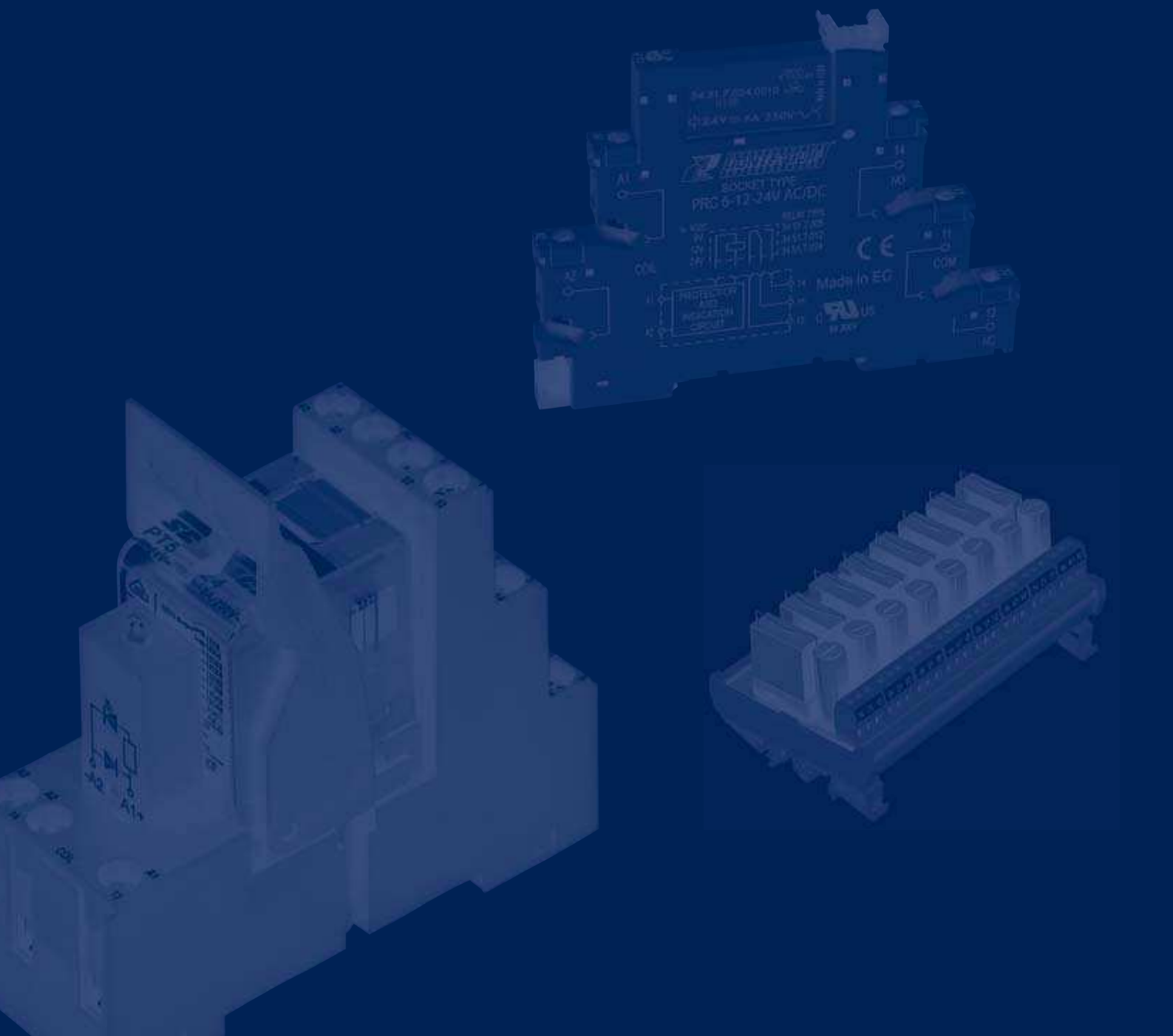


Type **Cat. no.**/Qty. p.pck.	**ST 4-24 EG** **6758.2**/1	**ST 8-24 EG** **6759.2**/1	**ST 8-230 EG** **6276.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 39 x 72 mm	87 x 59 x 72 mm	87 x 60 x 72 mm
Weight	66 g	88 g	129 g
General information			
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage coil/contact	4 kV	4 kV	4 kV
Operating temperature	0 to +55°C	0 to +55°C	0 to +55°C
Insulation stripping length	7 mm	7 mm	7 mm
Conductor cross-section	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 signal ±10%	24 V AC/DC	24 V AC/DC	230 V AC
Rated power consumption	1 VA/0.5 W	1 VA/0.5 W	2 VA
Diode type	1 A/1,000 V	1 A/1,000 V	1 A/1,000 V
Output data			
Max. switching voltage	250 V AC/DC	250 V AC/DC	250 V AC/DC
Max continuous current/inrush current	6 A/8 A	6 A/8 A	6 A/8 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	20 ms/100 ms	20 ms/100 ms	20 ms/100 ms
Contact material	AgNi	AgNi	AgNi
Electrical life span at max. contact load	>1.5 x 10^5 switching cycles	>1.5 x 10^5 switching cycles	>1.5 x 10^5 switching cycles
Mechanical life span	>1 x 10^7 switching cycles	>1 x 10^7 switching cycles	>1 x 10^7 switching cycles

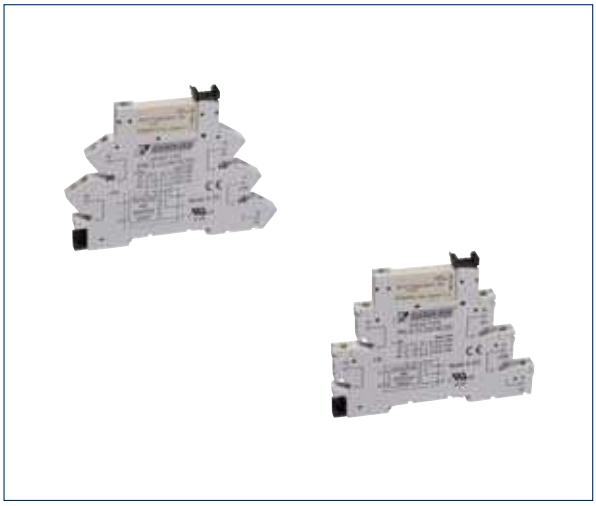
Relay Systems

Relay technology continues to play a large role in the reliability of industrial control and automation solutions. Because of their thin design, relay couplers find use in rail-oriented control designs. Thanks to their features, **CONTA-CLIP** relay couplers are well-suited for use in secure electrical isolation of circuits or for the multiplication of contacts.

Whether it is in manufacturing, electrical machine and plant instrumentation, control engineering, building automation, or process engineering – everywhere it is 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.

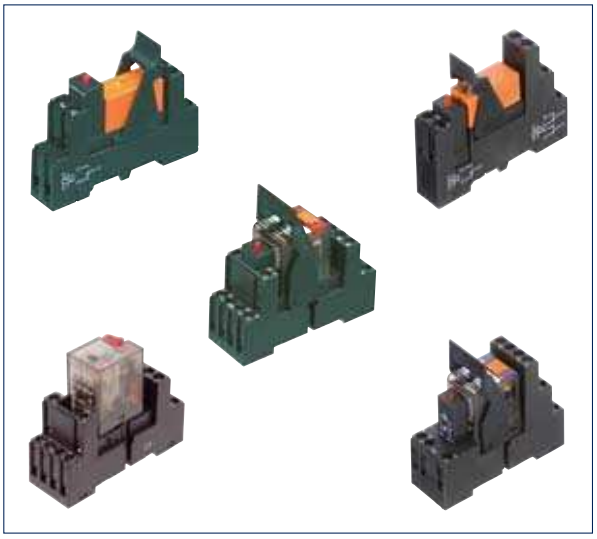


Relay Systems



Compact plug relays PRC

PRC relay couplers distinguish themselves by their compact shape in the terminal block design. With a width of only 6.2 mm and a switchable continuous current from 6 amps, there are many application possibilities. The basis relay offers 22 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. For excellent equipment identification, 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.



Plug relay system PRS

PRS relay couplers are available in one-, two- and four-change-over design. The relay plug-in modules are designed for a measured voltage from 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

RM and **RIM** are relay interfaces which offer an advantage over the single-relay base systems. On a PCB, the circuit track can be pre-wired, such as the shared plus, minus, and neutral wire potentials on the coil side.
The relay connection is implemented with either screw terminals, ribbon connectors, or d-subminiature connectors.
The correct solution for every user application is provided for: varying coil voltage ranges in designs of soldered or plug-gable relays, with or without status display, and two-, four-, eight-, and sixteen-fold relay modules.
The **RIMS** versions also feature a toggle switch in the input/coil circuit. This enables switching to HAND, OFF, or AUTOMATIC.
The **RIMF** modules implement a 5x20-sized miniature fuse receptacle in the output/contact circuit.

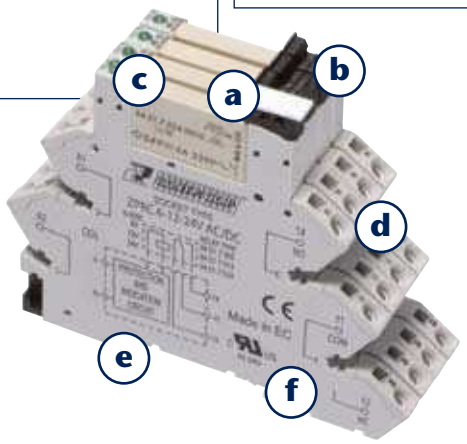
Compact plug relays PRC

Relay terminals

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

d **Pluggable external cross-connections**
The AQI/PRC pluggable cross-connection system enables a time-saving distribution of potentials. The AQI/PRC is constructed so that it is protected against accidental touch. It is available as a 20-pole unit, in either yellow, blue or black. The cross-connector 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 terminal can be flexibly mounted on standard TS 35 mounting rails according to EN 50035 and EN 50022.

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

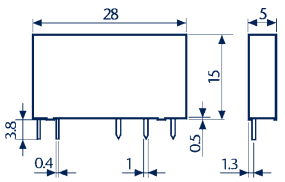
2. Approvals (Details upon request.)

3. Features

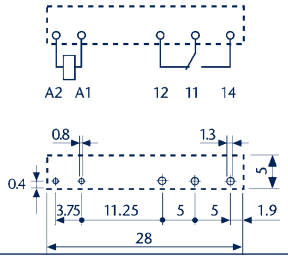
I. Relay

- 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

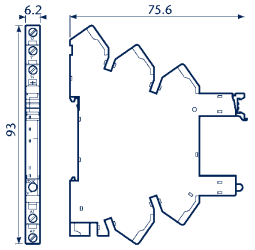


Relay terminals

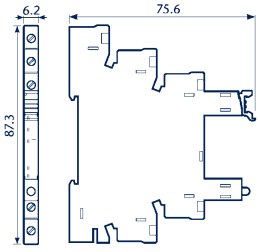
II. Socket base

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

Tension-spring connection



Screw connection



4. Specifications

Electro-mechanical relay

Insulation properties

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

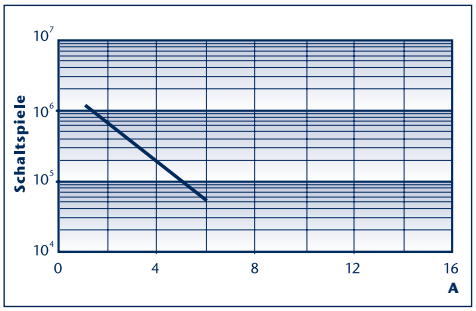
EMC - interference immunity of the control circuit (coil)

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)

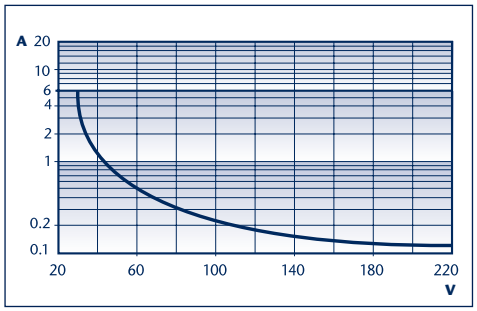
Additional data

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

5. Contact data



Service life of contact under AC 1 load



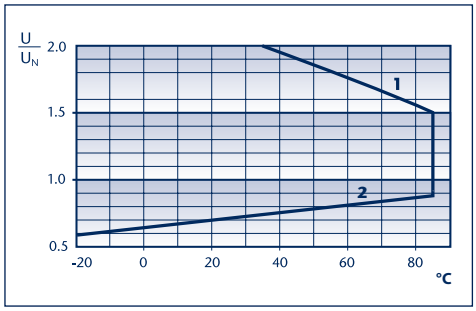
Switching capacity under DC 1 load

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

6. Coil data

DC version

Rated voltage U_N V	Operating Range U_{min} V	U_{max} V	Resistance R Ω	Rated 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 equal to ambient temperature

Compact plug relays PRC

Tension-spring relay terminals

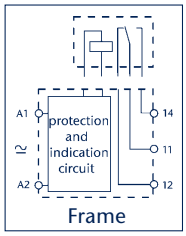
- Consisting of:
  basic terminal and pluggable relay.
- Mount on TS 35

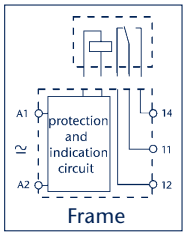


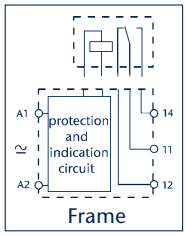


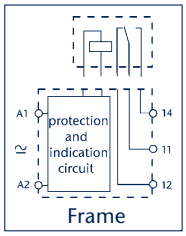
Connection diagram

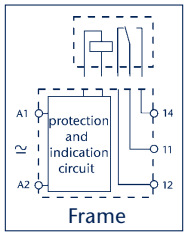
- Internal EMC coil circuitry and LED display
- LW versions:
  an internal AC residual-current suppression and LED display











Type	**ZPRCU 1/6V DC**	**ZPRCU 1/12V DC**	**ZPRCU 1/24V DC**	**ZPRCU 1/12V AC/DC**	**ZPRCU 1/24V AC/DC**
Cat. no./Qty. p.pck. 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. life span 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 life span AC 1 switching cycles	60 x 10^3	60 x 10^3	60 x 10^3	60 x 10^3	60 x 10^3
Response time/release time	5/6 ms	5/6 ms	5/6 ms	5/6 ms	5/6 ms
Insulation coordination, EN 61810-5	4 kV/3	4 kV/3	4 kV/3	4 kV/3	4 kV/3
Dielectric strength coil/contacts (1.2/50 µs)	6 kV	6 kV	6 kV	6 kV	6 kV
Dielectric strength of open contacts	1,000 V AC	1,000 V AC	1,000 V AC	1,000 V AC	1,000 V AC
Ambient temperature	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C
Relay protection type	RT II	RT II	RT II	RT II	RT II
Ratings for socket base					
Ambient temperature	-40 to +70°C	-40 to +70°C	-40 to +70°C	-40 to +70°C	-40 to +70°C
Insulation stripping length	10 mm	10 mm	10 mm	10 mm	10 mm
Max. connection cross-section, solid | flexible 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 contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current | Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage | Max. switching voltage	250/400 V AC*	250/400 V AC*	250/400 V AC*	250/400 V AC*	250/400 V AC*
Max. power rating AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. power rating AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3 operation (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	– AC (50/60 Hz)	– AC (50/60 Hz)	– 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_N DC	(0.8 to 1.2) U_N DC	(0.8 to 1.2) U_N DC	(0.8 to 1.2) U_N DC	(0.8 to 1.2) U_N DC
Holding current	–AC/0.6 U_N DC	–AC/0.6 U_N DC	–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
Drop-out voltage	–AC/0.05 U_N DC	–AC/0.05 U_N DC	–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

Individual components, socket base

Type/Colour grey (RAL 7032)	**ZPRC 6-12-24V DC**	**ZPRC 6-12-24V DC**	**ZPRC 6-12-24V DC**	**ZPRC 6-12-24V AC/DC**	**ZPRC 6-12-24V AC/DC**
Cat. no./Qty. p.pck.	**15494.2**/10	**15494.2**/10	**15494.2**/10	**15492.2**/10	**15492.2**/10

Individual components, plug relays

Type/Rated voltage	**PRC 1/5V DC**	**PRC 1/12V DC**	**PRC 1/24V DC**	**PRC 1/12V DC**	**PRC 1/24V DC**
Cat. no./Qty. p.pck.	**15500.2**/10*[3]	**15501.2**/10*[3]	**15502.2**/10*[3]	**15501.2**/10*[3]	**15502.2**/10*[3]

Accessories AQI/PRC external insulated cross-connector	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**
Cat. no./Qty. p.pck. yellow	**15545.8**/1	**15545.8**/1	**15545.8**/1	**15545.8**/1	**15545.8**/1
Cat. no./Qty. p.pck. blue	**15545.5**/1	**15545.5**/1	**15545.5**/1	**15545.5**/1	**15545.5**/1
Cat. no./Qty. p.pck. black	**15545.4**/1	**15545.4**/1	**15545.4**/1	**15545.4**/1	**15545.4**/1

TW/PRC partitions	**TW/PRC**	**TW/PRC**	**TW/PRC**	**TW/PRC**	**TW/PRC**
Cat. no./Qty. p.pck.	**15546.2**/1	**15546.2**/1	**15546.2**/1	**15546.2**/1	**15546.2**/1

PMC labelling/markers	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**
Cat. no./Qty. p.pck., standard print, see catalog	p. 157	p. 157	p. 157	p. 157	p. 157
Cat. no./Qty. p.pck. neutral	**9106.7**/300	**9106.7**/300	**9106.7**/300	**9106.7**/300	**9106.7**/300
Cat. no./Qty. p.pck., special print	**9107.7**/300	**9107.7**/300	**9107.7**/300	**9107.7**/300	**9107.7**/300

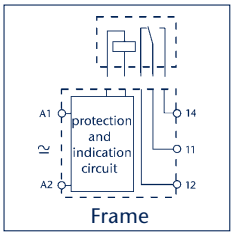
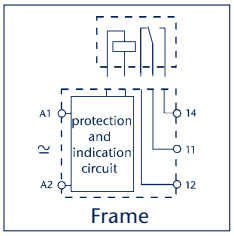
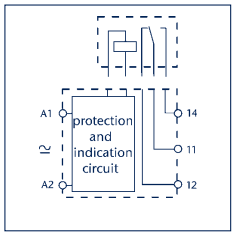
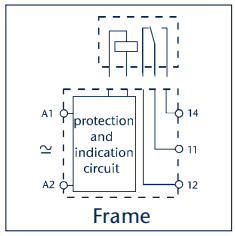
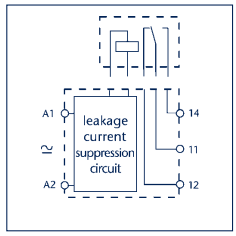
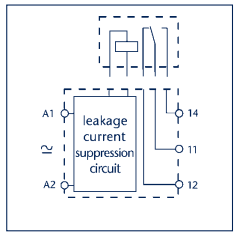
BWMA metal tool	**BWMA 1**	**BWMA 1**	**BWMA 1**	**BWMA 1**	**BWMA 1**
Cat. no./Qty. p.pck.	**3808.0**/1	**3808.0**/1	**3808.0**/1	**3808.0**/1	**3808.0**/1

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

*[1] In order for the relay to de-energise, the residual current can be suppressed/controlled via the SPS-230 V semiconductor outputs, longe control lines (LW), thyristors, and 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!

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 **15520.2**/10	**ZPRCU 1/60V AC/DC** **15521.2**/10	**ZPRCU 1/125V AC/DC** **15522.2**/10*2	**ZPRCU 1/240V AC/DC** **15523.2**/10*2	**ZPRCU LW 1/125V AC/DC** **15551.2**/10*2	**ZPRCU LW 1/240V AC** **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 contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
6/10 A	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
250/400 V AC*	250/400 V AC*	250/400 V AC*	250/400 V AC*	250/400 V AC*	250/400 V AC*
1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
300 VA	300 VA	300 VA	300 VA	300 VA	300 VA
0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)	300 (5/5) mW (V/mA)
AgNi	AgNi	AgNi	AgNi	AgNi	AgNi
48 V DC | 48 AC	60 V DC | 60 AC	110...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_N DC	(0.8 to 1.2) U_N DC	(0.8 to 1.2) U_N DC	(0.8 to 1.2) U_N DC	(0.8 to 1.2) U_N DC	(0.8 to 1.2) 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/0.6 U_N DC	0.6 U_NAC/- U_NDC
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_NAC/- U_NDC
ZPRC 48-60V AC/DC **15498.2**/10	**ZPRC 48-60V AC/DC** **15498.2**/10	**ZPRC 110...125V AC/DC** **15499.2**/10	**ZPRC 220...240V AC/DC** **15493.2**/10	**ZPRC LW 110...125 V AC/DC** **15556.2**/10	**ZPRC LW 220...240V A** **15495.2**/10
PRC 1/48V DC **15547.2**/10*3	**PRC 1/60V DC** **15503.2**/10*3	**PRC 1/60V DC** **15503.2**/10*3	**PRC 1/60V DC** **15503.2**/10*3	**PRC 1/60V DC** **15503.2**/10*3	**PRC 1/60V DC** **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**
p. 157	p. 157	p. 157	p. 157	p. 157	p. 157
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

Compact plug relays PRC

Screw-connection relay terminals

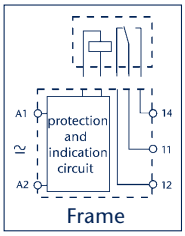
- Consisting of:
  basic terminal and pluggable relay.
- Mount on TS 35

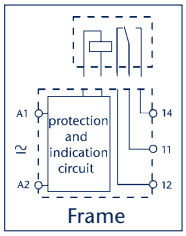


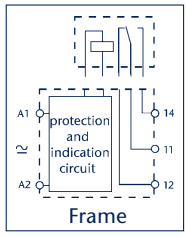


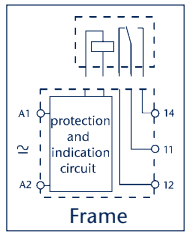
Connection diagram

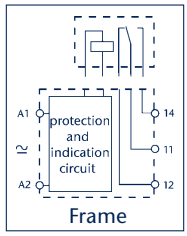
- Internal EMC coil circuitry and LED display
- LW versions:
  an internal AC residual-current suppression and LED display











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. p.pck. 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	2 V AC/DC	24 V AC/DC
General information					
Mech. life span 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 life span AC 1 switching cycles	60 x 10^3	60 x 10^3	60 x 10^3	60 x 10^3	60 x 10^3
Response time/release time	5/6 ms	5/6 ms	5/6 ms	5/6 ms	5/6 ms
Insulation coordination, EN 61810-5	4 kV/3	4 kV/3	4 kV/3	4 kV/3	4 kV/3
Dielectric strength coil/contacts (1.2/50 µs)	6 kV	6 kV	6 kV	6 kV	6 kV
Dielectric strength of open contacts	1,000 V AC	1,000 V AC	1,000 V AC	1,000 V AC	1,000 V AC
Ambient temperature	-40 to +70°C	-40 to +70°C	-40 to +70°C	-40 to +70°C	-40 to +70°C
Relay protection type	RT II	RT II	RT II	RT II	RT II
Ratings for socket base					
Ambient temperature	-40 to +70°C	-40 to +70°C	-40 to +70°C	-40 to +70°C	-40 to +70°C
Insulation stripping length	10 mm	10 mm	10 mm	10 mm	10 mm
Max. connection cross-section, solid | flexible	1x2.5 | 1x2.5 mm^2 1x14 | 1x14 AWG	1x2.5 | 1x2.5 mm^2 1x14 | 1x14 AWG	1x2.5 | 1x2.5 mm^2 1x14 | 1x14 AWG	1x2.5 | 1x2.5 mm^2 1x14 | 1x14 AWG	1x2.5 | 1x2.5 mm^2 1x14 | 1x14 AWG
Ratings for plug-relays combined with socket base					
Contacts					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current | Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage | Max. switching voltage	250/400 VAC*	250/400 VAC*	250/400 VAC*	250/400 VAC*	250/400 VAC*
Max. power rating AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. power rating AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3 operation (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	– AC (50/60 Hz) (0.8 to 1.2) U_N DC	– AC (50/60 Hz) (0.8 to 1.2) U_N DC	– AC (50/60 Hz) (0.8 to 1.2) U_N DC	(0.8 to 1,1) U_N AC (50/60 Hz) (0.8 to 1.2) U_N DC	(0.8 to 1.1) U_N AC (50/60 Hz) (0.8 to 1.2) U_N DC
Holding current	–AC/0.6 U_NDC	–AC/0.6 U_NDC	–AC/0.6 U_NDC	0.6 U_NAC/0.6 U_NDC	0.6 U_N AC/0.6 U_N DC
Drop-out voltage	–AC/0.05 U_NDC	–AC/0.05 U_NDC	–AC/0.05 U_NDC	0.1 U_NAC/0.05 U_NDC	0.1 U_N AC/0.05 U_N DC

Individual components, socket base

Type/Colour grey (RAL 7032)	**PRC 6-12-24V DC**	**PRC 6-12-24V DC**	**PRC 6-12-24V DC**	**PRC 6-12-24V AC/DC**	**PRC 6-12-24V AC/DC**
Cat. no./Qty. p.pck.	**15490.2**/10	**15490.2**/10	**15490.2**/10	**15488.2**/10	**15488.2**/10

Individual components, plug relays

Type/Rated voltage	**PRC 1/5V DC**	**PRC 1/12V DC**	**PRC 1/24V DC**	**PRC 1/12V DC**	**PRC 1/24V DC**
Cat. no./Qty. p.pck.	**15500.2**/10*[3]	**15501.2**/10*[3]	**15502.2**/10*[3]	**15501.2**/10*[3]	**15502.2**/10*[3]

Accessories AQI/PRC external insulated cross-connector	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**
Cat. no./Qty. p.pck. yellow	**15545.8**/1	**15545.8**/1	**15545.8**/1	**15545.8**/1	**15545.8**/1
Cat. no./Qty. p.pck. blue	**15545.5**/1	**15545.5**/1	**15545.5**/1	**15545.5**/1	**15545.5**/1
Cat. no./Qty. p.pck. black	**15545.4**/1	**15545.4**/1	**15545.4**/1	**15545.4**/1	**15545.4**/1

TW/PRC partitions	**TW/PRC**	**TW/PRC**	**TW/PRC**	**TW/PRC**	**TW/PRC**
Cat. no./Qty. p.pck.	**15546.2**/1	**15546.2**/1	**15546.2**/1	**15546.2**/1	**15546.2**/1

PMC labelling/markers	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**
Cat. no./Qty. p.pck., standard print, see catalog	p. 157	p. 157	p. 157	p. 157	p. 157
Cat. no./Qty. p.pck. neutral	**9106.7**/300	**9106.7**/300	**9106.7**/300	**9106.7**/300	**9106.7**/300
Cat. no./Qty. p.pck., special print	**9107.7**/300	**9107.7**/300	**9107.7**/300	**9107.7**/300	**9107.7**/300

SDB screwdriver	**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. p.pck.	**1086.0**/1	**1086.0**/1	**1086.0**/1	**1086.0**/1	**1086.0**/1

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

*[1] In order for the relay to de-energise, the residual current can be suppressed/controlled via the SPS-230 V semiconductor outputs, longe control lines (LW), thyristors, and 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!

<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>
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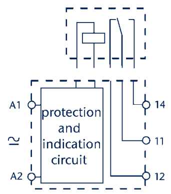
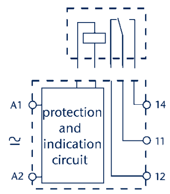
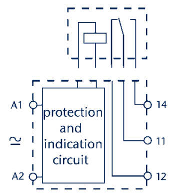
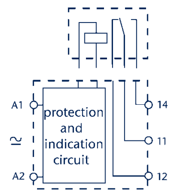
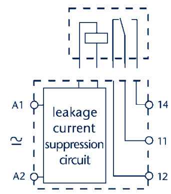
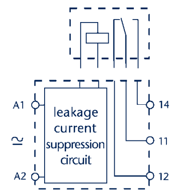
<tr><td> 
Frame</td><td> 
Frame</td><td> 
Frame</td><td> 
Frame</td><td> 
Frame</td><td> 
Frame</td></tr>
<tr><td>PRCU 1/48 V AC/DC
15509.2/10</td><td>PRCU 1/60 V AC/DC
15510.2/10</td><td>PRCU 1/125 V AC/DC
15511.2/10*2</td><td>PRCU 1/240 V AC/DC
15512.2/10*2</td><td>PRCU LW 1/125 V AC/DC
15553.2/10*2</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 mm^2</td><td>1x2.5 | 1x2.5 mm^2</td><td>1x2.5 | 1x2.5 mm^2</td><td>1x2.5 | 1x2.5 mm^2</td><td>1x2.5 | 1x2.5 mm^2</td><td>1x2.5 | 1x2.5 mm^2</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 contact</td><td>1 CO contact</td><td>1 CO contact</td><td>1 CO contact</td><td>1 CO contact</td><td>1 CO contact</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 AC</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_N AC (50/60 Hz)</td><td>(0.8 to 1.1) U_N AC (50/60 Hz)</td><td>(0.8 to 1.1) U_N AC (50/60 Hz)</td><td>(0.8 to 1.1) U_N AC (50/60 Hz)</td><td>(0.8 to 1.1) U_N AC (50/60 Hz)</td><td>(0.8 to 1.1) U_N AC (50/60 Hz)</td></tr>
<tr><td>(0.8 to 1.2) U_N DC</td><td>(0.8 to 1.2) U_N DC</td><td>(0.8 to 1.2) U_N DC</td><td>(0.8 to 1.2) U_N DC</td><td>(0.8 to 1.2) U_N DC</td><td>(0.8 to 1.2) U_N DC</td></tr>
<tr><td>0.6 U_N AC/0.6 U_N DC</td><td>0.6 U_N AC/0.6 U_N DC</td><td>0.6 U_N AC/0.6 U_N DC</td><td>0.6 U_N AC/0.6 U_N DC</td><td>0.6 U_N AC/0.6 U_N DC</td><td>0.6 U_NAC/- U_NDC</td></tr>
<tr><td>0.1 U_N AC/0.05 U_N DC</td><td>0.1 U_N AC/0.05 U_N DC</td><td>0.1 U_N AC/0.05 U_N DC</td><td>0.1 U_N AC/0.05 U_N DC</td><td>0.1 U_N AC/0.05 U_N DC</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*3</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>
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<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>p. 157</td><td>p. 157</td><td>p. 157</td><td>p. 157</td><td>p. 157</td><td>p. 157</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>

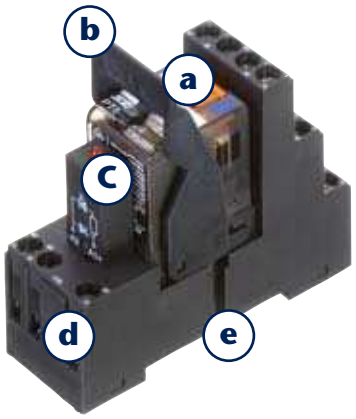
Plug relay system PRS

Screw-clamp connection

1. Overview

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

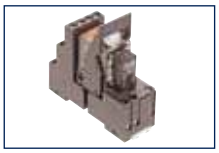
e **Mounts on standard TS 35 rail**
CONTA-CLIP relay bases can be flexibly mounted on standard TS 35 mounting rails according to EN 50035 and EN 50022.

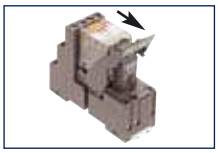


AQI/PRS external cross-connector

d 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.

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





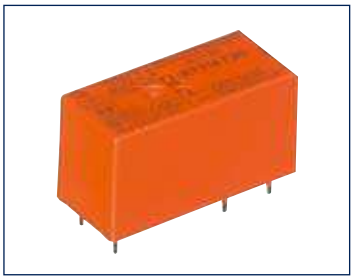
c **Pluggable LED and protective modules**
Pluggable modules allow easy insertion into the base module, with reverse-connect protection. Their circuitry is effective in parallel to the coil of the deployed relay.

2. Features

I. Relay

- **PLUG RELAY SYSTEM** (relays with 1, 2, or 4 COs)
- Load-independent switching
- Direct control via the SPS outputs
- High interference immunity
- Electrical isolation of control and load circuits
- Minimal contact resistance, and high insulation resistance
- PRS 4 relay features switch/button for HAND/AUTOMATIC switching
- PRS 4 eco relay features switch/button for HAND/AUTOMATIC switching, and an integrated LED for signaling the switching status

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

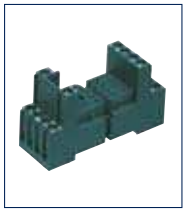
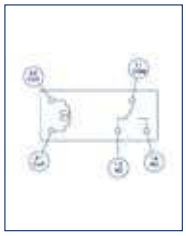
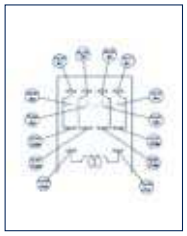


Plug relay system PRS

Screw-clamp connection

II. Socket base

- Mount on TS 35
- Very flexible 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. p.pck.	**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 modules for	3.5mm pinning	5 mm pinning	5 mm pinning	2.8 mm fast-on	2.8 mm fast-on
Connection type	Screw connection	Screw connection	Screw connection	Screw connection	Screw connection
Technical data					
Rated current	12 A	10 A	10 A	10 A	10 A
Rated voltage	300 V	300 V	300 V	300 V	300 V
Dielectric strength coil/contact	4000 Veff	4000 Veff	4000 Veff	2400 Veff	2400 Veff
Insulation group (VDE 0110 b)	C / 250 V	C / 250 V	C / 250 V	C / 250 V	C / 250 V
Ambient temperature	-25 to +80°C	-25 to +80°C	-25 to +80°C	-25 to +80°C	-25 to +80°C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4	VBG 4
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 module; reverse-connect protection
- Circuitry parallel to coil

Cat. no./Qty. p.pck.	**Type**	**Voltage range**	
15141.2/1	PRS LED 24 V DC	12 to 24 V DC	Status display with free-wheel diode
15175.2/1	PRS LED 24 V UC	12 to 48 V AC/DC	Status display
15422.2/1	PRS LED 110 V DC	60 to 110 V DC	Status display with free-wheel diode
15142.2/1	PRS LED 230 V AC	110 to 230 V AC	Status display

IV. Holding clamp

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

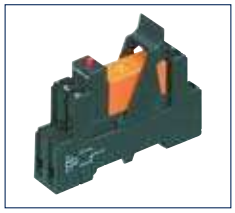
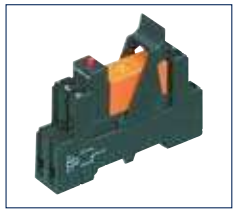
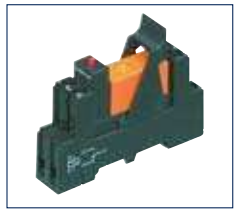
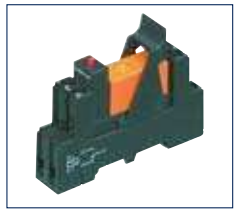
Cat. no./Qty. p.pck.	**Type**	**Weight**
15138.2/1	PRS C 1 / C 2	2 g
15140.2/1	PRS C 4	4 g
15628.2/1	PRS C 4 eco	4 g

V. Contact bridge

- A simple and quick bridge to multiple relay blocks

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

Relay with 1 CO PRS 1

Complete screw-connection components	**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. p.pck.	**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

Individual components

Relay 1 W, encapsulated design

Type **Cat. no.**/Qty. p.pck.	**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, pollution degree 3, overvoltage category III, flammability class UL 94 V-0			
Test voltage coil/contact	5 kV	5 kV	5 kV	5 kV
Pinning	3.5mm	3.5mm	3.5mm	3.5mm
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
Rated power consumption	0.40 W	0.40 W	0.42 W	0.42 W
Output data				
Contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Switching voltage/Max. switching voltage	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC
Max continuous current/inrush current	12 A/25 A	12 A/25 A	12 A/25 A	12 A/25 A
Typical response time/release time	7 ms/3 ms	7 ms/3 ms	7 ms/3 ms	7 ms/3 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
Electrical service life	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 life span	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$

Insert module

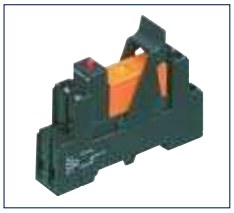
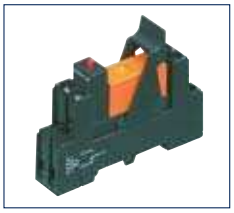
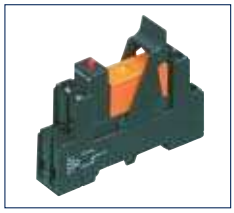
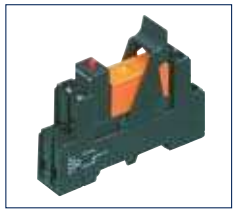
Type **Cat. no.**/Qty. p.pck.	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 110 V DC** **15422.2**/1	**PRS LED 110 V DC** **15422.2**/1
protected against polarity reversal	Status display with free-wheel diode	Status display with free-wheel diode	Status display with free-wheel 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

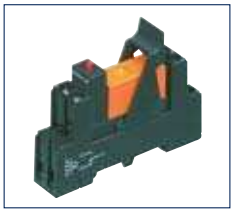
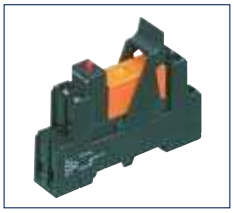
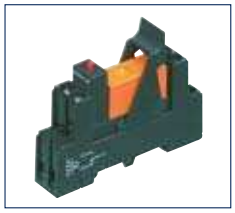
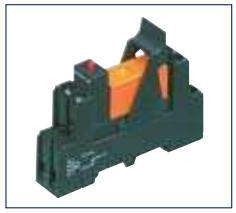
Type **Cat. no.**/Qty. p.pck.	**PRS 1** **15135.2**/1	**PRS 1** **15135.2**/1	**PRS 1** **15135.2**/1	**PRS 1** **15135.2**/1
General				
Mounting foot for DIN rails	TS 35	TS 35	TS 35	TS 35
Plug-in modules for	3.5 mm pinning	3.5 mm pinning	3.5 mm pinning	3.5 mm pinning
Connection type	Screw connection	Screw connection	Screw connection	Screw connection
Technical data				
Rated current	12 A	12 A	12 A	12 A
Rated voltage	300 V	300 V	300 V	300 V
Dielectric strength	4000 Veff	4000 Veff	4000 Veff	4000 Veff
Insulation group (VDE 0110 b)	C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature	-25 to +80°C	-25 to +80°C	-25 to +80°C	-25 to +80°C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4
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 clamp

Type **Cat. no.**/Qty. p.pck.	**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

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, pollution degree 3, overvoltage category III, flammability class UL 94 V-0					
4 kV	5 kV	5 kV	5 kV		
5 mm	3.5 mm	3.5 mm	3.5 mm		
-20 to +50°C	-40 to +70°C	-40 to +70°C	-40 to +70°C		
Inductive loads	-	-	-		
24 V DC	24 V AC	115 V AC	230 V AC		
0.50 W	0.75 VA	0.75 VA	0.75 VA		
1 CO contact	1 CO contact	1 CO contact	1 CO contact		
250 V AC	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC		
16 A/80 A (20 ms)	12 A/25 A	12 A/25 A	12 A/25 A		
10 ms/10 ms	7 ms/3 ms	7 ms/3 ms	7 ms/3 ms		
Ag Sn 02	AgNi 90/10	AgNi 90/10	AgNi 90/10		
1 x 10^5	1.2 x 10^3	1.2 x 10^3	1.2 x 10^3		
16 A, 250 V AC	4 A, 250 V AC	4 A, 250 V AC	4 A, 250 V AC		
> 30 x 10^6	> 30 x 10^6	> 30 x 10^6	> 30 x 10^6		
PRS LED 24 V DC **15141.2**/1	**PRS LED 24 V UC** **15175.2**/1	**PRS LED 230 V AC** **15142.2**/1	**PRS LED 230 V AC** **15142.2**/1		
Status display with free-wheel diode	Status display	Status display	Status display		
12 to 24 V DC	12 to 48 V AC/DC	110 to 230 V/AC	110 to 230 V/AC		
PRS 2 **15136.2**/1	**PRS 1** **15135.2**/1	**PRS 1** **15135.2**/1	**PRS 1** **15135.2**/1		
TS 35	TS 35	TS 35	TS 35		
5 mm pinning	3.5 mm pinning	3.5 mm pinning	3.5 mm pinning		
Screw connection	Screw connection	Screw connection	Screw connection		
10 A	12 A	12 A	12 A		
300 V	300 V	300 V	300 V		
4000 Veff	4000 Veff	4000 Veff	4000 Veff		
C/250 V	C/250 V	C/250 V	C/250 V		
-25 to +80°C	-25 to +80°C	-25 to +80°C	-25 to +80°C		
IP 20	IP 20	IP 20	IP 20		
V-0	V-0	V-0	V-0		
VBG 4	VBG 4	VBG 4	VBG 4		
2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2		
2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2		
max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm		
UL/CSA	UL/CSA	UL/CSA	UL/CSA		
PRS C 1/2 **15138.2**/1	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1		

Relay with 2 CO PRS 2

Complete screw-connection components	**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. p.pck.	**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

Individual components

Relay 2 W, encapsulated design

Type **Cat. no.**/Qty. p.pck.	**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, pollution 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
Rated power consumption	0.40 W	0.40 W	0.40 W	0.40 W
Output data				
Contacts	2 CO contact	2 CO contact	2 CO contact	2 CO contact
Switching voltage/Max. switching voltage	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC
Max continuous current/inrush current	8 A/15 A	8 A/15 A	12 A/25 A	8 A/15 A
Typical response time/release time	7 ms/2 ms	7 ms/2 ms	7 ms/2 ms	7 ms/2 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
Electrical service life	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 life span	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$

Insert module

Type **Cat. no.**/Qty. p.pck.	**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

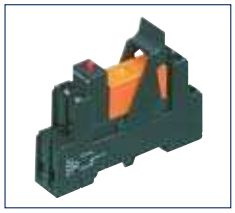
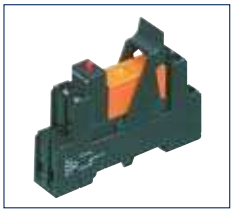
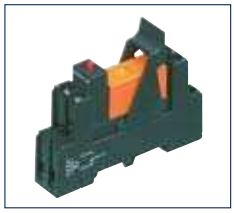
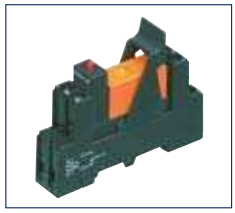
Socket base

Type **Cat. no.**/Qty. p.pck.	**PRS 2** **15136.2**/1	**PRS 2** **15136.2**/1	**PRS 2** **15136.2**/1	**PRS 2** **15136.2**/1
General				
Mounting foot for DIN rails	TS 35	TS 35	TS 35	TS 35
Plug-in modules for	5 mm pinning	5 mm pinning	5 mm pinning	5 mm pinning
Connection type	Screw connection	Screw connection	Screw connection	Screw connection
Technical data				
Rated current	10 A	10 A	10 A	10 A
Rated voltage	300 V	300 V	300 V	300 V
Dielectric strength	4000 Veff	4000 Veff	4000 Veff	4000 Veff
Insulation group (VDE 0110 b)	C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature	-25 to +80°C	-25 to +80°C	-25 to +80°C	-25 to +80°C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4
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

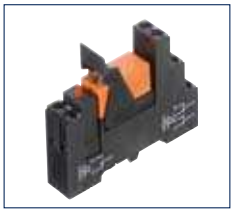
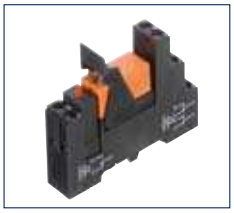
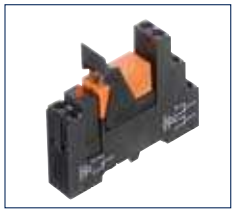
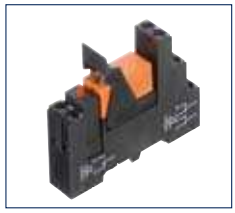
Holding clamp

Type **Cat. no.**/Qty. p.pck.	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1	**PRS C 1/2** **15138.2**/1

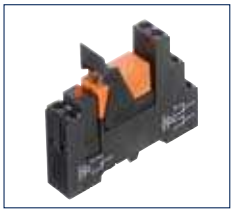
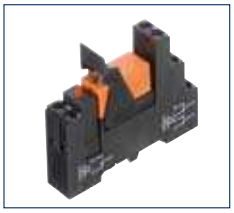
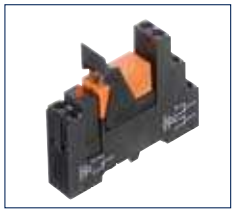
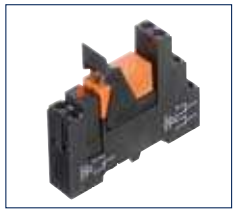
Relay with 2 CO PRS 2

PRSU 2/110 V DC	PRSU 2/24 V AC	PRSU 2/115 V AC	PRSU 2/230 V AC		
					
PRSU 2/110 V DC 15722.2/1	**PRSU 2/24 V AC 15166.2**/1	**PRSU 2/115 V AC 15413.2**/1	**PRSU 2/230 V AC 15172.2**/1		
76 x 15.7 x 71 mm	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm	76 x 15.7 x 71 mm		
60 g	60 g	60 g	60 g		
PRS 2/110 V DC 15541.2/1	**PRS 2/24 V AC 6484.2** /1	**PRS 2/115 V AC 15229.2**/1	**PRS 2/230 V AC 6485.2**/1		
15 g	15 g	15 g	15 g		
Insulation IEC 664/VDE 0110, rated voltage 250 V, pollution degree 3, overvoltage category III, flammability class UL 94 V-0					
5 kV	5 kV	5 kV	5 kV		
5 mm	5 mm	5 mm	5 mm		
-40 to +70 °C	-40 to +70 °C	-40 to +70 °C	-40 to +70 °C		
110 V DC	24 V AC	115 V AC	230 V AC		
0.40 W	0.75 VA	0.75 VA	0.75 VA		
2 CO contact	2 CO contact	2 CO contact	2 CO contact		
250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC		
8 A/15 A	8 A/15 A	8 A/15 A	8 A/15 A		
7 ms/2 ms	7 ms/2 ms	7 ms/2 ms	7 ms/2 ms		
AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10		
1.5×10^5	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/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		

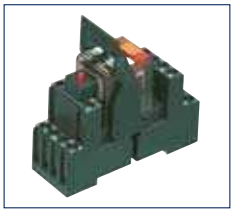
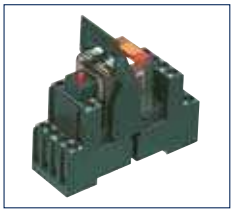
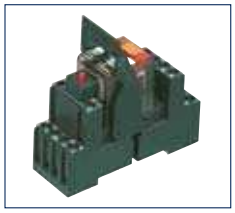
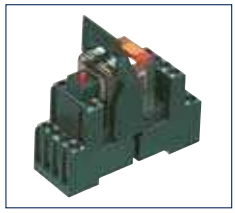
Relay 2 CO contact, PRS 2 G

Complete screw-connection components	**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. p.pck.	**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
Individual components				
Relay 2 W, encapsulated design				
Type **Cat. no.**/Qty. p.pck.	**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, pollution 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
Rated power consumption	0.40 W	0.40 W	0.40 W	0.40 W
Output data				
Contacts	2 CO contact	2 CO contact	2 CO contact	2 CO contact
Switching voltage/Max. switching voltage	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC
Max continuous current/inrush current	8 A/15 A	8 A/15 A	8 A/15 A	8 A/15 A
Typical response time/release time	7 ms/2 ms	7 ms/2 ms	7 ms/2 ms	7 ms/2 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
Electrical service life	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 life span	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$
Insert module				
Type **Cat. no.**/Qty. p.pck.	**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. p.pck.	**PRS 2 G** **15320.2**/1	**PRS 2 G** **15320.2**/1	**PRS 2 G** **15320.2**/1	**PRS 2 G** **15320.2**/1
General				
Mounting foot for DIN rails	TS 35	TS 35	TS 35	TS 35
Plug-in modules for	5 mm pinning	5 mm pinning	5 mm pinning	5 mm pinning
Connection type	Screw connection	Screw connection	Screw connection	Screw connection
Technical data				
Rated current	10 A	10 A	10 A	10 A
Rated voltage	300 V	300 V	300 V	300 V
Dielectric strength	4000 Veff	4000 Veff	4000 Veff	4000 Veff
Insulation group (VDE 0110 b)	C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature	-25 to +80°C	-25 to +80°C	-25 to +80°C	-25 to +80°C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4
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 clamp				
Type **Cat. no.**/Qty. p.pck.	**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, pollution 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 DC	115 V DC	230 V AC		
0.40 W	0.75 VA	0.75 VA	0.75 VA		
2 CO contact	2 CO contact	2 CO contact	2 CO contact		
250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC	250 V AC/440 V AC		
8 A/15 A	8 A/15 A	8 A/15 A	8 A/15 A		
7 ms/2 ms	7 ms/2 ms	7 ms/2 ms	7 ms/2 ms		
AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10		
1.5×10^5	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 PRS 4

Complete screw-connection components	**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. p.pck.	**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

Individual components

Relay 4 W, open design, with switch

Type **Cat. no.**/Qty. p.pck.	**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, pollution 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
Rated power consumption	0.75 W	0.75 W	0.75 W	0.75 W
Output data				
Contacts	4 CO contact	4 CO contact	4 CO contact	4 CO contact
Switching voltage/Max. switching voltage	250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC
Max continuous current/inrush current	6 A/12 A	6 A/12 A	6 A/12 A	6 A/12 A
Typical response time/release time	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
Electrical service life	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 life span	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$

Insert module

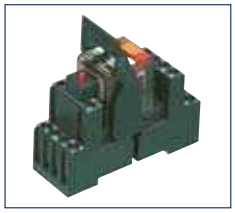
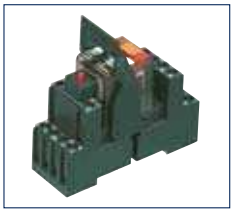
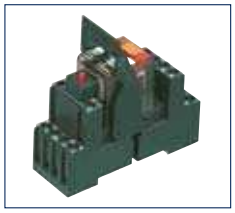
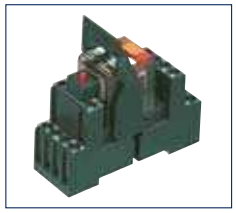
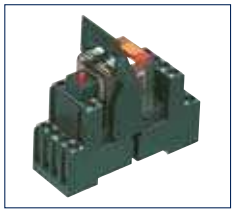
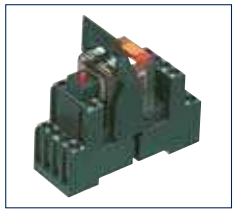
Type **Cat. no.**/Qty. p.pck.	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 24 V UC** **15175.2**/1	**PRS LED 110 V DC** **15422.2**/1
protected against polarity reversal	Status display with free-wheel diode	Status display with free-wheel diode	Status display	Status display 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

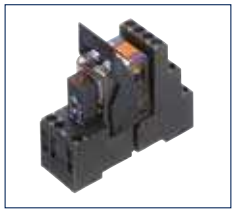
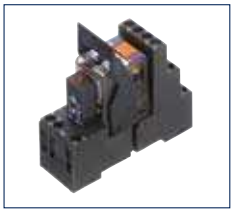
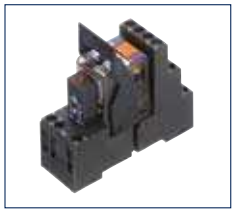
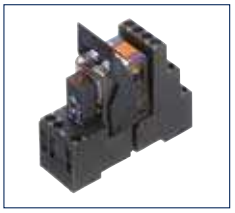
Type **Cat. no.**/Qty. p.pck.	**PRS 4** **15137.2**/1	**PRS 4** **15137.2**/1	**PRS 4** **15137.2**/1	**PRS 4** **15137.2**/1
General				
Mounting foot for DIN rails	TS 35	TS 35	TS 35	TS 35
Plug-in modules for	2.8mm fast-on	2.8 mm fast-on	2.8 mm fast-on	2.8 mm fast-on
Connection type	Screw connection	Screw connection	Screw connection	Screw connection
Technical data				
Rated current	10 A	10 A	10 A	10 A
Rated voltage	300 V	300 V	300 V	300 V
Dielectric strength	2400 Veff	2400 Veff	2400 Veff	2400 Veff
Insulation group (VDE 0110 b)	C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature	-25 to +80°C	-25 to +80°C	-25 to +80°C	-25 to +80°C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4
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 clamp

Type **Cat. no.**/Qty. p.pck.	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1

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, pollution degree 3, overvoltage category III					
2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV
-40 to +70°C	-40 to +70°C	-40 to +70°C	-40 to +70°C	-40 to +70°C	-40 to +70°C
110 V DC	220 V DC	12 V AC	24 V AC	115 V AC	230 V AC
0.75 W	0.75 W	1.0 VA	1.0 VA	1.0 VA	1.0 VA
4 CO contact	4 CO contact	4 CO contact	4 CO contact	4 CO contact	4 CO contact
250 V/250 V AC	250 V/250 V AC	250 V/250 V AC	250 V/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC
6 A/12 A	6 A/12 A	6 A/12 A	6 A/12 A	6 A/12 A	6 A/12 A
15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms
AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5
6 A, 250 V 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
> 30×10^6	> 30×10^6	> 20×10^6	> 20×10^6	> 20×10^6	> 20×10^6
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 fast-on	2.8 mm fast-on	2.8mm fast-on	2.8mm fast-on	2.8mm fast-on	2.8mm fast-on
Screw connection	Screw connection	Screw connection	Screw connection	Screw connection	Screw connection
10 A	10 A	10 A	10 A	10 A	10 A
300 V	300 V	300 V	300 V	300 V	300 V
2400 Veff	2400 Veff	2400 Veff	2400 Veff	2400 Veff	2400 Veff
C/250 V	C/250 V	C/250 V	C/250 V	C/250 V	C/250 V
-25 to +80°C	-25 to +80°C	-25 to +80°C	-25 to +80°C	-25 to +80°C	-25 to +80°C
IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
V-0	V-0	V-0	V-0	V-0	V-0
VBG 4	VBG 4	VBG 4	VBG 4	VBG 4	VBG 4
2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2	2 x 2.5 mm^2
2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2	2 x 1.5 mm^2
max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm	max. 0.8 Nm
UL/CSA	UL/CSA	UL/CSA	UL/CSA	UL/CSA	UL/CSA
PRS C 4 **15140.2**/1	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1

Relay 4 CO contact, PRS 4 G

Complete screw-connection components	**PRSU 4 G/12 V DC**	**PRSU 4 G/24 V DC**	**PRSU 4 G/48 V DC**	**PRSU 4 G/60 V DC**
consisting of: · Relay · Insert module · Socket base · Holding clamp				
Type **Cat. no.**/Qty. p.pck.	**PRSU 4 G/12 V DC** **15421.2**/1	**PRSU 4 G/24 V DC** **15332.2**/1	**PRSU 4 G/48 V DC** **15729.2**/1	**PRSU 4 G/60 V DC** **15730.2**/1
Size (L x W x H) with TS 35 x 7.5	76 x 27.1 x 87 mm	76 x 27.1 x 87 mm	76 x 27.1 x 87 mm	76 x 27.1 x 87 mm
Weight	95 g	95 g	95 g	95 g

Individual components

Relay 4 W, open design, with switch

Type **Cat. no.**/Qty. p.pck.	**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, pollution 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
Rated power consumption	0.75 W	0.75 W	0.75 W	0.75 W
Output data				
Contacts	4 CO contact	4 CO contact	4 CO contact	4 CO contact
Switching voltage/Max. switching voltage	250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC
Max continuous current/inrush current	6 A/12 A	6 A/12 A	6 A/12 A	6 A/12 A
Typical response time/release time	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
Electrical service life	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 life span	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$	$> 30 \times 10^6$

Insert module

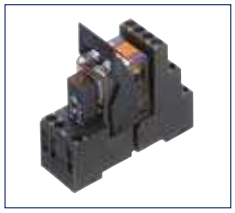
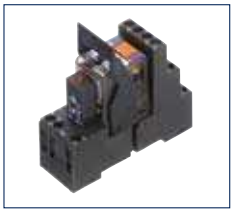
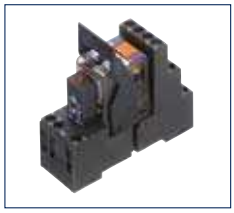
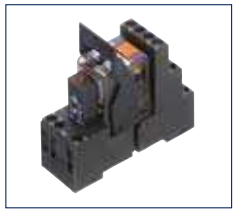
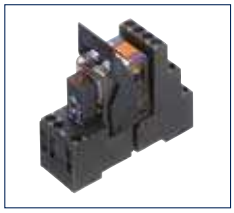
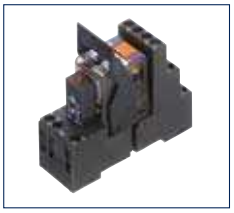
Type **Cat. no.**/Qty. p.pck.	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 24 V DC** **15141.2**/1	**PRS LED 24 V UC** **15175.2**/1	**PRS LED 110 V DC** **15422.2**/1
protected against polarity reversal	Status display with free-wheel diode	Status display with free-wheel diode	Status display	Status display 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

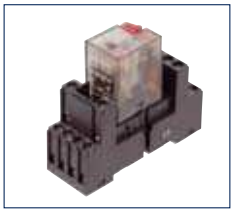
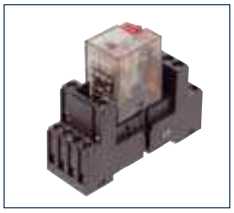
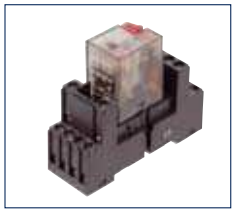
Type **Cat. no.**/Qty. p.pck.	**PRS 4 G** **15137.2**/1	**PRS 4 G** **15137.2**/1	**PRS 4 G** **15137.2**/1	**PRS 4 G** **15137.2**/1
General				
Mounting foot for DIN rails	TS 35	TS 35	TS 35	TS 35
Plug-in modules for	2.8mm fast-on	2.8mm fast-on	2.8mm fast-on	2.8mm fast-on
Connection type	Screw connection	Screw connection	Screw connection	Screw connection
Technical data				
Rated current	10 A	10 A	10 A	10 A
Rated voltage	300 V	300 V	300 V	300 V
Dielectric strength	2400 Veff	2400 Veff	2400 Veff	2400 Veff
Insulation group (VDE 0110 b)	C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature	-25 to +80°C	-25 to +80°C	-25 to +80°C	-25 to +80°C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4
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 clamp

Type **Cat. no.**/Qty. p.pck.	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1	**PRS C 4** **15140.2**/1

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, pollution degree 3, overvoltage category III					
2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV
-40 to +70°C	-40 to +70°C	-40 to +70°C	-40 to +70°C	-40 to +70°C	-40 to +70°C
110 V DC	220 V DC	12 V AC	24 V AC	115 V AC	230 V AC
0.75 W	0.75 W	1.0 VA	1.0 VA	1.0 VA	1.0 VA
4 CO contact	4 CO contact	4 CO contact	4 CO contact	4 CO contact	4 CO contact
250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC
6 A/12 A	6 A/12 A	6 A/12 A	6 A/12 A	6 A/12 A	6 A/12 A
15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms	15 ms/10 ms
AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5	1.5×10^5
6 A, 250 V AC	6 A, 250 V AC	6 A, 250 V AC	6 A, 250 V AC	6 A, 250 V AC	6 A, 250 V AC
$> 30 \times 10^6$	$> 30 \times 10^6$	$> 20 \times 10^6$	$> 20 \times 10^6$	$> 20 \times 10^6$	$> 20 \times 10^6$
PRS LED 110 V DC **15422.2**/1	**PRS LED 230 V AC** **15142.2**/1	**PRS LED 24 V UC** **15175.2**/1	**PRS LED 24 V UC** **15175.2**/1	**PRS LED 230 V AC** **15142.2**/1	**PRS LED 230 V AC** **15142.2**/1
Status display with free-wheel diode	Status display	Status display	Status display	Status display	Status display
60 to 110 V DC	110 to 230 V AC	12 to 48 V AC/DC	12 to 48 V AC/DC	110 to 230 V AC	110 to 230 V AC
PRS 4 G **15137.2**/1	**PRS 4 G** **15137.2**/1	**PRS 4 G** **15137.2**/1	**PRS 4 G** **15137.2**/1	**PRS 4 G** **15137.2**/1	**PRS 4 G** **15137.2**/1
TS 35	TS 35	TS 35	TS 35	TS 35	TS 35
2.8mm fast-on	2.8mm fast-on	2.8mm fast-on	2.8mm fast-on	2.8mm fast-on	2.8mm fast-on
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 eco

Complete screw-connection components	**PRSU 4/24 V DC eco**	**PRSU 4/24 V AC eco**	**PRSU 4/230 V AC eco**	**PRSU 4 G/24 V DC eco**
consisting of: · Relay · Socket base				
Type **Cat. no.**/Qty. p.pck.	**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 4 G/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	76 x 27.1 x 68 mm
Weight	95 g	95 g	95 g	95 g

Individual components

Relay 4 W, open design, with switch and status display

Type **Cat. no.**/Qty. p.pck.	**PRS 4/24 V DC eco** **15591.2**/1	**PRS 4/24 V AC eco** **15592.2**/1	**PRS 4/230 V AC eco** **15621.2**/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 250 V, pollution degree 3, overvoltage category III			
Test voltage coil/contact	3 kV	3 kV	3 kV	3 kV
Operating temperature	-25 to +55°C	-25 to +55°C	-25 to +55°C	-25 to +55°C
Input data				
Input voltage	12 V DC	24 V AC	230 V AC	12 DC
Rated power consumption	0.9 W	1.27 VA	1.61 VA	0.9 W
Output data				
Contacts	4 CO contact	4 CO contact	4 CO contact	4 CO contact
Switching voltage/Max. switching voltage	250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC	250 V AC/250 V AC
Max continuous current/inrush current	5 A/5 A	5 A/5 A	5 A/5 A	5 A/5 A
Typical response time/release time	25 ms/25 ms	25 ms/25 ms	25 ms/25 ms	25 ms/25 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgNi 90/10
Electrical service life	1 x 10^5	1 x 10^5	1 x 10^5	1 x 10^5
at contact load	5 A, 250 V AC	5 A, 250 V AC	5 A, 250 V AC	5 A, 250 V AC
Mechanical life span	1 x 10^7	1 x 10^7	1 x 10^7	1 x 10^7

Socket base

Type **Cat. no.**/Qty. p.pck.	**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 modules for	2.8mm fast-on	2.8mm fast-on	2.8mm fast-on	2.8mm fast-on
Connection type	Screw connection	Screw connection	Screw connection	Screw connection
Technical data				
Rated current	10 A	10 A	10 A	10 A
Rated voltage	300 V	300 V	300 V	300 V
Dielectric strength	2400 Veff	2400 Veff	2400 Veff	2400 Veff
Insulation group (VDE 0110 b)	C/250 V	C/250 V	C/250 V	C/250 V
Ambient temperature	-25 to +80°C	-25 to +80°C	-25 to +80°C	-25 to +80°C
Protection degree, enclosure	IP 20	IP 20	IP 20	IP 20
Flammability class UL 94	V-0	V-0	V-0	V-0
Touch protection, acc. to	VBG 4	VBG 4	VBG 4	VBG 4
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

Accessory, Holding clamp

Type **Cat. no.**/Qty. p.pck.	**PRS C 4 eco** **15628.2**/1	**PRS C 4 eco** **15628.2**/1	**PRS C 4 eco** **15628.2**/1	**PRS C 4 eco** **15628.2**/1

PRSU 4 G/24 V AC eco	PRSU 4 G/230 V AC eco				
					
PRSU 4 G/24 V AC eco **15623.2**/1	**PRSU 4 G/230 V AC eco** **15624.2**/1				
76 x 27.1 x 68 mm	76 x 27.1 x 68 mm				
95 g	95 g				
PRS 4/24 V AC eco **15592.2**/1	**PRS 4/230 V AC eco** **15593.2**/1				
35 g	35 g				
Insulation IEC 664/VDE 0110, rated voltage 250 V, pollution degree 3, overvoltage category III					
3 kV	3 kV				
-25 to +55°C	-25 to +55°C				
24 V AC	230 V AC				
1.27 VA	1.61 VA				
4 CO contact	4 CO contact				
250 V AC/250 V AC	250 V AC/250 V AC				
5 A/5 A	5 A/5 A				
25 ms/25 ms	25 ms/25 ms				
AgNi 90/10	AgNi 90/10				
1 x 10^5	1 x 10^5				
5 A, 250 V AC	5 A, 250 V AC				
1 x 10^7	1 x 10^7				
PRS 4 G **15324.2**/1	**PRS 4 G** **15324.2**/1				
TS 35	TS 35				
2.8mm fast-on	2.8mm fast-on				
Screw connection	Screw connection				
10 A	10 A				
300 V	300 V				
2400 Veff	2400 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				
UL/CSA	UL/CSA				
PRS C 4 eco **15628.2**/1	**PRS C 4 eco** **15628.2**/1				

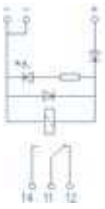
Relay modules with 1 CO RM 1

- Mount on TS 32/TS 35
- Screw connection
- Input side: suppression and reverse-polarity protection diode
- LED for indicating the switching status
- Relays available as solder-in or pluggable

RM 1/1 W
Pluggable relay
1 CO contact

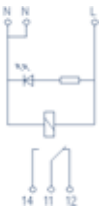
RMD 1/1 W
Soldered relay
1 CO contact

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. p.pck.	**Type**	**Circuit diagram**
Pluggable relay		
6584.2/1	RM 1/1 W/12 V DC	1
5450.2/1	RM 1/1 W/24 V DC	1
5602.2/1	RM 1/1 W/115 V DC	1
5598.2/1	RM 1/1 W/24 V AC	2
5460.2/1	RM 1/1 W/115 V AC	2
5462.2/1	RM 1/1 W/230 V AC	2
Soldered relay		
6585.2/1	RMD 1/1 W/12 V DC	1
5451.2/1	RMD 1/1 W/24 V DC	1
5603.2/1	RMD 1/1 W/115 V DC	1
5599.2/1	RMD 1/1 W/24 V AC	2
5461.2/1	RMD 1/1 W/115 V AC	2
5463.2/1	RMD 1/1 W/230 V AC	2
Relay		
Relay	Pluggable/soldered	
Contacts	1 CO contact	
Design	Closed	

General information	
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage coil/contact	4 kV
Pinning	5 mm
Operating temperature	-20 to +50°C
Insulation stripping length	7 mm
Conductor cross-section	0.2-2.5 mm^2/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 (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 life span at max. contact load	> 5 x 10^5	> 5 x 10^5	> 5 x 10^5	> 5 x 10^5
Mechanical life span	> 2 x 10^7	> 2 x 10^7	> 2 x 10^7	> 2 x 10^7

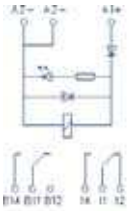
*2 CO relays 6 A/10 A, 1 CO relay 8 A/10A

Relay modules 2 CO RM 1/2

RM 1/2 W
Pluggable relay
2 CO contact

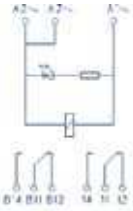
RMD 1/2 W
Soldered relay
2 CO contact

Circuit diagram



3

Circuit diagram



4

Size (L x W x H) with TS 35 x 7.5	87 x 26 x 76 mm
Weight	60 g

Cat. no./Qty. p.pck.	**Type**	**Circuit diagram**
Pluggable relay		
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 contact		
6229.2/1	RMD 1 Au/2 W 24 V DC	3
Relay	pluggable/soldered	
Contacts	2 CO contact	
Design	Closed	

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

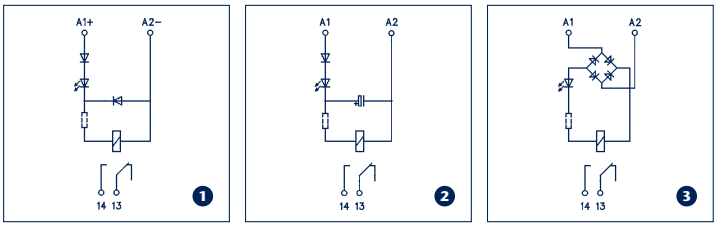
115 V AC	230 VAC	24 V DC (RMD 1 Au)
1.0 VA	1.0 VA	0.4 W
red	red	red
1/2 CO contact	1/2 CO contact	1/2 CO contact
250 V AC	250 V AC	250 V AC
6 A/10 A*	6 A/10 A*	1 A/1 A
2000 VA at 250 VAC, 8 A	2000 VA at 250 VAC, 8 A	125 VA/30 W
15 ms/8 ms	15 ms/10 ms	6 ms/5 ms
AgNi	AgNi	AgPd 60/10+10 µm Au
> 5 x 10^5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

Relay modules RM-S

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

RM-S
Soldered relay
1 NO

Circuit diagram



General information	
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage coil/contact	4 kV
Operating temperature	-20 to +50°C
Insulation stripping length	7 mm
Connection cross-section	0.2-2.5 mm²/AWG 22-14
Relay	soldered
Design	Closed

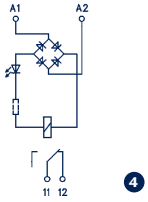
Cat. no./Qty. p.pck.	**Type**	**Circuit diagram**
Size (L x W x H) with TS 35 x 7.5	77 x 11.2 x 55 mm	
Weight	30 g	
red LED		
6347.2/1	RM-SR/1 S/12 V DC	1
5400.2/1	RM-SR/1 S/24 V DC	1
5412.2/1	RM-SR/1 S/48 V DC	1
5424.2/1	RM-SR/1 S/60 V DC	1
6356.2/1	RM-SR/1 S/12 V DC/AC	2
5406.2/1	RM-SR/1 S/24 V DC/AC	2
5418.2/1	RM-SR/1 S/48 V DC/AC	2
5430.2/1	RM-SR/1 S/115 V DC/AC	3
5436.2/1	RM-SR/1 S/230 V DC/AC	3
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
5431.2/1	RM-SG/1 S/115 V DC/AC	3
5437.2/1	RM-SG/1 S/230 V DC/AC	3
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. 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	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 life span 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 life span	> 1 x 10^7	> 1 x 10^8	> 1 x 10^9	> 1 x 10^{10}

Relay modules RM-S

RM-S
Soldered relay
1 NC

Circuit diagram

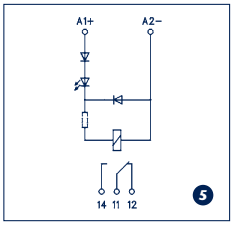


Cat. no./Qty. p.pck.	**Type**	**Circuit diagram**
Size	77 x 11.2 x 55 mm	
Weight	30 g	
red LED		
5433.2/1	RM-SR/1O/115 V DC/AC	4
5439.2/1	RM-SR/1O/230 V DC/AC	4
green LED		
5434.2/1	RM-SG/1O/115 V DC/AC	4
5440.2/1	RM-SG/1O/230 V DC/AC	4

12 V AC/DC	24 V AC/DC	48 V AC/DC	115 V AC/DC	230 V AC/DC	
0,6 W/0.8 VA	0,4 W/0.6 VA	0,5 W/0.7 VA	0,6 W/0.8 VA	1,0 W/1.2 VA	
250 V AC	250 V AC	250 V AC	250 V AC	250 V AC	
6 A/8 A	6 A/8 A	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	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	15 ms/10 ms	15 ms/10 ms	
AgNi	AgNi	AgNi	AgNi	AgNi	
> 1.5 x 10^{9}	> 1.5 x 10^{10}	> 1.5 x 10^{11}	> 1.5 x 10^{12}	> 1.5 x 10^{13}	
> 1 x 10^{11}	> 1 x 10^{12}	> 1 x 10^{13}	> 1 x 10^{14}	> 1 x 10^{15}	

RM-S
Soldered relay
1 CO contact

Circuit diagram



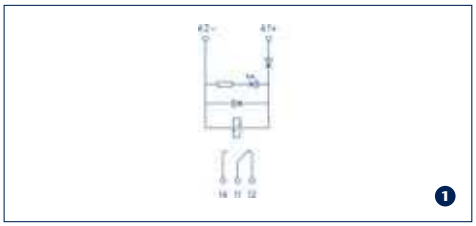
Cat. no./Qty. p.pck.	**Type**	**Circuit diagram**
Size	77 x 11.2 x 60 mm	
Weight	30 g	
red LED		
6353.2/1	RM-SR/1 W/12 V DC	5
5770.2/1	RM-SR/1 W/24 V DC	5
5776.2/1	RM-SR/1 W/48 V DC	5
5782.2/1	RM-SR/1 W/60 V DC	5
6362.2/1	RM-SR/1 W/12 V DC/AC	6
5773.2/1	RM-SR/1 W/24 V DC/AC	6
5779.2/1	RM-SR/1 W/48 V DC/AC	6
5785.2/1	RM-SR/1 W/115 V DC/AC	7
5788.2/1	RM-SR/1 W/230 V DC/AC	7
green LED		
6354.2/1	RM-SG/1 W/12 V DC	5
5771.2/1	RM-SG/1 W/24 V-	5
5777.2/1	RM-SG/1 W/48 V DC	5
5783.2/1	RM-SG/1 W/60 V DC	5
6363.2/1	RM-SG/1 W/12 V DC/AC	6
5774.2/1	RM-SG/1 W/24 V DC/AC	6
5780.2/1	RM-SG/1 W/48 V DC/AC	6
5786.2/1	RM-SG/1 W/115 V DC/AC	7
5789.2/1	RM-SG/1 W/230 V DC/AC	7
without LED		
6355.2/1	RM-S/1 W/12 V DC	5
5772.2/1	RM-S/1 W/24 V DC	5
5778.2/1	RM-S/1 W/48 V DC	5
5784.2/1	RM-S/1 W/60 V DC	5
6364.2/1	RM-S/1 W/12 V DC/AC	6
5775.2/1	RM-S/1 W/24 V DC/AC	6
5781.2/1	RM-S/1 W/48 V DC/AC	6

Relay modules 1 CO RML

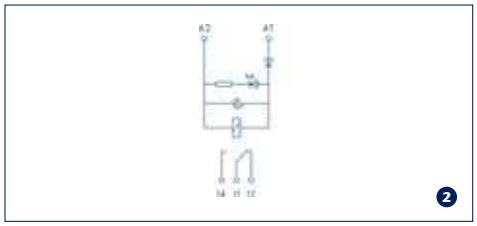
- Mount on TS 32/TS 35
- Screw connection
- LED for indicating the switching status
- Power relay, 16 A

RML/1 W
Soldered relay
1 CO contact

Circuit diagram



Circuit diagram



Cat. no./Qty. p.pck.	**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, pollution degree 2, overvoltage category III
Test voltage coil/ contact	4 kV
Operating temperature	-20 to +50°C
Insulation stripping length	7 mm
Connection cross-section	0.2-2.5 mm²/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 contact	1 CO contact	1 CO contact	1 CO contact
Max. switching voltage	250 V AC	250 V AC	250 V AC	250 V AC
Max continuous current/inrush current	16 A/25 A	16 A/25 A	16 A/25 A	16 A/80 A (20 ms)
Max. power rating (ohmic load)	4000 VA at 250 V AC, 16 A	4000 VA at 250 V AC, 16 A	4000 VA at 250 V AC, 16 A	4000 VA at 250 V AC, 16 A
Typical response time/release time	9 ms/7 ms	15 ms/8 ms	9 ms/7 ms	9 ms/7 ms
Contact material	AgNi 90/10	AgNi 90/10	AgNi 90/10	AgSnO 2
Electrical life span at max. contact load	> 2 x 10^5	> 2 x 10^5	> 2 x 10^5	> 2 x 10^5
Mechanical life span	> 1 x 10^7	> 1 x 10^7	> 1 x 10^7	> 1 x 10^7

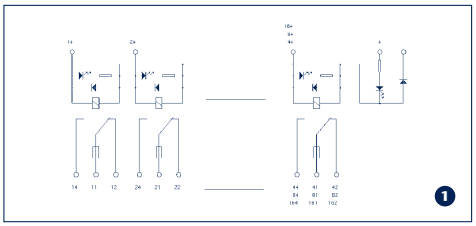
Relay modules 1 CO RIM F

- Mount on TS 32/TS 35
- Screw connection
- Input side: suppression and reverse-polarity protection diode
- LED for indicating the switching status
- Relays available as solder-in or pluggable
- Relay modules with 1 CO and fuse in contact
- Other input and output voltages available on request

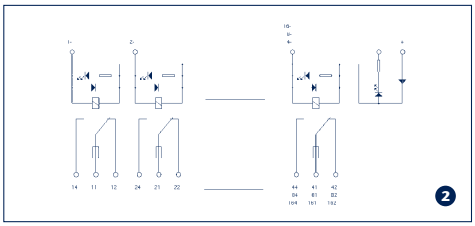
RIM F/1 W wtc
Pluggable relay
1 CO contact

RIM F/1 W
Soldered relay
1 CO contact

Circuit diagram



Circuit diagram



Modules	Cat. no./Qty. p.pck. Pluggable relay	Type	Cat. no./Qty. p.pck. Soldered relay	Type	Circuit dia-gram	Size with TS (mm) LxBxH (TS35)	Weight
2 relays	**6199.2**/1	RIM 2 F/1 W/24 V +	**6201.2**/1	RIMD 2 F/1 W/24 V +	1	87 x 43 x 74/63	110 g/100 g
per 1 CO	**6200.2**/1	RIM 2 F/1 W/24 V -	**6202.2**/1	RIMD 2 F/1 W/24 V -	2	87 x 43 x 74/63	110 g/100 g
4 relays	**6203.2**/1	RIM 4 F/1 W/24 V +	**6205.2**/1	RIMD 4 F/1 W/24 V +	1	87 x 78 x 74/63	200 g/180 g
per 1 CO	**6204.2**/1	RIM 4 F/1 W/24 V -	**6206.2**/1	RIMD 4 F/1 W/24 V -	2	87 x 78 x 74/63	200 g/180 g
8 relays	**6207.2**/1	RIM 8 F/1 W/24 V +	**6209.2**/1	RIMD 8 F/1 W/24 V +	1	87 x 150 x 74/63	380 g/340 g
per 1 CO	**6208.2**/1	RIM 8 F/1 W/24 V -	**6210.2**/1	RIMD 8 F/1 W/24 V -	2	87 x 150 x 74/63	380 g/340 g
16 relays	**6211.2**/1	RIM 16 F/1 W/24 V +	**6213.2**/1	RIMD 16 F/1 W/24 V +	1	87 x 294 x 74/63	730 g/650 g
per 1 CO	**6212.2**/1	RIM 16 F/1 W/24 V -	**6214.2**/1	RIMD 16 F/1 W/24 V -	2	87 x 294 x 74/63	730 g/650 g

Relay	Pluggable	Soldered
Contacts	1 CO contact	1 CO contact
Design	Closed	Closed
General information		
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	
Test voltage coil/contact	4 kV	4 kV
Pinning	5 mm	5 mm
Operating temperature	-20 to +50°C	-20 to +50°C
Insulation stripping length	7 mm	7 mm
Connection cross-section	0.2-2.5 mm²/AWG 22-14	0.2-2.5 mm²/AWG 22-14

Relay data				
Input data				
Input voltage ±10%	24 V DC			
Power consumption ±10%	0.6 W			
Operating voltage indicator (LED)	green			
Status indication per relay (LED)	red			
Output data				
Contacts	1 CO contact			
Max. switching voltage	250 V AC/DC			
Max continuous current/inrush current	6 A/8 A			
Fuse	6.3 A slow			
Max. power rating (ohmic load)	2000 VA at 250 V AC, 192 W at 24 V DC			
Typical response time/release time	9 ms/7 ms			
Contact material	AgCdO			
Electrical life span at max. contact load	> 1.5 x 10^5			
Mechanical life span	> 1 x 10^7			

Relay modules 1 CO RIM

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

RIM/1 W
Pluggable relay
1 CO contact

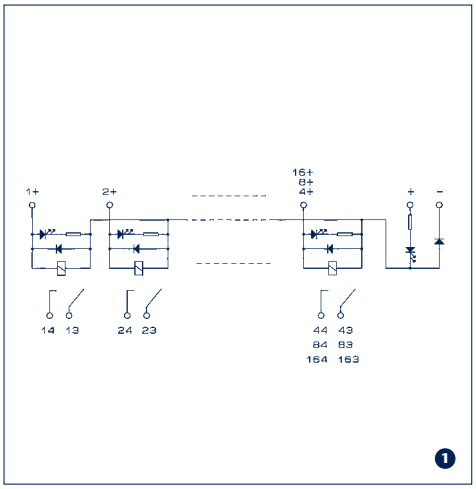
RIMD/1 W
Soldered relay
1 CO contact

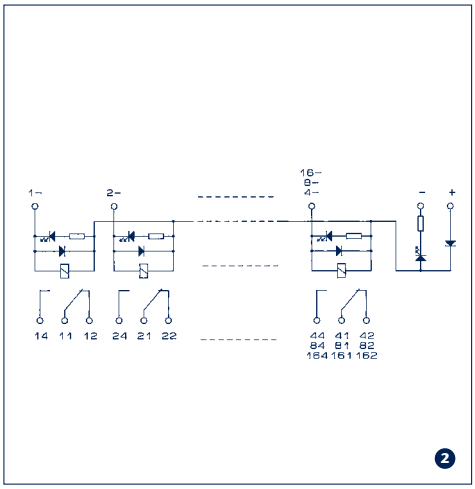
Relay	**Pluggable**	**Soldered**
Contacts	**1 CO contact**	**1 CO contact**
Design	**Closed**	**Closed**
General information		
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	
Test voltage coil/contact	4 kV	4 kV
Operating temperature	-20 to +50°C	-20 to +50°C
Insulation stripping length	7 mm	7 mm
Conductor cross-section	0.2-2.5 mm^2/AWG 22-14	0.2-2.5 mm^2/AWG 22-14

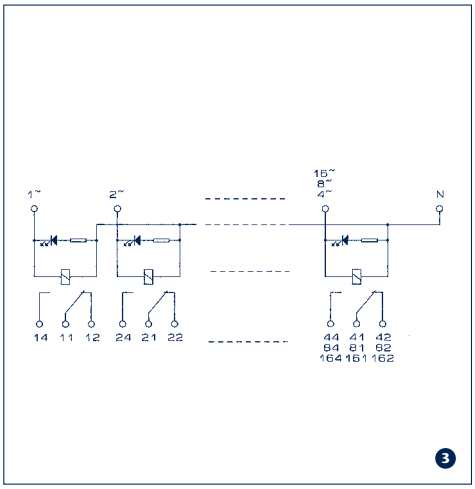
Relay data							
Input data							
Input voltage ±10%	12 V DC	24 V DC	48 V DC	115 V DC	24 V AC	115 VAC	230 VAC
Power consumption ±10%	0.6 W	0.6 W	0.6 W	0.6 W	1.0 VA	1.0 VA	1.0 VA
Operating voltage indicator (LED)	green	green	green	green	-	-	-
Status indication per relay (LED)	red	red	red	red	red	red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

Circuit diagram







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

Relay modules 1 CO contact RIM S

- Mount on TS 32/TS 35
- Screw connection
- Relay modules with 1 CO contacts
- Switch for HAND/OFF/AUTOMATIC operation
- LED for indicating the switching status
- Relays available as solder-in or pluggable
- With or without feedback loop
- Gold-plated relay contact on request

RIM S/1 W
Pluggable relay
1 CO contact

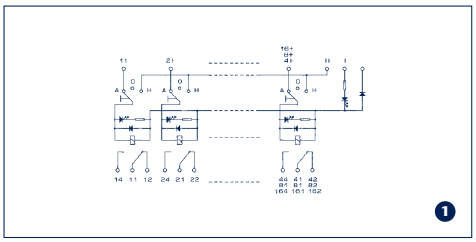
RIMD S/1 W
Soldered relay
1 CO contact

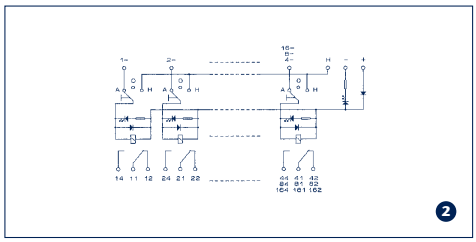
Relay	**Pluggable**	**Soldered**
Contacts	**1 CO contact**	**1 CO contact**
Design	**Closed**	**Closed**
General information		
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage coil/contact	4 kV	4 kV
Pinning		
Operating temperature	-20 to +50°C	-20 to +50°C
Important Notes		
Insulation stripping length	7 mm	7 mm
Conductor cross-section	0.2-2.5 mm^2/AWG 22-14	0.2-2.5 mm^2/AWG 22-14

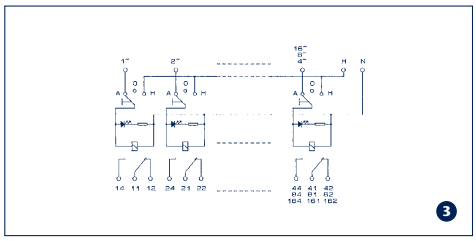
Relay data				
Input data				
Input voltage ±10%	24 V DC	24 V AC	230 V AC	
Power consumption ±10%	0.6 W	1.0 VA	1.0 VA	
Operating voltage indicator (LED)	green	-	-	
Status indication per relay (LED)	red	red	red	
Output data				
Contacts	1 CO contact	1 CO contact	1 CO contact	
Max. switching voltage	250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

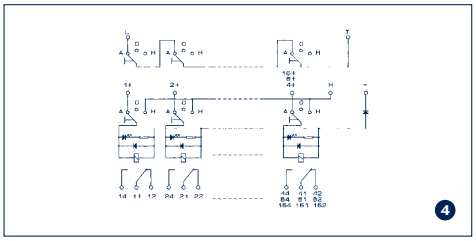
Relay modules 1 CO contact RIM S

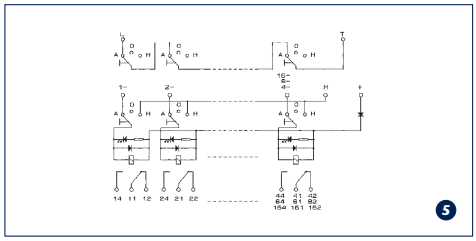
Circuit diagram

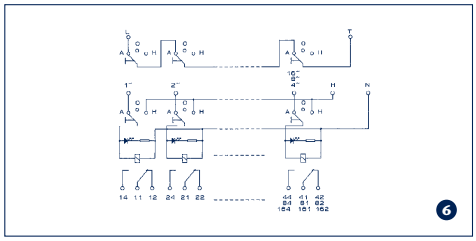












Modules	Cat. no./Qty. p.pck. Pluggable relay	Type	Cat. no./Qty. p.pck. Soldered relay	Type	Circuit dia-gram	Size (L x W x H) with TS 35 x 7.5	Weight
Modules with 2 relays each with 1 CO contact							
	5900.3/1	RIM 2 S/1 W/24 V +	**5902.3**/1	RIMD 2 S/1 W/24 V +	1	87 x 44 x 74	115 g/105 g
	5901.3/1	RIM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

Relay modules 1 CO contact RIM-16 A

- Mount on TS 32/TS 35
- Screw connection
- Relay modules with 1 CO contacts
- Switch for HAND/OFF/AUTOMATIC operation
- 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 on request

RIM 16 A/1 W
Pluggable relay
1 CO contact

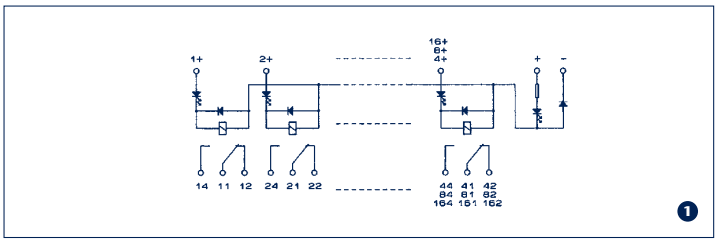
RIMS 16 A/1 W
HAND/OFF/AUTOMATIC
1 CO contact

Relay	**Pluggable**	**Soldered**
Contacts	**1 CO contact**	**1 CO contact**
Design	**Closed**	**Closed**
General information		
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage coil/contact	4 kV	4 kV
Operating temperature	-20 to +50°C	-20 to +50°C
Insulation stripping length	7 mm	7 mm
Conductor 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%	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 contact	1 CO contact
Max. switching voltage	250 V AC/DC	250 V AC/DC
Max continuous current/inrush current	16 A/16 A	16 A/16 A
Max. power rating (ohmic load)	4000 VA at 250 V AC/ 384 W at 24 V DC	4000 VA at 250 V AC/ 384 W at 24 V DC
Typical response time/release time	9 ms/7 ms	9 ms/7 ms
Contact material	AgNi	AgNi
Electrical life span at max. contact load	> 8 x 10^4	> 8 x 10^4
Mechanical life span	> 3 x 10^7	> 3 x 10^7

Relay modules 1 CO contact RIM-16 A

Circuit diagram



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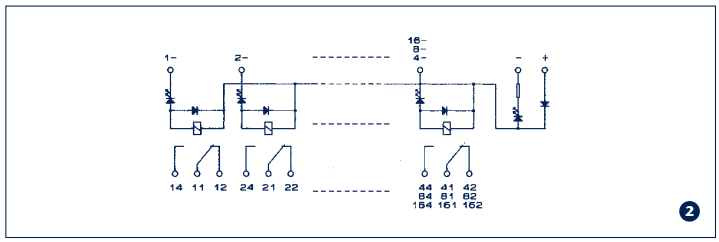

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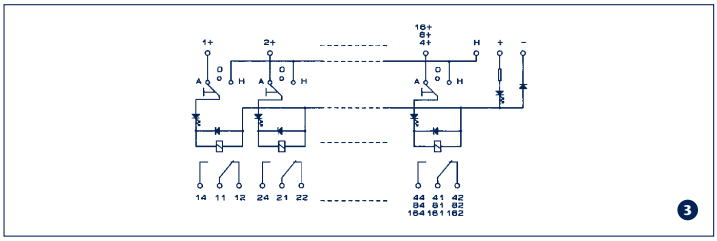

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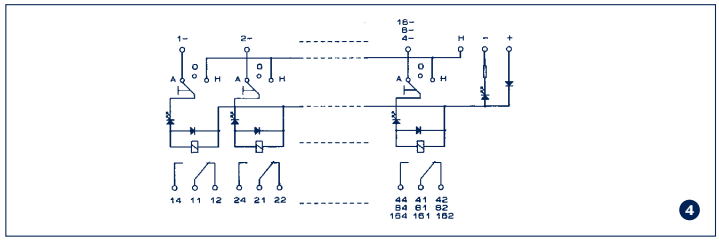


4

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

Relay modules 2 CO contact RIM

- Mount on TS 32/TS 35
- Screw connection
- Relay modules with 2 CO contacts
- Input side: suppression and reverse-polarity protection diode
- LED for indicating the switching status
- Relays available as solder-in or pluggable
- Other voltages available on request

RIM/2 W
Pluggable relay
2 CO contact

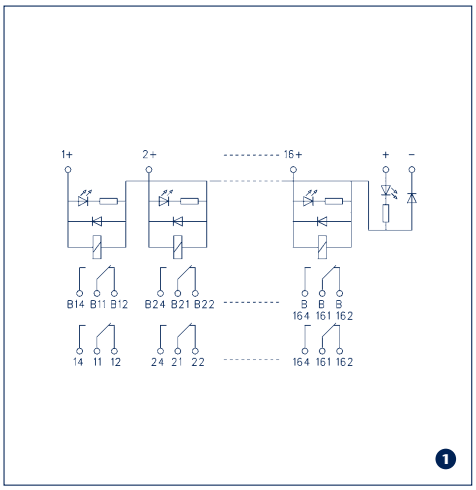
RIMD/2 W
Soldered relay
2 CO contact

Relay	**Pluggable**	**Soldered**
Contacts	**2 CO contact**	**2 CO contact**
Design	**Closed**	**Closed**
General information		
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage coil/contact	4 kV	4 kV
Pinning	5 mm	5 mm
Operating temperature	-20 to +50°C	-20 to +50°C
Insulation stripping length	7 mm	7 mm
Conductor 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%	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
Output data						
Contacts	2 CO contact	2 CO contact	2 CO contact	2 CO contact	2 CO contact	2 CO contact
Max. switching voltage	250 V AC/DC	250 V AC/DC	250 V AC/DC	250 V AC/DC	250 V AC/DC	250 V AC/DC
Max continuous current/inrush current	4 A/8 A	4 A/8 A	4 A/8 A	4 A/8 A	4 A/8 A	4 A/8 A
Max. power rating (ohmic load)	1,250 VA/144 W	1,250 VA/144 W	1,250 VA/144 W	1,250 VA/144 W	1,250 VA/144 W	1,250 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 life span	> 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 life span 24 V DC/1 A 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 life span 230V DC/2 A resistive load	> 2 x 10^5	> 2 x 10^5	> 2 x 10^5	> 2 x 10^5	> 2 x 10^5	> 2 x 10^5

Relay modules 2 CO contact RIM

Circuit diagram



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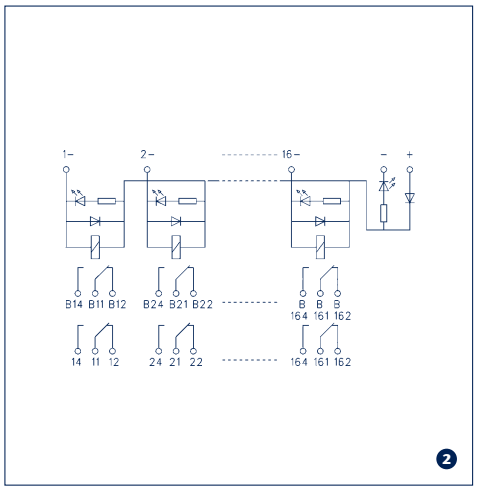

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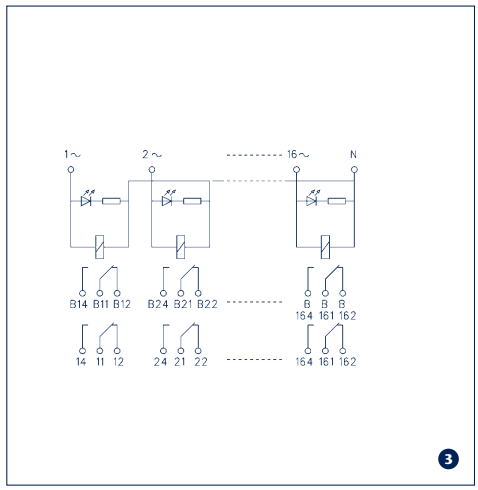

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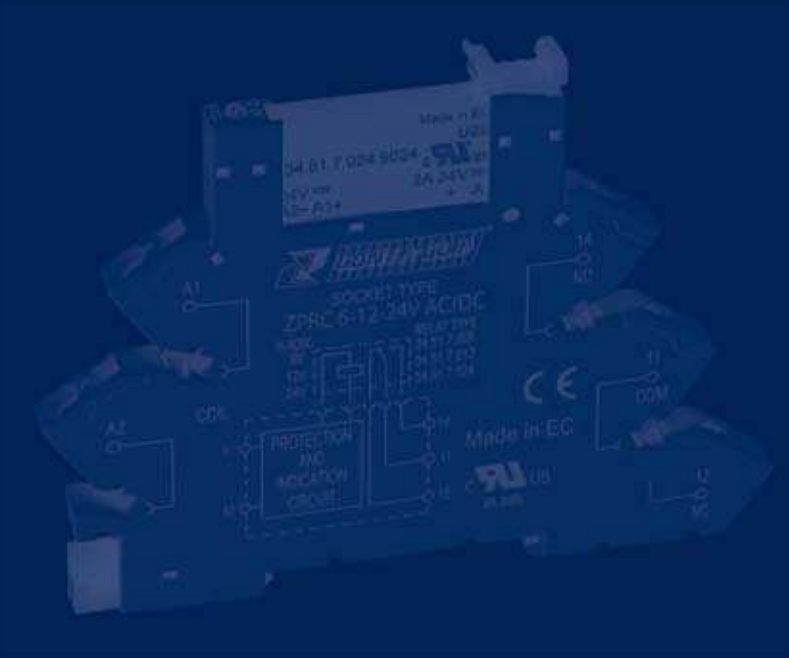
Modules	Cat. no./Qty. p.pck. Pluggable relay	Type	Cat. no./Qty. p.pck. Soldered relay	Type	Circuit diagram	Size (L x W x H) with TS 35 x 7.5	Weight
Modules with 2 relays each with 2 CO contact							
	5566.2/1	RIM 2/2 W/24 V +	**5567.2**/1	RIMD 2/2 W/24 V +	1	87 x 44 x 72	120 g/110 g
	5568.2/1	RIM 2/2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

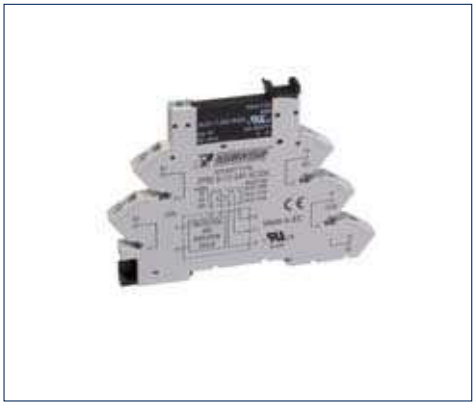
Opto-couplers

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

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

CONTA-CLIP offers opto-couplers in a variety of voltages and power ranges. In order to suit industrial applications, these modules and components are provided with the appropriate protective input circuitry.





Solid-state compact PSC

The **PSC** solid-state compact distinguishes itselves by its compact shape in the 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 components offer a total of 8 varieties, including screw and tension-spring, and are available with input voltages from 24 to 60 VDC and 240 VAC. With the AQI cross-connection system, mutual potentials can be carried out over the coil or contact sides. Excellent equipment identification is possible since the socket base has a labelling surface for the standard PMC BSTR 6/30 marking system. **CONTA-CLIP** also offers a customer-specific labelling service, in addition to the standard marking.

Opto-coupler modules OKI

The **OKI** opto-coupler modules are available with either four or eight switching channels, suitable for varying input voltage types. For input-side DC voltage, you can choose between a high-level switched version or a low-level switched version, where the individual channels can be switched and combined separately.

For AC voltage, versions for 24 V and 230 V are available. They have an additional screw-on hood which guarantees protection against direct touch.

The adjoining 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.

The SSR and SSOIF-base solid state relays

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

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

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

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

Solid-state compact PSC

Solid-state terminals

1. Overview

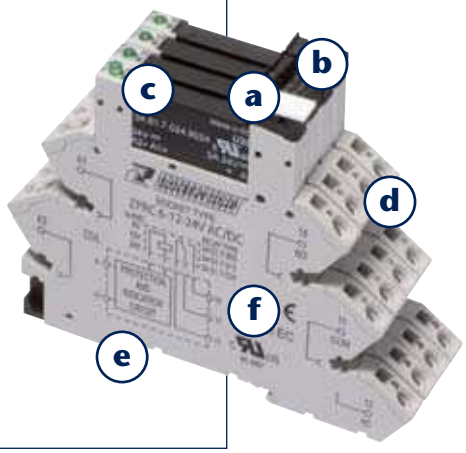
a **Labelling | Marking**
The socket bases have a labelling surface which is optimally suited for our **PMC Pocket-Maxicard** standard marking systems. In addition to our large variety of standard labels, **CONTA-CLIP** can also provide "just-in-time" individual labelling for you.

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

c **Pluggable solid-state modules**
Solid-state modules are also available with various input and output voltages to fit your individual requirements!

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

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



d **Pluggable external cross-connections**
The AQI/PRC pluggable cross-connection system enables a time-saving distribution of potentials. The AQI/PRC is constructed so that it is protected against accidental touch. It is available as a 20-pole unit, in either yellow, blue or black. The cross-connector 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 flexibly mounted on standard TS 35 mounting rails, according to EN 50035 and EN 50022.

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

2. Approvals (Details upon request.)

Solid-state compact PSC

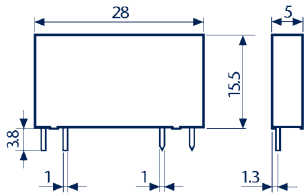
Solid-state terminals

3. Features

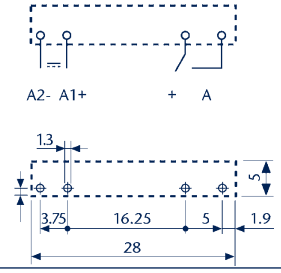
I. Solid-state module

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

Complete view of the solid state module



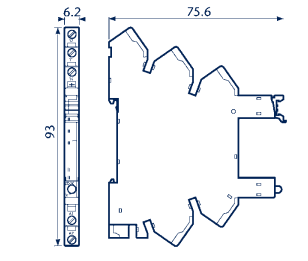
View of connections



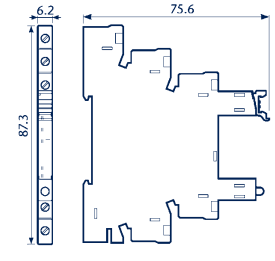
II. Socket base

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

Tension-spring connection



Screw connection



4. Specifications

Opto-coupler, semi-conductor 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

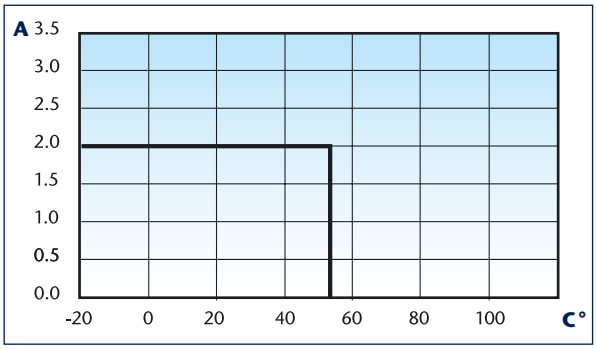
5. Input specification

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 AC	–	184	264	72	5.6 (*)	0.5 (*)

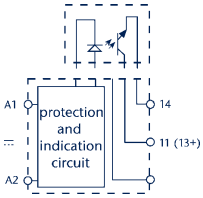
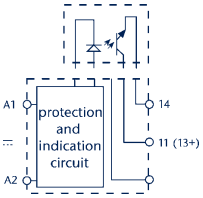
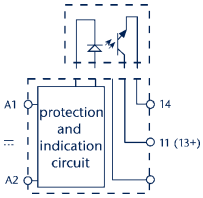
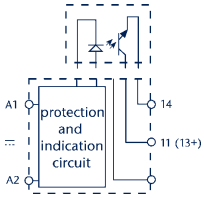
* Rated current and power at U_N = 240 V.

6. Output specification

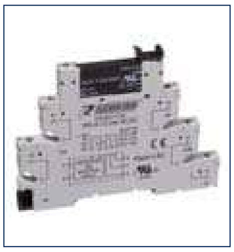
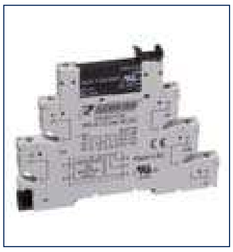
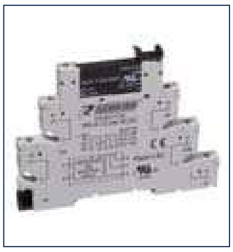
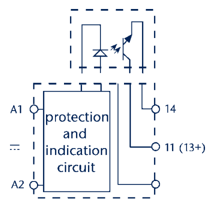
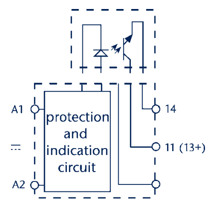
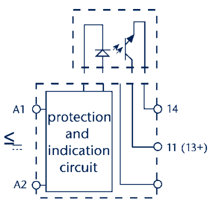
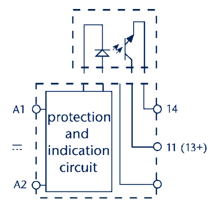


Continuous current, dependent on the ambient temperature.
SSR with 2 A, DC or AC

Solid-state compact PSC

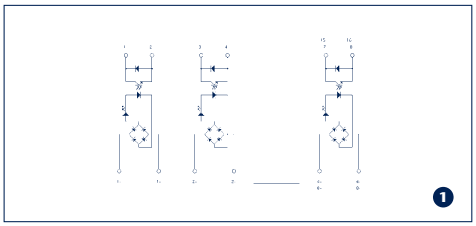
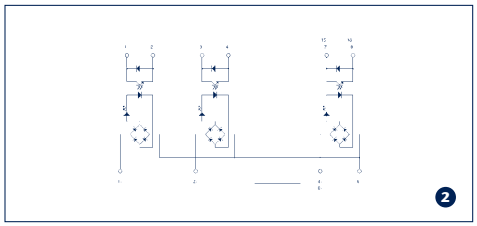
Solid-state terminals, tension-spring con-	ZPSCU 1/24 V DC/24 V DC	ZPSCU 1/24 V DC/240 V AC	ZPSCU 1/240 V AC/24 V DC	ZPSCU 1/240 V AC/240 V AC
consisting of: · A basic terminal and a pluggable solid state module · Mount on TS 35				
· Internal EMC coil circuitry and LED display	 Socket base	 Socket base	 Socket base	 Socket base
Type	ZPSCU 1/24 V DC/24 V DC	ZPSCU 1/24 V DC/240 V DC	ZPSCU 1/240 V AC/24 V DC	ZPSCU 1/240 V AC/240 V AC
Cat. no./Qty. p.pck. 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 time/Release time	0.1/0.4 ms	12/12 ms	0.1/0.4 ms	12/12 ms
Dielectric strength of control/load circuit	2,500 V	2,500 V	2,500 V	2,500 V
Ambient temperature	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C
Relay protection type	RT III	RT III	RT III	RT III
Ratings for socket base				
Ambient temperature	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C
Insulation stripping length	10 mm	10 mm	10 mm	10 mm
Max. connection cross-section, solid | flexible 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 components, socket base				
Type/Colour grey (RAL 7032)	ZPRC 6-12-24 V DC	ZPRC 6-12-24 V DC	ZPRC 220 ... 240 V AC/DC	ZPRC 220 ... 240 V AC/DC
Cat. no./Qty. p.pck.	**15494.2**/10	**15494.2**/10	**15493.2**/10	**15493.2**/10
Individual components, solid-state module				
Type/Colour	PSC 1/24 V DC-24 V/2 A/DC	PSC 1/24 V DC-240 V/2A/AC	PSC 1/60 V/DC-24 V/2A/DC	PSC 1/60 V/DC-240 V/2A/AC
Cat. no./Qty. p.pck.	**15505.2**/10	**15504.2**/10	**15507.2**/10	**15506.2**/10
Accessories AQI/PRC external insulated cross-connector	AQI/PRC/20	AQI/PRC/20	AQI/PRC/20	AQI/PRC/20
Cat. no./Qty. p.pck. yellow	**15545.8**/1	**15545.8**/1	**15545.8**/1	**15545.8**/1
Cat. no./Qty. p.pck. blue	**15545.5**/1	**15545.5**/1	**15545.5**/1	**15545.5**/1
Cat. no./Qty. p.pck. black	**15545.4**/1	**15545.4**/1	**15545.4**/1	**15545.4**/1
TW/PRC partitions	TW/PRC	TW/PRC	TW/PRC	TW/PRC
Cat. no./Qty. p.pck.	**15546.2**/1	**15546.2**/1	**15546.2**/1	**15546.2**/1
PMC labelling/markers	PMC BSTR 6/30	PMC BSTR 6/30	PMC BSTR 6/30	PMC BSTR 6/30
Cat. no./Qty. p.pck., standard print, see catalog	p. 157	p. 157	p. 157	p. 157
Cat. no./Qty. p.pck. neutral	**9106.7**/300	**9106.7**/300	**9106.7**/300	**9106.7**/300
Cat. no./Qty. p.pck., special print	**9107.7**/300	**9107.7**/300	**9107.7**/300	**9107.7**/300
BWMA metal tool	BWMA 1	BWMA 1	BWMA 1	BWMA 1
Cat. no./Qty. p.pck.	**3808.0**/1	**3808.0**/1	**3808.0**/1	**3808.0**/1

Solid-state compact PSC

Solid-state terminals, screw connection	PSCU 1/24 V DC/24 V DC	PSCU 1/24 V DC/24 V AC	PSCU 1/240 V AC/24 V DC	PSCU 1/240 V AC/240 V AC
consisting of: · A basic terminal and a pluggable solid state module · Mount 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. p.pck. 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 time/Release time	0.1/0.4 ms	12/12 ms	0.1/0.4 ms	12/12 ms
Dielectric strength of control/load circuit	2,500 V	2,500 V	2,500 V	2,500 V
Ambient temperature	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C
Relay protection type	RT III	RT III	RT III	RT III
Ratings for socket base				
Ambient temperature	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C	-20 to +55 °C
Insulation stripping length	10 mm	10 mm	10 mm	10 mm
Max. connection cross-section, solid | flexible	1 x 2.5 | 1 x 2.5 mm^2 1 x 14 | 1 x 14 mm^2	1 x 2.5 | 1 x 2.5 mm^2 1 x 14 | 1 x 14 mm^2	1 x 2.5 | 1 x 2.5 mm^2 1 x 14 | 1 x 14 mm^2	1 x 2.5 | 1 x 2.5 mm^2 1 x 14 | 1 x 14 mm^2
Input circuit				
Rated voltage	24 V DC	24 V DC	230 V DC	230 V DC
Power rating	0.2 W	0.2 W	0.9 W	0.9 W
Operating range	16 to 30 V DC	16 to 30 V DC	184 to 264 V DC	184 to 264 V DC
Control current	10.5 mA DC	10.5 mA DC	5.6 mA DC	5.6 mA DC
Drop-out voltage	10 AC/DC	10 AC/DC	20 AC/DC	20 AC/DC
Input resistance	3,200 Ω	3,200 Ω	21,300 Ω	21,300 Ω
Ratings for solid-state module combined with socket base **Output circuit**				
Output	1 NO contact	1 NO contact	1 NO contact	1 NO contact
Max. continuous current|Max. inrush current (10ms)	2/20 A	2/40 A	2/20 A	2/40 A
Rated voltage | Max. reverse voltage	(24/33) V AC DC	(240/275) V AC	(24/33) V AC DC	(240/275) V AC
Switching load-voltage range	1.5 to 24 V DC	12 to 240 V AC	1.5 to 24 V DC	12 to 240 V AC
Min. switching current	1 mA	22 mA	1 mA	22 mA
Max. residual current at 55°C	0.001 mA	1.5 mA	0.001 mA	1.5 mA
Max. voltage drop at 20°C and rated current	0.12 V	1.6 V	0.12 V	1.6 V
Individual components, socket base				
Type/Colour grey (RAL 7032)	PRC 6-12-24 V DC	PRC 6-12-24 V DC	PRC 220 ... 240 V AC/DC	PRC 220 ... 240 V AC/DC
Cat. no./Qty. p.pck.	**15490.2**/10	**15490.2**/10	**15489.2**/10	**15489.2**/10
Individual components, solid-state module				
Type/colour	PSC 1/24 V DC-24 V/2 A/DC	PSC 1/24 V DC-240 V/2 A/AC	PSC 1/60 V DC-24 V/2 A/DC	PSC 1/60 V/DC-240 V/2 A/AC
Cat. no./Qty. p.pck.	**15505.2**/10	**15504.2**/10	**15507.2**/10	**15506.2**/10
Accessories AQI/PRC external insulated cross-connector	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**	**AQI/PRC/20**
Cat. no./Qty. p.pck. yellow	**15545.8**/1	**15545.8**/1	**15545.8**/1	**15545.8**/1
Cat. no./Qty. p.pck. blue	**15545.5**/1	**15545.5**/1	**15545.5**/1	**15545.5**/1
Cat. no./Qty. p.pck. black	**15545.4**/1	**15545.4**/1	**15545.4**/1	**15545.4**/1
TW/PRC partition	**TW/PRC**	**TW/PRC**	**TW/PRC**	**TW/PRC**
Cat. no./Qty. p.pck.	**15546.2**/1	**15546.2**/1	**15546.2**/1	**15546.2**/1
PMC labelling/markers	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**	**PMC BSTR 6/30**
Cat. no./Qty. p.pck., standard print, see catalog	p. 157	p. 157	p. 157	p. 157
Cat. no./Qty. p.pck. neutral	**9106.7**/300	**9106.7**/300	**9106.7**/300	**9106.7**/300
Cat. no./Qty. p.pck., special print	**9107.7**/300	**9107.7**/300	**9107.7**/300	**9107.7**/300
SDB screwdriver	**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. p.pck.	**1086.0**/1	**1086.0**/1	**1086.0**/1	**1086.0**/1

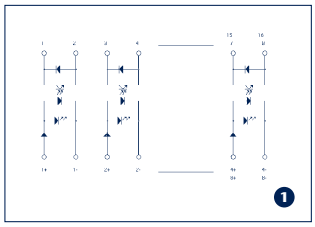
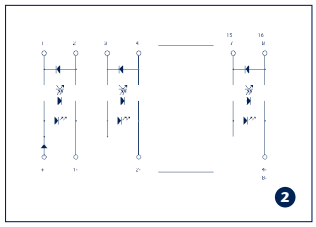
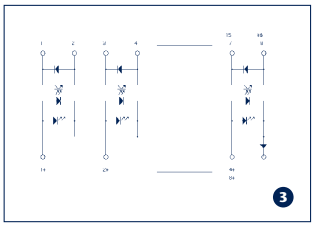
Opto-coupler modules OKI AC/DC

- Mount on TS 32/TS 35
- Screw connection
- LED for indication of switching status
- Suitable for DC and AC voltage
- OKI 4/230 AC with cover

	OKI 4/24 AC/DC 4 channels	OKI 8/24 AC/DC 8 channels	OKI 4/24 AC/DC G 4 channels	OKI 8/24 AC/DC G 8 channels	OKI 4/230 AC 4 channels
					
	Circuit diagram		Circuit diagram		
					
	1 Diagram	1 Diagram	2 Diagram	2 Diagram	1 Diagram
Type **Cat.No.**/Qty. p.pck.	**OKI 4/24 AC/DC** ***5960.3***/1	**OKI 8/24 AC/DC** ***5961.3***/1	**OKI 4/24 AC/DC G** ***5962.3***/1	**OKI 8/24 AC/DC G** ***5963.3***/1	**OKI 4/230 AC** ***5964.3***/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	87 x 48 x 57 mm
Weight	86 g	154 g	120 g	136 g	109 g
General information					
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, over-voltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, over-voltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, over-voltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, over-voltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, over-voltage category III
Test voltage	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
Insulation 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
Max. transmission frequency	3 Hz	3 Hz	3 Hz	3 Hz	3 Hz
Input data					
Input voltage ±10%	24 V AC/DC	24 V AC/DC	24 V AC/DC	24 V AC/DC	230 V AC
Rated power consumption	0,5 W/0.6 VA	0,5 W/0.6 VA	0,5 W/0.6 VA	0,5 W/0.6 VA	1.4 VA
Switching threshold, voltage	17.5 V DC/15.5 V AC	17.5 V DC/15.5 V AC	17.5 V DC/15.5 V AC	17.5 V DC/15.5 V AC	130 V AC
Switching threshold, current	8 mA DC/6 mA AC	8 mA DC/6 mA AC	8 mA DC/6 mA AC	8 mA DC/6 mA AC	0.5 mA AC
Output data					
Output voltage	5 to 48 V DC	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	< 1 V
Max. output current	100 mA	100 mA	100 mA	100 mA	100 mA
LED display	green	green	green	green	green

Opto-coupler modules OKI DC

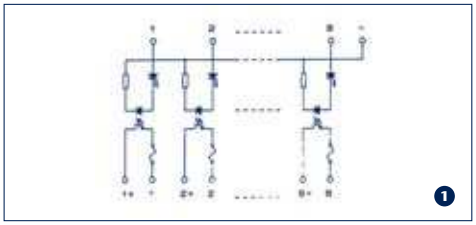
- Mount on TS 32/TS 35
- Screw connection
- LED for indication of switching status
- Other switching frequencies available on request

	OKI 4/5 4 channels	OKI 8/5 8 channels	OKI 4/24 4 channels	OKI 8/24 8 channels
				
Circuit diagram				
	Diagram	Diagram	Diagram	Diagram
Type **Cat. no.**/Qty. p.pck.	**OKI 4/5** ***5945.2***/1 ①	**OKI 8/5** ***5946.2***/1 ①	**OKI 4/24** ***5947.2***/1 ①	**OKI 8/24** ***5948.2***/1 ①
Type **- switched** **Cat. no.**/Qty. p.pck.	**OKI 4/5 + G** ***5950.3***/1 ②	**OKI 8/5 + G** ***5952.3***/1 ②	**OKI 4/24 + G** ***5954.3***/1 ②	**OKI 8/24 + G** ***5956.3***/1 ②
Type **+ switched** **Cat.No.**/Qty. p.pck.	**OKI 4/5 - G** ***5951.3***/1 ③	**OKI 8/5 - G** ***5953.3***/1 ③	**OKI 4/24 - G** ***5955.3***/1 ③	**OKI 8/24 - G** ***5957.3***/1 ③
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, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category 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
Insulation 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
Rated power consumption	45 mW	45 mW	0.3 W	0.3 W
Switching threshold, voltage	2 V DC	2 V DC	19 V DC	19 V DC
Switching threshold, current	0.6 mA	0.6 mA	5 mA	5 mA
Output 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

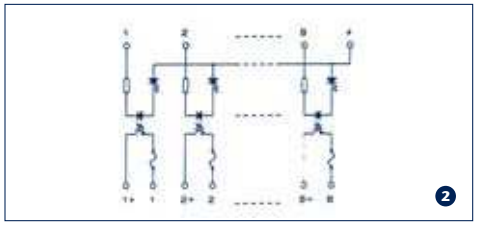
Solid-state output modules SSOIF

- Mount on TS 32/TS 35
- Screw connection
- LED for indication of switching status
- Modules are delivered without solid-state relay

Circuit diagram



Circuit diagram



	SSOIF 1	SSOIF 2	SSOIF 4	SSOIF 8	SSOIF 16
		Diagram	Diagram	Diagram	Diagram
Type **Cat. no.**/Qty. p.pck.	**SSOIF 1** **7783.2**/1				
Type **+ switched** **Cat. no.**/Qty. p.pck.		**SSOIF 2 +** **7784.2**/1 ①	**SSOIF 4 +** **7786.2**/1 ①	**SSOIF 8 +** **5970.3**/1 ①	**SSOIF 16 +** **7788.2**/1 ①
Type **- switched** **Cat.No.**/Qty. p.pck.		**SSOIF 2 -** **7785.2**/1 ②	**SSOIF 4 -** **7787.2**/1 ②	**SSOIF 8 -** **5971.3**/1 ②	**SSOIF 16 -** **7789.2**/1 ②
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, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category 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
Insulation 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 dependent from solid-state relay which is being used.				

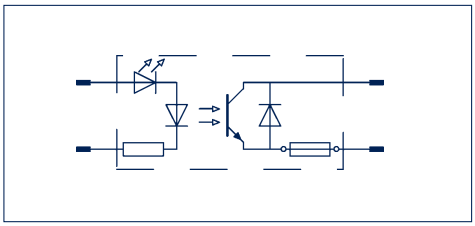
Solid-state relays OPTO 22

- Generation G4
- Pluggable
- Integrated LED for indication of switching status
- Removable fuse

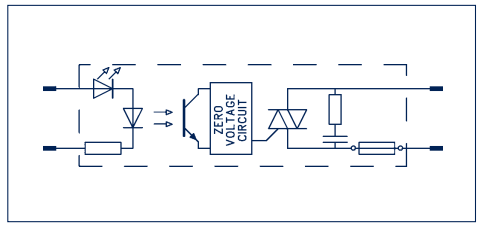
SSR

SSR

Circuit diagram



Circuit diagram

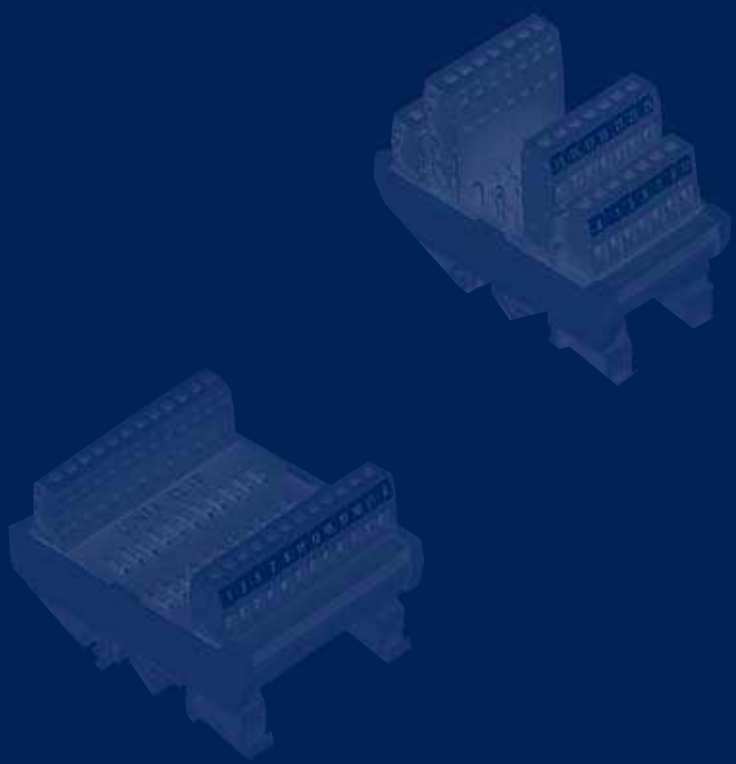


Type **Cat.No.**/Qty. p.pck.	**G 4 ODC 5** **5975.0**/1	**G 4 ODC 24** **5976.0**/1	**G 4 OAC 5** **5977.0**/1	**G 4 OAC 24** **5978.0**/1
Weight	27 g	27 g	27 g	27 g
Input data				
Logic pickup voltage	5 V (2.5 to 8 V)	24 V (18 to 32 V)	5 V (2.5 to 8 V)	24 V (18 to 32 V)
Logic dropout voltage	1 V	1 V	1 V	1 V
Rated current	12 mA	18 mA	12 mA	18 mA
Input resistance	220 Ohm	2.2 kOhm	220 Ohm	2.2 kOhm
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. surge current	5 A/1sec.	5 A/1sec.	80 A / ½ period	80 A / ½ period
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	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 period	< ½ period
Operating temperature range	-30 to +70°C	-30 to +70°C	-30 to +70°C	-30 to +70°C
LED display	red	red	red	red

Fuse, component, diode and indicator modules

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

These modules can be mounted with their combi-base on either the **TS32** or **TS35** mounting rails. They use a screw PCB terminal connection with a rated cross-section of 2.5 mm^2. Customer-specific descriptions can be attached using the standard **PMC** Pocket-Maxicard quick labeling system. The PMCs fit on labeling channels located on both sides of the orange-colored fitting trough.



Fuse, component, diode and indicator modules

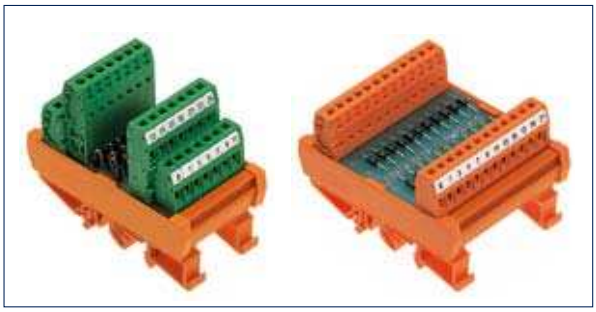
Fuse modules

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 5 x 20 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

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

Different components, such as diodes or diodes with resistors, can be connected in parallel or in series with 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.

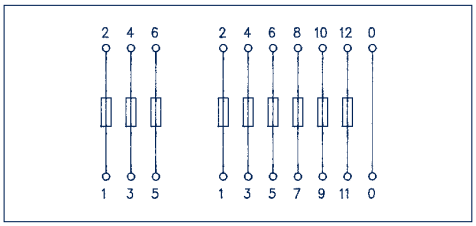
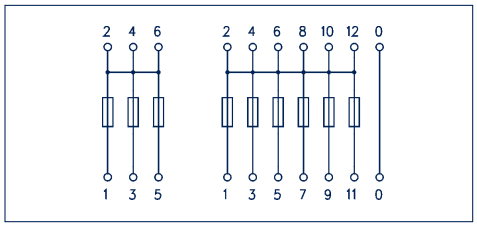
Lamp test modules

The **LPM** lamp test modules are for the detection and decoupling of group status messages. They serve as optical 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

- Mount on TS 32/TS 35
- Screw-clamp connection
- Modules delivered standard with 3 or 6 fuse inserts
- Suitable for 5x20 fuse cartridges
- The modules are available with individually wired fuse paths or as distributors with common feed-in

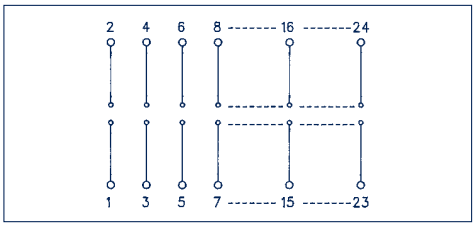
	SM E **Individually switchable**	**SM G** **Shared feed-in**
		
	Circuit diagram	Circuit diagram
		
Type **Cat. no.**/Qty. p.pck.	**SM 3-E** ***5712.2***/1	**SM 3-G** ***5716.2***/1
Size (L x W x H) with TS 35 x 7.5	87 x 24 x 77 mm	87 x 24 x 77 mm
Weight	51 g	51 g
Type **Cat. no.**/Qty. p.pck.	**SM 6-E** ***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, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Operating temperature	-20 to +50 °C	-20 to +50 °C
Insulation stripping length	7 mm	7 mm
Connection cross-section	0.2-2.5 mm^2	0.2-2.5 mm^2
Screw-clamp 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
Fuse (default)	6.3 A	6.3 A

Component modules BSM

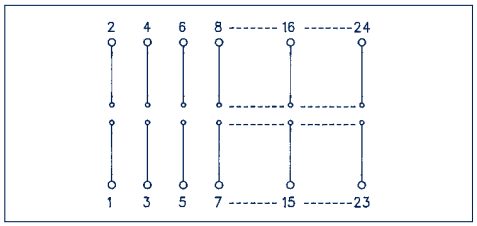
- Mount on TS 32/TS 35
- Screw-clamp connection
- Two rows of soldering pins for flexible assembly of components

BSM

Circuit diagram



Circuit diagram

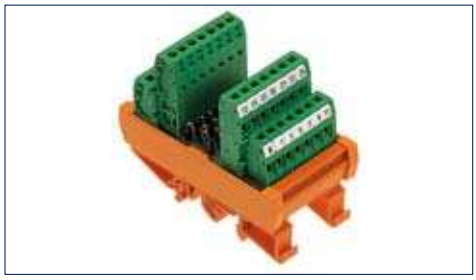
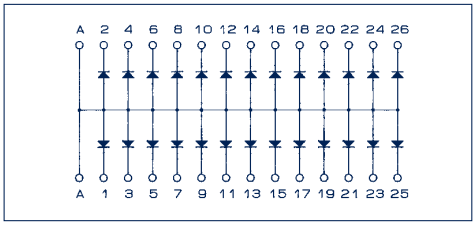
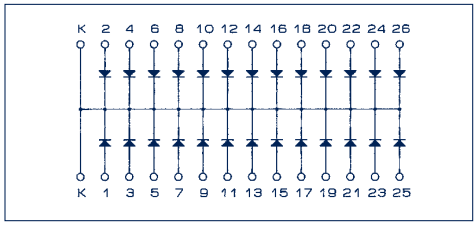


Type **Cat. no.**/Qty. p.pck.	**BSM 4** **6011.2**/1		
Size (L x W x H) with TS 35 x 7.5	87 x 27 x 57 mm		
Weight	45 g		
Number of solder pins	2 rows for 4 poles		
Type **Cat. no.**/Qty. p.pck.	**BSM 4/AD*** **6011.9**/1		
Size (L x W x H) with TS 35 x 7.5	87 x 27 x 57 mm		
Weight	62 g		
Number of solder pins	2 rows for 4 poles		
Type **Cat. no.**/Qty. p.pck.	**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. p.pck.	**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. p.pck.	**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. p.pck.	**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, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III
Operating temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Insulation 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-clamp connection	AWG 22-14	AWG 22-14	AWG 22-14
Input data			
Distance between pins	35 mm	35 mm	35 mm
Height of soldering pins	ca. 5 mm	ca. 5 mm	ca. 5 mm
Solder pin grid/pitch	5.08 mm	5.08 mm	5.08 mm
Max. operating voltage	250 V AC	250 V AC	250 V AC
Max. rated current	5 A	5 A	5 A

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

Diode modules DM

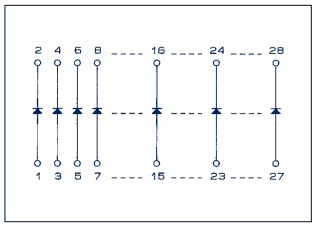
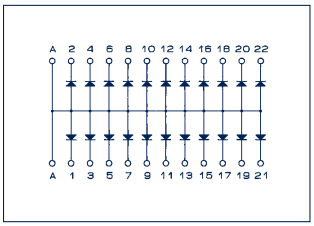
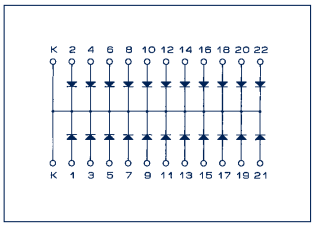
- Mount on TS 32/TS 35
- Screw-clamp connection
- Diode modules with through type diode circuits as well as diode gates with a common anode or cathode
- Applications are: reverse polarity protection, gathering and decoupling electrical signals, arc extinguishing when switching inductive loads

	DM 26-A	DM 26-K
		
	Circuit diagram	Circuit diagram
		
Type **Cat. no.**/Qty. p.pck.	**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. p.pck.	**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, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Operating temperature	-20 to +50°C	-20 to +50°C
Insulation stripping length	7 mm	7 mm
Connection cross-section	0.2-2.5 mm^2	0.2-2.5 mm^2
Screw-clamp connection	AWG 22-14	AWG 22-14
Input data		
Max. operating voltage	250 V AC/DC	250 V AC/DC
Diode reverse voltage	1,000 V	1,000 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

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

Diode modules DM

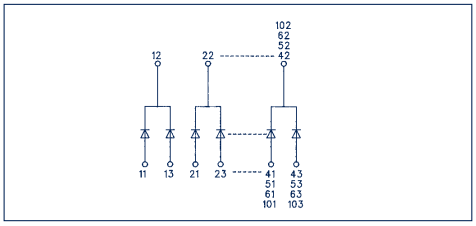
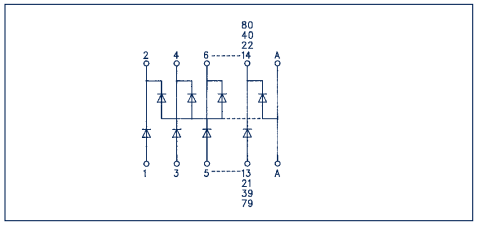
- Mount on TS 32/TS 35
- Screw-clamp connection
- Diode modules with through type diode circuits as well as diode gates with a common anode or cathode
- Applications are: reverse polarity protection, gathering and decoupling electrical signals, arc extinguishing when switching inductive loads

	DM	DM-A	DM-K
			
	Circuit diagram	Circuit diagram	Circuit diagram
			
Type **Cat. no.**/Qty. p.pck.	**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. p.pck.	**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. p.pck.	**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. p.pck.	**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. p.pck.	**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. p.pck.	**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. p.pck.	**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. p.pck.	**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, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III
Operating temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C
Insulation 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-clamp 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	1,000 V	1,000 V	1,000 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

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

Lamp test modules LPM

- Mount on TS 32/TS 35
- Screw-clamp 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.
- 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.

	LPM	LPM-A
		
	Circuit diagram	Circuit diagram
		
Type **Cat. no.**/Qty. p.pck.	**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. p.pck.	**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. p.pck.	**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. p.pck.	**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. p.pck.	**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. p.pck.	**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. p.pck.		**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. p.pck.		**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, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III
Operating temperature	-20 to +50 °C	-20 to +50 °C
Insulation stripping length	7 mm	7 mm
Connection cross-section	0.2-2.5 mm²	0.2-2.5 mm²
Screw-clamp connection	AWG 22-14	AWG 22-14
Input data		
Max. operating voltage	250 V AC/DC	250 V AC/DC
Diode reverse voltage	1,000 V	1,000 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

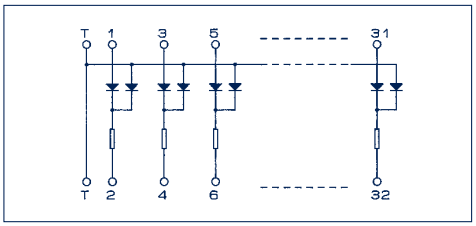
*When the operating voltage exceeds 30 V AC/60 V DC then AD modules must be used. Designs with other diode types are available upon request.

Lamp test modules LTRS

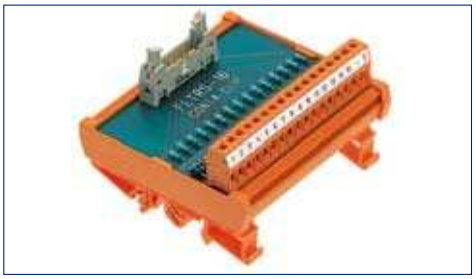
- Mount on TS 32/TS 35
- LTRS-16 modules have screw connections on the input and output sides. FLTRS-16 modules have a screw connection on the input side and a ribbon cable connection on the output side
- On the cathode side, the modules are connected with a resistor each

LTRS-16

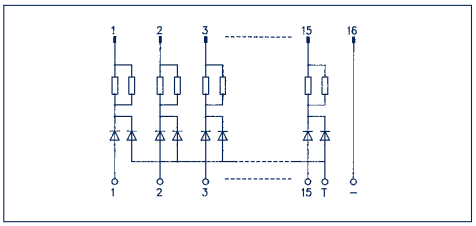
Circuit diagram



FLTRS-16



Circuit diagram

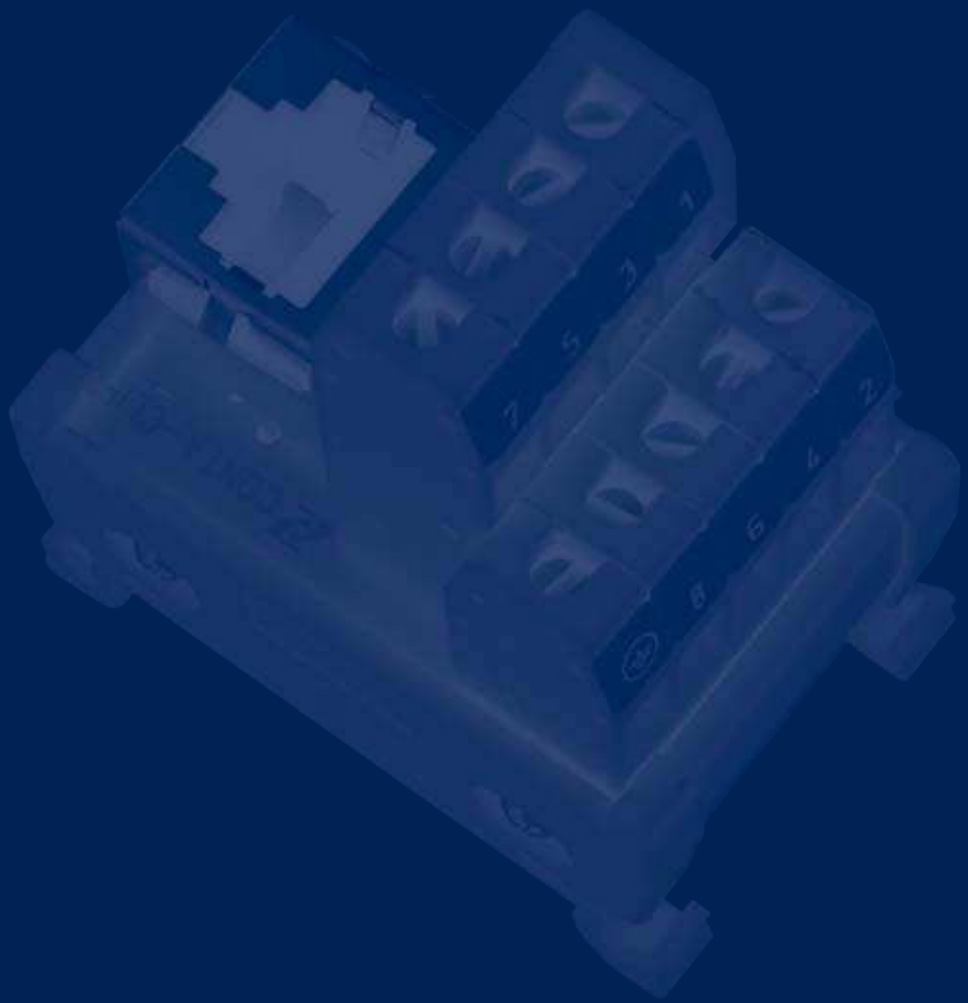


Type **Cat. no.**/Qty. p.pck.	**LTRS-16** **6320.2**/1	**FLTRS-16** **6004.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 94 x 57 mm	87 x 94 x 57 mm
Weight	147 g	130 g
General information		
DIN-VDE specifications	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III
Operating temperature	-20 to +50°C	-20 to +50°C
Insulation stripping length	7 mm	7 mm
Connection cross-section	0.2-2.5 mm²	0.2-2.5 mm²
Screw-clamp connection	AWG 22-14	AWG 22-14
Input data		
Max. operating voltage	24 V DC	24 V DC
Diode reverse voltage	1,000 V	1,000 V
Max. diode current	0.2 A	0.2 A
Total current per module	6 A through terminal "T"	6 A through terminal "16" and "-"
Diode type	1 N 4007	1 N 4007
Resistance*	2200 Ω/0.4 W	4700 Ω/0.4 W
Current through resistance, at 24 V DC	10 mA	5 mA
Flat ribbon connection	-	DIN 41651

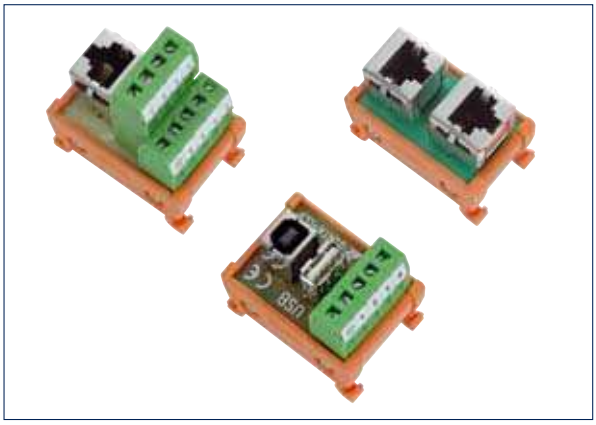
Interface Modules

Interface modules make it possible to use a passive mechanical-electrical implementation of standard connectors onto screw or tension-spring PCB terminals. The individual signals of the multi-pole or high-pole connectors are implemented one-to-one to the PCB – from 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 labeling, and their simple assembly on TS 32 or TS 35 rails, this system represents an attractive alternative to a pure individual wire approach.

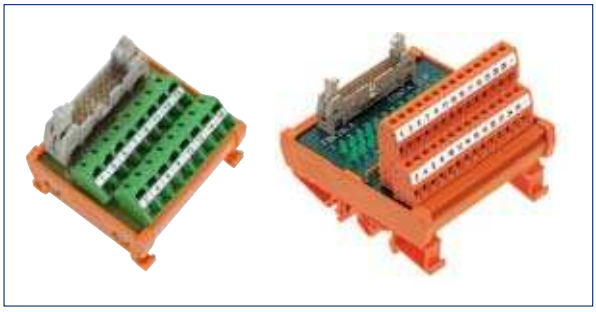


Interface Modules



RJ 45 and **USB modules** implement the standardized **RJ45/USB** connectors from 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.

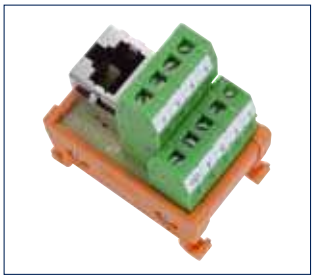
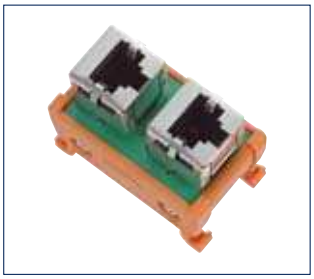
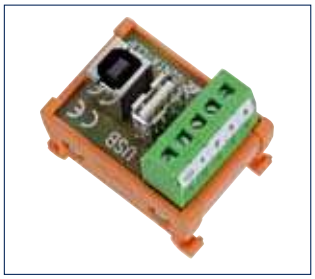
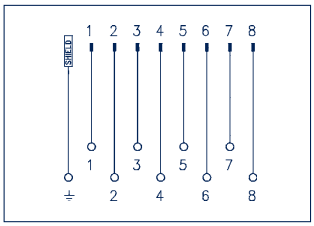
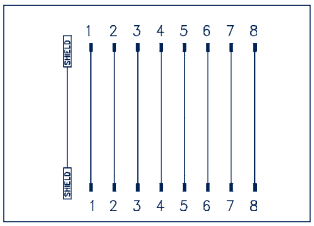
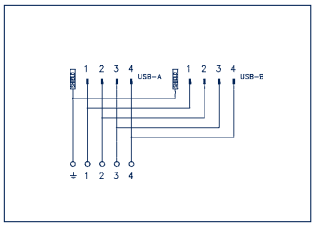


The **FBK modules** enable the implementation of pre-assembled cables with connectors (from 10 to 64 poles) according to IEC 603-1/DIN 41651, for use with screw or tension-spring PCB terminals. The **FBK-LA modules** also feature a LED status display.

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

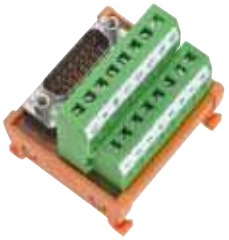
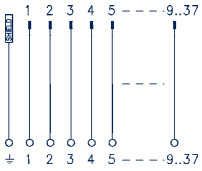
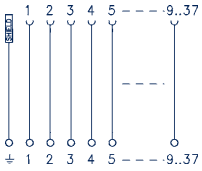
Interface modules RJ 45 USB

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

	RJ 45	RJS 45-RJS 45	USB-AB
			
	Circuit diagram	Circuit diagram	Circuit diagram
			
Type **Cat. no.**/Qty. p.pck.	**RJS 45 (shielded)** **15256.2**/1	**RJS 45-RJS 45 (shielded)** **15775.2**/1	**USB-AB** **15387.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 31 x 61 mm	27 x 47 x 44 mm	47 x 33 x 48 mm
Weight	76 g	30 g	32 g
Type **Cat. no.**/Qty. p.pck.	**RJU 45 (unshielded)** **15255.2**/1		
Size (L x W x H) with TS 35 x 7.5	47 x 31 x 61 mm		
Weight	76 g		
General information			
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category 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
Insulation stripping length	7 mm	-	7 mm
Connection cross-section	0.2-2.5 mm²	-	0.2-2.5 mm²
Screw-clamp connection	AWG 22-14	-	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
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
Enclosure	nylon, black, UL 94 V-0	nylon, black, UL 94 V-0	Glass-fiber reinforced polyester, UL 94 V-0
Category	CAT 3	CAT 5	-

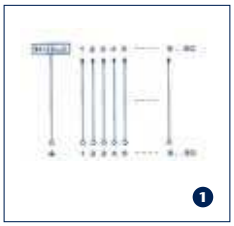
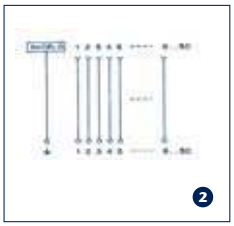
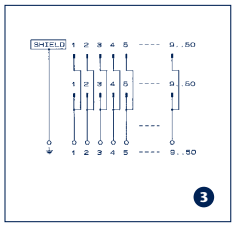
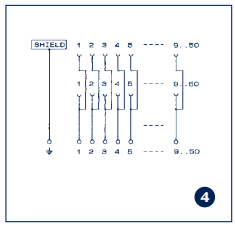
Interface modules SD...C

- Mount on TS 35
- D-subminiature into screw-clamp connection or on tension-spring connection (Z)
- D-subminiature connection according to MIL-C-24308/DIN 41652
- Module versions from 9 to 37 poles
- Male (S) / female (B) versions

	SD.. S... C	SD.. B... C
		
	Circuit diagram	Circuit diagram
		
	D-subminiature male plug	**D-subminiature female plug**
Type	**SD-S 9 C**	**SD-B 9 C**
Cat. no./Qty. p.pck.	**15292.2** / 1	**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	**SD-S 9 CZ**	**SD-B 9 CZ**
Cat. no./Qty. p.pck.	**15293.2** / 1	**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	**SD-S 15 C**	**SD-B 15 C**
Cat. no./Qty. p.pck.	**15296.2** / 1	**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	**SD-S 15 CZ**	**SD-B 15 CZ**
Cat. no./Qty. p.pck.	**15297.2** / 1	**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	**SD-S 25 C**	**SD-B 25 C**
Cat. no./Qty. p.pck.	**15300.2** / 1	**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	**SD-S 25 CZ**	**SD-B 25 CZ**
Cat. no./Qty. p.pck.	**15301.2** / 1	**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	**SD-S 37 C**	**SD-B 37 C**
Cat. no./Qty. p.pck.	**15304.2** / 1	**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	**SD-S 37 CZ**	**SD-B 37 CZ**
Cat. no./Qty. p.pck.	**15305.2** / 1	**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, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category 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)
Conductor cross-section	0.2-2.5 mm²	0.2-2.5 mm²
Connection	AWG 22-14	AWG 22-14
Connection data		
Status indication	-	-
Reverse polarity protection	-	-
Input voltage	125 V AC/DC	125 V AC/DC
Rated current	1.5 A	1.5 A
Male plug	D-subminiature acc. to MIL-C-24308 / DIN 41652	D-subminiature acc. to MIL-C-24308 / DIN 41652
Test voltage	0.67 kV eff.	0.67 kV eff.

Interface modules SD

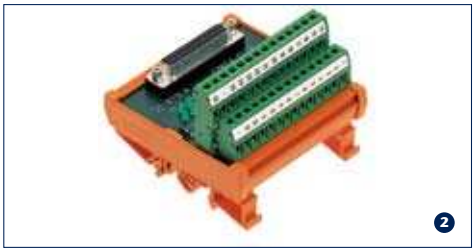
- Mount on TS 32/TS 35
- D-subminiature into screw-clamp connection
- D-subminiature connection according to MIL-C-24308/DIN 41652
- Module versions from 9 to 50 poles
- Male (S) / female (B) versions
- Width: 87 mm

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

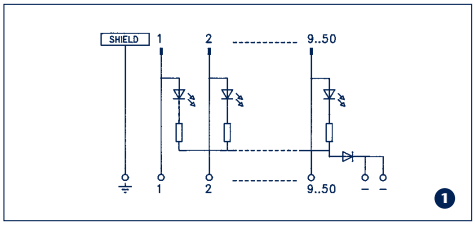
Interface modules SD

- Mount on TS 32/TS 35
- D-subminiature into screw-clamp connection
- D-subminiature connection according to MIL-C-24308/DIN 41652
- Module versions from 9 to 37 poles
- Male (S) / female (B) versions
- Width: 87 mm
- LED display

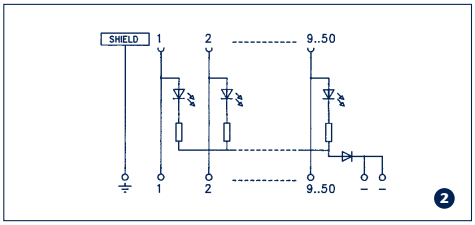
SD-LA
with illuminated display



Circuit diagram



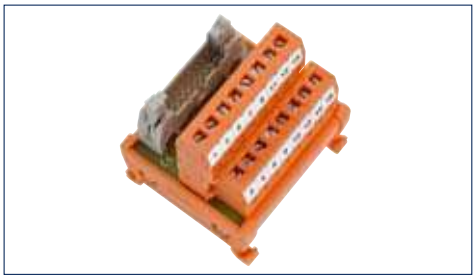
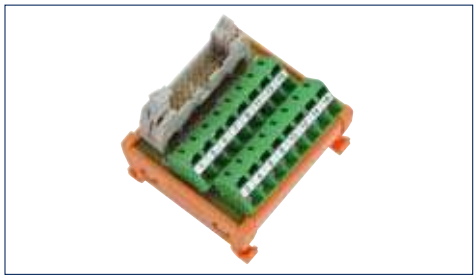
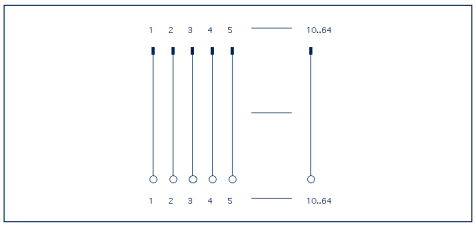
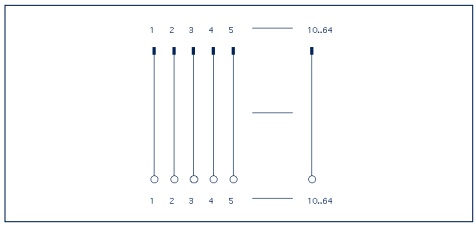
Circuit diagram



	D-subminiature male plug ❶
Type **Cat. no.**/Qty. p.pck.	**SD S 9 LA** **6520.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 41 x 72 mm
Weight	79 g
Type **Cat. no.**/Qty. p.pck.	**SD S 15 LA** **6521.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 56 x 72 mm
Weight	105 g
Type **Cat. no.**/Qty. p.pck.	**SD S 25 LA** **6135.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 83 x 72 mm
Weight	152 g
Type **Cat. no.**/Qty. p.pck.	**SD S 37 LA** **6522.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 112 x 72 mm
Weight	203 g
	D-subminiature female plug ❷
Type **Cat. no.**/Qty. p.pck.	**SD B 9 LA** **6524.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 41 x 72 mm
Weight	79 g
Type **Cat. no.**/Qty. p.pck.	**SD B 15 LA** **6525.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 56 x 72 mm
Weight	105 g
Type **Cat. no.**/Qty. p.pck.	**SD B 25 LA** **6136.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 83 x 72 mm
Weight	152 g
Type **Cat. no.**/Qty. p.pck.	**SD B 37 LA** **6526.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 112 x 72 mm
Weight	203 g
General information	
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Operating temperature	-20 to +50 °C
Insulation stripping length	7 mm
Connection	screw
Conductor cross-section	0.2-2.5 mm²
Connection	AWG 22-14
Connection data	
Status indication	green LED
Reverse polarity protection	diode 1 N 4007
Input voltage	24 V DC
Rated current	1 A
Male plug	D-subminiature connection acc. to MIL-C-24308/DIN 41652
Test voltage	0.67 kV eff.

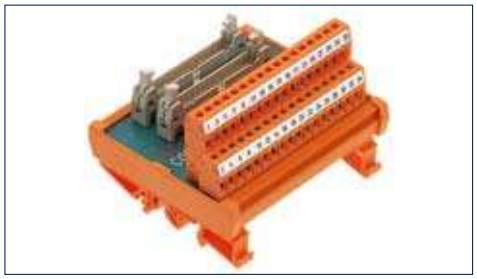
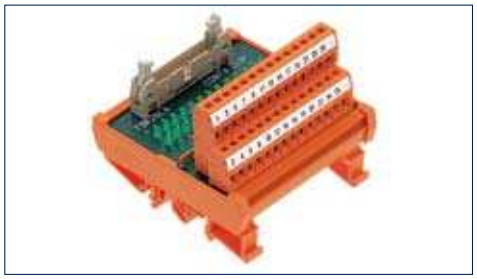
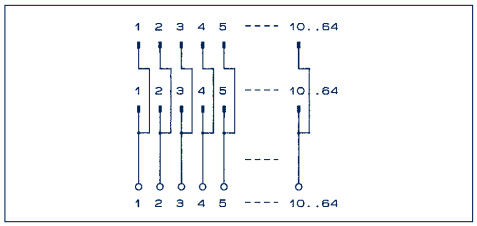
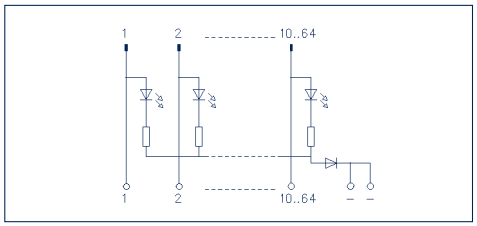
Interface modules FBK...C

- Mount on TS 35
- Flat ribbon cable into screw-clamp connection or on tension-spring connection (Z)
- Male plug connection according to DIN 41651
- Module versions from 10 to 64 poles
- Ejector mechanism
- Width: 47 mm

	FBK... C	FBK... CZ
		
	Circuit diagram	Circuit diagram
		
Type Cat. no./Qty. p.pck.	**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. p.pck.	**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. p.pck.	**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. p.pck.	**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. p.pck.	**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. p.pck.	**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. p.pck.	**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. p.pck.	**FBK 50C 15286.2**/1	**FBK 50CZ 15287.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 138 x 61 mm	47 x 138 x 38 mm
Weight	184 g	99 g
Type Cat. no./Qty. p.pck.	**FBK 60C 15288.2**/1	**FBK 60CZ 15289.2**/1
Size (L x W x H) with TS 35 x 7.5	47 x 169 x 61 mm	47 x 169 x 38 mm
Weight	222 g	122 g
Type Cat. no./Qty. p.pck.	**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, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Operating temperature	-20 to +50°C	-20 to +50°C
Insulation stripping length	7 mm	6 mm
Connection	Screw-clamp connection	Tension-spring connection
Connection cross-section	0.2-2.5 mm^2	0.2-2.5 mm^2
Connection	AWG 22-14	AWG 22-14
Input data		
Status indication	-	-
Reverse polarity protection	-	-
Input voltage	125 V AC/DC	125 V AC/DC
Rated current	1 A	1 A
Male plug	Flat ribbon cable connection EN 60603-13/DIN 41651	Flat ribbon cable connection EN 60603-13/DIN 41651
Test voltage	0.67 kV eff.	0.67 kV eff.

Interface modules FBK 2/FBK LA

- Mount on TS 35
- Flat ribbon cable into screw-clamp connection
- Male plug connection according to DIN 41651
- Module versions from 10 to 64 poles
- Ejector mechanism
- Width: 87 mm

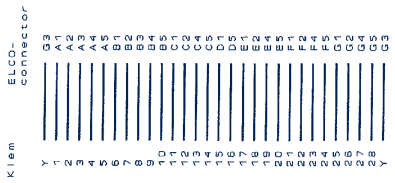
	FBK 2	FBK-LA with illuminated display
		
	Circuit diagram	Circuit diagram
		
Type Cat. no./Qty. p.pck.	**FBK 2-10 6113.2**/1	**FBK 10 LA 6501.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 38 x 72 mm	87 x 39 x 72 mm
Weight	72 g	82 g
Type Cat. no./Qty. p.pck.	**FBK 2-14 6114.2**/1	**FBK 14 LA 6502.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 46 x 72 mm	87 x 50 x 72 mm
Weight	89 g	99 g
Type Cat. no./Qty. p.pck.	**FBK 2-16 6115.2**/1	**FBK 16 LA 6503.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 51 x 72 mm	87 x 57 x 72 mm
Weight	95 g	105 g
Type Cat. no./Qty. p.pck.	**FBK 2-20 6116.2**/1	**FBK 20 LA 6504.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 63 x 72 mm	87 x 63 x 72 mm
Weight	115 g	125 g
Type Cat. no./Qty. p.pck.	**FBK 2-26 6117.2**/1	**FBK 26 LA 6505.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 77 x 72 mm	87 x 82 x 72 mm
Weight	140 g	150 g
Type Cat. no./Qty. p.pck.	**FBK 2-34 6118.2**/1	**FBK 34 LA 6506.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 96 x 72 mm	87 x 102 x 72 mm
Weight	175 g	181 g
Type Cat. no./Qty. p.pck.	**FBK 2-40 6119.2**/1	**FBK 40 LA 6507.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 113 x 72 mm	87 x 117 x 72 mm
Weight	200 g	210 g
Type Cat. no./Qty. p.pck.	**FBK 2-50 6120.2**/1	**FBK 50 LA 6508.2**/1
Size (L x W x H) with TS 35 x 7.5	87 x 138 x 72 mm	87 x 142 x 72 mm
Weight	240 g	250 g
Type Cat. no./Qty. p.pck.	**FBK 2-60 6121.2**/1	**FBK 60 LA 6509.2**/1
Size with mounting rail (mm) / L x W x H (TS 35)	87 x 173 x 72 mm	87 x 173 x 72 mm
Weight	280 g	290 g
Type Cat. no./Qty. p.pck.	**FBK 2-64 6122.2**/1	**FBK 64 LA 6510.2**/1
Size with mounting rail (mm) / L x W x H (TS 35)	87 x 173 x 72 mm	87 x 173 x 72 mm
Weight	300 g	310 g
General information		
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Operating temperature	-20 to +50°C	-20 to +50°C
Insulation stripping length	7 mm	7 mm
Connection	Screw-clamp connection	Tension-spring connection
Conductor cross-section	0.2-2.5 mm²	0.2-2.5 mm²
Connection	AWG 22-14	AWG 22-14
Input data		
Status indication	-	green LED
Reverse polarity protection	-	diode 1 N 4007
Input voltage	125 V AC/DC	24 V 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

- Mount on TS 32/TS 35
- ELCO plug connector into screw-clamp connection
- ELCO series 8027
- Angled connector position allows easy mounting of the cables
- "Left" and "right" versions are available

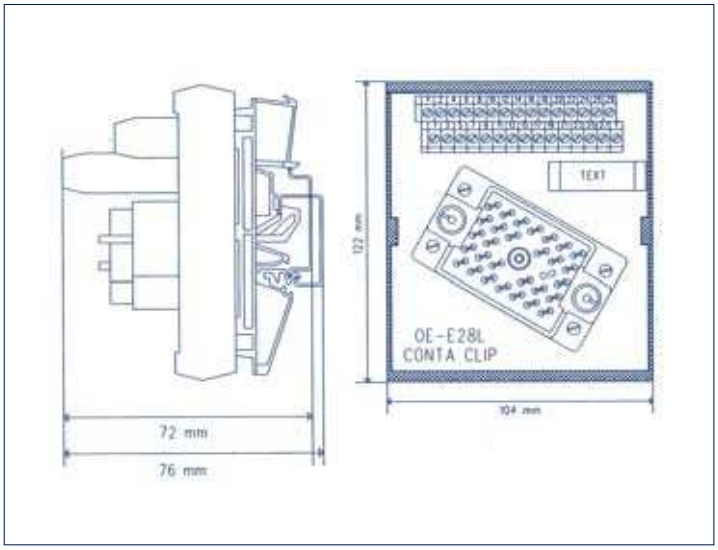
OE-E 28

Circuit diagram

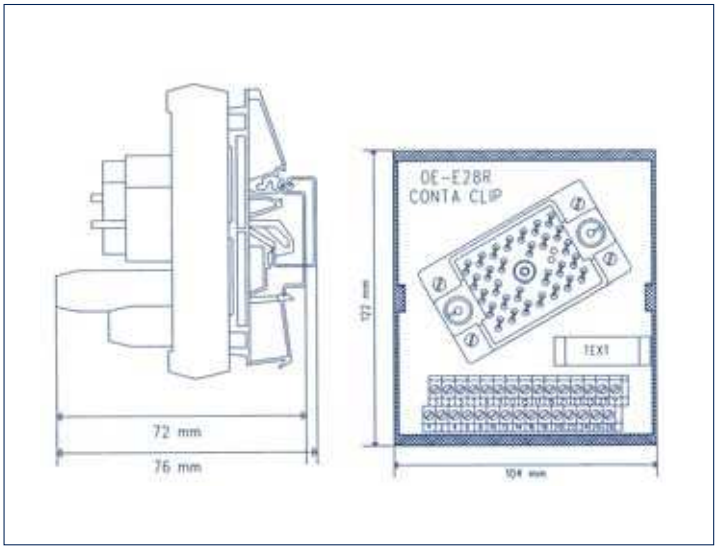


Type **Cat. no.**/Qty. p.pck.	**OE-E 28 L** **7799.2**/1	**OE-E 28 R** **7800.2**/1
Size (L x W x H) with TS 35 x 7.5	122 x 90 x 72 mm	122 x 90 x 72 mm
Weight	246 g	254 g
General information		
DIN-VDE specifications	DIN EN 50178: 1997, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178:1997, DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage	0.8 kV	0.8 kV
Operating temperature	-20 to +55 °C	-20 to +55 °C
Insulation stripping length	7 mm	7 mm
Connection	Screw-clamp connection	Screw-clamp connection
Conductor cross-section	0.2-2.5 mm²	0.2-2.5 mm²
Connection	AWG 22-14	AWG 22-14
Connection data		
Pin block and position	8027-030 left	8027-030 right
Pole count	28 + shield	28 + shield
Polarization code of male plug connector	1-1 (changeable)	1-1 (changeable)
Input voltage	250 V AC/DC	250 V AC/DC
Max. rated current per pole	2 A	2 A
Max. total current	28 A	28 A
Male plug	ELCO connection	ELCO connection
Clearance and creepage distances: ELCO plug	EN 50020/DIN VDE 0170/171 section 7	EN 50020/DIN VDE 0170/171 section 7
PCB	DIN VDE 0110	DIN VDE 0110

Module size



Module size

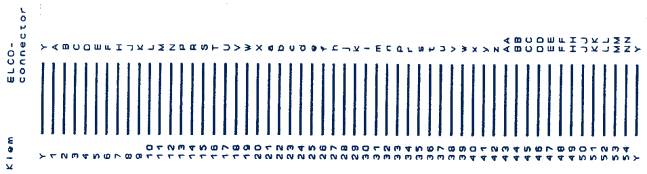


Interface modules OE-E

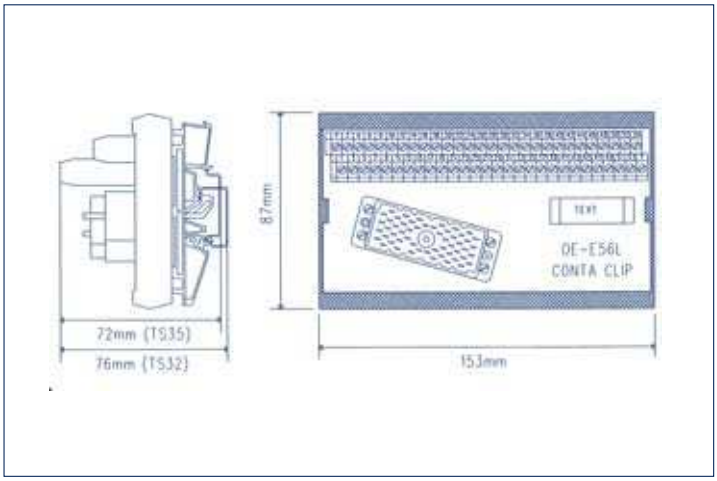
- Mount on TS 32/TS 35
- EDAC plug connector into screw-clamp connection
- The EDAC series 516 is 100% compatible to the ELCO 8016
- Angled connector position allows easy mounting of the cables
- "Left" and "right" versions are available

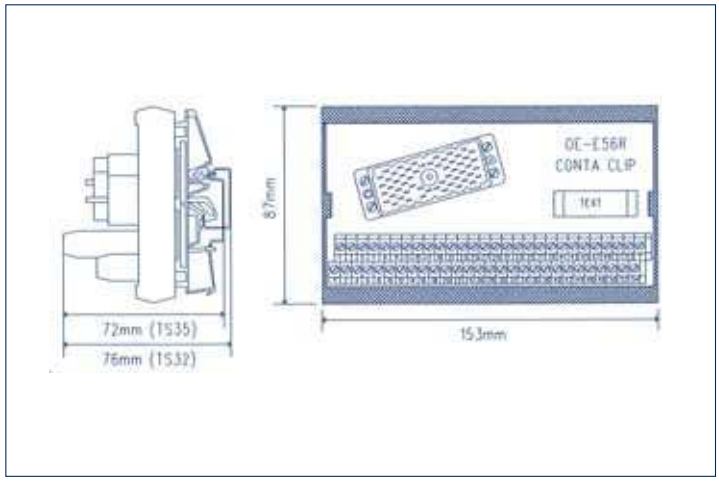
OE-E 38/E 56

Circuit diagram



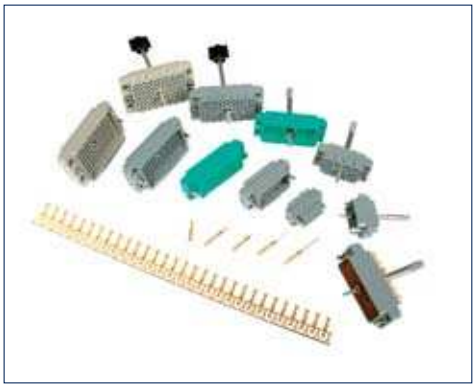
Type **Cat. no.**/Qty. p.pck.	**OE-E 38/36 L** **15351.2**/1	**OE-E 38/36 R** **15350.2**/1	**OE-E 56 L** **15090.2**/1	**OE-E 56 R** **15091.2**/1
Size (L x W x H) with TS 35 x 7.5	122 x 107 x 72 mm	122 x 107 x 72 mm	122 x 153 x 72 mm	122 x 153 x 72 mm
Weight	272 g	272 g	295 g	295 g
General information				
DIN-VDE specifications	DIN EN 50178:1997, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178:1997, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178:1997, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178:1997, DIN VDE 0110, pollution 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
Insulation stripping length	7 mm	7 mm	7 mm	7 mm
Connection	Screw-clamp connection	Screw-clamp connection	Screw-clamp connection	Screw-clamp connection
Conductor 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
Pole count	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 section 7	EN 50020/DIN VDE 0170/171 section 7	EN 50020/DIN VDE 0170/171 section 7	EN 50020/DIN VDE 0170/171 section 7
PCB	DIN VDE 0110	DIN VDE 0110	DIN VDE 0110	DIN VDE 0110





EDAC accessories

- These connectors can be used together with the EDAC interface modules (for example, the OE-E-56 L)
- The EDAC connectors are 100% compatible with the ELCO connectors
- Assembled cables are available on request



- Male and female connectors: 20, 38, 56 and 90 poles
- Contact connection via crimp, solder, and wire-wrap systems.
- Housing with side or top entry

Pole count	Socket box		Cat. no./Qty. p.pck.	Type
20 poles				
	Male plug with retaining screw		**15763.2**/25	**516-020-000-301**
	Male plug with nut, without contacts		**15326.2**/25	**516-020-000-302**
	Female plug with retaining screw, without contacts		**15764.2**/25	**516-020-000-401**
	Metal cover 90°		**15765.2**/25	**516-230-5-20**
38 poles				
	Male plug with retaining screw		**15311.2**/25	**516-038-000-301**
	Male plug with nut, without contacts		**15209.2**/25	**516-038-000-302**
	Female plug with retaining screw, without contacts		**15313.2**/25	**516-038-000-401**
	Metal cover 90°		**15312.2**/25	**516-230-5-38**
56 poles				
	Male plug with retaining screw		**15121.2**/25	**516-056-000-301**
	Male plug with nut, without contacts		**15327.2**/25	**516-056-000-302**
	Female plug with retaining screw, without contacts		**15119.2**/25	**516-056-000-401**
	Metal cover 90°		**15122.2**/25	**516-230-5-56**
90 poles				
	Male plug with nut, without contacts		**15364.2**/25	**516-090-000-302**
	Female plug with retaining screw, without contacts		**15403.2**/25	**516-090-000-401**
	Metal cover 90°		**15404.2**/25	**516-230-5-90**
Contacts				
	Crimp contacts	loose	**15329.2**/1000	**516-290-590**
	Crimp contacts	roll (1800 pc.)	**15118.2**/1	**516-290-591**
	Solder contacts	loose	**15328.2**/1000	**516-290-520**
	Wire-wrap contacts	loose	**15366.2**/1000	**516-290-540**
Tools				
	Extraction tool for contacts		**15434.2**/1	**516-280-300**
	Feed-in tool for crimp contacts		**15446.2**/1	**516-280-400**
	Screw driver for retaining screws		**15766.2**/1	**516-280-500**
	Crimping tool for contacts		**15423.2**/1	**516-280-201**

Notes

Converter Units

Whether it is in manufacturing, electrical machine and plant instrumentation, control engineering, power distribution, building automation, or process engineering – everywhere its 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-functional signal converters CMS

The **CML** signal converter was developed to convert analog and frequency-based signals from a field sensor to a standard signal for the controls in a switchgear cabinet. It is a multi-functional converter in a compact closed housing. All the common conversions are selectable directly on the component with DIP switches (current, voltage and frequency). An integrated three-way galvanic isolation separates the input and output circuits as well as the supply voltage. The module includes an additional digital output that can be used as an alarm indicator.

Signal conversion modules

The signal conversion modules offer a variety of conversion options in the standard open-mounting profile for TS 35 and TS 32 mounting rails. Possible conversions include voltage and current signals (**CAE/I, U**), potentiometric signals (**CAE/POT**), or temperature signals (**IPT 100**).

Program overview

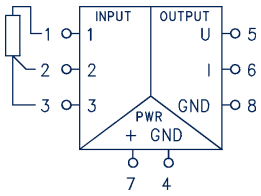
- Analog signal converter modules without galvanic isolation **CAE/I, U, CML**
- Analog signal converter modules with galvanic isolation **CAE/I, U/ G/ 230, CMS**
- Potentiometric modules **CAE/POT**
- Temperature converter units for **PT 100** and **PT 100-3** sensors, **CML**
- Analog signal converter units without external power supply **EG 3-SSW**

Temperature converter units CML

- Mount on TS 35
- Compact design, width: 6.2mm
- Screw-clamp connection
- Conversion of PT 100 3- or 2-wire sensor signal into standard analog signals
- Output: 0 to 10 V, 0 to 20 mA, or 4 to 20 mA
- Output signal is adjustable via DIP switch
- OFFSET and SPAN setting is always accessible
- Special temperature ranges available on request
- PT 500 and PT 1000 connections available on request

CML-PT 100-UI

Circuit diagram



DIPSWITCH SELECTION

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

X = Don't Care

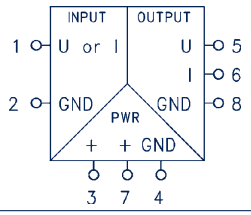
Type **Cat. no.**/Qty. p.pck.	**CML-PT 100-UI** **15752.2**/1
Temperature range	-50 to +50°C
Type **Cat. no.**/Qty. p.pck.	**CML-PT 100-UI** **15701.2**/1
Temperature range	0 to +100°C
Type **Cat. no.**/Qty. p.pck.	**CML-PT 100-UI** **15753.2**/1
Temperature range	0 to +200°C
Type **Cat. no.**/Qty. p.pck.	**CML-PT 100-UI** **15754.2**/1
Temperature range	0 to +300°C
Type **Cat. no.**/Qty. p.pck.	**CML-PT 100-UI** **15755.2**/1
Temperature range	0 to +400°C
Size (L x W x H) with TS 35 x 7.5	93.1 x 6.2 x 102.5 mm
Weight	66 g
Color	grey
General information	
DIN-VDE specifications	DIN EN 50178:1987; DIN VDE 0110 pollution degree 2, overvoltage category III
Electro-magnetic compatibility	CE compliant
Protection class	IP 20
Operating temperature	-20 to +55°C
Connection type	Screw-clamp connection
Insulation stripping length	12 mm
Conductor cross-section	0.2-2.5 mm^2
Screw-clamp connection	AWG 22-14
Conversion 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
Conductor resistance	< 100 Ω
Supply current for PT 100	0.8 mA
Remarks:	first adjust wire, then span
Remarks:	when a 2-wire sensor is being used, connected terminals 2 and 3
Output data	
Voltage of output signal	0 to 10 V (default)
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 (default 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

Voltage and current converter units CML

- Mount on TS 35
- Compact design, width: 6.2 mm
- Screw-clamp connection
- Conversion of a standard analog signal into another analog signal
- Input: 1 to 10 V, 0 to 20 mA, or 4 to 20 mA
- Output: 0 to 10 V, 0 to 20 mA, or 4 to 20 mA
- Input and output signal 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

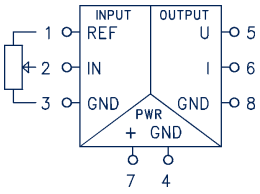
Type **Cat. no.**/Qty. p.pck.	**CML-UI-UI** **15643.2**/1
Size (L x W x H) with TS 35 x 7.5	93.1 x 6.2 x 102.5 mm
Weight	66 g
General information	
DIN-VDE specifications	DIN EN 50178:1987; DIN VDE 0110 pollution degree 2, overvoltage category III
Electro-magnetic compatibility	CE compliant
Protection class	IP 20
Operating temperature	-20 to +55 °C
Connection type	Screw-clamp/tension-spring connection
Insulation stripping length	12 mm / 8 mm
Conductor cross-section	0.2-2.5 mm²
Screw-clamp / tension-spring connection	AWG 22-14
Conversion 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 (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:	first adjust offset, then span
Output data	
Voltage of output signal	0 to 10 V (default)
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 (default 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.

Potentiometric converter units CML

- Mount on TS 35
- Compact design, width: 6.2 mm
- Screw-clamp connection
- Conversion of potentiometer signals into standard analog signals
- Suitable for 1 k to 20 k Ω potentiometer
- Output: 0 to 10 V, 0 to 20 mA, or 4 to 20 mA
- Output signal is 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

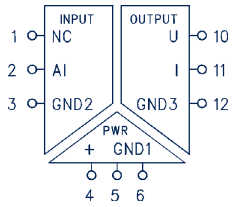
Type **Cat. no.**/Qty. p.pck.	**CML-POT-UI** **15641.2**/1
Size (L x W x H) with TS 35 x 7.5	93.1 x 6.2 x 102.5 mm
Weight	66 g
General information	
DIN-VDE specifications	DIN EN 50178:1987; DIN VDE 0110 pollution degree 2, overvoltage category III
Electro-magnetic compatibility	CE compliant
Protection class	IP 20
Operating temperature	-20 to +55 °C
Connection type	Screw-clamp/tension-spring connection
Insulation stripping length	12 mm / 8 mm
Conductor cross-section	0.2-2.5 mm^2
Screw-clamp / tension-spring connection	AWG 22-14
Conversion 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 potentiometer	
for OFFSET/SPAN adjustment	60%
Remarks:	first adjust offset, then span
Output data	
Voltage of output signal	0 to 10 V (default)
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 (default 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.

Multi-functional signal converter units CMS

- Mount on TS 35
- Compact design, width: 17.5 mm
- Three-way galvanic isolation
- Screw-clamp connection
- Multi-functional analog input (U-I)
- Multi-functional analog output (U-I)
- Output signal is adjustable via DIP switch
- Power supply: 24 VDC

CMS-UI-UI

Circuit diagram



Type **Cat. no.**/Qty. p.pck.	**CMS-UI-UI** **15650.2**/1
Size (L x W x H) with TS 35 x 7	99 x 17.5 x 114.5 mm
Weight	120 g
General information	
DIN-VDE specifications	DIN EN 50178:1987; DIN VDE 0110 pollution degree 2, overvoltage category III
Electro-magnetic compatibility	CE compliant
Operating temperature	0 to +55 °C
Connection type	Pluggable screw-clamp connection
Insulation stripping length	7 mm
Conductor cross-section	0.2-2.5 mm²
Screw-clamp connection	AWG 22-14
Conversion 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)	See table (default 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 signal (adjustable via DIP switch)	See table (default 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 mA

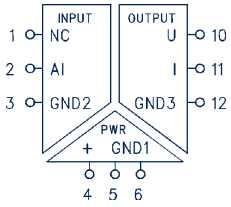
	Output						
	U (V)			**I (mA)**	mA	mA	mA
Input	0-10 V	0-5 V	1-5 V	0-5	0-10	0-20	4-20
U							
0... 1 V	x	x	x	x	x	x	x
0... 2 V	x	x	x	x	x	x	x
0... 2.5 V	x	x	x	x	x	x	x
0... 5 V	x	x	x	x	x	x	x
1... 5 V	x	x	x	x	x	x	x
0... 10 V	x	x	x	x	x	x	x
0... 20 V	x	x	x	x	x	x	x
0... 40 V	x	x	x	x	x	x	x
I							
0-5 mA	x	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-functional signal converter units CMS

- Mount on TS 35
- Compact design, width: 17.5 mm
- Three-way galvanic isolation
- Screw-clamp connection
- Multi-functional analog input (U-I)
- Multi-functional analog output (U-I)
- Output signal is adjustable via DIP switch
- Power supply: 24 VDC

CMS-UI60-UI

Circuit diagram



Type **Cat. no.**/Qty. p.pck.	**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 pollution degree 2, overvoltage category III
Electro-magnetic compatibility	CE compliant
Operating temperature	0 to +55 °C
Connection type	Pluggable screw-clamp connection
Insulation stripping length	7 mm
Conductor cross-section	0.2-2.5 mm²
Screw-clamp connection	AWG 22-14
Conversion 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)	See table (default 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 signal (adjustable via DIP switch)	See table (default 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 mA

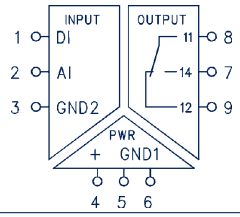
	Output						
	U (V)			**I (mA)**	mA	mA	mA
Input	0-10 V	0-5 V	1-5 V	0-5	0-10	0-20	4-20
U							
0... 60 mV	x	x	x	x	x	x	x
0... 100 mV	x	x	x	x	x	x	x
0... 200 mV	x	x	x	x	x	x	x
0... 300 mV	x	x	x	x	x	x	x
0... 500 mV	x	x	x	x	x	x	x
0... 1 V	x	x	x	x	x	x	x
0... 2 V	x	x	x	x	x	x	x
0... 2.5 V	x	x	x	x	x	x	x
0... 5 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-functional signal converter units CMS

- Mount on TS 35
- Compact design, width: 17.5 mm
- Three-way galvanic isolation
- Screw-clamp connection
- Multi-functional analog input (U-I)
- Relay output, 1 CO contact
- Output signal is 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. p.pck.	**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 pollution degree 2, overvoltage category III
Electro-magnetic compatibility	CE compliant
Operating temperature	0 to +55 °C
Connection type	Pluggable screw-clamp connection
Insulation stripping length	7 mm
Conductor cross-section	0.2-2.5 mm^2
Screw-clamp 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 signal (adjustable via DIP switch)	See table (default 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%
Function	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 life span at max. contact load	> 1.5 x 10^5
Mechanical life span	> 15 x 10^6
Test voltage coil/contact	4 KV

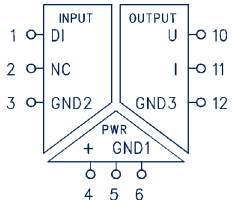
Input **U**	**Output** **Relay**
0... 1 V	x
0... 2 V	x
0... 2.5 V	x
0... 5 V	x
1... 5 V	x
0... 10 V	x
0... 20 V	x
0... 40 V	x
I	
0-5 mA	x
0-10 mA	x
0-20 mA	x
4-20 mA	x

Multi-functional signal converter units CMS

- Mount on TS 35
- Compact design, width: 17.5 mm
- Three-way galvanic isolation
- Screw-clamp connection
- Multi-functional frequency input
- Multi-functional analog output (U-I)
- Output signal is adjustable via DIP switch
- Power supply: 24 VDC

CMS-F-UI

Circuit diagram



Type **Cat. no.**/Qty. p.pck.	**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 pollution degree 2, overvoltage category III
Electro-magnetic compatibility	CE compliant
Operating temperature	0 to+55°C
Connection type	Pluggable screw-clamp connection
Insulation stripping length	7 mm
Conductor cross-section	0.2-2.5 mm²
Screw-clamp connection	AWG 22-14
Conversion 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)	See table (default 0 to 1.0 kHz)
Frequency range (adjustable via DIP switch)	1.0 Hz to 10.0 kHz
Sensor	2-wire, 3-wire PNP/NPN, NAMUR initiator, push-pull
Threshold / hysteresis	NAMUR: approx. 1.7 mA/ca. 0.2 mA; NPN: approx. 6.5 V/ca. 0.2 V; PNP: ca. 6.7 V/ca. 0.5 V
Resolution	0.1 mHz resp. 5 ppm from measured value
Output data	
Output signal	See table (default 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

	Output			
	U		I (mA)	mA
Input F	0-10 V	0-5 V	0-20	4-20
0... 1.0 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

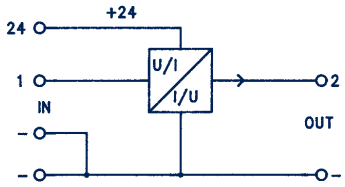
	Output			
	U		I (mA)	mA
Input F	0-10 V	0-5 V	0-20	4-20
0... 99 Hz	x	x	x	x
0... 100 Hz	x	x	x	x
0... 110 Hz	x	x	x	x
0... 990 Hz	x	x	x	x
0... 1,000 Hz	x	x	x	x
0... 1,100 Hz	x	x	x	x
0... 9,900 Hz	x	x	x	x
0... 10,000 Hz	x	x	x	x

Notes

Analog signal converter modules without galvanic isolation CAE

- Mount on TS 32/TS 35
- Screw-clamp connection
- Conversion of a standard analog signals without galvanic isolation

Circuit diagram

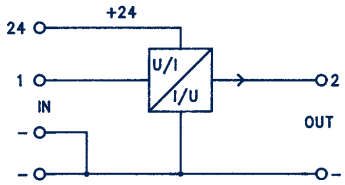


Type **Cat. no.**/Qty. p.pck.	**CAE / U-I / 0-10 mA** ***6751.2*** / 1	**CAE / U-I / 0-20 mA** ***6752.2*** / 1	**CAE / U-I / 4-20 mA** ***6753.2*** / 1
Size (L x W x H) with TS 35 x 7.5	87 x 25 x 73 mm	87 x 25 x 73 mm	87 x 25 x 73 mm
Weight	50 g	50 g	50 g
General information			
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Operating temperature	0 to +50°C	0 to +50°C	0 to +50°C
Insulation 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-clamp connection	AWG 22-14	AWG 22-14	AWG 22-14
Conversion 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

Analog signal converter modules without galvanic isolation CAE

- Mount on TS 32/TS 35
- Screw-clamp connection
- Conversion of a standard analog signals without galvanic isolation

Circuit diagram

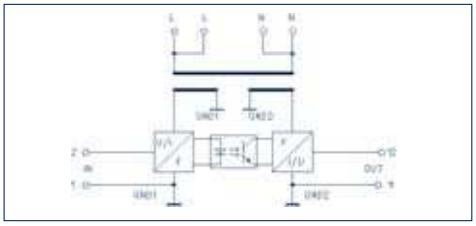


Type **Cat. no.**/Qty. p.pck.	**CAE / I-U / 0-10 mA** **6754.2** / 1	**CAE / I-U / 0-20 mA** **6755.2** / 1	**CAE / I-U / 4-20 mA** **6756.2** / 1
Size (L x W x H) with TS 35 x 7.5	87 x 25 x 73 mm	87 x 25 x 73 mm	87 x 25 x 73 mm
Weight	50 g	50 g	50 g
General information			
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Operating temperature	0 to +50°C	0 to +50°C	0 to +50°C
Insulation 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-clamp connection	AWG 22-14	AWG 22-14	AWG 22-14
Conversion 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

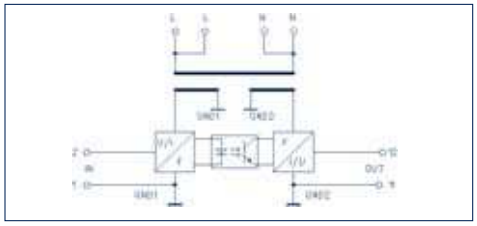
Analog signal converter modules with galvanic isolation CAE

- Mount on TS 32/TS 35
- Screw-clamp connection
- Conversion of a standard analog signals with galvanic isolation
- The power is supplied via a transformer with secondary separated coils

Circuit diagram



Circuit diagram



Type **Cat. no.**/Qty. p.pck.	**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, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178, DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage input-output	4 kV	4 kV	4 kV	4 kV
Operating temperature	0 to +50 °C	0 to +50 °C	0 to +50 °C	0 to +50 °C
Insulation 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-clamp connection	AWG 22-14	AWG 22-14	AWG 22-14	AWG 22-14
Conversion 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

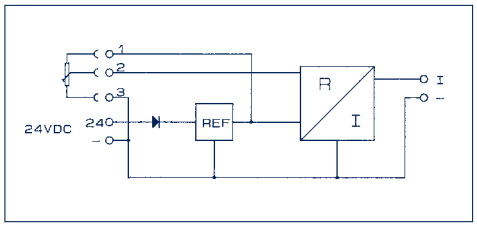
Potentiometric modules CAE/POT

- Mount on TS 32/TS 35
- Screw-clamp connection
- Conversion from potentiometer signal into a standard analog signal

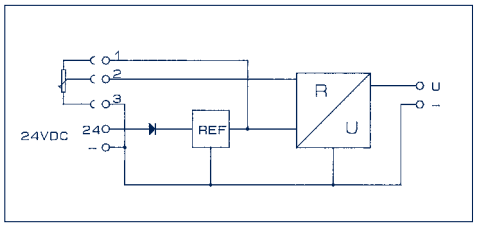
CAE/POT-I

CAE/POT-U

Circuit diagram



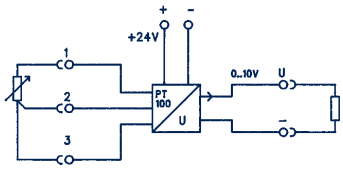
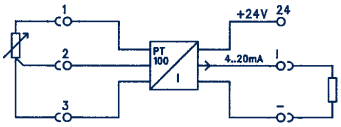
Circuit diagram



Type **Cat. no.**/Qty. p.pck.	**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, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Operating temperature	0 to +55 °C	0 to +55 °C
Insulation stripping length	7 mm	7 mm
Conductor cross-section	0.2-2.5 mm²	0.2-2.5 mm²
Screw-clamp connection	AWG 22-14	AWG 22-14
Conversion 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	60 %	60 %
OFFSET/SPAN adjustment		
Output data		
Output signal	(0) 4 to 20 mA	0 to 10 V
Load resistance	< 500 Ω	> 1 kΩ
Max. output voltage	-	12 V

Temperature converter units PT 100

- Mount on TS 32/TS 35
- Screw-clamp connection
- Conversion of PT 100 3-wire signals into standard analog signals
- Output: 0 to 10 V or 4 to 20 mA
- Special temperature ranges available on request

	PT 100-3/... /0-10	PT 100-3/... /4-20
		
	Circuit diagram	Circuit diagram
		
Type **Cat. no.**/Qty. p.pck.	**PT 100-3/0... 100/0-10** **8509.0** / 1	**PT 100-3/0... 100/4-20** **8507.0** / 1
Temperature range	0... 100°C	0... 100°C
Type **Cat. no.**/Qty. p.pck.	**PT 100-3/0 ... 200/0-10** **15029.2** / 1	**PT 100-3/0 ... 200/4-20** **15031.2** / 1
Temperature range	0... 200°C	0... 200°C
Type **Cat. no.**/Qty. p.pck.	**PT 100-3/0 ... 300/0-10** **6821.0** / 1	**PT 100-3/0 ... 300/4-20** **15032.2** / 1
Temperature range	0... 300°C	0... 300°C
Type **Cat. no.**/Qty. p.pck.	**PT 100-3/0 ... 400/0-10** **6442.2** / 1	**PT 100-3/0 ... 400/4-20** **15033.2** / 1
Temperature range	0... 400°C	0... 400°C
Type **Cat. no.**/Qty. p.pck.	**PT 100-3/-50 ... +50/0-10** **15028.2** / 1	**PT 100-3/-50 ... +50/4-20** **15030.2** / 1
Temperature range	-50... +50°C	-50... +50°C
Size (L x W x H) with TS 35 x 7.5	78 x 16.5 x 108 mm	78 x 16.5 x 108 mm
Weight	66 g	66 g
General information		
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Operating temperature	0 to +55°C	0 to +55°C
Insulation stripping length	7 mm	7 mm
Connection cross-section	0.2-2.5 mm²	0.2-2.5 mm²
Screw-clamp connection	AWG 22-14	AWG 22-14
Conversion error	< 0.4% of end value	< 0.4% of end value
Temperature coefficient	< 0.02% / K	< 0.02% / K
Power supply	24 V DC ± 10% / 40 mA	24 V DC ± 10% / 40 mA
Input data		
Input signal	PT 100 3-wire temperature sensor, DIN 47360	PT 100 3-wire temperature sensor, DIN 47360
Conductor resistance	< 100 Ω	< 100 Ω
Supply current for PT 100	0.8 mA	0.8 mA
Output data		
Output signal	0 to 10 V	4 to 20 mA
Load resistance	> 2 kΩ	< 500 Ω

Analog signal converter unit without external power supply EG 3-SSW

- Mount on TS 32/TS 35
- Screw-clamp connection
- Conversion of a standard analog signal value into a different value with galvanic isolation
- Without external power supply

EG 3-SSW

Circuit diagram

Type **Cat. no.**/Qty. p.pck.	**EG 3-SSW** **8391.0**/1
Size (L x W x H) with TS 35 x 7.5	87 x 22.5 x 84 mm
Weight	58 g
General information	
DIN-VDE specifications	DIN EN 50178; DIN VDE 0110, pollution degree 2, overvoltage category III
Test voltage input-output	500 V eff., 50 Hz, 1 min
Operating temperature	0 to +50°C
Insulation stripping length	7 mm
Connection cross-section	0.2-2.5 mm²
Screw-clamp connection	AWG 22-14
Conversion error	< 0.4% of end value
Temperature coefficient	< 0.02%/K
Input data	
Input signal	0 (4)... 20 mA
Max. input signal	18 V/50 mA restricted via Zener diode
Max. voltage drop	< 4 V
Uptake current	< 20 mA (typ. 5 mA)
Output data	
Output signal	0 (4) to 20 mA
Max. output signal	approx. 30 mA
Load resistance	< 600 Ω
Power supply	-

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 mounting rail.

Mounting rails TS
A wide variety of mounting rails are available, in two-meter lengths or as rail sections. They vary in shape, size and material. They fit on various rail types (C profile **TS 32**, Automatic profile **TS 35**), they are made from steel, copper or PVC, and are available in punched or unpunched versions.

End brackets ES/ZES
End brackets are necessary for fastening modules onto the mounting rail. They are put in at the beginning and at the end of the rail assembly. Depending on the mounting rail, they differ in the dimensions of the mounting foot and their screw-on or snap-on design.

Terminal markers / identification systems PMC
In electrical engineering, it is important to clearly label components and devices. For this reason we have designed the **PMC CONTA-CLIP** marking system. A printed version is available, as is a neutral one for individualized labeling.

Shield-connection clip SAB
The **SAB** shield-connection clip enables an unconventional but practical and quick connection between the cable shielding and the enclosure ground. The connections are low-ohm, and feature minimal inductive resistance. SAB clips come in various sizes and installation types.

Fuse elements SI
G fuses are available in the 5 x 20 and 6.3 x 32 sizes, and in the "slow-acting" and "fast" versions.

Device and installation markers Maxicard GS
This product line includes markers for devices and systems manufactured with the standard adhesive techniques. Available are neutral markers for marking with our plotter system EMS-2 or customised markers.

Adhesive device labels GKE
Device markers from **CONTA-CLIP** give clarity to the switchgear cabinet. They contribute to safety and aid in the quick identification of individual components. The **GKE** adhesive device labels come in three colors and in varying sizes. The high-quality polyester which we use guarantees a high level of resistance against solvents.

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 will also deliver the profiles according to your requirements. The profiles can be shortened freely, without rigid grid divisions. The individual fit of the enclosure profile to the electronics is thus guaranteed.

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**.

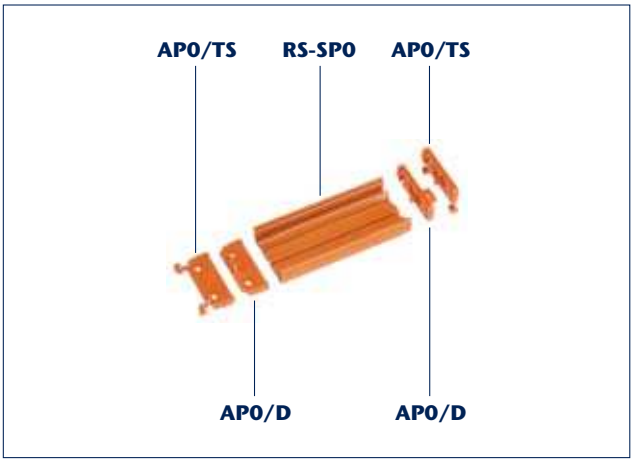
Transparent cover profiles for the **RS-SP 1** system are available as **AD 1** (low version) and **AD 2** (high version) in one-meter lengths. The **AP/AD 1** (low version) and **AP/AD 2** (high version) end plates serve as holders. They are fastened to the cover profile by using the BS-AD fastening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

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

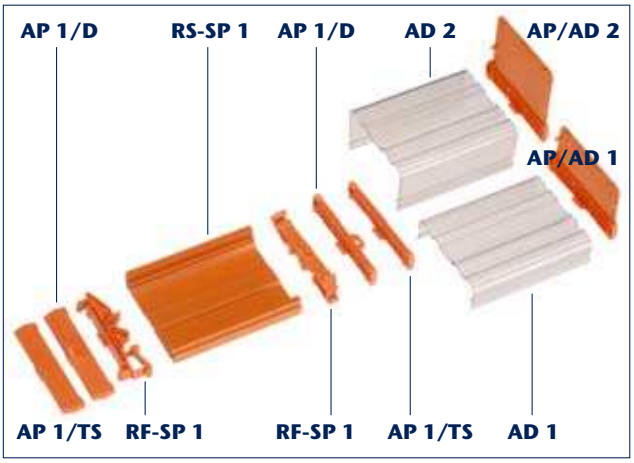
- **RS-SP** extruded profile (**RS-SP0; RS-SP 1; RS-SP 2** versions)
- **AP** end plates in varying versions:
  - AP/TS (RS-SPO) rail assembly on the TS 35 mounting rail RS-SP 1 and RS-SP 2 on TS 32/TS 35 rail
  - AP/D direct assembly
  - AP/AD 1 low version is for fastening the transparent AD 1 cover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

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

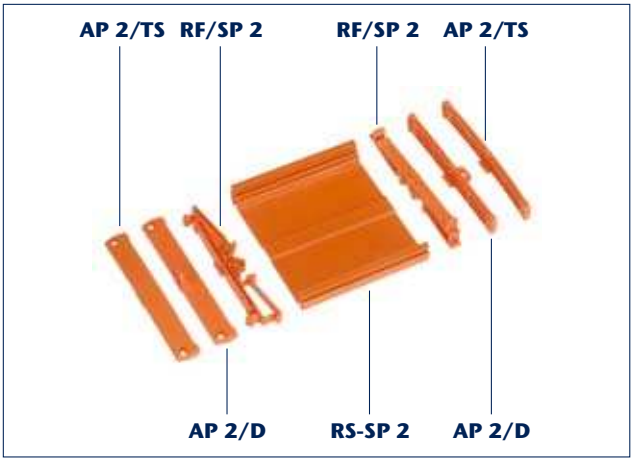
RS-SP0

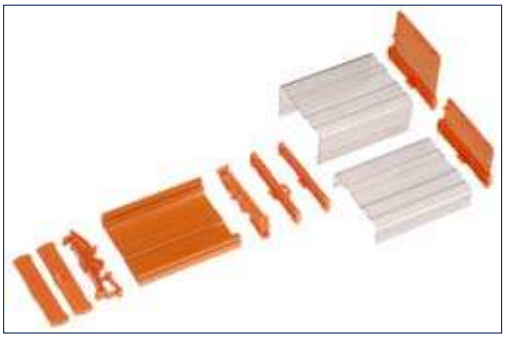


RS-SP 1



RS-SP 2



RS-SP locking-base system	RS-SP 0			RS-SP 1		
						
Individual parts	**Type**	**Cat. no.**	**Qty. p.pck.**	**Type**	**Cat. no.**	**Qty. p.pck.**
Extruded profile	**RS-SP 0 orange**	**5675.3**	1	**RS-SP 1 orange**	**5680.3**	1
End plate/rail mounted	**AP 0/TS orange**	**3133.3**	20	**AP 1/TS orange**	**5681.3**	20
End plate/directly mounted	**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
BS-RS fastening screws	**BS/RS**	**4560.0**	100	–	–	–
AD 1 cover profile	–	–	–	**AD 1**	**5893.0**	1
AD 2 cover profile	–	–	–	**AD 2**	**5894.0**	1
BS-AD fastening screws for cover profile	–	–	–	**BS/AD**	**2385.0**	100
Mounting foot for TS 32/35	–	–	–	**RF/SP 1 orange**	**5683.0**	20
Size	**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		

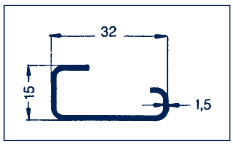
RS-SP locking-base system	RS-SP 2			
				
Individual parts	**Type**	**Cat. no.**	**Qty. p.pck.**	
Extruded profile	**RS-SP 2 orange**	**5690.3**	1	
End plate/rail mounted	**AP 2/TS orange**	**5691.3**	20	
End plate/directly mounted	**AP 2/D orange**	**5692.3**	20	
End plate for AD 1	–	–	–	
End plate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

Mounting rails TS

The design of the TS mounting rail complies with the following European norms: DIN EN 50045, 50022 and 50035.

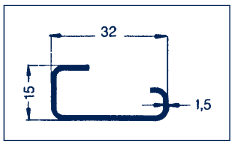
The mounting rails are delivered in two-meter lengths. All mounting rails are also available in prepared (cut to length) versions.

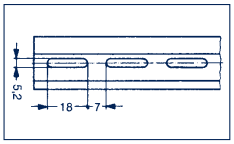
TS 32



Type	TS 32
Cat. no.	2025.0
Qty. p.pck.	2 m
Unpunched steel	

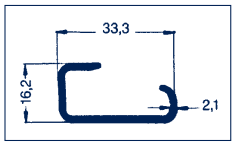
TS 32





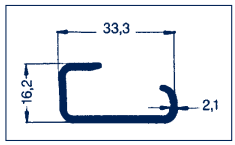
Type	TS 32
Cat. no.	2093.0
Qty. p.pck.	2 m
Punched steel	

TS 32



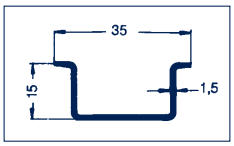
Type	TS 32
Cat. no.	2371.0
Qty. p.pck.	2 m
Unpunched copper	

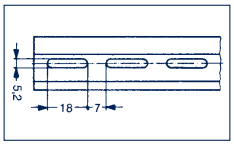
TS 32



Type	TS 32
Cat. no.	2370.0
Qty. p.pck.	2 m
Unpunched aluminum	

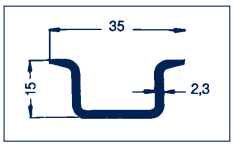
TS 35

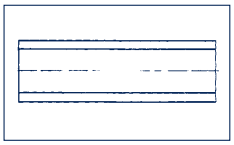




Type	TS 35x15
Cat. no.	2095.0
Qty. p.pck.	2 m
Punched steel	

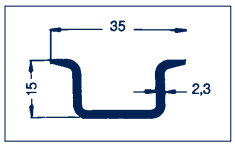
TS 35

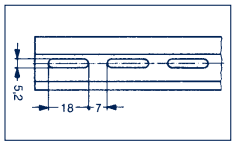




Type	TS 35x15/2.3
Cat. no.	2038.0
Qty. p.pck.	2 m
Unpunched steel	

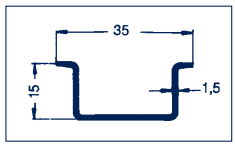
TS 35

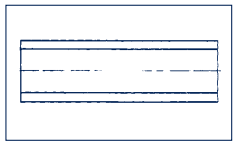




Type	TS 35x15/2.3
Cat. no.	2039.0
Qty. p.pck.	2 m
Punched steel	

TS 35

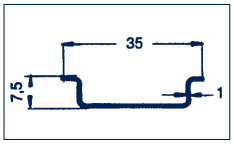


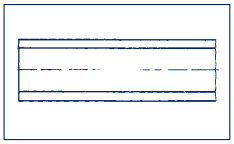


Type	TS 35x15
Cat. no.	4561.0
Qty. p.pck.	2 m
Steel unpunched/galvanized	

Mounting rails TS

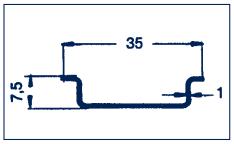
TS 35

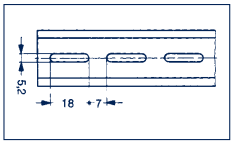




Type	TS 35x7.5
Cat. no.	2026.0
Qty. p.pck.	2 m
Unpunched steel	

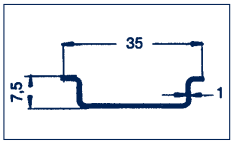
TS 35

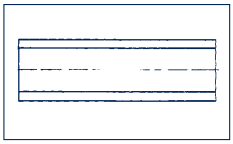




Type	TS 35x7.5
Cat. no.	2094.0
Qty. p.pck.	2 m
Punched steel	

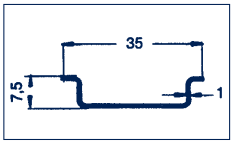
TS 35

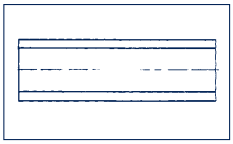




Type	TS 35x7.5
Cat. no.	2710.0
Qty. p.pck.	2 m
Unpunched aluminum	

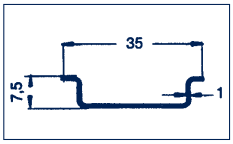
TS 35

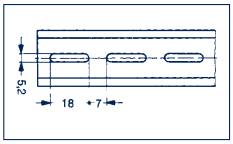




Type	TS 35x7.5
Cat. no.	4562.0
Qty. p.pck.	2 m
Steel unpunched/galvanized	

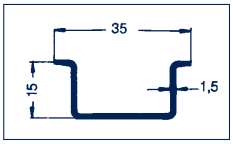
TS 35

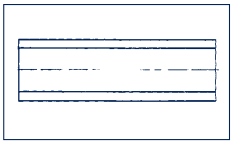




Type	TS 35x7.5
Cat. no.	4563.0
Qty. p.pck.	2 m
Steel unpunched/galvanized	

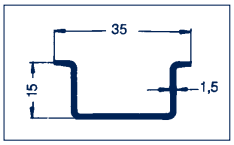
TS 35

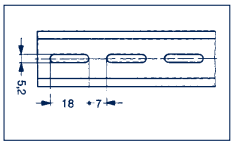




Type	TS 35x15
Cat. no.	2027.0
Qty. p.pck.	2 m
Unpunched steel	

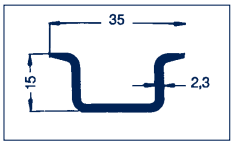
TS 35

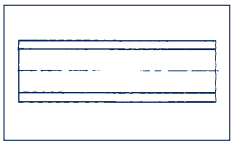




Type	TS 35x15
Cat. no.	4564.0
Qty. p.pck.	2 m
Steel unpunched/galvanized	

TS 35





Type	TS 35x15
Cat. no.	2372.0
Qty. p.pck.	2 m
Unpunched PVC	

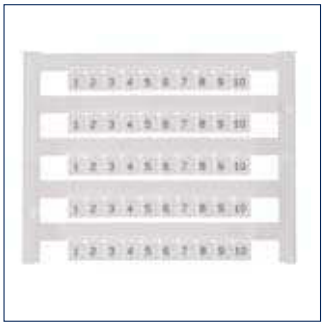
End brackets ES/ZES

TS 35 end brackets	ES 35 | TS 35	ES 35/2/K | TS 35	ES 35/K/ST | TS 35	ES 32/35 Combi TS 35
Insulation housing: polyamide 6.6 Mount on TS 35				
Dimensions (L x W x H)				
TS 35	46 x 7.5 x 32 mm	50 x 8 x 47 mm	50 x 9.5 x 44 mm	52 x 9.5 x 47 mm
Type				
Type	ES 35	ES 35/2/K	ES 35/K/ST	ES 32/35 Combi
Cat. no./Qty. p.pck.	**2005.2**/50	**2826.2**/50	**2828.0**/50	**1424.2**/50
Terminal width	7.5 mm	8 mm	9.5 mm	9.5 mm

TS 35 end brackets	ZES 35 | TS 35	ZES 35/2 | TS 35		
Insulation housing: polyamide 6.6 Mount on TS 35				
Dimensions (L x W x H)				
TS 35	59 x 6 x 39 mm	49 x 5 x 34 mm		
Type				
Type	ZES 35	ZES 35/2		
Cat. no./Qty. p.pck.	**3748.2**/50	**3811.2**/50		
Terminal width	6 mm	5 mm		

TS 32 end brackets	ES 32 | TS 32	ES 32/2/K | TS 32	ES 32/2/K/ST | TS 32	ES 32/35 Combi TS 32/TS 35
Insulation housing: polyamide 6.6 Mount on TS 32				
Dimensions (L x W x H)				
TS 32	27 x 7.5 x 44 mm	48 x 8 x 49 mm	50 x 9.5 x 44 mm	52 x 9.5 x 49 mm
Type				
Type	ES 32	ES 32/2/K	ES 32/K/ST	ES 32/35 Combi
Cat. no./Qty. p.pck.	**2004.2**/50	**2825.2**/50	**2827.0**/50	**1424.2**/50
Terminal width	7.5 mm	8 mm	9.5 mm	9.5 mm

Pocket-Maxicard pullout versions



PMC, printed example **FW** (consecutive horizontal)

PMC, printed example **FS** (consecutive vertical)

PMC, printed example **GW** (identical horizontal)

PMC, printed example **GS** (identical vertical)

Type	Cat. no.	Qty. p.pck.	Piece| card
PMC SB 5/50 neutral	**4600.7**	500	50
PMC SB 5/50 FW 1-10	**4601.7**	500	50
PMC SB 5/50 FW 11-20	**4602.7**	500	50
PMC SB 5/50 FW 21-30	**4603.7**	500	50
PMC SB 5/50 FW 31-40	**4604.7**	500	50
PMC SB 5/50 FW 41-50	**4605.7**	500	50
PMC SB 5/50 FW 51-60	**4606.7**	500	50
PMC SB 5/50 FW 61-70	**4607.7**	500	50
PMC SB 5/50 FW 71-80	**4608.7**	500	50
PMC SB 5/50 FW 81-90	**4609.7**	500	50
PMC SB 5/50 FW 91-100	**4610.7**	500	50
PMC SB 5/50 FW 1-50	**4611.7**	500	50
PMC SB 5/50 FW 51-100	**4612.7**	500	50
PMC SB 5/50 FW 101-150	**4613.7**	500	50
PMC SB 5/50 FW 151-200	**4614.7**	500	50
PMC SB 5/50 FW 201-250	**4615.7**	500	50
PMC SB 5/50 FW 251-300	**4616.7**	500	50
PMC SB 5/50 FW 301-350	**4617.7**	500	50
PMC SB 5/50 FW 351-400	**4618.7**	500	50
PMC SB 5/50 FW 401-450	**4619.7**	500	50
PMC SB 5/50 FW 451-500	**4620.7**	500	50
PMC SB 5/50 FW 501-550	**4621.7**	500	50
PMC SB 5/50 FW 551-600	**4622.7**	500	50
PMC SB 5/50 FW 601-650	**4623.7**	500	50
PMC SB 5/50 FW 651-700	**4624.7**	500	50
PMC SB 5/50 FW 701-750	**4625.7**	500	50
PMC SB 5/50 FW 751-800	**4626.7**	500	50
PMC SB 5/50 FW 801-850	**4627.7**	500	50
PMC SB 5/50 FW 851-900	**4628.7**	500	50
PMC SB 5/50 FW 901-950	**4629.7**	500	50
PMC SB 5/50 FW L1,L2,L3,N,PE	**4630.7**	500	50
PMC SB 5/50 FW U1,V1,W1,N,PE	**4631.7**	500	50
PMC SB 5/50 FW U1,V1,W1	**4632.7**	500	50
PMC SB 5/50 FW U2,V2,W2,N,PE	**4633.7**	500	50
PMC SB 5/50 FW U2,V2,W2	**4634.7**	500	50
PMC SB 5/50 FW X1-X10	**4635.7**	500	50
PMC SB 5/50 FS 1-10	**4636.7**	500	50
PMC SB 5/50 FS 11-20	**4637.7**	500	50
PMC SB 5/50 FS 21-30	**4638.7**	500	50
PMC SB 5/50 FS 31-40	**4639.7**	500	50
PMC SB 5/50 FS 41-50	**4640.7**	500	50
PMC SB 5/50 FS 51-60	**4641.7**	500	50
PMC SB 5/50 FS 61-70	**4642.7**	500	50
PMC SB 5/50 FS 71-80	**4643.7**	500	50
PMC SB 5/50 FS 81-90	**4644.7**	500	50
PMC SB 5/50 FS 91-100	**4645.7**	500	50
PMC SB 5/50 FS 1-50	**4646.7**	500	50
PMC SB 5/50 FS 51-100	**4647.7**	500	50
PMC SB 5/50 FS 101-150	**4648.7**	500	50
PMC SB 5/50 FS 151-200	**4649.7**	500	50
PMC SB 5/50 FS 201-250	**4650.7**	500	50
PMC SB 5/50 FS 251-300	**4651.7**	500	50
PMC SB 5/50 FS 301-350	**4652.7**	500	50
PMC SB 5/50 FS 351-400	**4653.7**	500	50
PMC SB 5/50 FS 401-450	**4654.7**	500	50
PMC SB 5/50 FS 451-500	**4655.7**	500	50
PMC SB 5/50 FS 501-550	**4656.7**	500	50
PMC SB 5/50 FS 551-600	**4657.7**	500	50
PMC SB 5/50 FS 601-650	**4658.7**	500	50
PMC SB 5/50 FS 651-700	**4659.7**	500	50
PMC SB 5/50 FS 701-750	**4660.7**	500	50
PMC SB 5/50 FS 751-800	**4661.7**	500	50

Type	Cat. no.	Qty. p.pck.	Piece| card
PMC SB 5/50 FS 801-850	**4662.7**	500	50
PMC SB 5/50 FS 851-900	**4663.7**	500	50
PMC SB 5/50 FS L1,L2,L3,N,PE	**4664.7**	500	50
PMC SB 5/50 FS U1,V1,W1,N,PE	**4665.7**	500	50
PMC SB 5/50 FS U1,V1,W1	**4666.7**	500	50
PMC SB 5/50 FS U2,V2,W2,N,PE	**4667.7**	500	50
PMC SB 5/50 FS U2,V2,W2	**4668.7**	500	50
PMC SB 5/50 FS X1-X10	**4669.7**	500	50
PMC SB 5/50 GW 1	**4670.7**	500	50
PMC SB 5/50 GW 2	**4671.7**	500	50
PMC SB 5/50 GW 3	**4672.7**	500	50
PMC SB 5/50 GW 4	**4673.7**	500	50
PMC SB 5/50 GW 5	**4674.7**	500	50
PMC SB 5/50 GW 6	**4675.7**	500	50
PMC SB 5/50 GW 7	**4676.7**	500	50
PMC SB 5/50 GW 8	**4677.7**	500	50
PMC SB 5/50 GW 9	**4678.7**	500	50
PMC SB 5/50 GW 0	**4679.7**	500	50
PMC SB 5/50 GW X	**4680.7**	500	50
PMC SB 5/50 GW PE	**4681.7**	500	50
PMC SB 5/50 GW L1	**4682.7**	500	50
PMC SB 5/50 GW L2	**4683.7**	500	50
PMC SB 5/50 GW L3	**4684.7**	500	50
PMC SB 5/50 GW N	**4685.7**	500	50
PMC SB 5/50 GS 1	**4686.7**	500	50
PMC SB 5/50 GS 2	**4687.7**	500	50
PMC SB 5/50 GS 3	**4688.7**	500	50
PMC SB 5/50 GS 4	**4689.7**	500	50
PMC SB 5/50 GS 5	**4690.7**	500	50
PMC SB 5/50 GS 6	**4691.7**	500	50
PMC SB 5/50 GS 7	**4692.7**	500	50
PMC SB 5/50 GS 8	**4693.7**	500	50
PMC SB 5/50 GS 9	**4694.7**	500	50
PMC SB 5/50 GS 0	**4695.7**	500	50
PMC SB 5/50 GS X	**4696.7**	500	50
PMC SB 5/50 GS PE	**4697.7**	500	50
PMC SB 5/50 GS L1	**4698.7**	500	50
PMC SB 5/50 GS L2	**4699.7**	500	50
PMC SB 5/50 GS L3	**4700.7**	500	50
PMC SB 5/50 GS N	**4701.7**	500	50
PMC SB 5/50 GS -	**4812.7**	500	50
PMC SB 5/50 GW -	**4813.7**	500	50
PMC SB 5/50 GW +	**4814.7**	500	50
PMC SB 5/50 FS 2,4,6-20	**4815.7**	500	50
PMC SB 5/50 FS 1,3,5-19	**4816.7**	500	50
PMC SB 5/50 FW 2,4,6-20	**4817.7**	500	50
PMC SB 5/50 FW 1,3,5-19	**4818.7**	500	50
PMC SB 5/50 custom print	**4819.7**	500	50
PMC BSTR 6/30 neutral	**9106.7**	300	30
PMC BSTR 6/30 custom print	**9107.7**	300	30
PMC BSTR 6/30 FW 1-10	**9108.7**	300	30
PMC BSTR 6/30 FW 11-20	**9109.7**	300	30
PMC BSTR 6/30 FW 21-30	**9110.7**	300	30
PMC BSTR 6/30 FW 31-40	**9111.7**	300	30
PMC BSTR 6/30 FW 41-50	**9112.7**	300	30
PMC BSTR 6/30 FW 51-60	**9113.7**	300	30
PMC BSTR 6/30 FW 61-70	**9114.7**	300	30
PMC BSTR 6/30 FW 71-80	**9115.7**	300	30
PMC BSTR 6/30 FW 81-90	**9116.7**	300	30
PMC BSTR 6/30 FW 91-100	**9117.7**	300	30
PMC BSTR 6/30 FW 1-30	**9118.7**	300	30
PMC BSTR 6/30 FW 31-60	**9119.7**	300	30

Type	Cat. no.	Qty. p.pck.	Piece| card
PMC BSTR 6/30 FW 61-90	**9120.7**	300	30
PMC BSTR 6/30 FW 91-120	**9121.7**	300	30
PMC BSTR 6/30 FW 121-150	**9122.7**	300	30
PMC BSTR 6/30 FW 151-180	**9123.7**	300	30
PMC BSTR 6/30 FW 181-210	**9124.7**	300	30
PMC BSTR 6/30 FW 211-240	**9125.7**	300	30
PMC BSTR 6/30 FW 241-270	**9126.7**	300	30
PMC BSTR 6/30 FW 271-300	**9127.7**	300	30
PMC BSTR 6/30 FW 301-330	**9128.7**	300	30
PMC BSTR 6/30 FW 331-360	**9129.7**	300	30
PMC BSTR 6/30 FW 361-390	**9130.7**	300	30
PMC BSTR 6/30 FW 391-420	**9131.7**	300	30
PMC BSTR 6/30 FW 421-450	**9132.7**	300	30
PMC BSTR 6/30 FW 451-480	**9133.7**	300	30
PMC BSTR 6/30 FW 481-510	**9134.7**	300	30
PMC BSTR 6/30 FW 511-540	**9135.7**	300	30
PMC BSTR 6/30 FW 541-570	**9136.7**	300	30
PMC BSTR 6/30 FW L1,L2,L3,N,PE	**9137.7**	300	30
PMC BSTR 6/30 FW U1, V1, W1, N, PE	**9138.7**	300	30
PMC BSTR 6/30 FW U1,V1,W1	**9139.7**	300	30
PMC BSTR 6/30 FW U2, V2, W2, N, PE	**9140.7**	300	30
PMC BSTR 6/30 FW U2,V2,W2	**9141.7**	300	30
PMC BSTR 6/30 FW X1-X10	**9142.7**	300	30
PMC BSTR 6/30 GW 1	**9177.7**	300	30
PMC BSTR 6/30 GW 2	**9178.7**	300	30
PMC BSTR 6/30 GW 3	**9179.7**	300	30
PMC BSTR 6/30 GW 4	**9180.7**	300	30
PMC BSTR 6/30 GW 5	**9181.7**	300	30
PMC BSTR 6/30 GW 6	**9182.7**	300	30
PMC BSTR 6/30 GW 7	**9183.7**	300	30
PMC BSTR 6/30 GW 8	**9184.7**	300	30
PMC BSTR 6/30 GW 9	**9185.7**	300	30
PMC BSTR 6/30 GW 0	**9186.7**	300	30
PMC BSTR 6/30 GW X	**9187.7**	300	30
PMC BSTR 6/30 GW PE	**9188.7**	300	30
PMC BSTR 6/30 GW L1	**9189.7**	300	30
PMC BSTR 6/30 GW L2	**9190.7**	300	30
PMC BSTR 6/30 GW L3	**9191.7**	300	30
PMC BSTR 6/30 GW N	**9192.7**	300	30
PMC BSTR 6/30 GW +	**9193.7**	300	30
PMC BSTR 6/30 GW -	**9194.7**	300	30

Additional terminal markers can be found in our **Conta-Label** marker and labeling catalog.

Shield-connection clip SAB

- Quick snap-on or mounting of the shield-connection clip
- Different cable cross-sections can be accommodated by the elastic nature of the spring
- Simple handling

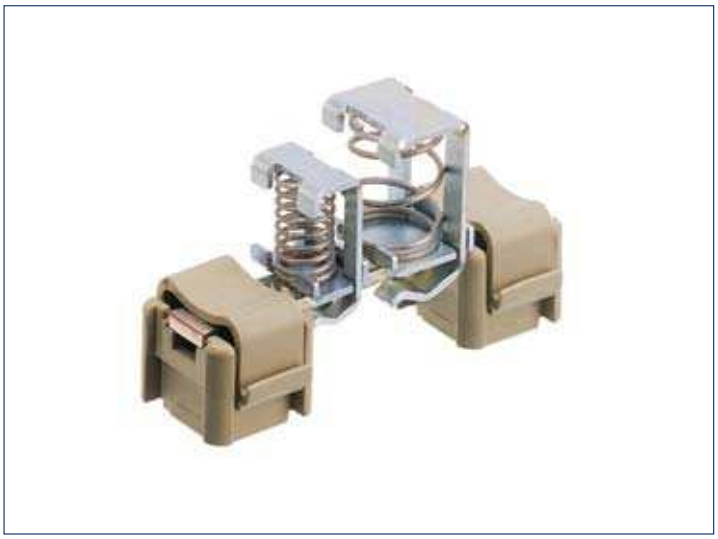
	SAB 8	SAB 13.5	SAB 20	SAB 8/D M5
				
				
Cat. no./Qty. p.pck.	SAB 8 **1527.0**/10	SAB 13.5 **1528.0**/10	SAB 20 **1529.0**/10	SAB 8/D M5 **1526.0**/10
	3-8 mm	4-13.5 mm	10-20 mm	3-8 mm
Cat. no./Qty. p.pck. SH/SAB busbar support	SH 1 **2318.2**/20	SH 1 **2318.2**/20	SH 1 **2318.2**/20	SH 1 **2318.2**/20
Cat. no./Qty. p.pack	SH/SAB **1530.2**/10	SH/SAB **1530.2**/10	SH/SAB **1530.2**/10	SH/SAB **1530.2**/10

General

In the field of industrial engineering, a high degree of interference immunity is required of electrical equipment. In measurement, regulation and control engineering, this is a significant factor in the accessibility of industrial systems. When constructing low-interference systems, cable shielding and the associated shielded ground are both of great significance.

The point where the cable shielding connects to the enclosure ground is a critical point. The connection should be low-ohm, and should also feature minimal inductive resistance.

You should be sure that this connection can be made in a practical, simple and quick manner. The **SAB** clip from **CONTA-CLIP** accomplishes all this with its distinguishing features.



For busbar mounting

Shield-connection clip SAB

SAB 8/D	SAB 13.5/D	SAB 20/D	SAB 8/F	SAB 13.5/F	SAB 20/F
					
SAB 8/D **1549.0**/10	SAB 13.5/D **1550.0**/10	SAB 20/D **1551.0**/10	SAB 8/F **1571.0**/10	SAB 13.5/F **1572.0**/10	SAB 20/F **1573.0**/10
3-8 mm	4-13.5 mm	10-20 mm	3-8 mm	4-13.5 mm	10-20 mm
SH 1 **2318.2**/20	SH 1 **2318.2**/20	SH 1 **2318.2**/20	SH 1 **2318.2**/20	SH 1 **2318.2**/20	SH 1 **2318.2**/20
SH/SAB **1530.2**/10	SH/SAB **1530.2**/10	SH/SAB **1530.2**/10	SH/SAB **1530.2**/10	SH/SAB **1530.2**/10	SH/SAB **1530.2**/10

SAB remarks

Depending on the length of the terminal blocks, two or more busbar supports are used. These mechanically connect the front busbar with the mounting rail (support).

After the connection of the cables, the shield-connection clip is mounted by simply swiveling in the **SAB** clip onto the busbar. The force on the cable comes from a spring-pressure piece. This regulated pressure ensures a constant optimal contact with the busbar. In cases where the cable shielding is not connected directly on the terminal block, but is somewhere else in the switchgear cabinet, then we recommend using the **SH 1** overlay blocks.

SAB.../D remarks

SAB.../D offers the possibility of direct installation. The **SAB.../D** can be installed with an M4 screw (included in delivery) directly to the mounting plate. The force on the cable comes from a spring-pressure piece. This regulated pressure ensures a constant optimal contact with the mounting plate.

The **SAB 8/D M5** shield-connection clip comes with a special feature; it is equipped with a self-cutting M5 SW3 metal screw. As a result, less time is required to mount the clip on the mounting plate, since you only need to drill one 4.2 mm hole through the plate. The hole threads will then be cut into the plate by the screw.

The SAB../F offers the possibility of assembly on a mounting rail. The **SAB../F** can be mounted directly to the rail with a fastening screw. The force on the cable comes from a spring-pressure piece. This regulated pressure ensures a constant optimal contact with the mounting rail.

Direct mounting

Mounting on mounting rail

Fuse elements SI

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

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

Melting time limits

Rated current	1.5 x In min.	1.5 x In max.	2.1 x In min.	2.1 x In max.	2.75 x In min.	2.75 x In max.	4 x In min.	4 x In max.	10 x In min.	10 x In max.
32 - 100 mA	1 h	2 min.	200 ms	10 s	40 ms	3 s	10 ms	300 s		
125mA - 10 A	1 h	2 min.	600 ms	10 s	150 ms	3 s	20 ms	300 s		

Type	Cat. no.	Rated current mA/A	Rated switch-off cap. A AC	Voltage drop mV	Power loss W	Melting integral A^2s	Qty. p.pck.
SI 0,032 A	**2912.0**	32 mA	35 'L'	3000	0.2	0.010	10
SI 0,040 A	**2913.0**	40 mA	35 'L'	2000	0.2	0.020	10
SI 0,050 A	**2914.0**	50 mA	35 'L'	1500	0.2	0.035	10
SI 0,063 A	**2915.0**	63 mA	35 'L'	1000	0.2	0.05	10
SI 0,080 A	**2916.0**	80 mA	35 'L'	800	0.2	0.12	10
SI 0,100 A	**2917.0**	100 mA	35 'L'	700	0.3	0.16	10
SI 0,125 A	**2918.0**	125 mA	35 'L'	600	0.3	0.24	10
SI 0,160 A	**2919.0**	160 mA	35 'L'	600	0.3	0.4	10
SI 0,200 A	**2920.0**	200 mA	35 'L'	500	0.3	0.7	10
SI 0,250 A	**2921.0**	250 mA	35 'L'	400	0.2	1.4	10
SI 0,315 A	**2922.0**	315 mA	35 'L'	140	0.2	0.35	10
SI 0,400 A	**2923.0**	400 mA	35 'L'	130	0.2	0.49	10
SI 0,500 A	**2924.0**	500 mA	35 'L'	120	0.2	0.9	10
SI 0,630 A	**2925.0**	630 mA	35 'L'	110	0.2	1.4	10
SI 0,800 A	**2926.0**	800 mA	35 'L'	100	0.3	3.2	10
SI 1,000 A	**2927.0**	1 A	35 'L'	90	0.3	6.5	10
SI 1,250 A	**2928.0**	1.25 A	35 'L'	80	0.3	5.0	10
SI 1,600 A	**2929.0**	1.6 A	35 'L'	80	0.4	10	10
SI 2,000 A	**2930.0**	2 A	35 'L'	80	0.5	20	10
SI 2,500 A	**2931.0**	2.5 A	35 'L'	80	0.6	26	10
SI 3,150 A	**2932.0**	3.15 A	35 'L'	80	0.6	44	10
SI 4,000 A	**2933.0**	4 A	40 'L'	80	0.8	72	10
SI 5,000 A	**2934.0**	5 A	50 'L'	80	1.2	130	10
SI 6,300 A	**2935.0**	6.3 A	63 'L'	70	1.3	230	10
SI 8,000 A	**2936.0**	8 A	80 'L'	70	1.8	240	10
SI 10,00 A	**2937.0**	10 A	100 'L'	70	2.4	380	10

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

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

Melting time limits

Rated current	1.5 x In min.	1.5 x In max.	2.1 x In min.	2.1 x In max.	2.75 x In min.	2.75 x In max.	4 x In min.	4 x In max.	10 x In min.	10 x In max.
32 - 100 mA	1 h	30 min.	10 ms	500 ms	3 ms	100 ms	-	300 s		
125 mA - 10 A	1 h	30 min.	50 ms	2 s	10 ms	300 ms	-	300 s		
8-10 A	1h	30 min.	50 ms	2 s	10 ms	400 ms	-	300 s		

Type	Cat. no.	Rated current mA/A	Rated switch-off cap. A AC	Voltage drop mV	Power loss W	Melting integral A^2s	Qty. p.pck.
SI 0,032 A	**2891.0**	32 mA	35 'L'	10000	0.8	0.0001	10
SI 0,040 A	**2892.0**	40 mA	35 'L'	8000	0.8	0.0002	10
SI 0,050 A	**2893.0**	50 mA	35 'L'	3500	0.4	0.0004	10
SI 0,063 A	**2894.0**	63 mA	35 'L'	3500	0.5	0.0007	10
SI 0,080 A	**2895.0**	80 mA	35 'L'	2500	0.5	0.0017	10
SI 0,100 A	**2896.0**	100 mA	35 'L'	2200	0.6	0.0022	10
SI 0,125 A	**2897.0**	125 mA	35 'L'	350	0.2	0.01	10
SI 0,160 A	**2898.0**	160 mA	35 'L'	310	0.2	0.02	10
SI 0,200 A	**2899.0**	200 mA	35 'L'	290	0.2	0.037	10
SI 0,250 A	**2900.0**	250 mA	35 'L'	280	0.3	0.073	10
SI 0,315 A	**2901.0**	315 mA	35 'L'	230	0.3	0.16	10
SI 0,400 A	**2902.0**	400 mA	35 'L'	200	0.3	0.31	10
SI 0,500 A	**2903.0**	500 mA	35 'L'	160	0.3	0.16	10
SI 0,630 A	**2904.0**	630 mA	35 'L'	140	0.3	0.39	10
SI 0,800 A	**2905.0**	800 mA	35 'L'	130	0.4	0.8	10
SI 1,000 A	**2406.0**	1 A	35 'L'	130	0.5	1.5	10
SI 1,250 A	**2906.0**	1.25 A	35 'L'	120	0.6	2.0	10
SI 1,600 A	**2907.0**	1.6 A	35 'L'	120	0.7	4.1	10
SI 2,000 A	**2407.0**	2 A	35 'L'	120	0.	6.2	10
SI 2,500 A	**2908.0**	2.5 A	35 'L'	120	1.0	11	10
SI 3,150 A	**2909.0**	3.15 A	35 'L'	120	1.2	20	10
SI 4,000 A	**2408.0**	4 A	40 'L'	100	1.4	25	10
SI 5,000 A	**2938.0**	5 A	50 'L'	100	1.7	42	10
SI 6,300 A	**2409.0**	6.3 A	63 'L'	100	2.0	79	10
SI 8,000 A	**2910.0**	8 A	80 'L'	100	2.2	125	10
SI 10,00 A	**2911.0**	10 A	100 'L'	100	2.4	220	10

Fuse elements SI

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

Construction:
- Transparent glass tube
- Nickel-plated copper contact caps

Melting time limits

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

Type	Cat. no.	Rated current mA/A	Rated switch-off cap. A AC	Voltage drop mV	Power loss W	Melting integral A^2s	Qty. p.pck.
SI 0,100 A/32 F	**4950.0**	100 mA		3600	1.3	0.050	10
SI 0,125 A/32 F	**4951.0**	125 mA		3400	1.4	0.080	10
SI 0,160 A/32 T	**4952.0**	160 mA		3000	1.5	0.12	10
SI 0,200 A/32 T	**4953.0**	200 mA	1.5 kA	2500	1.60	0.20	10
SI 0,250 A/32 T	**4954.0**	250 mA		2000	1.7	0.35	10
SI 0,315 A/32 T	**4955.0**	315 mA	@ 500 V AC	1800	1.8	0.50	10
SI 0,400 A/32 T	**4956.0**	400 mA		1600	2.0	0.80	10
SI 0,500 A/32 T	**4957.0**	500 mA	cos φ = 1	450	0.6	0.35	10
SI 0,630 A/32 T	**4958.0**	630 mA		400	0.7	0.49	10
SI 0,800 A/32 T	**4959.0**	800 mA		350	0.80	0.9	10
SI 1,000 A/32 T	**4960.0**	1 A		350	0.9	1.4	10
SI 1,250 A/32 T	**4961.0**	1.25 A	10 kA @ 400 V AC	300	1.0	3.2	10
SI 1,600 A/32 T	**4962.0**	1.6 A		200	1.1	5.2	10
SI 2,000 A/32 T	**4963.0**	2 A	cos φ = 0.3	180	1.2	10	10
SI 2,500 A/32 T	**4964.0**	2.5 A		160	1.3	19	10
SI 3,150 A/32 T	**4965.0**	3.15 A		150	1.4	37	10
SI 4,000 A/32 T	**4966.0**	4 A		140	1.5	68.0	10
SI 5,000 A/32 T	**4967.0**	5 A		135	2.2	80	10
SI 6,300 A/32 T	**4968.0**	6.3 A		110	2.2	215	10
SI 8,000 A/32 T	**4969.0**	8 A		110	2.6	370	10
SI 10,000 A/32 T	**4970.0**	10 A		100	3.0	620	10

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

Construction:
- Transparent glass tube
- Nickel-plated copper contact caps

Melting time limits

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

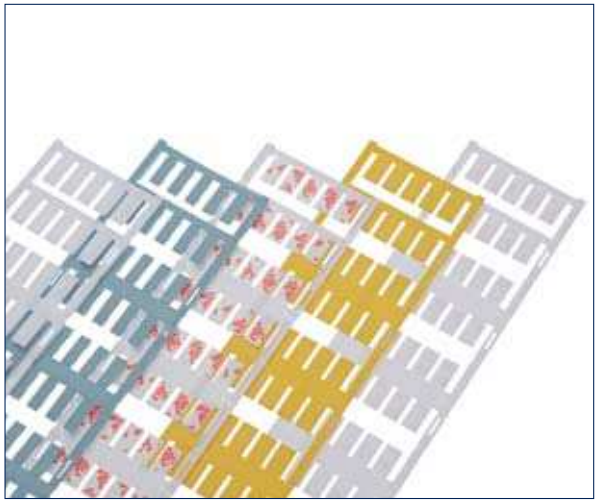
When using this G-fuse cartridges with 6.3 A or higher, it is necessary to ensure that there is sufficient heat dissipation!

Type	Cat. no.	Rated current mA/A	Rated switch-off cap. A AC	Voltage drop mV	Power loss W	Melting integral A^2s	Qty. p.pck.
SI 0,160 A/32 F	**4971.0**	160 mA		7000	2.5	0.0015	10
SI 0,200 A/32 F	**4972.0**	200 mA		6500	2.9	0.0035	10
SI 0,250 A/32 F	**4973.0**	250 mA		6000	3.4	0.0085	10
SI 0,315 A/32 F	**4974.0**	315 mA	1.5 kA	1000	0.90	0.036	10
SI 0,400 A/32 F	**4975.0**	400 mA	@ 500 V AC	900	1	0.07	10
SI 0,500 A/32 F	**4976.0**	500 mA	cos φ = 1	800	1.1	0.19	10
SI 0,630 A/32 F	**4977.0**	630 mA		700	1.3	0.35	10
SI 0,800 A/32 F	**4978.0**	800 mA		600	1.4	0.49	10
SI 1,000 A/32 F	**4979.0**	1 A		400	1.2	0.4	10
SI 1,250 A/32 F	**4980.0**	1.25 A	50 kA	300	1.30	0.8	10
SI 1,600 A/32 F	**4981.0**	1.6 A	@ 500 V AC	300	1.4	1.5	10
SI 2,000 A/32 F	**4982.0**	2 A	cos φ = 1	280	1.6	2.5	10
SI 2,500 A/32 F	**4983.0**	2.5 A		260	1.8	5	10
SI 3,150 A/32 F	**4984.0**	3.15 A		240	2.3	9	10
SI 4,000 A/32 F	**4985.0**	4 A	20 kA	220	2.6	18	10
SI 5,000 A/32 F	**4986.0**	5 A	@ 500 V AC	190	2.9	40	10
SI 6,300 A/32 F	**4987.0**	6.3 A		170	3.2	80	10
SI 8,000 A/32 F	**4988.0**	8 A	1.5 kA	160	3.7	150	10
SI 10,000 A/32 F	**4989.0**	10 A	@ 500 V AC	150	4.0	240	10

Device and installation markers

Maxicard GS

The MC GS device markers from **CONTA-CLIP** are true to the original design of well-known manufacturers. These markers are for protectors, automatic switchgear equipment, relays, and circuit-breakers, etc., and ensure an excellent all-round appearance. In addition to their application on devices, the self-adhesive versions of the **MC GS 9/17 K** markers can also be quickly and simply used for labeling components, units, and electronic modules.



Type	Number of characters | Lines when using font size 18 and plotter pen 0.25	
	horizontal	vertical
MC GS 7/20 R	4-digit | 5-row	14-digit | 2-row
MC GS 9/17 K	4-digit | 5-row	9-digit | 3-row
MC GS 8/17 Rt	4-digit | 5-row	9-digit | 3-row
MC GS 8/17 R	4-digit | 5-row	9-digit | 3-row
MC GS 8/19 R	4-digit | 5-row	12-digit | 3-row
MC GS 9/20 R	4-digit | 5-row	14-digit | 3-row

Maxicard GS – technical data and order information	
Material	Polyamide 6.6, halogen-free
Flammability class	In accordance with UL 94-V2
Temperature range	-40 °C to +105 °C
Colors	**MC GS**, please refer to the order information on this page
Package	Carton
Minimum order quantity	Neutral marker and customized print 1 per pack.
Special customized print	Please send your requirements (following formats: *.ANS, *.WEK, *.WEC, *.WEA, *.WES, *.MAK, *.ELS, *.MPD, *.VER, *.TXT, *.XLS) to: customized markers@conta-clip.de. Please note that orders printed on paper will incur an extra charge to cover the costs of manual input.

Cat. no.	Type	Application	Size L x W (mm)	Number of markers | card	Number of markers | row	Qty. p.pck.
3329.7	MC GS 7/20 R white	Application: Siemens SIRIUS 3 R	20 x 7	40	5	200
3329.8	MC GS 7/20 R yellow	Application: Siemens SIRIUS 3 R	20 x 7	40	5	200
3329.0	MC GS 7/20 R turquoise	Application: Siemens SIRIUS 3 R	20 x 7	40	5	200
3335.7	MC GS 7/20 R white custom print	Application: Siemens SIRIUS 3 R	20 x 7	40	5	200
3323.7	MC GS 9/17 K white	Application: universal self-adhesive	17 x 9	40	5	200
3333.7	MC GS 9/17 K white custom print	Application: universal self-adhesive	17 x 9	40	5	200
3321.7	MC GS 8/17 R t white	Application: Telemecanique	17 x 8	40	5	200
3331.7	MC GS 8/17 R t white custom print	Application: Telemecanique	17 x 8	40	5	200
3320.7	MC GS 8/17 R white	Application: GE (AEG) / SYS PRO M; ABB-Stotz	17 x 8	40	5	200
3330.7	MC GS 8/17 R white custom print	Application: GE (AEG) / SYS PRO M; ABB-Stotz	17 x 8	40	5	200
3322.7	MC GS 8/19 R white	Application: AEG	19 x 8	40	5	200
3332.7	MC GS 8/19 R white custom print	Application: AEG	19 x 8	40	5	200
3324.7	MC GS 9/20 R white	Application: Siemens / Moeller	20 x 9	40	5	200
3334.7	MC GS 9/20 R white custom print	Application: Siemens / Moeller	20 x 9	40	5	200

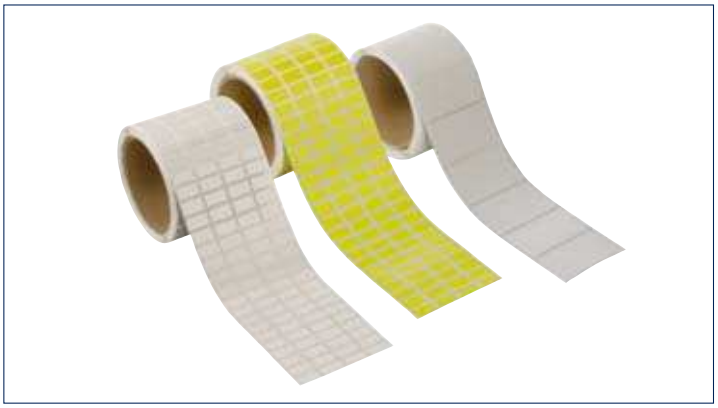
Other colors on request.

Device and installation markers

GKE adhesive device labels

GKE adhesive device labels from **CONTA-CLIP** bring clarity to the switchgear cabinet. The premium quality of the labels and the brilliant thermo-transfer printing results guarantee high-levels of resistance against solvents and ensure optimum marker legibility.

- High-quality self-adhesive polyester labels
- Surface particularly suitable for thermo-transfer printing
- Suitable for all devices and marking tasks
- Available in yellow, silver and white
- 16 different sizes, 39 versions – arranged in rows of 1, 2 or 3 labels
- The BS-1 marker pen (cat. no.: 2034.0) for uncomplicated and quick marking
- Quick and convenient printing with the TTP thermo-transfer printer (refer to the **Conta-Label** catalog)



GKE technical data	
Material	polyester
Colors	white, yellow, silver
Delivery in	Roll (core diameter 75 mm)
Min. attaching temp.	+ 15°C
Temperature resistance	- 40°C to + 150°C
Storage	Min. 2 year storage time (normal conditions)
Properties	Low shrinkage. Resistant to water, alcohol, gasoline and oils

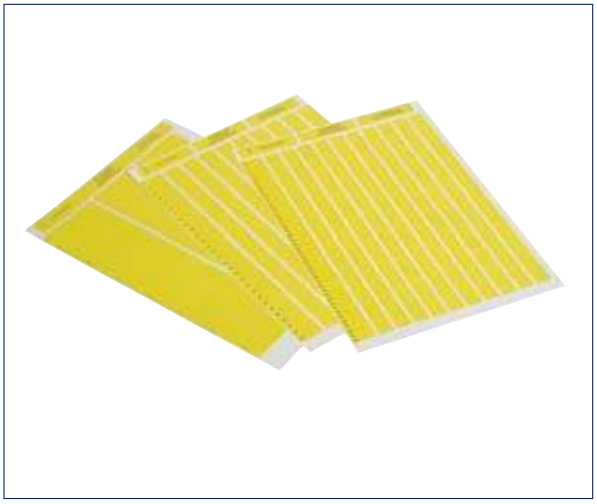
Cat. no.	Type	Label | roll	Size of markers L x W (mm)	Color | labeling area
3914.8	GKE 10/7 GE	10000	10 x 7	yellow
3900.8	GKE 15/6 GE	10000	15 x 6	yellow
3900.0	GKE 15/6 SI	10000	15 x 6	silver
3900.7	GKE 15/6 WS	10000	15 x 6	white
3901.8	GKE 18/6 GE	10000	18 x 6	yellow
3901.0	GKE 18/6 SI	10000	18 x 6	silver
3901.7	GKE 18/6 WS	10000	18 x 6	white
3902.8	GKE 18/9 GE	10000	18 x 9	yellow
3902.0	GKE 18/9 SI	10000	18 x 9	silver
3902.7	GKE 18/9 WS	10000	18 x 9	white
3903.8	GKE 20/8 GE	10000	20 x 8	yellow
3903.0	GKE 20/8 SI	10000	20 x 8	silver
3903.7	GKE 20/8 WS	10000	20 x 8	white
3915.0	GKE 21,5/21,5 SI	6000	21.5 x 21.5	silver
3904.8	GKE 25/12 GE	10000	25 x 12	yellow
3904.0	GKE 25/12 SI	10000	25 x 12	silver
3904.7	GKE 25/12 WS	10000	25 x 12	white
3905.8	GKE 26/10 GE	10000	26 x 10	yellow
3905.0	GKE 26/10 SI	10000	26 x 10	silver
3905.7	GKE 26/10 WS	10000	26 x 10	white
3906.0	GKE 26.5/17.5 SI	10000	26.5 x 17.5	silver
3916.0	GKE 27/27 SI	9000	27 x 27	silver
3917.7	GKE 30/6 WS	10000	30 x 6	white
3907.8	GKE 30/20 GE	6000	30 x 20	yellow
3907.0	GKE 30/20 SI	6000	30 x 20	silver
3907.7	GKE 30/20 WS	6000	30 x 20	white
3908.8	GKE 32/9 GE	10000	32 x 9	yellow
3908.0	GKE 32/9 SI	10000	32 x 9	silver
3908.7	GKE 32/9 WS	10000	32 x 9	white
3909.8	GKE 38/19 GE	2000	38 x 19	yellow
3909.0	GKE 38/19 SI	2000	38 x 19	silver
3909.7	GKE 38/19 WS	2000	38 x 19	white
3910.8	GKE 45/23 GE	2000	45 x 23	yellow
3910.0	GKE 45/23 SI	2000	45 x 23	silver
3910.7	GKE 45/23 WS	2000	45 x 23	white
3911.8	GKE 65/35 GE	1000	65 x 35	yellow
3911.0	GKE 65/35 SI	1000	65 x 35	silver
3911.7	GKE 65/35 WS	1000	65 x 35	white
3912.0	GKE 101/48 SI	500	101 x 48	silver
3913.0	GKE 101/74 SI	500	101 x 74	silver

GE = yellow, SI = silver, WS = white

Device and installation markers

GKE adhesive device labels on DIN A4 sheets

High-quality **CONTA-CLIP** adhesive polyester labels are now also available in DIN A4 format, suitable for labeling with either the **EMS-2** plotter (in connection with the **CCI-8** inlay, refer to the **CONTA-LABEL** catalog) or with a laser printer. The labels are resistant to heat and abrasion. They can be used for nearly all labeling purposes.



Cat. no.	Type	Piece | sheet	Labeling area L x W (mm)	Colour Labelling field	Qty. p.pck.
3920.8	**GKE 15/4.6 GE** A4	1 DIN A4 sheet 627 markers each	15 x 4.6	yellow	10
3921.8	**GKE 15/6 GE** A4	1 DIN A4 sheet 484 markers each	15 x 6	yellow	10
88517.0	**GKE 17/9 GE** A4	1 DIN A4 sheet 290 markers each	17 x 6	yellow	10
3922.8	**GKE 20/8 GE** A4	1 DIN A4 sheet 264 markers each	20 x 8	yellow	10
3923.8	**GKE 25,4/12,7 GE** A4	1 DIN A4 sheet 147 markers each	25.4 x 12.7	yellow	10
3924.8	**GKE 26/10 GE** A4	1 DIN A4 sheet 156 markers each	26 x 10	yellow	10
3925.8	**GKE 30/20 GE** A4	1 DIN A4 sheet 78 markers each	30 x 20	yellow	10
3926.8	**GKE 56/22 GE** A4	1 DIN A4 sheet 36 markers each	56 x 22	yellow	10
3927.8	**GKE 60/36 GE** A4	1 DIN A4 sheet 21 markers each	60 x 36	yellow	10
3928.8	**GKE 105/148 GE** A4	1 DIN A4 sheet 4 markers each	105 x 148	yellow	10
3929.8	**GKE 210/148 GE** A4	1 DIN A4 sheet 2 markers each	210 x 148	yellow	10

Types and order numbers *alphabetic*

Type	Cat. no.	Page
A		
516-020-000-301	**15763.2**	132
516-020-000-302	**15326.2**	132
516-020-000-401	**15764.2**	132
516-038-000-301	**15311.2**	132
516-038-000-302	**15209.2**	132
516-038-000-401	**15313.2**	132
516-056-000-301	**15121.2**	132
516-056-000-302	**15327.2**	132
516-056-000-401	**15119.2**	132
516-090-000-302	**15364.2**	132
516-090-000-401	**15403.2**	132
516-230-5-20	**15765.2**	132
516-230-5-38	**15312.2**	132
516-230-5-56	**15122.2**	132
516-230-5-90	**15404.2**	132
516-280-201	**15423.2**	132
516-280-300	**15434.2**	132
516-280-400	**15446.2**	132
516-280-500	**15766.2**	132
516-290-520	**15328.2**	132
516-290-540	**15366.2**	132
516-290-590	**15329.2**	132
516-290-591	**15118.2**	132
ACDCG/12-1,5	**15025.2**	30
ACDCG/15-1,5	**15026.2**	30
ACDCG/24-1,5	**15027.2**	30
ACDCG/5-1,5	**15024.2**	30
AD1	**5893.0**	153
AD2	**5894.0**	153
AO/0-10V/SCHAK	**6568.2**	57
AO-1	**6550.2**	56
AO-1-2S	**6551.2**	56
AOW4-2S	**6411.2**	57
AP/AD1	**5891.0**	153
AP/AD2	**5895.0**	153
AP0/D orange	**3134.3**	153
AP0/TS orange	**3133.3**	153
AP1/D orange	**5682.3**	153
AP1/TS orange	**5681.3**	153
AP2/D orange	**5692.3**	153
AP2/TS orange	**5691.3**	153
AQI PRS/5	**15779.2**	77
AQI PRS/8	**15778.2**	77
AQI/PRC/20 blue	**15545.5**	72
AQI/PRC/20 yellow	**15545.8**	72
AQI/PRC/20 black	**15545.4**	72
ASB-1	**6760.2**	61
ASB-1/DC	**7974.2**	61
ASB-2	**6995.0**	61
ASBW-2	**15097.2**	63
AU-1	**6562.2**	64
AU1/2L	**6430.2**	65
AU-1/L	**6563.2**	64
AU4/2L	**6431.2**	65
AU-4/L	**6564.2**	65
B		
BS-1 labeling pen	**2034.0**	163
BS/AD	**2385.0**	153
BS/RS	**4560.0**	153
BSM 12	**5701.2**	117
BSM 12/AD*	**5701.9**	117
BSM 4	**6011.2**	117
BSM 4/AD*	**6011.9**	117
BSM 8	**5700.2**	117
BSM 8/AD*	**5700.9**	117
BWMA 1	**3808.0**	72
C		
CAE/I-I/G/230	**6777.2**	146
CAE/I-U/0-10mA	**6754.2**	145
CAE/I-U/0-20mA	**6755.2**	145
CAE/I-U/4-20mA	**6756.2**	145
CAE/I-U/G/230	**6776.2**	146
CAE/POT-I	**6766.2**	147
CAE/POT-U	**6767.2**	147
CAE/U-I/0-10mA	**6751.2**	144
CAE/U-I/0-20mA	**6752.2**	144
CAE/U-I/4-20mA	**6753.2**	144
CAE/U-I/G/230	**6775.2**	146
CAE/U-U/G/230	**6761.2**	146
CDS 98	**6471.2**	38
CML-POT-UI	**15641.2**	138
CML-PT100-UI	**15701.2**	136
CML-PT100-UI	**15752.2**	136
CML-PT100-UI	**15753.2**	136
CML-PT100-UI	**15754.2**	136
CML-PT100-UI	**15755.2**	136
CML-UI-UI	**15643.2**	137
CMS-F-UI	**15886.2**	142
CMS-UI60-UI	**15885.2**	140
CMS-UI-UI	**15650.2**	139
CMS-UI-R	**15884.2**	141
CP 250 E-4	**15616.2**	34
CP 5	**15469.2**	35
CP 5 E-4	**15602.2**	35
CP 5H	**15470.2**	35
CP DS 250 VG	**15617.2**	34
CP E-2	**6865.0**	36
CP E-3	**6866.0**	36
CP E-4	**6867.0**	36
CP V 10	**6869.0**	38
CP V 40 S	**6864.0**	36
CP V40	**6862.0**	36
CP VH 40	**6863.0**	36
CP VHG 40-TT	**6868.0**	37
D		
DC-DC/10-0,5	**6810.0**	28
DC-DC/10-3	**1373.9**	29
DC-DC/12-0,5	**7792.2**	28
DC-DC/12-3	**7795.2**	29
DC-DC/15-0,5	**7793.2**	28
DC-DC/15-3	**7796.2**	29
DC-DC/24-0	**1343.9**	28
DC-DC/24-3	**6937.0**	29
DC-DC/5-0,5	**7791.2**	28
DC-DC/5-3	**7794.2**	29
DM 12	**5703.2**	119
DM 12/AD*	**5703.9**	119
DM 14	**6319.2**	119
DM 14/AD	**6319.9**	119
DM 14-A	**5704.2**	119
DM 14-A/AD	**5704.9**	119
DM 14-K	**5706.2**	119
DM 14-K/AD	**5706.9**	119
DM 22-A	**5705.2**	119
DM 22-A/AD	**5705.9**	119
DM 22-K	**5707.2**	119
DM 22-K/AD	**5707.9**	119
DM 26-A	**6093.2**	118
DM 26-A/AD*	**6093.9**	118
DM 26-K	**6094.2**	118
DM 26-K/AD*	**6094.9**	118
DM 4	**6318.2**	119
DM 4/AD*	**6318.9**	119
DM 8	**5702.2**	119
DM 8/AD*	**5702.9**	119
E		
EG 3-SSW	**8391.0**	149
ES 32	**2004.2**	156
ES 32/2/K	**2825.2**	156
ES 32/35 Combi	**1424.2**	156
ES 32/K/ST	**2827.0**	156
ES 35	**2005.2**	156
ES 35/2/K	**2826.2**	156
ES 35/K/ST	**2828.0**	156
F		
FBK 10 LA	**6501.2**	129
FBK 14 LA	**6502.2**	129
FBK 16 LA	**6503.2**	129
FBK 20 LA	**6504.2**	129
FBK 2-10	**6113.2**	129
FBK 2-14	**6114.2**	129
FBK 2-16	**6115.2**	129
FBK 2-20	**6116.2**	129
FBK 2-26	**6117.2**	129
FBK 2-34	**6118.2**	129
FBK 2-40	**6119.2**	129
FBK 2-50	**6120.2**	129
FBK 26 LA	**6505.2**	129
FBK 2-60	**6121.2**	129
FBK 2-64	**6122.2**	129
FBK 34 LA	**6506.2**	129
FBK 40 LA	**6507.2**	129
FBK 50 LA	**6508.2**	129
FBK 60 LA	**6509.2**	129
FBK 64 LA	**6510.2**	129
FBK10C	**15272.2**	128
FBK10CZ	**15273.2**	128
FBK14C	**15274.2**	128
FBK14CZ	**15275.2**	128
FBK16C	**15276.2**	128
FBK16CZ	**15277.2**	128
FBK20C	**15278.2**	128
FBK20CZ	**15279.2**	128
FBK26C	**15280.2**	128
FBK26CZ	**15281.2**	128
FBK34C	**15282.2**	128
FBK34CZ	**15283.2**	128
FBK40C	**15284.2**	128
FBK40CZ	**15285.2**	128
FBK50C	**15286.2**	128
FBK50CZ	**15287.2**	128
FBK60C	**15288.2**	128
FBK60CZ	**15289.2**	128
FBK64C	**15290.2**	128
FBK64CZ	**15291.2**	128
FLTRS-16	**6004.2**	121
G		
G 4 OAC 24	**5978.0**	113
G 4 OAC 5	**5977.0**	113
G 4 ODC 24	**5976.0**	113
G 4 ODC 5	**5975.0**	113
GKE 10/7 GE	**3914.8**	163
GKE 101/48 SI	**3912.0**	163
GKE 101/74 SI	**3913.0**	163
GKE 105/148 GE	**3928.8**	164
GKE 15/4,6 GE	**3920.8**	164
GKE 15/6 GE	**3900.8**	163
GKE 15/6 GE	**3921.8**	164
GKE 15/6 SI	**3900.0**	163
GKE 15/6 WS	**3900.7**	163
GKE 17/9 GE	**88517.0**	164
GKE 18/6 GE	**3901.8**	163
GKE 18/6 SI	**3901.0**	163
GKE 18/6 WS	**3901.7**	163
GKE 18/9 GE	**3902.8**	163
GKE 18/9 SI	**3902.0**	163
GKE 18/9 WS	**3902.7**	163
GKE 20/8 GE	**3903.8**	163
GKE 20/8 GE	**3922.8**	164
GKE 20/8 SI	**3903.0**	163
GKE 20/8 WS	**3903.7**	163
GKE 21,5/21,5 SI	**3915.0**	163
GKE 210/148 GE	**3929.8**	164
GKE 25.4/12.7 GE	**3923.8**	164
GKE 25/12 GE	**3904.8**	163
GKE 25/12 SI	**3904.0**	163
GKE 25/12 WS	**3904.7**	163
GKE 26,5/17,5 SI	**3906.0**	163
GKE 26/10 GE	**3905.8**	163
GKE 26/10 GE	**3924.8**	164
GKE 26/10 SI	**3905.0**	163
GKE 26/10 WS	**3905.7**	163
GKE 27/27 SI	**3916.0**	163
GKE 30/20 GE	**3907.8**	163
GKE 30/20 GE	**3925.8**	164
GKE 30/20 SI	**3907.0**	163
GKE 30/20 WS	**3907.7**	163
GKE 30/6 WS	**3917.7**	163
GKE 32/9 GE	**3908.8**	163
GKE 32/9 SI	**3908.0**	163
GKE 32/9 WS	**3908.7**	163
GKE 38/19 GE	**3909.8**	163
GKE 38/19 SI	**3909.0**	163
GKE 38/19 WS	**3909.7**	163
GKE 45/23 GE	**3910.8**	163
GKE 45/23 SI	**3910.0**	163
GKE 45/23 WS	**3910.7**	163
GKE 56/22 GE	**3926.8**	164
GKE 60/36 GE	**3927.8**	164
GKE 65/35 GE	**3911.8**	163
GKE 65/35 SI	**3911.0**	163
GKE 65/35 WS	**3911.7**	163
GM 1-V/230	**5759.2**	25
GM 1-V/24	**5758.2**	25
GM 1	**6111.2**	25
GM 1 A/C	**6144.2**	26
GM 1-0	**5738.2**	25
GM 1-4 A/C	**6999.0**	26
H		
HLS-2	**7877.2**	62
HLSW-3	**15042.2**	62
I		
IF-OF/0,5A	**6149.2**	39
IF-OF/1A	**6150.2**	39
IF-OF/3A	**6151.2**	39
IF-OF/6A	**6152.2**	39
IM 4	**6280.2**	63
IM 8	**6281.2**	63
L		
LED 8 BC	**15045.2**	66
LED 8 BC/24 V AC/DC	**15075.2**	66
LED 8 D-G	**6459.2**	66

Order numbers and types *numerical*

Order numbers and types *numerical*

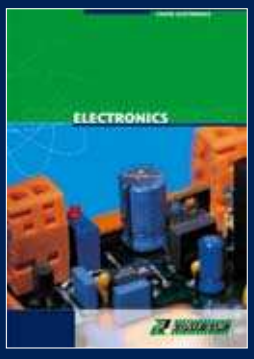
Cat. no.	Type	Page
6030.2	RIMD 2/1W/24V +	97
6031.2	RIMD 2/1W/24V -	97
6032.2	RIMD 2/1W/24 ACG	97
6033.2	RIMD 2/1W/48V +	97
6034.2	RIMD 2/1W/48V -	97
6035.2	RIMD 2/1W/115V +	97
6036.2	RIMD 2/1W/115V -	97
6037.2	RIMD 2/1W/115 ACG	97
6038.2	RIMD 2/1W/230 ACG	97
6039.2	RIM 4/1W/24V +	97
6040.2	RIM 4/1W/24V -	97
6041.2	RIM 4/1W/24 ACG	97
6042.2	RIM 4/1W/48V +	97
6043.2	RIM 4/1W/48V -	97
6044.2	RIM 4/1W/115V +	97
6045.2	RIM 4/1W/115V -	97
6046.2	RIM 4/1W/115 ACG	97
6047.2	RIM 4/1W/230 ACG	97
6048.2	RIMD 4/1W/24V +	97
6049.2	RIMD 4/1W/24V -	97
6050.2	RIMD 4/1W/24 ACG	97
6051.2	RIMD 4/1W/48V +	97
6052.2	RIMD 4/1W/48V -	97
6053.2	RIMD 4/1W/115V +	97
6054.2	RIMD 4/1W/115V -	97
6055.2	RIMD 4/1W/115 ACG	97
6056.2	RIMD 4/1W/230 ACG	97
6057.2	RIM 8/1W/24V +	97
6058.2	RIM 8/1W/24V -	97
6059.2	RIM 8/1W/24 ACG	97
6060.2	RIM 8/1W/48V +	97
6061.2	RIM 8/1W/48V -	97
6062.2	RIM 8/1W/115V +	97
6063.2	RIM 8/1W/115V -	97
6064.2	RIM 8/1W/115 ACG	97
6065.2	RIM 8/1W/230 ACG	97
6066.2	RIMD 8/1W/24V +	97
6067.2	RIMD 8/1W/24V -	97
6068.2	RIMD 8/1W/24 ACG	97
6069.2	RIMD 8/1W/48V +	97
6070.2	RIMD 8/1W/48V -	97
6071.2	RIMD 8/1W/115V +	97
6072.2	RIMD 8/1W/115V -	97
6073.2	RIMD 8/1W/115 ACG	97
6074.2	RIMD 8/1W/230 ACG	97
6075.2	RIM 16/1W/24V +	97
6076.2	RIM 16/1W/24V -	97
6077.2	RIM 16/1W/24 ACG	97
6078.2	RIM 16/1W/48V +	97
6079.2	RIM 16/1W/48V -	97
6080.2	RIM 16/1W/115V +	97
6081.2	RIM 16/1W/115V -	97
6082.2	RIM 16/1W/115 ACG	97
6083.2	RIM 16/1W/230 ACG	97
6084.2	RIMD 16/1W/24V +	97
6085.2	RIMD 16/1W/24V -	97
6086.2	RIMD 16/1W/24 ACG	97
6087.2	RIMD 16/1W/48V +	97
6088.2	RIMD 16/1W/48V -	97
6089.2	RIMD 16/1W/115V +	97
6090.2	RIMD 16/1W/115V -	97
6091.2	RIMD 16/1W/115 ACG	97
6092.2	RIMD 16/1W/230 ACG	97
6093.2	DM 26-A	118
6093.9	DM 26-A/AD*	118
6094.2	DM 26-K	118
6094.9	DM 26-K/AD*	118
6111.2	GM 1	25
6113.2	FBK 2-10	129
6114.2	FBK 2-14	129
6115.2	FBK 2-16	129
6116.2	FBK 2-20	129
6117.2	FBK 2-26	129
6118.2	FBK 2-34	129
6119.2	FBK 2-40	129
6120.2	FBK 2-50	129
6121.2	FBK 2-60	129
6122.2	FBK 2-64	129
6124.2	LPM 20-10K	102
6124.9	LPM 20-10K/AD*	120
6125.2	LPM 20-A	120
6125.9	LPM 20-A/AD*	120
6126.2	LPM 40-A	120
6126.9	LPM 40-A/AD*	120
6135.2	SD 2-S25 LA	127
6136.2	SD 2-B25 LA	127
6139.2	VSTA B 5	27
6140.2	VSTA B 10	27
6141.2	VSTA B 12	27
6142.2	VSTA B 15	27
6143.2	VSTA B 24	27
6144.2	GM 1 A/C	26
6149.2	IF-OF/0,5A	39
6150.2	IF-OF/1A	39
6151.2	IF-OF/3A	39
6152.2	IF-OF/6A	39
6155.2	RIM 8/2W/24V +	103
6156.2	RIMD 8/2W/24V +	103
6157.2	RIM 8/2W/24V -	103
6158.2	RIMD 8/2W/24V -	103
6159.2	RIM 8/2W/24 ACG	103
6160.2	RIMD 8/2W/24 ACG	103
6161.2	RIM 8/2W/48V +	103
6162.2	RIMD 8/2W/48V +	103
6163.2	RIM 8/2W/48V -	103
6164.2	RIMD 8/2W/48V -	103
6165.2	RIM 8/2W/115V +	103
6166.2	RIMD 8/2W/115V +	103
6167.2	RIM 8/2W/115V -	103
6168.2	RIMD 8/2W/115V -	103
6169.2	RIM 8/2W/115 ACG	103
6170.2	RIMD 8/2W/115 ACG	103
6171.2	RIM 8/2W/230 ACG	103
6172.2	RIMD 8/2W/230 ACG	103
6173.2	RIM 16/2W/24V +	103
6174.2	RIMD 16/2W/24V +	103
6175.2	RIM 16/2W/24V -	103
6176.2	RIMD 16/2W/24V -	103
6177.2	RIM 16/2W/24 ACG	103
6178.2	RIMD 16/2W/24 ACG	103
6179.2	RIM 16/2W/48V +	103
6180.2	RIMD 16/2W/48V +	103
6181.2	RIM 16/2W/48V -	103
6182.2	RIMD 16/2W/48V -	103
6183.2	RIM 16/2W/115V +	103
6184.2	RIMD 16/2W/115V +	103
6185.2	RIM 16/2W/115V -	103
6186.2	RIMD 16/2W/115V -	103
6187.2	RIM 16/2W/115 ACG	103
6188.2	RIMD 16/2W/115 ACG	103
6189.2	RIM 16/2W/230 ACG	103
6190.2	RIMD 16/2W/230 ACG	103
6199.2	RIM 2 F/1W/24V +	95
6200.2	RIM 2 F/1W/24V -	95
6201.2	RIMD 2 F/1W/24V +	95
6202.2	RIMD 2 F/1W/24V -	95
6203.2	RIM 4 F/1W/24V +	95
6204.2	RIM 4 F/1W/24V -	95
6205.2	RIMD 4 F/1W/24V +	95
6206.2	RIMD 4 F/1W/24V -	95
6207.2	RIM 8 F/1W/24V +	95
6208.2	RIM 8 F/1W/24V -	95
6209.2	RIMD 8 F/1W/24V +	95
6210.2	RIMD 8 F/1W/24V -	95
6211.2	RIM 16 F/1W/24V +	95
6212.2	RIM 16 F/1W/24V -	95
6213.2	RIMD 16 F/1W/24V +	95
6214.2	RIMD 16 F/1W/24V -	95
6229.2	RMD1Au/2W/24V DC	91
6274.2	RIM4/24BC	59
6276.2	ST 8-230 EG	67
6280.2	IM 4	63
6281.2	IM 8	63
6301.2	SD 2-S 9	126
6302.2	SD 2-S 15	126
6303.2	SD 2-S 25	126
6304.2	SD 2-S 37	126
6306.2	SD 2-B 9	126
6307.2	SD 2-B 15	126
6308.2	SD 2-B 25	126
6309.2	SD 2-B 37	126
6318.2	DM 4	119
6318.9	DM 4/AD*	119
6319.2	DM 14	119
6319.9	DM 14/AD	119
6320.2	LTRS-16	121
6347.2	RM-SR/1S/12V DC	92
6348.2	RM-SG/1S/12V DC	92
6349.2	RM-S/1S/12V DC	92
6353.2	RM-SR/1W/12V DC	93
6354.2	RM-SG/1W/12V DC	93
6355.2	RM-S/1W/12V DC	93
6356.2	RM-SR/1S/12V DC/AC	92
6357.2	RM-SG/1S/12V DC/AC	92
6358.2	RM-S/1S/12V DC/AC	92
6362.2	RM-SR/1W/12V DC/AC	93
6363.2	RM-SG/1W/12V DC/AC	93
6364.2	RM-S/1W/12V DC/AC	93
6411.2	AOW4-2S	57
6413.2	SD-S 50/3	126
6414.2	SD-B 50/3	126
6416.2	VMG/24-3	18
6430.2	AU1/2L	65
6431.2	AU4/2L	65
6442.2	PT 100-3/0... 400/0-10	148
6458.2	LED 8 D-R	66
6459.2	LED 8 D-G	66
6471.2	CDS 98	38
6480.2	PRS 1/24V AC	79
6481.2	PRS 1/230V AC	79
6482.2	PRS 2/12V DC	80
6483.2	PRS 2/24V DC	80
6484.2	PRS 2/24V AC	81
6485.2	PRS 2/230V AC	81
6486.2	PRS 4/12V DC	84
6487.2	PRS 4/24V DC	84
6488.2	PRS 4/24V AC	85
6489.2	PRS 4/230V AC	85
6501.2	FBK 10 LA	129
6502.2	FBK 14 LA	129
6503.2	FBK 16 LA	129
6504.2	FBK 20 LA	129
6505.2	FBK 26 LA	129
6506.2	FBK 34 LA	129
6507.2	FBK 40 LA	129
6508.2	FBK 50 LA	129
6509.2	FBK 60 LA	129
6510.2	FBK 64 LA	129
6520.2	SD 2-S9 LA	127
6521.2	SD 2-S15 LA	127
6522.2	SD 2-S37 LA	127
6524.2	SD 2-B9 LA	127
6525.2	SD 2-B15 LA	127
6526.2	SD 2-B37 LA	127
6541.2	VMG/15-0.4	17
6542.2	VMG/15-1	17
6543.2	VMGS/5-1	20
6544.2	VMGS/12-0.6	20
6545.2	VMGS/15-0.5	20
6546.2	VMGS/24-0,4	20
6547.2	VMGS/12-1	21
6548.2	VMGS/15-1	21
6549.2	VMGS/24-1	21
6550.2	AO-1	56
6551.2	AO-1-2S	56
6555.2	RIM4/24EG	59
6558.2	OD-1	60
6559.2	OD-2	60
6562.2	AU-1	64
6563.2	AU-1/L	64
6564.2	AU-4/L	65
6568.2	AO/0-10V/SCHAK	57
6584.2	RM1/1W/12V DC	90
6585.2	RMD1/1W/12V DC	90
6586.2	RM1/2W/12V DC	91
6587.2	RMD1/2W/12V DC	91
6588.2	RIM 2 S/1W/24 ACG	99
6589.2	RIMD 2 S/1W/24 ACG	99
6590.2	RIM 2 S/1W/230 ACG	99
6591.2	RIMD 2 S/1W/230 ACG	99
6592.2	RIM 4 S/1W/24 ACG	99
6593.2	RIMD 4 S/1W/24 ACG	99
6594.2	RIM 4 S/1W/230 ACG	99
6595.2	RIMD 4 S/1W/230 ACG	99
6596.2	RIM 8 S/1W/24 ACG	99
6597.2	RIMD 8 S/1W/24 ACG	99
6598.2	RIM 8 S/1W/230 ACG	99
6599.2	RIMD 8 S/1W/230 ACG	99
6600.2	RIM 16 S/1W/24V +	99
6601.2	RIMD 16 S/1W/24V +	99
6602.2	RIM 16 S/1W/24V -	99
6603.2	RIMD 16 S/1W/24V -	99
6604.2	RIM 16 S/1W/24 ACG	99
6605.2	RIMD 16 S/1W/24 ACG	99
6606.2	RIM 2-2 S/1W/24 +	99
6607.2	RIMD 2-2 S/1W/24 +	99
6608.2	RIM 2-2 S/1W/24 -	99
6609.2	RIMD 2-2 S/1W/24 -	99
6610.2	RIM 2-2 S/1W/24 ACG	99
6611.2	RIMD 2-2 S/1W/24 ACG	99
6612.2	RIM 2-2 S/1W/230 ACG	99
6613.2	RIMD 2-2 S/1W/230 ACG	99
6614.2	RIM 4-2 S/1W/24 +	99
6615.2	RIMD 4-2 S/1W/24 +	99
6616.2	RIM 4-2 S/1W/24 -	99
6617.2	RIMD 4-2 S/1W/24 -	99
6618.2	RIM 4-2 S/1W/24 ACG	99
6619.2	RIMD 4-2 S/1W/24 ACG	99
6620.2	RIM 4-2 S/1W/230 ACG	99
6621.2	RIMD 4-2 S/1W/230 ACG	99
6622.2	RIM 8-2 S/1W/24 +	99
6623.2	RIMD 8-2 S/1W/24 +	99
6624.2	RIM 8-2 S/1W/24 -	99

Order numbers and types *numerical*

An Overview of the Portfolio

CONTA-CONNECT
[Connection Systems]

CONTA-ELECTRONICS
[Electronics]



CONTA-CON
[PCB Connectors]

includes:
CONTA-BOX [enclosure systems]
CONTA-TOOL [tool systems]

Additional information is available on request.

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