

Relay systems



Interface Relay Compact IRC, Multifunction Timing Relay MFR IRC

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

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

The **IRCP1** and **IRCP0** provide the advantage of an additional wire connection that can be cross-connected. All three wires of a sensor in a PLC input or all wires of an output-side power relay or contactor can be connected directly to the coupling relay. This saves space and provides for a clear, user-friendly installation.

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

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

Plug relay compact PRC, Multifunction timing relay MFR-PRC

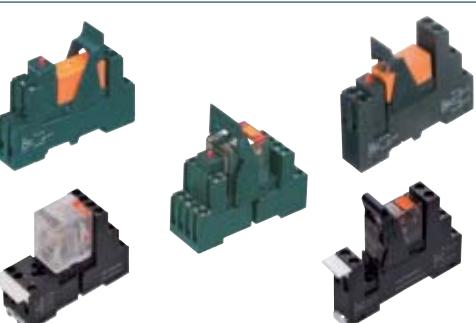
Our **PRC** relay couplers and **MFR-PRC** timing relays are distinguished by their compact shape in their terminal block design. With a width of only 6.2 mm (for 1 CO relay) and 14 mm (for 2 CO relays), they can be used in a wide variety of applications. The basis relay offers 28 versions, including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

Plug relay system PRS

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

Relay modules RM and RIM

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



Interface Relay Compact IRC

Relay terminals

1. Overview

a Labelling | Marking

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

b Using the mount/dismount lever

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

c Pluggable relay

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



e Mounts on TS 35 DIN rails

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

g

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

2. Relay types



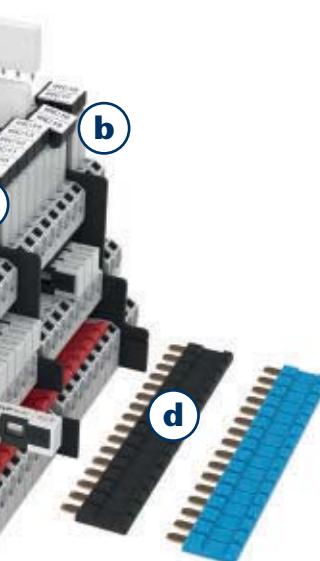
IRCU and FRCU Basic

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



IRCPU and FRCPU Plus

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



h

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

f

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



IRCOU and FRCOU Output

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

3. Approvals (details upon request)



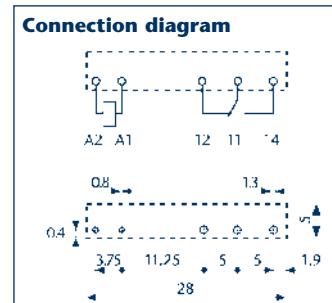
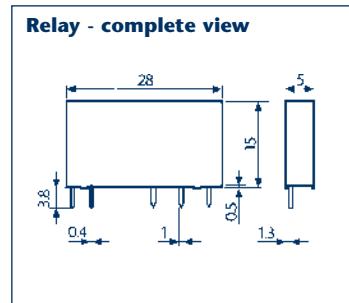
Interface Relay Compact IRC

Relay terminals

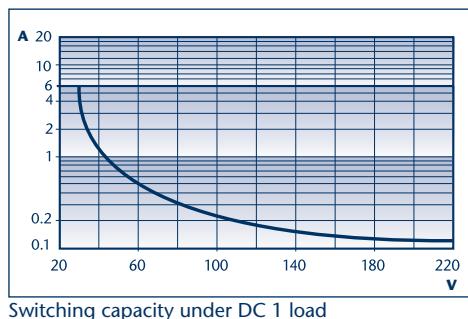
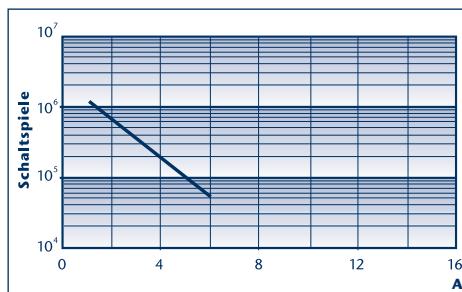
4. Features:

I. Relay

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



5. Contact data



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

Ratings for the FCA/IRC adapter

Max. continuous current per signal
Min. power rating for eight coupling relays

Rated voltage (UN)

Operating range

Control logic

Connection for signal level: 24 V

Connection type

Connection for 24 V power supply

Stripping length

Torque

Max. wire cross-section, solid | finely stranded

Max. wire cross-section, solid | finely stranded

1A

3W

24V DC

(0.8-1.1) Un

Positive switching (+ at A1)

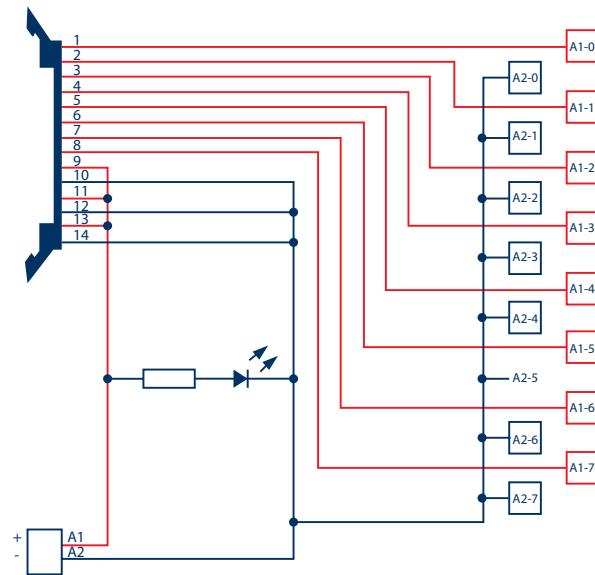
Flat-ribbon cable plug-in connector, 14-poles acc. to IEC 60603-13

9.5 mm

0.5 Nm

1 x 4 mm² / 1 x 2.5 mm²

1 x 12 AWG / 1 x 14 AWG



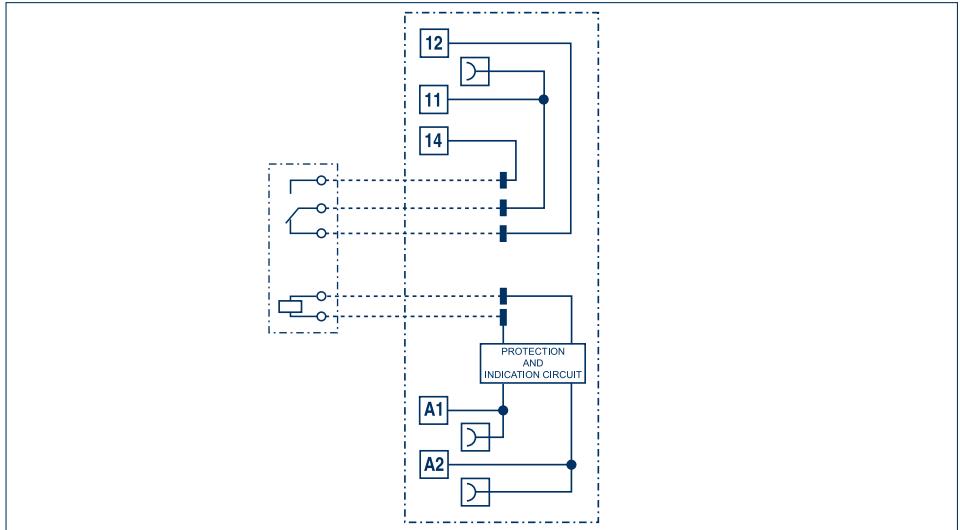
Interface Relay Compact IRC

IRC Basic series

Consisting of:

- Base terminal and pluggable relay
- Mounts on TS 35
- All-purpose use as coupling relay at PLC input, or in the output of the PLC for controlling actuators
- Internal EMC coil circuitry and LED display
- Pluggable cross-connection (blue, black, red) makes installations easier
- Screw or pressure-spring connection

(F)IRCU



General specifications:

Mech. service life AC/DC switching cycles	10×10^6
Electrical service life AC 1 switching cycles	60×10^3
Response time/Release time	5/6 ms
Ambient temperature	-40 °C – +70 °C
Relay protection type	IP 20
Bounce time at the NO of the NO/NC contact	1 ms / 6 ms
Vibration resistance (10-55) Hz NO/NC contact	10 g / 5 g
Ambient heat dissipation without contact current	0.2 W (24 V) – 0.4 W (230 V)
Ambient heat dissipation under continuous current	0.6 W (24 V) – 0.9 W (230 V)

Insulation properties acc. to EN 61810-1

Rated voltage of power supply system	230 / 400 V AC
Rated insulation voltage / contamination degree	250 V AC / 3 400 V AC / 2

Insulation between coil and contact set

Overvoltage category	III
Rated impulse voltage	6 kV (1.2/50 µs)
Dielectric strength	4,000 V AC

Insulation at open contact

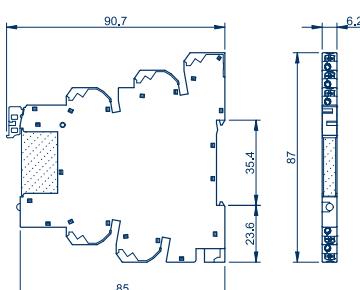
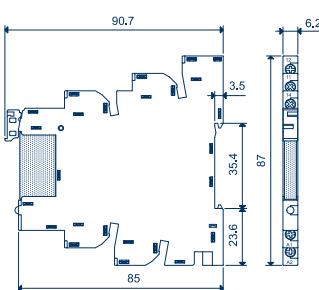
Dielectric strength	1,000 V AC / 1.5 kV (1.2/50 µs)
EMC - interference immunity of the input circuit	UN ≤ 60 V UN = 125 V UN = 230 V

Burst (5/50 ns, 5 kHz) on A1 - A2 according to EN 61000-4-4

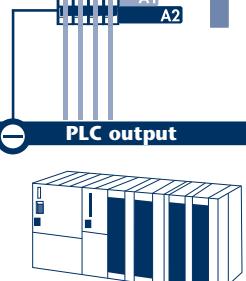
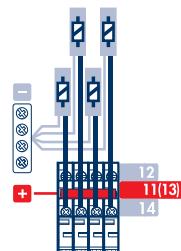
Surge (1.2/50 µs) on A1 - A2 according to EN 61000-4-5 (differential mode)

Rated data for the base

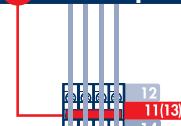
	Screw connection IRC	Pressure-spring connection
Stripping length	10 mm	8 mm
Torque	0.5 Nm	-
Max. wire cross-section, solid finely stranded	1 x 2.5 1 x 2.5 mm ²	1 x 2.5 1 x 2.5 mm ²
Min. wire cross-section, solid finely stranded	1 x 0.2 1 x 2.5 mm ²	1 x 0.2 1 x 2.5 mm ²
Max. wire cross-section, solid finely stranded	1 x 14 AWG 1 x 14 AWG	1 x 14 AWG 1 x 14 AWG
Min. wire cross-section, solid finely stranded	1 x 24 AWG 1 x 24 AWG	1 x 24 AWG 1 x 24 AWG



Actuator level



PLC input

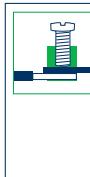


Sensor level

Interface Relay Compact IRC

IRC Basic series

IRCU



FIRCU



Screw connection Cat. no./Qty.	IRCU 1/6 V AC/DC 16230.2 / 10	IRCU 1/12 V AC/DC 16231.2 / 10	IRCU 1/24 V AC/DC 16232.2 / 10	IRCU 1/125 V AC/DC 16233.2 / 10	IRCU 1/240V AC/DC 16234.2 / 10
Size (L x W x H) with TS35 x 7.5	87 x 6.2 x 95.4 mm	87 x 6.2 x 95.4 mm			
Weight	33 g	33 g	33 g	33 g	33 g
Operating voltage	6 V AC / DC	12 V AC / DC	24 V AC / DC	110-125 V AC / DC	220-240 V AC (50/60 Hz)
Input data					
Rated voltage (Un)	6 V AC / DC	12 V AC / DC	24 V AC / DC	110-125 V AC / DC	220-240 V AC (50/60 Hz)
Power rating AC / DC	0.2 VA / 0.2 W	0.2 VA / 0.2 W	0.25 VA / 0.25 W	0.7 VA / 0.7 W	1 VA / 0.4 W
Operating range	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Output specifications					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage Max. switching voltage	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)			
Standard contact material	AgNi	AgNi	AgNi	AgNi	AgNi
Component, screw socket base					
Type	IRC 6-12-24 V AC/DC 16190.2 / 10	IRC 6-12-24 V AC/DC 16190.2 / 10	IRC 6-12-24 V AC/DC 16190.2 / 10	IRC 110-125 V AC/DC 16191.2 / 10	IRC 230-240 V AC 16192.2 / 10
Components, plug relays					
Type	PRC 1/5 V DC 15500.2 / 10	PRC 1/12 V DC 15501.2 / 10	PRC 1/24 V DC 15502.2 / 10	PRC 1/60 V DC 15503.2 / 10	PRC 1/60 V DC 15503.2 / 10
Pressure-spring connection					
Cat. no./Qty.	FIRCU 1/6 V AC/DC 16260.2 / 10	FIRCU 1/12 V AC/DC 16261.2 / 10	FIRCU 1/24 V AC/DC 16262.2 / 10	FIRCU 1/125 V AC/DC 16263.2 / 10	FIRCU 1/240 V AC 16264.2 / 10
Size (L x W x H) with TS 35 x 7.5	87 x 6.2 x 95.4 mm	87 x 6.2 x 95.4 mm			
Weight	33 g	33 g	33 g	33 g	33 g
Operating voltage	6 V AC / DC	12 V AC / DC	24 V AC / DC	125 V AC / DC	240 V AC
Input data					
Rated voltage (Un)	6 V AC / DC	12 V AC / DC	24 V AC / DC	110-125 V AC / DC	220-240 V AC (50/60 Hz)
Power rating AC / DC	0.2 VA / 0.2 W	0.2 VA / 0.2 W	0.25 VA / 0.25 W	0.7 VA / 0.7 W	1 VA / 0.4 W
Operating range	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Output specifications					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage Max. switching voltage	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)			
Standard contact material	AgNi	AgNi	AgNi	AgNi	AgNi
Component, pressure-spring socket base					
Type	FIRC 6-12-24 V AC/DC 16210.2 / 10	FIRC 6-12-24 V AC/DC 16210.2 / 10	FIRC 6-12-24 V AC/DC 16210.2 / 10	FIRC 110-125 V AC/DC 16211.2 / 10	FIRC 230-240 V AC 16212.2 / 10
Components, plug relays					
Type	PRC 1/5 V DC 15500.2 / 10	PRC 1/12 V DC 15501.2 / 10	PRC 1/24 V DC 15502.2 / 10	PRC 1/60 V DC 15503.2 / 10	PRC 1/60 V DC 15503.2 / 10
Accessories	Type				
Partition plate	TW/IRC			16228.2 / 10	
External cross-connector, blue	AQI/IRC/16 BU			16209.5 / 10	
External cross-connector, black	AQI/IRC/16 BK			16209.4 / 10	
External cross-connector, red	AQI/IRC/16 RD			16209.9 / 10	
Ribbon cable adapter	FCA/IRC			16229.2 / 10	
Tool / screwdriver	SDB 0.6 x 3.5			1086.0 / 10	
Labelling/markers, blank	MC GS 6x12 R WH			3884.7 / 600	
Labelling/markers, special print	MC GS 6x12 R So WH			3885.7 / 600	

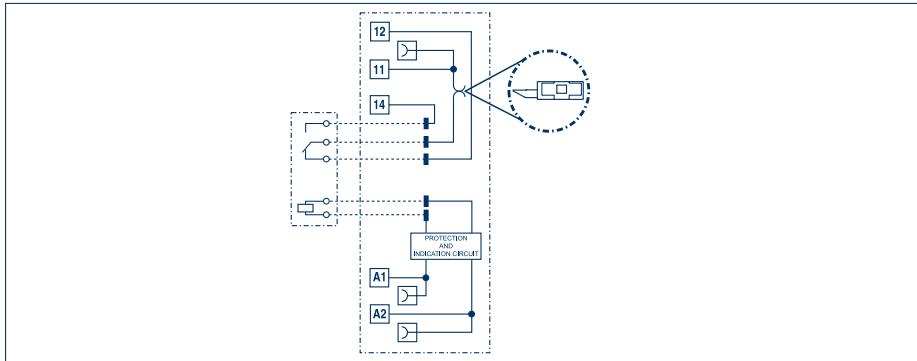
Interface Relay Compact IRC

IRC Plus series

Consisting of:

- Base terminal and pluggable relay
- Mounts on TS 35
- All-purpose use as coupling relay at PLC input, or in the output of the PLC for controlling actuators
- Output fuse module for individual standard micro-fuse (5x20 mm) available as accessory
- Internal EMC coil circuitry and LED display
- LW version with internal AC residual current suppression and LED display
- Pluggable cross-connection (blue, black, red) makes installations easier
- Screw or pressure-spring connection

(F)IRCPU



General specifications:

Mech. service life AC/DC switching cycles

Electrical service life AC 1 switching cycles

Response time/Release time

Ambient temperature

Relay protection type

Bounce time at the NO of the NO/NC contact

Vibration resistance (10-55) Hz NO/NC contact

Ambient heat dissipation without contact current

Ambient heat dissipation under continuous current

Insulation properties acc. to EN 61810-1

Rated voltage of power supply system

Rated insulation voltage / contamination degree

Insulation between coil and contact set

Overvoltage category

Rated impulse voltage

Dielectric strength

Insulation at open contact

Dielectric strength

EMC - interference immunity of the input circuit

Burst (5/50 ns, 5 kHz) on A1 - A2 acc. to EN 61000-4-4

Surge (1.2/50 µs) on A1 - A2 according to EN 61000-4-5
(differential mode)

Rated data for the base

Stripping length

Torque

Max. wire cross-section, solid | finely stranded

Min. wire cross-section, solid | finely stranded

Max. wire cross-section, solid | finely stranded

Min. wire cross-section, solid | finely stranded

10×10^6

60×10^3

5/6 ms

-40 °C – +70 °C

IP 20

1 ms/6 ms

10 g / 5 g

0.2 W (24 V) – 0.4 W (230 V)

0.6 W (24 V) – 0.9 W (230 V)

230 / 400 V AC

250 V AC / 3 400 V AC / 2

III

6 kV (1.2/50 µs)

4,000 V AC

1,000 V AC / 1.5 kV (1.2/50 µs)

UN ≤ 60 V

4 kV

0.8 kV

UN = 125 V

4 kV

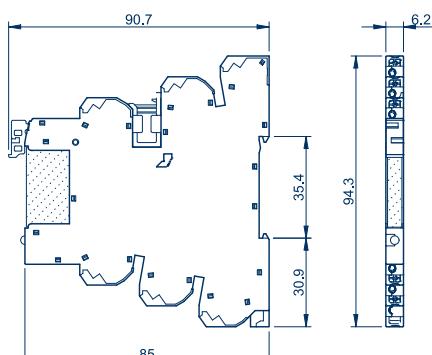
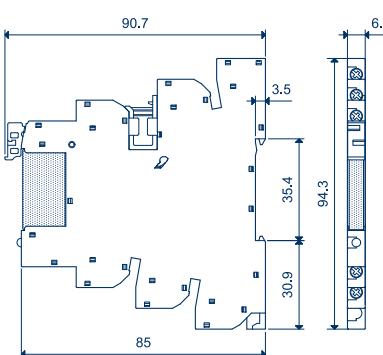
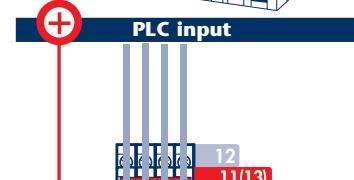
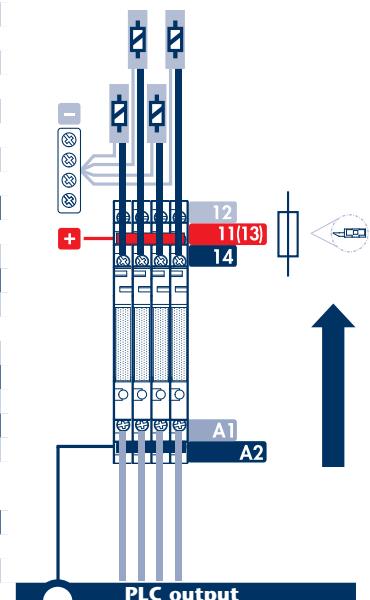
2 kV

UN = 230 V

4 kV

4 kV

Actuator level



Interface Relay Compact IRC



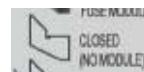
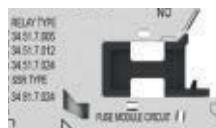
Similar to the IRCU version, the IRCPU with the fuse insert module can be used in all systems. It is unique in the way it meets the requirement that each coupling relay output must be protected by a replaceable 5x20 mm standard micro-fuse within the available 6.2 mm width.

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

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

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

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



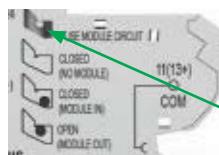
The indicator pin is not visible when the product is delivered.



Status of the indicator pin



Status of the indicator pin



Moving the indicator pin

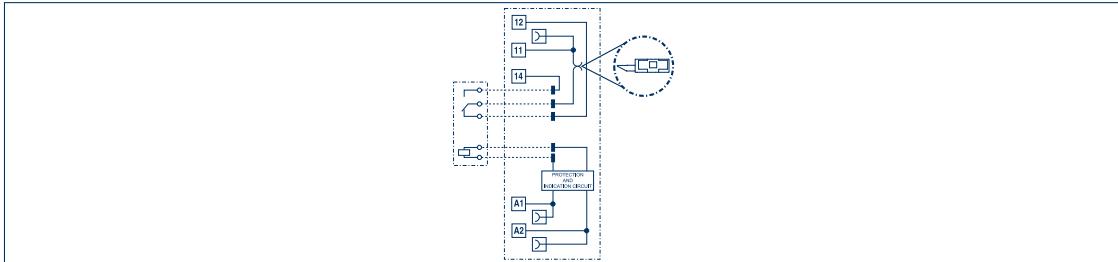
Rated data for the fuse module

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

Interface Relay Compact IRC

IRC Plus series

(F)IRCPU



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

Component, screw socket base	IRCP 6-12-24 V AC/DC 16193.2 / 10	IRCP 6-12-24 V AC/DC 16193.2 / 10	IRCP 6-12-24 V AC/DC 16193.2 / 10	IRCP 60 V AC/DC 16194.2 / 10	IRCP 110-125 V AC/DC 16195.2 / 10
Type					
Cat. no./Qty.					
Components, plug relays					
Type	PRC 1/5 V DC 15500.2 / 10	PRC 1/12 V DC 15501.2 / 10	PRC 1/24 V DC 15502.2 / 10	PRC 1/60 V DC 15503.2 / 10	PRC 1/60 V DC 15503.2 / 10
Pressure-spring connection					
Cat. no./Qty.					
FIRCPU 1/6 V AC/DC 16265.2 / 10	FIRCPU 1/12 V AC/DC 16266.2 / 10	FIRCPU 1/24 V AC/DC 16267.2 / 10	FIRCPU 1/60 V AC/DC 16268.2 / 10	FIRCPU 1/125 V AC/DC 16269.2 / 10	FIRCPU 1/125 V AC/DC 16269.2 / 10
Size (L x W x H) with TS 35 x 7.5	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm
Weight	33 g	33 g	33 g	33 g	33 g
Operating voltage	6 V AC / DC	12 V AC / DC	24 V AC / DC	60 V AC / DC	125 V AC / DC
Input data					
Rated voltage (Un)	6 V AC / DC	12 V AC / DC	24 V AC / DC	60 V AC / DC	110-125 V AC / DC
Power rating AC / DC	0.2 VA / 0.2 W	0.2 VA / 0.2 W	0.25 VA / 0.25 W	0.35 VA / 0.35 W	0.7 VA / 0.7 W
Operating range	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Output specifications					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage Max. switching voltage	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)
Standard contact material	AgNi	AgNi	AgNi	AgNi	AgNi
Component, pressure-spring socket base					
Type	FIRCP 6-12-24 V AC/DC 16213.2 / 10	FIRCP 6-12-24 V AC/DC 16213.2 / 10	FIRCP 6-12-24 V AC/DC 16213.2 / 10	FIRCP 60 V AC/DC 16214.2 / 10	FIRCP 110-125 V AC/DC 16215.2 / 10
Components, plug relays					
Type	PRC 1/5 V DC 15500.2 / 10	PRC 1/12 V DC 15501.2 / 10	PRC 1/24 V DC 15502.2 / 10	PRC 1/60 V DC 15503.2 / 10	PRC 1/60 V DC 15503.2 / 10
Accessories	Type				
Partition plate	TW/IRC			16228.2 / 10	
External cross-connector, blue	AQI/IRC/16 BU			16209.5 / 10	
External cross-connector, black	AQI/IRC/16 BK			16209.4 / 10	
External cross-connector, red	AQI/IRC/16 RD			16209.9 / 10	
Ribbon cable adapter	FCA/IRC			16229.2 / 10	
Fuse module	SM-IRC			16208.2 / 10	
Tool / screwdriver	SDB 0.6 x 3.5			1086.0 / 10	
Labelling/markers, blank	MC GS 6x12 R WH			3884.7 / 600	
Labelling/markers, special print	MC GS 6x12 R So WH			3885.7 / 600	

Interface Relay Compact IRC

IRCPU



FIRCPU



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

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

Accessories	Type
Partition plate	TW/IRC
External cross-connector, blue	AQI/IRC/16 BU
External cross-connector, black	AQI/IRC/16 BK
External cross-connector, red	AQI/IRC/16 RD
Ribbon cable adapter	FCA/IRC
Fuse module	SM-IRC
Tool / screwdriver	SDB 0.6 x 3.5
Labelling/markers, blank	MC GS 6x12 R WH
Labelling/markers, special print	MC GS 6x12 R So WH
	16228.2 / 10
	16209.5 / 10
	16209.4 / 10
	16209.9 / 10
	16229.2 / 10
	16208.2 / 10
	1086.0 / 10
	3884.7 / 600
	3885.7 / 600

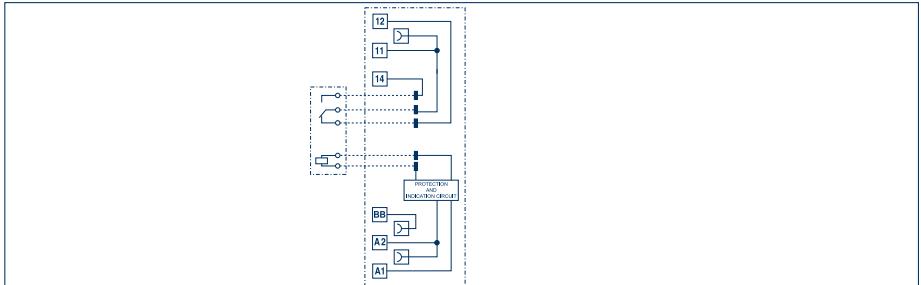
Interface Relay Compact IRC

IRC Input series

Consisting of:

- Base terminal and pluggable relay
- Mounts on TS 35
- Advantageous for connecting sensors to the PLC input, and the sensor power supply can be connected to the same coupling relay
- Internal EMC coil circuitry and LED display
- Pluggable cross-connection (blue, black, red) makes installations easier
- Screw or pressure-spring connection

(F)IRCIU



General specifications:

Mech. service life AC/DC switching cycles

Electrical service life AC 1 switching cycles

Response time/Release time

Ambient temperature

Relay protection type

Bounce time at the NO of the NO/NC contact

Vibration resistance (10-55) Hz NO/NC contact

Ambient heat dissipation without contact current

Ambient heat dissipation under continuous current

Insulation properties acc. to EN 61810-1

Rated voltage of power supply system

Rated insulation voltage / contamination degree

Insulation between coil and contact set

Oversupply category

Rated impulse voltage

Dielectric strength

Insulation at open contact

Dielectric strength

EMC - interference immunity of the input circuit

Burst (5/50 ns, 5 kHz) on A1 - A2 according to EN 61000-4-4

Surge (1.2/50 µs) on A1 - A2 according to EN 61000-4-5
(differential mode)

Rated data for the base

Stripping length

Torque

Max. wire cross-section, solid | finely stranded

Min. wire cross-section, solid | finely stranded

Max. wire cross-section, solid | finely stranded

Min. wire cross-section, solid | finely stranded

10×10^6

60×10^3

5/6 ms

- 40 °C – + 70 °C

IP 20

1 ms/6 ms

10 g / 5 g

0.2 W (24 V) – 0.4 W (230 V)

0.6 W (24 V) – 0.9 W (230 V)

230 / 400 V AC

250 V AC / 3 400 V AC / 2

III

6 kV (1.2/50 µs)

4,000 V AC

1,000 V AC / 1.5 kV (1.2/50 µs)

UN ≤ 60 V

4 kV

0.8 kV

UN = 125 V

4 kV

2 kV

UN = 230 V

4 kV

4 kV

Screw connection IRC

10 mm

0.5 Nm

1 x 2.5 | 1 x 2.5 mm²

1 x 0.2 | 1 x 2.5 mm²

1 x 14 AWG | 1 x 14 AWG

1 x 24 AWG | 1 x 24 AWG

Pressure-spring connection

8 mm

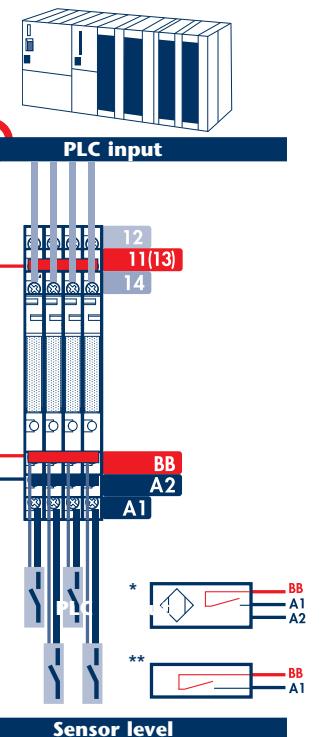
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1 x 2.5 | 1 x 2.5 mm²

1 x 0.2 | 1 x 2.5 mm²

1 x 14 AWG | 1 x 14 AWG

1 x 24 AWG | 1 x 24 AWG



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

BB = + (plus) for multiple sensors /

NO contact is bridgeable

A1 = individual sensor/

NO-contact output

For sensors with 3 connections:

BB = + (plus) for multiple sensors

Bridgeable

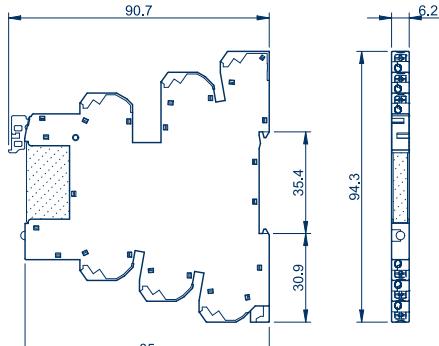
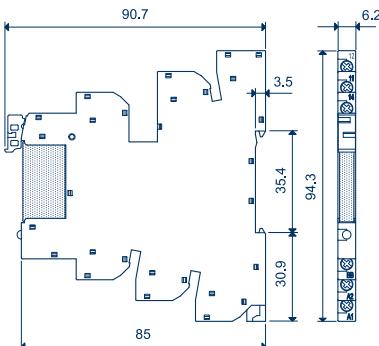
A2 = - (minus) for multiple sensors

Bridgeable

A1 = individual sensor output/

* Sensor with 3 connections
(PNP output)

** Sensor with 2 connections or for control via
NO contact



Interface Relay Compact IRC

IRCIU



FIRCIU



Screw connection	IRCIU 1/6 V AC/DC 16245.2 / 10	IRCIU 1/12 V AC/DC 16246.2 / 10	IRCIU 1/24 V AC/DC 16247.2 / 10	IRCIU 1/125 V AC/DC 16248.2 / 10	IRCIU 1/240 V AC 16249.2 / 10
Cat. no./Qty.					
Size (L x W x H) with TS 35 x 7.5	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm			
Weight	33 g	33 g	33 g	33 g	33 g
Operating voltage	6 V AC / DC	12 V AC / DC	24 AC / DC	125 V AC / DC	240 V AC
Input data					
Rated voltage (Un)	6 V AC / DC	12 V AC / DC	24 AC / DC	110-125 V AC / DC	220-240 V AC (50/60 Hz)
Power rating AC / DC	0.2 VA / 0.2 W	0.2 VA / 0.2 W	0.25 VA / 0.25 W	0.7 VA / 0.7 W	1 VA / -
Operating range	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Output specifications					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO 1 CO contact
Max. continuous current Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage Max. switching voltage	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	50 mW (5 V / 2 mA)	50 mW (5 V / 2 mA)			
Standard contact material	AgNi + Au	AgNi + Au	AgNi + Au	AgNi + Au	AgNi + Au
Component, screw socket base					
Type	IRCI 6-12-24 V AC/DC 16201.2 / 10	IRCI 6-12-24 V AC/DC 16201.2 / 10	IRCI 6-12-24 V AC/DC 16201.2 / 10	IRCI 110-125 V AC/DC 16202.2 / 10	IRCI 230-240 V AC 16203.2 / 10
Components, plug relays					
Type	PRC 1/5 V DC Au 15557.2 / 10	PRC 1/12 V DC Au 15558.2 / 10	PRC 1/24 V DC Au 15559.2 / 10	PRC 1/60 V DC Au 15568.2 / 10	PRC 1/60 V DC Au 15568.2 / 10
Pressure-spring connection					
Cat. no./Qty.					
Size (L x W x H) with TS 35 x 7.5	94.3 x 6.2 x 95.4 mm	94.3 x 6.2 x 95.4 mm			
Weight	33 g	33 g	33 g	33 g	33 g
Operating voltage	6 V AC / DC	12 V AC / DC	24 AC / DC	125 V AC / DC	240 V AC
Input data					
Rated voltage (Un)	6 V AC / DC	12 V AC / DC	24 AC / DC	110-125 V AC / DC	220-240 V AC (50/60 Hz)
Power rating AC / DC	0.2 VA / 0.2 W	0.2 VA / 0.2 W	0.25 VA / 0.25 W	0.7 VA / 0.7 W	1 VA / -
Operating range	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Output specifications					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage Max. switching voltage	250/400 VAC	250/400 VAC	250/400 VAC	250/400 VAC	250/400 VAC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	50 mW (5 V / 2 mA)	50 mW (5 V / 2 mA)			
Standard contact material	AgNi + Au	AgNi + Au	AgNi + Au	AgNi + Au	AgNi + Au
Component, pressure-spring socket base					
Type	IRCI 6-12-24 V AC/DC 16221.2 / 10	IRCI 6-12-24 V AC/DC 16221.2 / 10	IRCI 6-12-24 V AC/DC 16221.2 / 10	IRCI 110-125 V AC/DC 16222.2 / 10	IRCI 230-240 V AC 16223.2 / 10
Components, plug relays					
Type	PRC 1/5 V DC Au 15557.2 / 10	PRC 1/12 V DC Au 15558.2 / 10	PRC 1/24 V DC Au 15559.2 / 10	PRC 1/60 V DC Au 15568.2 / 10	PRC 1/60 V DC Au 15568.2 / 10
Accessories	Type				
Partition plate	TW/IRC				
External cross-connector, blue	AQI/IRC/16 BU				
External cross-connector, black	AQI/IRC/16 BK				
External cross-connector, red	AQI/IRC/16 RD				
Ribbon cable adapter	FCA/IRC				
Tool / screwdriver	SDB 0.6 x 3.5				
Labelling/markers, blank	MC GS 6x12 R WH				
Labelling/markers, special print	MC GS 6x12 R So WH				

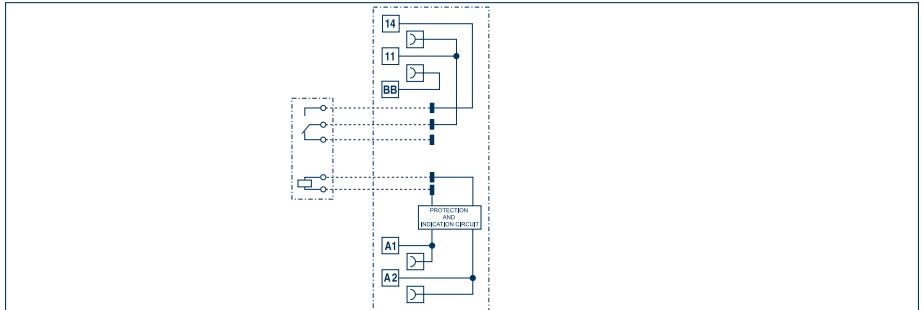
Interface Relay Compact IRC

IRC output series

Consisting of:

- Base terminal and pluggable relay
- Mounts on TS 35
- Advantageous for connecting actuators to the PLC output
- Control and power supply for the actuator can be connected to the same coupling relay
- Internal EMC coil circuitry and LED display
- Pluggable cross-connection (blue, black, red) makes installations easier
- Screw or pressure-spring connection

(F)IRCOU



General specifications:

Mech. service life	AC/DC switching cycles
Electrical service life AC 1	switching cycles
Response time/Release time	5/6 ms
Ambient temperature	- 40 °C – + 70 °C
Relay protection type	IP 20
Bounce time at the NO of the NO/NC contact	1 ms/6 ms
Vibration resistance (10-55) Hz NO/NC contact	10 g / 5 g
Ambient heat dissipation without contact current	0.2 W (24 V) – 0.4 W (230 V)
Ambient heat dissipation under continuous current	0.6 W (24 V) – 0.9 W (230 V)

Insulation properties acc. to EN 61810-1

Rated voltage of power supply system	230 / 400 V AC
Rated insulation voltage / contamination degree	250 V AC / 3

Insulation between coil and contact set

Overvoltage category	III
Rated impulse voltage	6 kV (1.2/50 µs)

Dielectric strength

Dielectric strength	4,000 V AC
Insulation at open contact	1,000 V AC / 1.5 kV (1.2/50 µs)

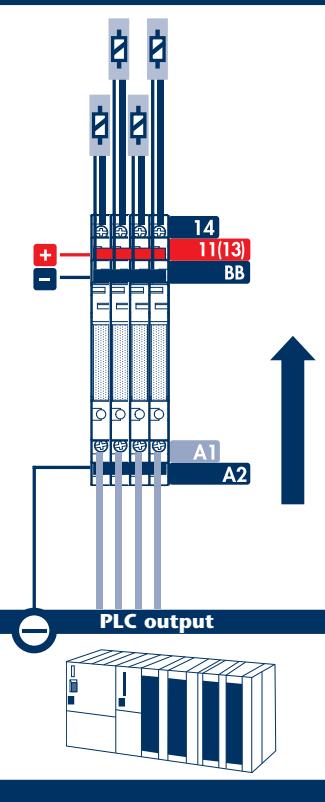
EMC - interference immunity of the input circuit

Burst (5/50 ns, 5 kHz) on A1 - A2 according to EN 61000-4-4	UN ≤ 60 V
Surge (1.2/50 µs) on A1 - A2 according to EN 61000-4-5 (differential mode)	UN = 125 V
	UN = 230 V

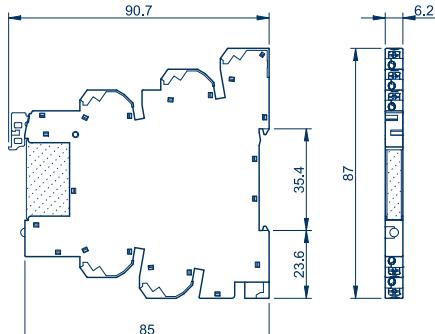
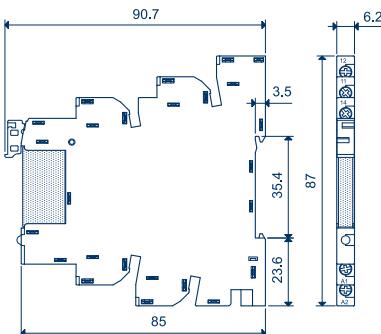
Rated data for the base

Stripping length	Screw connection IRC	Pressure-spring connection
Torque	10 mm	8 mm
Max. wire cross-section, solid finely stranded	0.5 Nm	-
Min. wire cross-section, solid finely stranded	1 x 2.5 1 x 2.5 mm ²	1 x 2.5 1 x 2.5 mm ²
Max. wire cross-section, solid finely stranded	1 x 0.2 1 x 2.5 mm ²	1 x 0.2 1 x 2.5 mm ²
Min. wire cross-section, solid finely stranded	1 x 14 AWG 1 x 14 AWG	1 x 14 AWG 1 x 14 AWG
	1 x 24 AWG 1 x 24 AWG	1 x 24 AWG 1 x 24 AWG

Actuator level



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



Interface Relay Compact IRC

IRCOU



FIRCOU



Screw connection	IRCOU 1/6 V AC/DC 16250.2 / 10	IRCOU 1/12 V AC/DC 16251.2 / 10	IRCOU 1/24 V AC/DC 16252.2 / 10	IRCOU 1/125 V AC/DC 16253.2 / 10	IRCOU 1/240 V AC 16254.2 / 10
Size (L x W x H) with TS 35 x 7.5	87 x 6.2 x 95.4 mm	87 x 6.2 x 95.4 mm			
Weight	33 g	33 g	33 g	33 g	33 g
Operating voltage	6 V AC / DC	12 V AC / DC	24 AC / DC	125 V AC / DC	240 V AC
Input data					
Rated voltage (Un)	6 V AC / DC	12 V AC / DC	24 AC / DC	110-125 V AC / DC	220-240 V AC (50/60 Hz)
Power rating AC / DC	0.2 VA / 0.2 W	0.2 VA / 0.2 W	0.25 VA / 0.25 W	0.7 VA / 0.7 W	1 VA / -
Operating range	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Output specifications					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage Max. switching voltage	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)			
Standard contact material	AgNi	AgNi	AgNi	AgNi	AgNi
Component, screw socket base					
Type	IRCO 6-12-24 V AC/DC 16204.2 / 10	IRCO 6-12-24 V AC/DC 16204.2 / 10	IRCO 6-12-24 V AC/DC 16204.2 / 10	IRCO 110-125 V AC/DC 16205.2 / 10	IRCO 230-240 V AC 16206.2 / 10
Components, plug relays					
Type	PRC 1/5 V DC 15500.2 / 10	PRC 1/12 V DC 15501.2 / 10	PRC 1/24 V DC 15502.2 / 10	PRC 1/60 V DC 15503.2 / 10	PRC 1/60 V DC 15503.2 / 10

Pressure-spring connection	IRCOU 1/6 V AC/DC 16280.2 / 10	IRCOU 1/12 V AC/DC 16281.2 / 10	IRCOU 1/24 V AC/DC 16282.2 / 10	IRCOU 1/125 V AC/DC 16283.2 / 10	IRCU 1/240 V AC 16284.2 / 10
Size (L x W x H) with TS 35 x 7.5	87 x 6.2 x 90.7 mm	87 x 6.2 x 90.7 mm			
Weight	33 g	33 g	33 g	33 g	33 g
Operating voltage	6 V AC / DC	12 V AC / DC	24 AC / DC	125 V AC / DC	240 V AC
Input data					
Rated voltage (Un)	6 V AC / DC	12 V AC / DC	24 AC / DC	110-125 V AC / DC	220-240 V AC (50/60 Hz)
Power rating AC / DC	0.2 VA / 0.2 W	0.2 VA / 0.2 W	0.25 VA / 0.25 W	0.7 VA / 0.7 W	1 VA / -
Operating range	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un	(0.8-1.1) Un
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Output specifications					
Number of contacts	1 CO contact	1 CO contact	1 CO contact	1 CO contact	1 CO contact
Max. continuous current Max. inrush current	6/10 A	6/10 A	6/10 A	6/10 A	6/10 A
Rated voltage Max. switching voltage	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC	250/400 V AC
Max. switching capacity AC 1	1,500 VA	1,500 VA	1,500 VA	1,500 VA	1,500 VA
Max. switching capacity AC 15 (230 V AC)	300 VA	300 VA	300 VA	300 VA	300 VA
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW	0.185 kW	0.185 kW	0.185 kW	0.185 kW
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A	6/0.2/0.12 A
Min. switching load	500 mW (12 V / 10 mA)	500 mW (12 V / 10 mA)			
Standard contact material	AgNi	AgNi	AgNi	AgNi	AgNi
Component, pressure-spring socket base					
Type	FIRCO 6-12-24 V AC/DC 16224.2 / 10	FIRCO 6-12-24 V AC/DC 16224.2 / 10	FIRCO 6-12-24 V AC/DC 16224.2 / 10	FIRCO 110-125 V AC/DC 16225.2 / 10	FIRCO 230-240 V AC 16226.2 / 10
Components, plug relays					
Type	PRC 1/5 V DC 15500.2 / 10	PRC 1/12 V DC 15501.2 / 10	PRC 1/24 V DC 15502.2 / 10	PRC 1/60 V DC 15503.2 / 10	PRC 1/60 V DC 15503.2 / 10

Accessories	Type
Partition plate	TW/IRC
External cross-connector, blue	AQI/IRC/16 BU
External cross-connector, black	AQI/IRC/16 BK
External cross-connector, red	AQI/IRC/16 RD
Ribbon cable adapter	FCA/IRC
Tool / screwdriver	SDB 0.6 x 3.5
Labelling/markers, blank	MC GS 6x12 R WH
Labelling/markers, special print	MC GS 6x12 R So WH
	3884.7 / 600
	3885.7 / 600

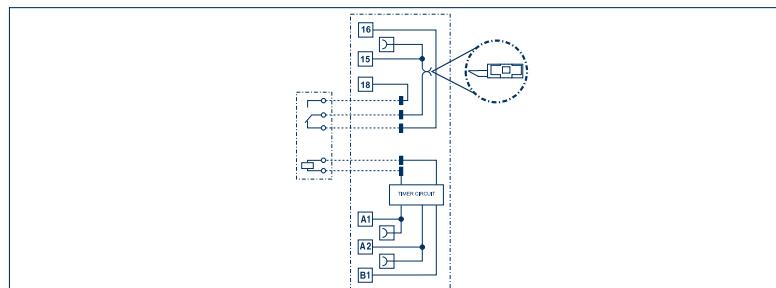
Multifunction timing relay compact MFR-IRCPU

MFR IRCPU series

Consisting of:

- Base terminal and pluggable relay
- Mounts on TS 35
- Multifunction timing relay with eight time functions and four time ranges – configurable with DIP switch up to six hours
- Output fuse module for individual standard micro-fuse (5x20 mm) available as accessory
- Internal EMC coil circuitry and LED display
- Pluggable cross-connection (blue, black, red) makes installations easier
- Screw or pressure-spring connection

MFR (F)IRCPU circuit diagram



General specifications:

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

Time delay range



Control without a control contact

(A) ON delay

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



(GI) Fixed pulse (0.5 s) delayed

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



Control with a control contact

(BE) OFF delay with control contact

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



(DE) Impulse-ON with control contact

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



(DI) ON pulse

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



(SW) Blinker ON beginning

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



(CE) ON and OFF delay with control contact

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



(EE) Impulse-OFF via opened start contact

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



EMC specifications

Standard

EN 61000-4-2

EN 61000-4-3

EN 61000-4-4

EN 61000-4-5

EN 61000-4-6

EN 55022

Test

Electrostatic discharge

Radio frequency, electromagnetic field (80-1000 MHz)

Radio frequency, electromagnetic field (1400-2700 MHz)

Quick transients (bursts) (5-50 nS, 5 kHz) at input terminals

Surge (1.2/50 µs) on input terminals

Radio frequency common mode (0.15 ÷ 80 MHz at input terminals)

Emissions class

Voltage

Contact discharge
Air discharge

4 kV
8 kV

10 V/m
10 V/m

4 kV

common mode
differential mode

2 kV
0.8 kV

10 V

Class B

Interface Relay Compact IRC

MFR IRCPU



MFR FIRCPU



Type	MFR IRCPU 1/12 V AC/DC 16255.2 / 10	MFR IRCPU 1/ 24 V AC/DC 16256.2 / 10	MFR FIRCPU 1/12 V AC/DC 16285.2 / 10	MFR FIRCPU 1/ 24 V AC/DC 16286.2 / 10
Cat. no./Qty.				
Size (L x W x H) with TS 35 x 7.5	94.3 x 6.2 x 95.4 mm			
Weight	33 g	33 g	33 g	33 g
Operating voltage	12 V AC / DC	24 V AC / DC	12 V AC / DC	24 V AC / DC
Input data				
Rated voltage (Un)	12 V AC / DC	24 V AC / DC	12 V AC / DC	24 V AC / DC
Power rating AC / DC	0.3 VA / 0.2 W	0.4 VA / 0.3 W	0.3 VA / 0.2 W	0.4 VA / 0.3 W
Operating range	(0.8 to 1.1) Un			
Holding current	0.6 Un	0.6 Un	0.6 Un	0.6 Un
Drop-out voltage	0.1 Un	0.1 Un	0.1 Un	0.1 Un
Functions				
AI: ON delay			AI: ON delay	
DI: ON pulse			DI: ON pulse	
GI: Fixed pulse (0.5 s) delayed			GI: Fixed pulse (0.5 s) delayed	
SW: Blinker ON beginning			SW: Blinker ON beginning	
BE: OFF delay with control contact			BE: OFF delay with control contact	
CE: ON and OFF delay with control contact			CE: ON and OFF delay with control contact	
DE: Impulse-ON with control contact			DE: Impulse-ON with control contact	
EE: Impulse-OFF with control contact			EE: Impulse-OFF with control contact	
Time delay range	(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h	(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h	(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h	(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h
Displays	LED = Position of output relay			
Connection data				
Connection type	Screw connection		Pressure-spring connection	
Stripping length	10 mm		8 mm	
Torque	0.5 Nm		-	
Max. wire cross-section, solid finely stranded	1 x 2.5 1 x 2.5 mm ²		1 x 2.5 1 x 2.5 mm ²	
Min. wire cross-section, solid finely stranded	1 x 0.2 1 x 2.5 mm ²		1 x 0.2 1 x 2.5 mm ²	
Max. wire cross-section, solid finely stranded	1 x 14 AWG 1 x 14 AWG		1 x 14 AWG 1 x 14 AWG	
Min. wire cross-section, solid finely stranded	1 x 24 AWG 1 x 24 AWG		1 x 24 AWG 1 x 24 AWG	
Technical data				
Time delay range	(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h		(0.1-3) s, (3-60) s, (1-20) min, (0.3-6) h	
Repeat accuracy	± 1 %		± 1 %	
Recovery time	< 50 ms		< 50 ms	
Setting tolerance to end value	± 5 %		± 5 %	
Ambient temperature	-40 to +50 °C		-40 to +50 °C	
Output specifications				
Number of contacts	1 CO contact		1 CO contact	
Max. continuous current Max. inrush current	6/10 A		6/10 A	
Rated voltage Max. switching voltage	250/400 V AC		250/400 V AC	
Max. switching capacity AC 1	1,500 VA		1,500 VA	
Max. switching capacity AC 15 (230 V AC)	300 VA		300 VA	
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW		0.185 kW	
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A		6/0.2/0.12 A	
Min. switching load	500 mW (12 V / 10 mA)		500 mW (12 V / 10 mA)	
Standard contact material	AgNi		AgNi	
Components, socket base				
Type	MFR IRCP 12-24 V AC/DC 16207.2 / 10	MFR IRCP 12-24 V AC/DC 16207.2 / 10	MFR FIRCP 12-24 V AC/DC 16227.2 / 10	MFR FIRCP 12-24 V AC/DC 16227.2 / 10
Cat. no./Qty.				
Components, plug relays				
Type	PRC 1/12 V DC 15501.2 / 10	PRC 1/24 V DC 15502.2 / 10	PRC 1/12 V DC 15501.2 / 10	PRC 1/24 V DC 15502.2 / 10
Cat. no./Qty.				
Accessories				
Partition plate	TW/IRC		16228.2 / 10	
External cross-connector, blue	AQI/IRC/16 BU		16209.5 / 10	
External cross-connector, black	AQI/IRC/16 BK		16209.4 / 10	
External cross-connector, red	AQI/IRC/16 RD		16209.9 / 10	
Ribbon cable adapter	FCA/IRC		16229.2 / 10	
Fuse modules	SM-IRC		16208.2 / 10	
Tool / screwdriver	SDB 0.6 x 3.5		1086.0 / 10	
Labelling/markers, blank	MC GS 6x12 R WH		3884.7 / 600	
Labelling/markers, special print	MC GS 6x12 R So WH		3885.7 / 600	

Plug relay compact PRC

Relay terminals with 1 CO relay

1. Overview

Labelling | Marking

a 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.

Using the mount/dismount lever

b 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!

Pluggable relay

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

Pluggable external cross-connections

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

Mounts on standard TS 35 rail

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

Connection types

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

2. Approvals (details upon request)

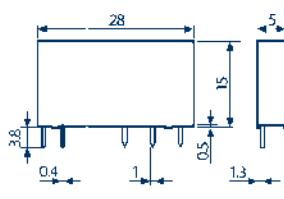


3. Features

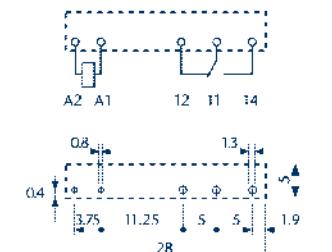
I. Relay

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

Relay - complete view



Connection diagram

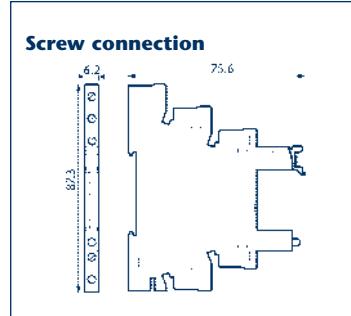
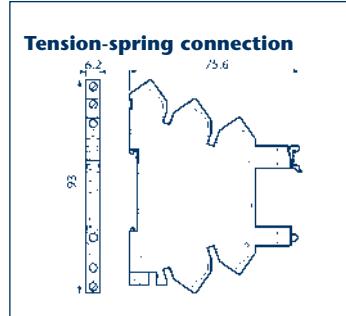


Plug relay compact PRC

Relay terminals with 1 CO relay

II. Socket base

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



4. General specifications

Electro-mechanical relay

Insulation properties

Insulation coordination, according to EN 61810-1, VDE 0435 T 201.

Rated insulation voltage

250

Rated surge voltage, kV

4

Contamination degree

3

Overvoltage category

III

EMC - interference immunity of the control circuit (coil)

BURST (5 to 50) ns, 5 kHz, on A 1-A 2

EN 61000-4-4

Class 4 (4 kV)

SURGE (1.2/50) μ s on A 1-A 2 (differential mode)

EN 61000-4-5

Class 3 (2 kV)

Additional data

Bounce time at close of the NO/NC contact

ms

1/6

Resistance to vibration (10 to 55 Hz, max. \pm 1 mm):

NO/NC contact g/g

without contact current W

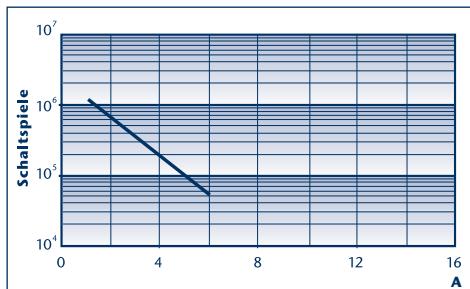
with continuous current W

10/5 flux density

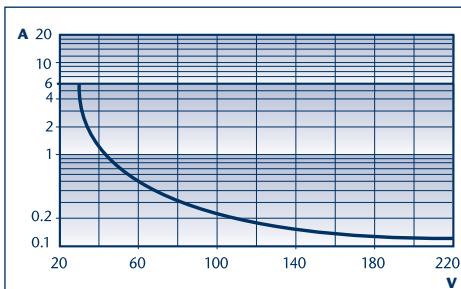
0.2 (12 V) to 0.9 (240 V)

0.5 (12 V) to 1.5 (240 V)

5. Contact data



Service life of contact under AC 1 load

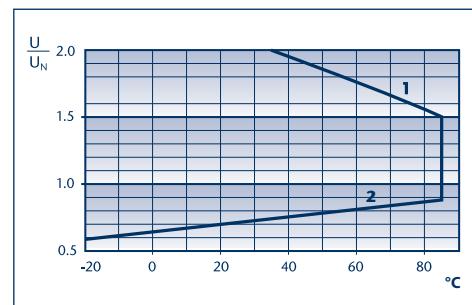


Switching capacity under DC 1 load

6. Coil data

DC version

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



Reliable range of operating voltage

1 Max. permitted coil voltage

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

Plug relay compact PRC

Screw-connection relay terminals	PRCU 1/6V DC	PRCU 1/12V DC	PRCU 1/24V DC	PRCU 1/12V AC/DC	PRCU 1/24V AC/DC
<ul style="list-style-type: none"> Consisting of: Base terminal and pluggable relay Mounts on TS 35 					
Connection diagram					
Type Cat. no./Qty.	PRCU 1/6 V DC 15513.2/10	PRCU 1/12 V DC 15514.2/10	PRCU 1/24 V DC 15515.2/10	PRCU 1/12 V AC/DC 15569.2/10	PRCU 1/24 V AC/DC 15508.2/10
Size (L x W x H) with TS 35 x 7.5	87.3 x 6.2 x 79.9 mm				
Weight	36 g				
Rated operating voltage	6 V DC	12 V DC	24 V DC	12 V AC/DC	24 V AC/DC
General specifications					
Mech. lifespan AC/DC	switching cycles	-/10 x 10 ⁶	-/10 x 10 ⁶	-/10 x 10 ⁶	10 x 10 ⁶ /10 x 10 ⁶
Electrical lifespan AC 1	switching cycles	60 x 10 ³			
Response time/Release time	5/6 ms				
Insulation coordination, EN 61810-5	4 kV/3				
Dielectric strength coil/contacts (1.2/50 µs)	6 kV				
Dielectric strength of open contacts	1,000 V AC				
Ambient temperature	-40 to +70 °C				
Relay protection type	RT II				
Ratings for socket base					
Ambient temperature	-40 to +70 °C				
Stripping length	10 mm				
Max. wire cross-section, solid finely stranded	1x2.5 1x2.5 mm ² 1x14 1x14 AWG				
Ratings for plug-relays combined with socket base					
Contacts					
Number of contacts	1 CO contact				
Max. continuous current Max. inrush current	6/10 A				
Rated voltage Max. switching voltage	250/400 VAC*				
Max. switching capacity AC 1	1,500 VA				
Max. switching capacity AC 1.5 (230 V AC)	300 VA				
1-phase motor load, AC 3-mode (230 V AC)	0.185 kW				
Max. switching current DC 1:30/110/220 V	6/0.2/0.12 A				
Min. switching load	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				
Operating range	-	-	-	(0.8 to 1.1) U _N AC (50/60 Hz)	(0.8 to 1.1) U _N AC (50/60 Hz)
Holding current	(0.8 to 1.2) U _N DC				
Drop-out voltage	0.05 U _N DC	0.05 U _N DC	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
Components, socket base					
Type/Colour grey (RAL 7032)	PRC 6-12-24V DC 15490.2/10	PRC 6-12-24V DC 15490.2/10	PRC 6-12-24V DC 15490.2/10	PRC 6-12-24V AC/DC 15488.2/10	PRC 6-12-24V AC/DC 15488.2/10
Components, plug relays					
Type/Rated voltage	PRC 1/5V DC 15500.2/10 ³	PRC 1/24V DC 15501.2/10 ³	PRC 1/24V DC 15502.2/10 ³	PRC 1/12V DC 15501.2/10 ³	PRC 1/24V DC 15502.2/10 ³
Accessories for AQI/PRC ext. insulated cross-connection	AQI/PRC/20	AQI/PRC/20	AQI/PRC/20	AQI/PRC/20	AQI/PRC/20
Cat. no./Qty. yellow	15545.8/1	15545.8/1	15545.8/1	15545.8/1	15545.8/1
Cat. no./Qty. blue	15545.5/1	15545.5/1	15545.5/1	15545.5/1	15545.5/1
Cat. no./Qty. black	15545.4/1	15545.4/1	15545.4/1	15545.4/1	15545.4/1
Partition plate TW/PRC	TW/PRC	TW/PRC	TW/PRC	TW/PRC	TW/PRC
Cat. no./Qty.	15546.2/1	15546.2/1	15546.2/1	15546.2/1	15546.2/1
Labelling/markers PMC	PMC BSTR 6/30				
Cat. no./Qty. standard print, see catalogue	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT
Cat. no./Qty. blank	9106.7/300	9106.7/300	9106.7/300	9106.7/300	9106.7/300
Cat. no./Qty. special print	9107.7/300	9107.7/300	9107.7/300	9107.7/300	9107.7/300
Screwdriver SDB	SDB 0.6 x 3.5				
Cat. no./Qty.	1086.0/1	1086.0/1	1086.0/1	1086.0/1	1086.0/1

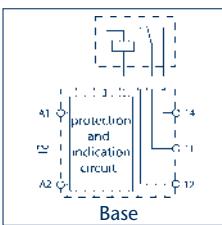
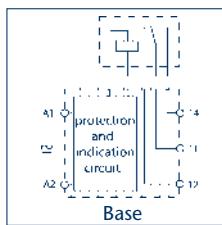
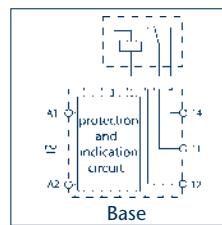
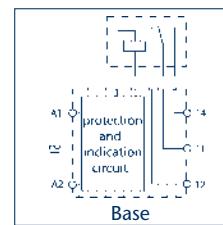
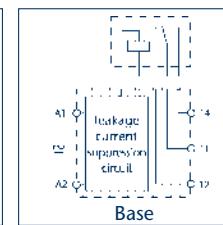
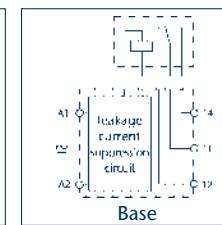
* The conditions of contamination degree 2 are fulfilled at 400 V.

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

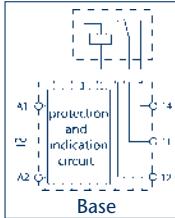
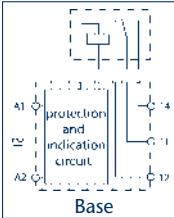
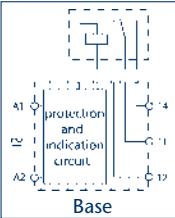
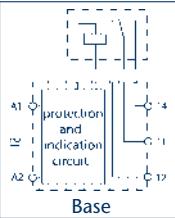
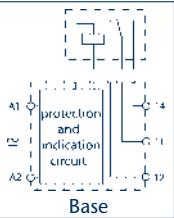
*2 Since this relay is only produced for DC at a max. 60 V, the adjustment to the operating voltage occurs via the internal resistance and bridge rectifiers!

*3 Relay available with gold contact upon request!

Plug relay compact PRC

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

Plug relay compact PRC

Tension-spring relay terminals	ZPRCU 1/6V DC	ZPRCU 1/12V DC	ZPRCU 1/24V DC	ZPRCU 1/12V AC/DC	ZPRCU 1/24V AC/DC
<ul style="list-style-type: none"> Consisting of: Base terminal and pluggable relay Mounts on TS 35 					
Connection diagram					
Type Cat. no./Qty. Type/Colour grey (RAL 7032) Size (L x W x H) with TS 35 x 7.5 Weight Rated operating voltage	ZPRCU 1/6V DC 15524.2/10 93 x 6.2 x 79.9 mm 36 g 6 V DC	ZPRCU 1/12V DC 15525.2/10 93 x 6.2 x 79.9 mm 36 g 12 V DC	ZPRCU 1/24V DC 15526.2/10 93 x 6.2 x 79.9 mm 36 g 24 V DC	ZPRCU 1/12V AC/DC 15518.2/10 93 x 6.2 x 79.9 mm 36 g 12 V AC/DC	ZPRCU 1/24V AC/DC 15519.2/10 93 x 6.2 x 79.9 mm 36 g 24 V AC/DC
General specifications	Mech. lifespan AC/DC Electrical lifespan AC 1 Response time/Release time Insulation coordination, EN 61810-5 Dielectric strength coil/contacts (1.2/50 µs) Dielectric strength of open contacts Ambient temperature Relay protection type	Switching cycles Switching cycles 5/6 ms 4 kV/3 6 kV 1,000 V AC -40 to +70 °C RT II	–/10 x 10 ⁶ 60 x 10 ³ 5/6 ms 4 kV/3 6 kV 1,000 V AC -40 to +70 °C RT II	–/10 x 10 ⁶ 60 x 10 ³ 5/6 ms 4 kV/3 6 kV 1,000 V AC -40 to +70 °C RT II	–/10 x 10 ⁶ /10 x 10 ⁶ 60 x 10 ³ 5/6 ms 4 kV/3 6 kV 1,000 V AC -40 to +70 °C RT II
Ratings for socket base	Ambient temperature Stripping length Max. wire cross-section, solid finely stranded	-40 to +70 °C 10 mm 1x2.5/2x1.5 1x2.5/2x1.5	-40 to +70 °C 10 mm 1x2.5/2x1.5 1x2.5/2x1.5	-40 to +70 °C 10 mm 1x2.5/2x1.5 1x2.5/2x1.5	-40 to +70 °C 10 mm 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 Max. continuous current Max. inrush current Rated voltage Max. switching voltage Max. switching capacity AC 1 Max. switching capacity AC 15 (230 V AC) 1-phase motor load, AC 3-mode (230 V AC) Max. switching current DC 1:30/110/220 V Min. switching load Standard contact material	1 CO contact 6/10 A 250/400 V AC 1,500 VA 300 VA 0.185 kW 6/0.2/0.12 A 300 (5/5) mW (V/mA) AgNi	1 CO contact 6/10 A 250/400 V AC 1,500 VA 300 VA 0.185 kW 6/0.2/0.12 A 300 (5/5) mW (V/mA) AgNi	1 CO contact 6/10 A 250/400 V AC 1,500 VA 300 VA 0.185 kW 6/0.2/0.12 A 300 (5/5) mW (V/mA) AgNi	1 CO contact 6/10 A 250/400 V AC 1,500 VA 300 VA 0.185 kW 6/0.2/0.12 A 300 (5/5) mW (V/mA) AgNi	1 CO contact 6/10 A 250/400 V AC 1,500 VA 300 VA 0.185 kW 6/0.2/0.12 A 300 (5/5) mW (V/mA) AgNi
Coil					
Rated voltage (U _N) Power rating AC/DC Operating range	5 V DC – AC 0.2 W -	12 V DC – AC 0.2 W -	24 V DC – AC 0.2 W -	12 V DC 12 AC 0.2 W (0.8 to 1.1) U _N AC (50/60 Hz)	24 V DC 24 AC 0.2 W (0.8 to 1.1) U _N AC (50/60 Hz)
Holding current Drop-out voltage	(0.8 to 1.2) U _N DC 0.6 U _N DC 0.05 U _N DC	(0.8 to 1.2) U _N DC 0.6 U _N DC 0.05 U _N DC	(0.8 to 1.2) U _N DC 0.6 U _N DC 0.05 U _N DC	(0.8 to 1.2) U _N DC 0.6 U _N AC/0.6 U _N DC 0.1 U _N AC/0.05 U _N DC	(0.8 to 1.2) U _N DC 0.6 U _N AC/0.6 U _N DC 0.1 U _N AC/0.05 U _N DC
Components, socket base					
Type/Colour grey (RAL 7032)	ZPRC 6-12-24V DC 15494.2/10	ZPRC 6-12-24V DC 15494.2/10	ZPRC 6-12-24V DC 15494.2/10	ZPRC 6-12-24V AC/DC 15492.2/10	ZPRC 6-12-24V AC/DC 15492.2/10
Components, plug relays					
Type/Rated voltage Cat. no./Qty.	PRC 1/5V DC 15500.2/10³	PRC 1/12V DC 15501.2/10³	PRC 1/24V DC 15502.2/10³	PRC 1/12V DC 15501.2/10³	PRC 1/24V DC 15502.2/10³
Accessories for AQI/PRC ext. insulated cross-connection	AQI/PRC/20	AQI/PRC/20	AQI/PRC/20	AQI/PRC/20	AQI/PRC/20
Cat. no./Qty. yellow Cat. no./Qty. blue Cat. no./Qty. black	15545.8/1 15545.5/1 15545.4/1	15545.8/1 15545.5/1 15545.4/1	15545.8/1 15545.5/1 15545.4/1	15545.8/1 15545.5/1 15545.4/1	15545.8/1 15545.5/1 15545.4/1
Partition plate TW/PRC	TW/PRC	TW/PRC	TW/PRC	TW/PRC	TW/PRC
Cat. no./Qty.	15546.2/1	15546.2/1	15546.2/1	15546.2/1	15546.2/1
Labelling/markers PMC	PMC BSTR 6/30 CONTA-CONNECT	PMC BSTR 6/30 CONTA-CONNECT	PMC BSTR 6/30 CONTA-CONNECT	PMC BSTR 6/30 CONTA-CONNECT	PMC BSTR 6/30 CONTA-CONNECT
Cat. no./Qty. standard print, see catalogue Cat. no./Qty. blank Cat. no./Qty. special print	9106.7/300	9106.7/300	9106.7/300	9106.7/300	9106.7/300
Metal actuating tool BWMA	BWMA 1	BWMA 1	BWMA 1	BWMA 1	BWMA 1
Cat. no./Qty.	3808.0/1	3808.0/1	3808.0/1	3808.0/1	3808.0/1

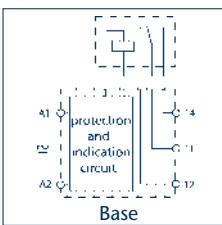
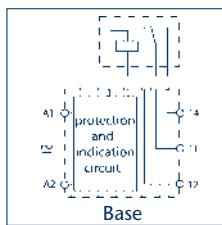
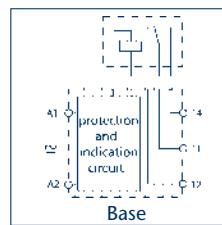
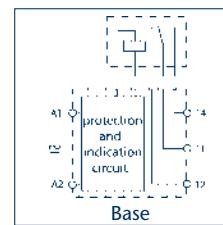
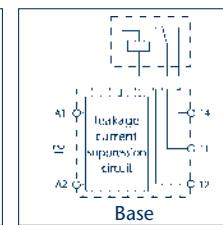
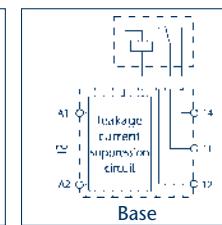
* The conditions of contamination degree 2 are fulfilled at 400 V.

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

*2 Since this relay is only produced for DC at a max. 60 V, the adjustment to the operating voltage occurs via the internal resistance and bridge rectifiers!

*3 Relay available with gold contact upon request!

Plug relay compact PRC

ZPRCU 1/48V AC/DC	ZPRCU 1/60V AC/DC	ZPRCU 1/125V AC/DC	ZPRCU 1/240V AC/DC	ZPRCU LW 1/125V AC/DC	ZPRCU LW 1/240V AC
					
					
ZPRCU 1/48V AC/DC 15520.2/10 93 x 6.2 x 79.9 mm 36 g 48 V AC/DC 10 x 10 ⁶ /10 x 10 ⁶ 60 x 10 ³ 5/6 ms 4 kV/3 6 kV 1,000 V AC -40 to +70 °C RT II -40 to +70 °C 10 mm 1x2.5/2x1.5 1x2.5/2x1.5 1x14/2x16 1x14/2x16 1 CO contact 6/10 A 250/400 V AC 1,500 VA 300 VA 0.185 kW 6/0.2/0.12 A 300 (5/5) mW (V/mA) AgNi 48 V DC 48 AC 0.2 W (0.8 to 1.1) U _N AC (50/60 Hz) (0.8 to 1.2) U _N DC 0.6 U _N AC/0.6 U _N DC 0.1 U _N AC/0.05 U _N DC	ZPRCU 1/60V AC/DC 15521.2/10 93 x 6.2 x 79.9 mm 36 g 60 V AC/DC 10 x 10 ⁶ /10 x 10 ⁶ 60 x 10 ³ 5/6 ms 4 kV/3 6 kV 1,000 V AC -40 to +70 °C RT II -40 to +70 °C 10 mm 1x2.5/2x1.5 1x2.5/2x1.5 1x14/2x16 1x14/2x16 1 CO contact 6/10 A 250/400 V AC 1,500 VA 300 VA 0.185 kW 6/0.2/0.12 A 300 (5/5) mW (V/mA) AgNi 60 V DC 60 AC 0.2 W (0.8 to 1.1) U _N AC (50/60 Hz) (0.8 to 1.2) U _N DC 0.6 U _N AC/0.6 U _N DC 0.1 U _N AC/0.05 U _N DC	ZPRCU 1/125V AC/DC 15522.2/10*2 93 x 6.2 x 79.9 mm 36 g 125 V AC/DC 10 x 10 ⁶ /10 x 10 ⁶ 60 x 10 ³ 5/6 ms 4 kV/3 6 kV 1,000 V AC -40 to +70 °C RT II -40 to +70 °C 10 mm 1x2.5/2x1.5 1x2.5/2x1.5 1x14/2x16 1x14/2x16 1 CO contact 6/10 A 250/400 V AC 1,500 VA 300 VA 0.185 kW 6/0.2/0.12 A 300 (5/5) mW (V/mA) AgNi 110 to 125 V DC 110 to 125 AC 0.2 W (0.8 to 1.1) U _N AC (50/60 Hz) (0.8 to 1.2) U _N DC 0.6 U _N AC/0.6 U _N DC 0.1 U _N AC/0.05 U _N DC	ZPRCU 1/240V AC/DC 15523.2/10*2 93 x 6.2 x 79.9 mm 36 g 230 V AC/DC 10 x 10 ⁶ /10 x 10 ⁶ 60 x 10 ³ 5/6 ms 4 kV/3 6 kV 1,000 V AC -40 to +70 °C RT II -40 to +70 °C 10 mm 1x2.5/2x1.5 1x2.5/2x1.5 1x14/2x16 1x14/2x16 1 CO contact 6/10 A 250/400 V AC 1,500 VA 300 VA 0.185 kW 6/0.2/0.12 A 300 (5/5) mW (V/mA) AgNi 220 to 240 V DC 220 to 240 AC 0.2 W (0.8 to 1.1) U _N AC (50/60 Hz) (0.8 to 1.2) U _N DC 0.6 U _N AC/0.6 U _N DC 0.1 U _N AC/0.05 U _N DC	ZPRCU LW 1/125V AC/DC 15551.2/10*2 93 x 6.2 x 79.9 mm 36 g 125 V AC/DC 10 x 10 ⁶ /10 x 10 ⁶ 60 x 10 ³ 5/6 ms 4 kV/3 6 kV 1,000 V AC -40 to +70 °C RT II -40 to +70 °C 10 mm 1x2.5/2x1.5 1x2.5/2x1.5 1x14/2x16 1x14/2x16 1 CO contact 6/10 A 250/400 V AC 1,500 VA 300 VA 0.185 kW 6/0.2/0.12 A 300 (5/5) mW (V/mA) AgNi 110 to 125 V DC 110 to 125 AC 1.0 W (0.8 to 1.1) U _N AC (50/60 Hz) (0.8 to 1.2) U _N DC 0.6 U _N AC/0.6 U _N DC 0.1 U _N AC/0.05 U _N DC	ZPRCU LW 1/240V AC 15552.2/10*2 93 x 6.2 x 79.9 mm 36 g 230 V AC 10 x 10 ⁶ /10 x 10 ⁶ 60 x 10 ³ 5/6 ms 4 kV/3 6 kV 1,000 V AC -40 to +70 °C RT II -40 to +70 °C 10 mm 1x2.5/2x1.5 1x2.5/2x1.5 1x14/2x16 1x14/2x16 1 CO contact 6/10 A 250/400 V AC 1,500 VA 300 VA 0.185 kW 6/0.2/0.12 A 300 (5/5) mW (V/mA) AgNi -V DC 220 to 240 AC 0.5 W (0.8 to 1.1) U _N AC (50/60 Hz) (0.8 to 1.2) U _N DC 0.6 U _N AC/- U _N DC 0.1 U _N AC/- U _N DC
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...125V 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
CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT	CONTA-CONNECT
9106.7/300	9107.7/300	9106.7/300	9107.7/300	9106.7/300	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