

## Completely Assembled Relay Modules PR2-R... Including 2 or 4 PDT Industrial Relays – With Screw or Spring-Cage Connection

PR2-R... is a 27 mm wide, completely assembled, coupling relay series for universal use with screw or spring-cage connection, which consists of a relay base, a plug-in industrial relay, a plug-in interference suppression module (AC types only), and a relay retaining bracket with eject function. The relay base has a 1/3 story design and thus has a logical structure. It has coil and contact connections that are located opposite one another and thus meets the requirements of modern control cabinet concepts with clear isolation of control signals and load.

### Advantages:

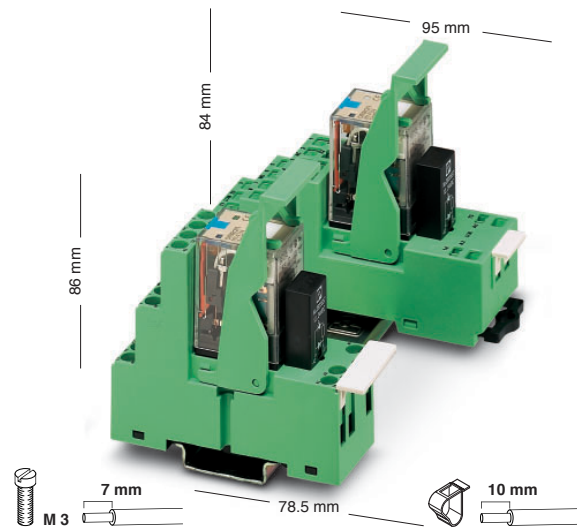
- Low ordering and storage costs
- High degree of flexibility and low maintenance costs through the use of plug-in relays
- Relay with integrated status LED and free-wheeling diode (free-wheeling diode only with DC types)

### Input Voltages

PR2-R... is available on the coil side in popular industrial voltages.

### Rugged Industrial Relay



At the heart of the series is a rugged industrial relay with lockable manual test button. As standard, the relay has a status LED and, in the DC version, a free-wheeling diode. The types with 4 PDT contacts have hard gold-plated contacts, which enable even small signals from 1 V/1 mA to be switched without any problems.



	Solid	Stranded		I	U
		[mm <sup>2</sup> ]	AWG	[A]	[V]
Screw connection	0.14 - 2.5	0.14 - 2.5	26 - 14	*	*
Spring-cage connection	0.2 - 1.5	0.2 - 1.5	25 - 16**		

\* The electrical data is determined by the relay.

# Completely Assembled Relay Modules With Screw Connection and Industrial Relay PR2-RSC3...2x21... (2 PDT Contacts) PR2-RSC3...4x21AU (4 PDT Contacts)

Description	Input Voltage $U_N$ <sup>1)</sup>	Type	Order No.	Pcs. Pkt.
<b>Pre-assembled coupling relay,</b> consisting of relay base and plug-in industrial relay with <b>2 PDT contacts</b> , LED indicator, and coil interference suppression, for mounting on  , includes 5 removable MP1 or MP2 markers	24 V DC	Includes power contact relay <b>PR2-RSC3-LDP-24DC/2x21</b> <b>PR2-RSC3-LV-24AC/2x21</b> <b>PR2-RSC3-LV-120AC/2x21</b> <b>PR2-RSC3-LV-230AC/2x21</b>	<b>2834643</b> <b>2834656</b> <b>2834669</b> <b>2834672</b>	5 5 5 5
	24 V AC			
	120 V AC			
	230 V AC			
<b>Pre-assembled coupling relay,</b> consisting of relay base and plug-in industrial relay with <b>4 PDT contacts</b> , LED indicator, coil interference suppression, and solid gold coating on the contacts, for mounting on  , includes 5 removable MP1 or MP2 markers	24 V DC	Includes hard gold-plated contacts <b>PR2-RSC3-LDP-24DC/4x21AU</b> <b>PR2-RSC3-LV-24AC/4x21AU</b> <b>PR2-RSC3-LV-120AC/4x21AU</b> <b>PR2-RSC3-LV-230AC/4x21AU</b>	<b>2834724</b> <b>2834737</b> <b>2834740</b> <b>2834753</b>	5 5 5 5
	24 V AC			
	120 V AC			
	230 V AC			

## Technical Data

### Input Data

Nominal input voltage $U_N$	24 V DC	24 V AC	120 V AC	230 V AC
Permissible range with reference to $U_N$	See diagram in the INTERFACE catalog			
Typical input current at $U_N$ (for AC: 50/60 Hz)	38 mA	54/46 mA	11/9 mA	5/4 mA
Typical response time at $U_N$ (for AC: depending on phase relation)	13 ms	4 - 10 ms	4 - 10 ms	4 - 10 ms
Typical release time at $U_N$ (for AC: depending on phase relation)	5 ms	3 - 12 ms	3 - 12 ms	3 - 12 ms
Input wiring:	24 V DC 24, 120, 230 V AC			

### Output Data

Contact type	Single contact, 2 PDT	Single contact, 4 PDT
Contact material	Ag	AgNi + 5 $\mu$ m Au <sup>2)</sup>
Maximum switching voltage	250 V AC/125 V DC	250 V AC/125 V DC
Minimum switching voltage	5 V	1 V
Limiting continuous current	10 A	5 A
Maximum inrush current	20 A	12 A (15 ms)
Minimum switching current	1 mA	1 mA
Maximum shutdown power, ohmic load:	2500 VA	1250 VA
(For additional data, see INTERFACE catalog)		
Minimum switching power	5 mW	1 mW

### General Data

Test voltage	Input/contact Contact/contact
Ambient operating temperature range	-20°C to +60°C
Nominal operating mode	100% operating factor
Mechanical service life	5 x 10 <sup>7</sup> cycles
Standards/specifications	IEC 60 664/IEC 60 664 A/ DIN VDE 0110, pollution degree 3, Surge Voltage Category II
Mounting position/mounting	IEC 60 664/IEC 60 664 A/ DIN VDE 0110, pollution degree 2, Surge Voltage Category II
Connection type	Any/can be mounted without spacing Screw connection

24 V DC	24 V AC	120 V AC	230 V AC
See diagram in the INTERFACE catalog			
38 mA	54/46 mA	11/9 mA	5/4 mA
13 ms	4 - 10 ms	4 - 10 ms	4 - 10 ms
5 ms	3 - 12 ms	3 - 12 ms	3 - 12 ms
Operating indicator and free-wheeling diode integrated in the relay			
Operating indicator integrated in the relay, varistor plug-in module			

### PR2-RSC3...2x21

Single contact, 2 PDT
Ag
250 V AC/125 V DC
5 V
10 A
20 A
1 mA
2500 VA
5 mW

### PR2-RSC3...4x21AU

Single contact, 4 PDT
AgNi + 5 $\mu$ m Au <sup>2)</sup>
250 V AC/125 V DC
1 V
5 A
12 A (15 ms)
1 mA
1250 VA
1 mW

<sup>1)</sup>Additional input voltages available on request.

<sup>2)</sup>If the specified maximum values are exceeded, the gold coating will be damaged. In subsequent operation, the values of the AgNi contact will apply.

<sup>3)</sup>For DC types, the varistor is replaced by a free-wheeling diode. There is no LED for protection against polarity reversal.

### Insulating housing version

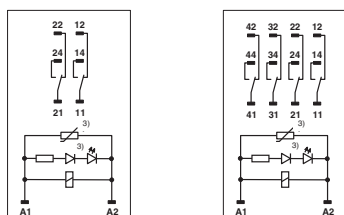
Polyamide PA fiber reinforced, PA-F  
Color: green

For torque of terminal block screws, see INTERFACE catalog.



The dimensioning cross section (see INTERFACE catalog) refers to simple wires without ferrules.

Inductive loads must be attenuated with an effective protective circuit to protect inputs and outputs.

### Connection diagram:



# Completely Assembled Relay Modules With Spring-Cage Connection and Industrial Relay PR2-RSP3...2x21... (2 PDT Contacts) PR2-RSP3...4x21AU (4 PDT Contacts)

Description	Input Voltage $U_N$ <sup>1)</sup>	Type	Order No.	Pcs. Pkt.
<b>Pre-assembled coupling relay,</b> consisting of relay base and plug-in industrial relay with <b>2 PDT contacts</b> , LED indicator, and coil interference suppression, for mounting on  , includes 5 removable MP1 or MP2 markers	24 V DC	Includes power contact relay <b>PR2-RSP3-LDP-24DC/2x21</b> <b>PR2-RSP3-LV-24AC/2x21</b> <b>PR2-RSP3-LV-120AC/2x21</b> <b>PR2-RSP3-LV-230AC/2x21</b>	<b>2834685</b> <b>2834698</b> <b>2834708</b> <b>2834711</b>	5 5 5 5
	24 V AC			
	120 V AC			
	230 V AC			
<b>Pre-assembled coupling relay,</b> consisting of relay base and plug-in industrial relay with <b>4 PDT contacts</b> , LED indicator, coil interference suppression, and solid gold coating on the contacts, for mounting on  , includes 5 removable MP1 or MP2 markers	24 V DC	Includes hard gold-plated contacts <b>PR2-RSP3-LDP-24DC/4x21AU</b> <b>PR2-RSP3-LV-24AC/4x21AU</b> <b>PR2-RSP3-LV-120AC/4x21AU</b> <b>PR2-RSP3-LV-230AC/4x21AU</b>	<b>2834766</b> <b>2834779</b> <b>2834782</b> <b>2834795</b>	5 5 5 5
	24 V AC			
	120 V AC			
	230 V AC			

## Technical Data

### Input Data

Nominal input voltage $U_N$	24 V DC	24 V AC	120 V AC	230 V AC
Permissible range with reference to $U_N$	See diagram in the INTERFACE catalog			
Typical input current at $U_N$ (for AC: 50/60 Hz)	38 mA	54/46 mA	11/9 mA	5/4 mA
Typical response time at $U_N$ (for AC: depending on phase relation)	13 ms	4 - 10 ms	4 - 10 ms	4 - 10 ms
Typical release time at $U_N$ (for AC: depending on phase relation)	5 ms	3 - 12 ms	3 - 12 ms	3 - 12 ms
Input wiring:	24 V DC	Operating indicator and free-wheeling diode integrated in the relay		
	24, 120, 230 V AC	Operating indicator integrated in the relay, varistor plug-in module		

### Output Data

Contact type	Single contact, 2 PDT	Single contact, 4 PDT
Contact material	Ag	AgNi + 3 $\mu$ m Au <sup>2)</sup>
Maximum switching voltage	250 V AC/125 V DC	250 V AC/125 V DC
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Limiting continuous current	10 A	5 A
Maximum inrush current	20 A	12 A (15 ms)
Minimum switching current	1 mA	1 mA
Maximum shutdown power, ohmic load:	2500 VA	1250 VA
(For additional data, see INTERFACE catalog)		
Minimum switching power	5 mW	1 mW

### General Data

Test voltage	Winding/contact Contact/contact
Ambient operating temperature range	2 kV, 50 Hz, 1 minute 2 kV, 50 Hz, 1 minute -20°C to +60°C
Nominal operating mode	100% operating factor
Mechanical service life	5 x 10 <sup>7</sup> cycles
Standards/specifications	IEC 60 664/IEC 60 664 A/ DIN VDE 0110, pollution degree 3, Surge Voltage Category II
Mounting position/mounting	IEC 60 664/IEC 60 664 A/ DIN VDE 0110, pollution degree 2, Surge Voltage Category II
Connection type	Any/can be mounted without spacing Spring-cage connection

<sup>1)</sup>Additional input voltages available on request.

<sup>2)</sup>If the specified maximum values are exceeded, the gold coating will be damaged. In subsequent operation, the values of the AgNi contact will apply.

<sup>3)</sup>For DC types, the varistor is replaced by a free-wheeling diode. There is no LED for protection against polarity reversal.

### Insulating housing version

Polyamide PA fiber reinforced, PA-F  
Color: green

The dimensioning cross section (see INTERFACE catalog) refers to simple wires without ferrules.

Inductive loads must be attenuated with an effective protective circuit to protect inputs and outputs.

### Connection diagram:

