

## Relay Module - PR1-RSP3-LDP-24DC/21AU - 2834449

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Preassembled relay modules with spring-cage connection, consisting of: Relay socket, multi-layer contact relay, pluggable display or interference suppression module and retaining bracket. Input voltage: 24 V DC, 1 PDT, 10 A

### Product Features

- Safe isolation between coil and contact side
- Logical contact arrangement thanks to 1/3-level relay base
- Operational reliability thanks to sealed relay



### Key Commercial Data

Packing unit	1 pc
Minimum order quantity	5 pc
Weight per Piece (excluding packing)	66.06 g
Custom tariff number	85364900
Country of origin	Germany

### Technical data

#### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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#### Dimensions

Width	16 mm
Height	97 mm
Depth	72 mm

#### Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C

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## Technical data

### Coil side

Nominal input voltage $U_N$	24 V DC
Typical input current at $U_N$	19 mA
Typical response time	8 ms
Typical release time	10 ms
Protective circuit	Damping diode
Operating voltage display	Yellow LED
Power dissipation for nominal condition	0.46 W

### Contact side

Contact type	1 PDT
Contact material	AgNi, hard gold-plated
Maximum switching voltage	30 V AC
	36 V DC
Minimum switching voltage	100 mV (at 10 mA)
Min. switching current	1 mA (at 24 V)
Maximum inrush current	50 mA
Limiting continuous current	50 mA
Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	2 A (at 24 V, AC15)
Note	the following values are applicable if a gold layer is destroyed
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	12 V (at 10 mA)
Limiting continuous current	10 A
Maximum inrush current	30 A (300 ms)
Min. switching current	10 mA (at 12 V)
Interrupting rating (ohmic load) max.	2500 VA (for 250 V AC)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.2 A (at 250 V, DC13)
	2 A (at 24 V, AC15)
	2 A (at 120 V, AC15)
	2 A (at 250 V, AC15)

### General

Test voltage relay winding/relay contact	4 kV (50 Hz, 1 min.)
Operating mode	100% operating factor
Mechanical service life	$3 \times 10^7$ cycles
Standards/regulations	IEC 60664

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## Technical data

### General

	EN 50178
	IEC 62103
Degree of pollution	3
Overvoltage category	III
Mounting position	any
Assembly instructions	In rows with zero spacing

### Connection data input side

Connection name	Coil side
Connection method	Spring-cage connection
Stripping length	10 mm
Conductor cross section solid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 16

### Standards and Regulations

Standards/regulations	IEC 60664
	EN 50178
	IEC 62103
Degree of pollution	3
Overvoltage category	III

## Articles in set

### Relay socket - PR1-BSP3/2X21 - 2833534



Relay socket PR1..., for miniature power relay or miniature switching relay with 1 or 2 PDT or solid-state relay of same construction, 1/3 level design, spring-cage connections, connection facility for input/interference suppression modules

### Single relay - REL-MR- 24DC/21HC AU - 2961545



Plug-in miniature power relay, with multi-layer gold contact for high continuous currents, 1 PDT, input voltage 24 V DC

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## Articles in set

Plug-in module - LDP- 12- 24DC - 2833657



Plug-in module, for mounting on PR1 and PR2, with damping diode and yellow LED, polarity: A1+, A2-, input voltage: 12-24 V DC  $\pm$  20%

Relay retaining bracket - EL1-P16 - 2833547



Relay retaining bracket, with eject function and integrated equipment marking area (7.5 x 15 mm), to suit relay socket PR1, for 16 mm high miniature power relay and solid-state relay

## Classifications

### eCl@ss

eCl@ss 4.0	27371102
eCl@ss 4.1	27371102
eCl@ss 5.0	27371603
eCl@ss 5.1	27371603
eCl@ss 6.0	27371603
eCl@ss 7.0	27371603
eCl@ss 8.0	27371601
eCl@ss 9.0	27371601

### ETIM

ETIM 2.0	EC001456
ETIM 3.0	EC001456
ETIM 4.0	EC001456
ETIM 5.0	EC001437

### UNSPSC

UNSPSC 6.01	30211917
UNSPSC 7.0901	39121516
UNSPSC 11	39121516
UNSPSC 12.01	39121516
UNSPSC 13.2	39121516

# Relay Module - PR1-RSP3-LDP-24DC/21AU - 2834449

## Approvals

Approvals

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Approvals

EAC

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Ex Approvals

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Approvals submitted

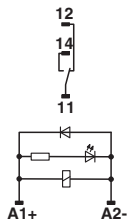
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Approval details

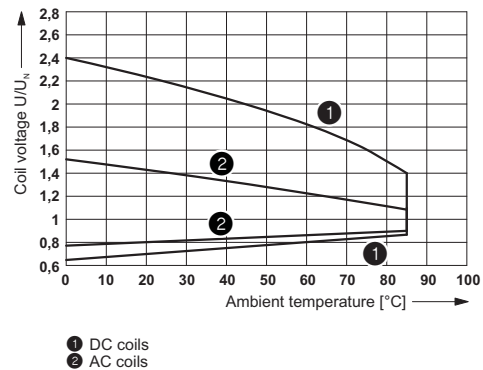
EAC

## Drawings

Circuit diagram



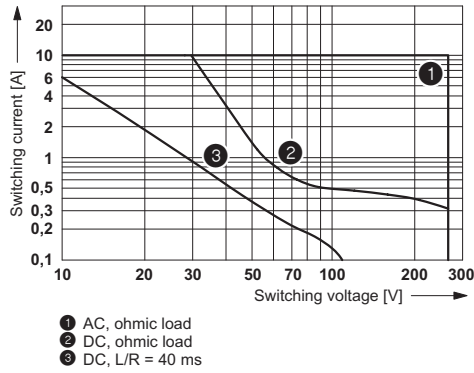
Diagram



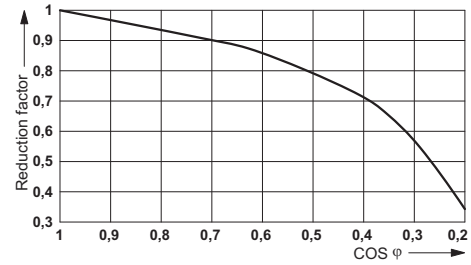
Operating voltage range of the relay

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Diagram



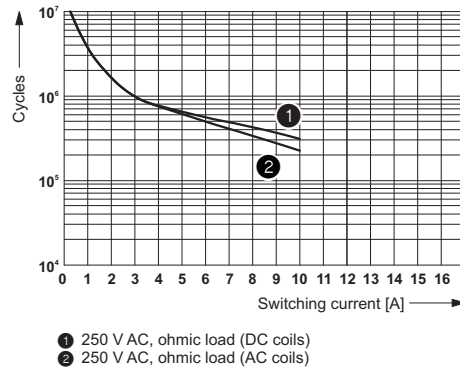
Diagram



Interrupting rating

Service life reduction factor with various cos phi

Diagram



Electrical service life