

# PR1-RSP3-LDP-24DC/21AU - Relay module



2834449

<https://www.phoenixcontact.com/us/products/2834449>

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Pre-assembled relay modules with spring-cage connection, consisting of: relay base, multi-layer contact relay, plug-in display/interference suppression module, and retaining bracket. Input voltage: 24 V DC, 1 changeover contact, 10 A

## Your advantages

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

## Commercial data

Item number	2834449
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C463
Product key	DK632G
GTIN	4046356044332
Weight per piece (including packing)	73.34 g
Weight per piece (excluding packing)	65.31 g
Customs tariff number	85364900
Country of origin	CN

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## Set consists of

### PR1-BSP3/2X21 - Relay base

2833534

<https://www.phoenixcontact.com/us/products/2833534>

PR1... relay base, for miniature power relays or miniature switching relays with 1 or 2 changeover contacts or solid-state relays with the same design, 1/3-level version, spring-cage connections, plug-in option for input/interference suppression modules



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

2961545

<https://www.phoenixcontact.com/us/products/2961545>

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



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

2833657

<https://www.phoenixcontact.com/us/products/2833657>



Plug-in module, with freewheeling diode and yellow LED, polarity: **A1+**, **A2-**,  
input voltage: 12 ... 24 V DC  $\pm 20$  %

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## EL1-P16 - Retaining bracket

2833547

<https://www.phoenixcontact.com/us/products/2833547>



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

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## Technical data

### Product properties

Product type	Relay Module
Application	Universal
Operating mode	100% operating factor
Mechanical service life	3x 10 <sup>7</sup> cycles

### Insulation characteristics

Overvoltage category	III
Pollution degree	3

### Data management status

Date of last data management	12.09.2025
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### Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.46 W
Test voltage (Winding/contact)	4 kV (50 Hz, 1 min., winding/contact)

### Input data

#### Coil side

Nominal input voltage $U_N$	24 V DC
Input voltage range	15.6 V DC ... 57.6 V DC
Drive and function	monostable
Typical input current at $U_N$	19 mA
Typical response time	8 ms
Typical release time	10 ms
Protective circuit	Freewheeling diode
Operating voltage display	Yellow LED

### Output data

#### Switching

Contact switching type	1 changeover contact
Type of switch contact	Single contact
Contact material	AgNi, hard gold-plated
Maximum switching voltage	30 V AC 36 V DC
Minimum switching voltage	100 mV (at 10 mA)
Limiting continuous current	50 mA
Maximum inrush current	50 mA
Min. switching current	1 mA (at 24 V)
Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)

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Switching capacity	2 A (at 24 V, AC15)
Switching: when the gold layer is destroyed	
Note	the following values are applicable if a gold layer is destroyed
Contact material	AgNi
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	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)

## Connection data

### Coil side

Connection method	Spring-cage connection
Stripping length	10 mm
Conductor cross-section rigid	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

### Contact side

Connection method	Spring-cage connection
Stripping length	10 mm
Conductor cross-section rigid	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

## Dimensions

Width	16 mm
Height	97 mm
Depth	72 mm

## Material specifications

Color	green (RAL 6021)
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## Environmental and real-life conditions

### Ambient conditions

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

## Standards and regulations

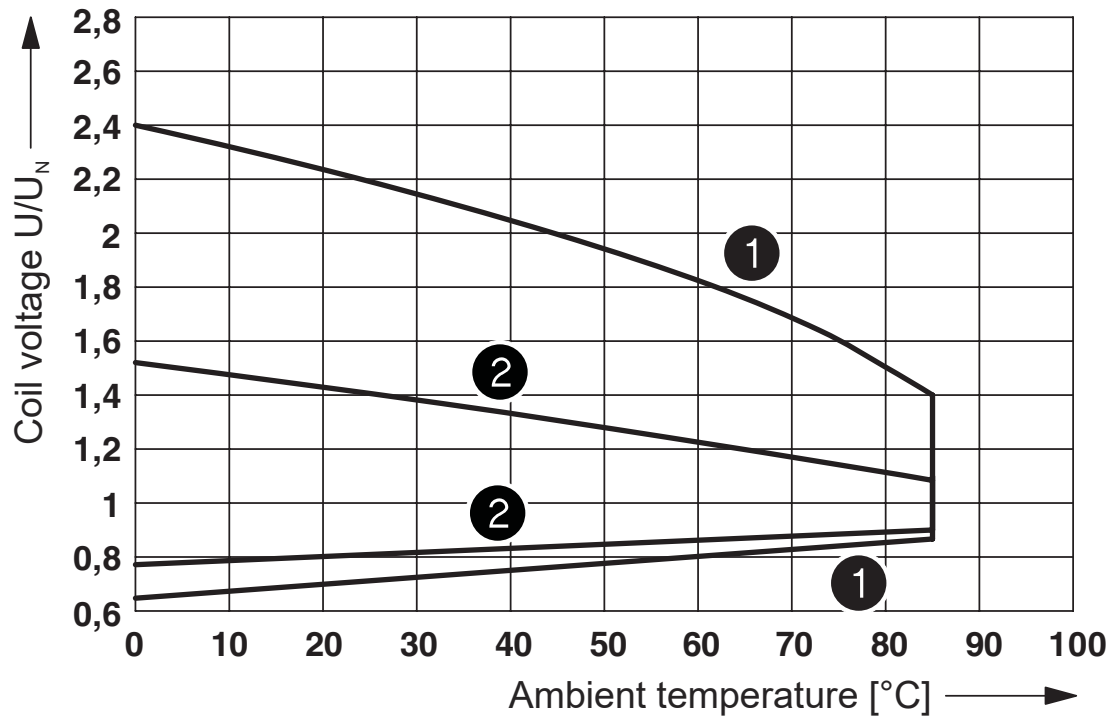
Standards/regulations	IEC 60664
	EN 50178

## Mounting

Mounting type	DIN rail mounting
Assembly note	in rows with zero spacing
Mounting position	any

Drawings

Diagram



- ① DC coils
- ② AC coils

Operating voltage range of the relay



Interrupting rating

Diagram



Service life reduction factor with various cos phi

Diagram



- ① 250 V AC, ohmic load (DC coils)
- ② 250 V AC, ohmic load (AC coils)

Electrical service life

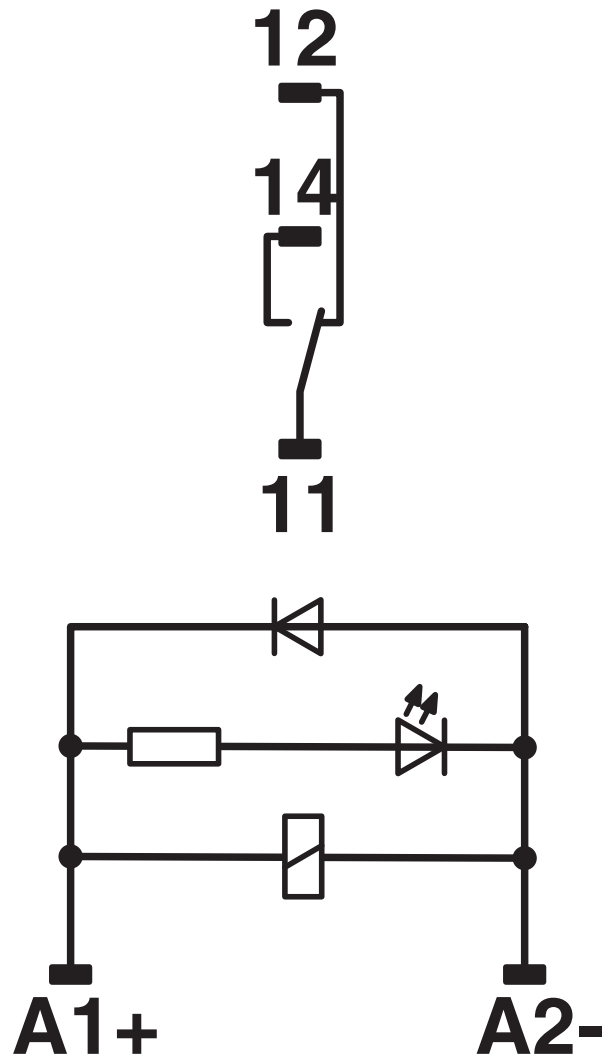
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Circuit diagram



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## Classifications

### UNSPSC

UNSPSC 21.0	39122334
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## Environmental product compliance

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)