

# PLC-RSP- 24UC/21HC/RW - Relay module



2987079

<https://www.phoenixcontact.com/us/products/2987079>

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PLC-INTERFACE for railway applications and high continuous currents, consisting of basic terminal block with spring-cage connection and plug-in miniature relay, range:  $0.7 \times U_N$  to  $1.25 \times U_N$ , temperature class TX:  $-40^\circ\text{C}$  to  $+70^\circ\text{C}$ , 1 changeover contact, input voltage 24 V DC

## Your advantages

- Optimum relay operation thanks to wide-range electronics
- Certified in accordance with EN 50155
- Vibration and shock resistance in accordance with EN 50155
- Safe isolation between coil and contact side
- Temperature range:  $-40^\circ\text{C}$  ...  $+70^\circ\text{C}$  (short-term  $85^\circ\text{C}$ )
- Input voltage range of  $0.7$  to  $1.25 \times U_N$  ( $1.4 \times U_N$  briefly)

## Commercial data

Item number	2987079
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C461
Product key	DK622A
GTIN	4046356154154
Weight per piece (including packing)	67.53 g
Weight per piece (excluding packing)	67.53 g
Customs tariff number	85364190
Country of origin	DE

## Technical data

### Product properties

Product type	Relay Module
Product family	PLC-INTERFACE
Application	Railway applications
Environment	Attached to the vehicle body
Operating mode	100% operating factor
Mechanical service life	approx. $3 \times 10^7$ cycles

### Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

### Data management status

Date of last data management	12.09.2025
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### Electrical properties

Maximum power dissipation for nominal condition	0.48 W
Test voltage (Winding/contact)	5 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)
Rated insulation voltage	250 V AC
Rated surge voltage	6 kV

### Input data

#### Coil side

Nominal input voltage $U_N$	24 V DC
Input voltage range	16.8 V DC ... 30 V DC
Input voltage range in reference to $U_N$	0.7 ... 1.25
Drive and function	monostable
Typical input current at $U_N$	20 mA
Typical response time	5 ms
Typical release time	11 ms
Coil voltage	12 V DC
Protective circuit	Bridge rectifier; Bridge rectifier
	Freewheeling diode; Freewheeling diode
	Surge protection
	RCZ filter
	Wide-range electronics
Operating voltage display	Yellow LED

### Output data

#### Switching

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Contact switching type	1 changeover contact
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC (Separating plate PLC-ATP must be installed for voltages larger than 250 V (L1, L2, L3) between identical terminal blocks in adjacent modules.)
Minimum switching voltage	12 V (at 10 mA)
Limiting continuous current	10 A (With inserted bridge 2967691)
Maximum inrush current	30 A (300 ms)
Min. switching current	10 mA (at 12 V)
Interrupting rating (ohmic load) max.	240 W (at 24 V DC) 58 W (at 48 V DC) 48 W (at 60 V DC) 50 W (at 110 V DC) 75 W (at 220 V DC) 2500 VA (for 250 V AC)
Switching capacity	2 A (24 V (DC13)) 0.2 A (220 V (DC13)) 6 A (230 V (AC 15))

## Connection data

### Coil side

Connection method	Spring-cage connection
Stripping length	8 mm
Conductor cross-section rigid	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	26 ... 14

### Contact side

Connection method	Spring-cage connection
Stripping length	8 mm
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Conductor cross-section flexible	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	26 ... 14

## Dimensions

Width	14 mm
Height	80 mm
Depth	94 mm

## Material specifications

Color	green (RAL 6021)
Flammability rating according to UL 94 (Housing)	V0 (Housing)

## Environmental and real-life conditions

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## Ambient conditions

Degree of protection (Relay)	RT III (Relay)
Degree of protection (Relay base)	IP20 (Relay base)
Ambient temperature (operation)	-40 °C ... 70 °C (Temperature class TX)
Ambient temperature (storage/transport)	-40 °C ... 85 °C

## Standards and regulations

Standards/regulations	EN 50155 (VDE 0115 part 200)
	IEC 60947-5-1
	EN 61373
	EN 50121

## Mounting

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

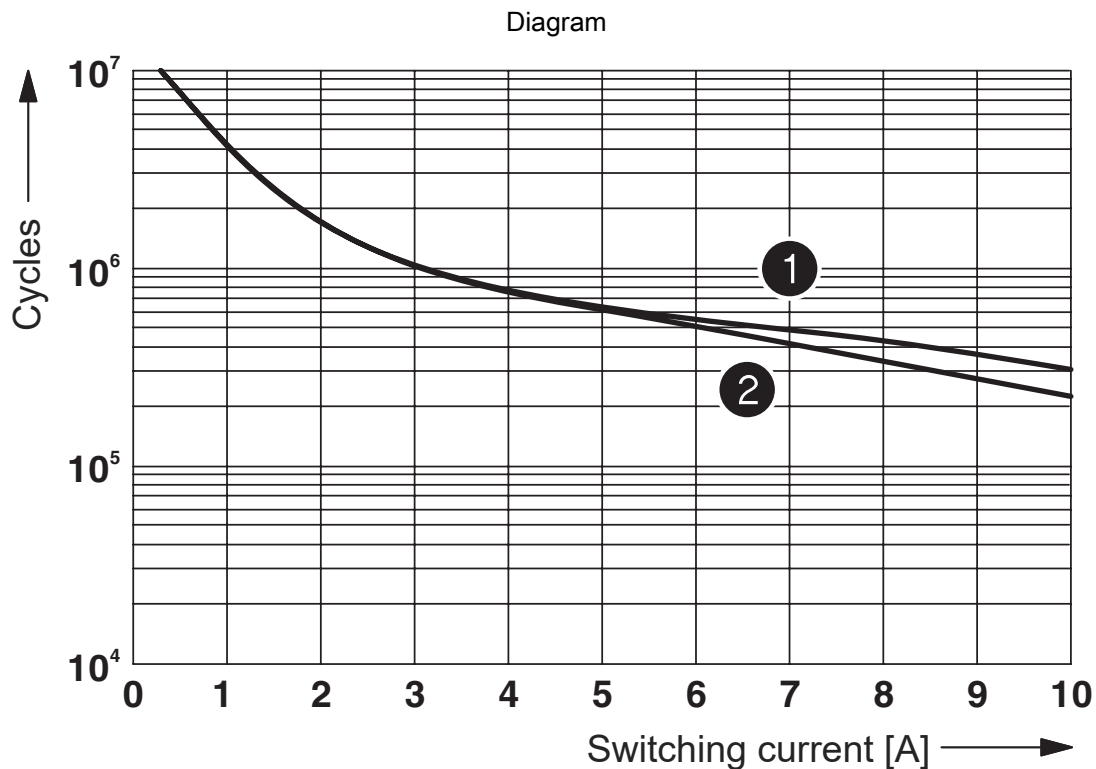
Drawings

Diagram



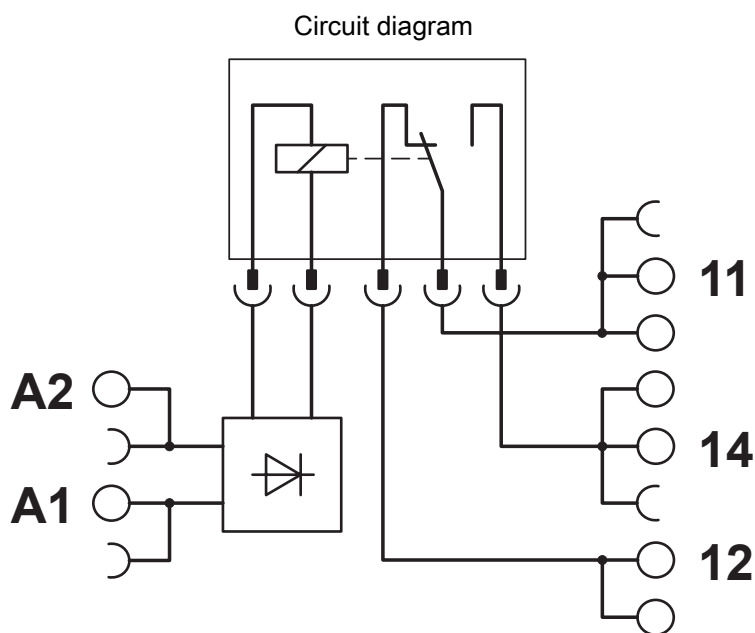
- ① AC, ohmic load
- ② DC, ohmic load
- ③ DC, L/R = 40 ms

Interrupting rating



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

Electrical service life



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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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