

# PLC-RSC-24DC/21/EX - Relay module



2909524

<https://www.phoenixcontact.com/gb/products/2909524>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



PLC-INTERFACE, consisting of DIN-rail-mountable basic terminal block in 6.2 mm with screw connection and plug-in miniature relay with 6 A power contact, 1 changeover contact, 24 V DC input voltage. Approved according to ATEX/IECEx (Zone 2) and Ex Zone Class I, Div. 2.

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2909524       |
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 10 pc         |
| Sales key                            | DK622K        |
| Product key                          | DK622K        |
| GTIN                                 | 4055626363615 |
| Weight per piece (including packing) | 41.4 g        |
| Weight per piece (excluding packing) | 36.8 g        |
| Customs tariff number                | 85364190      |
| Country of origin                    | DE            |

# PLC-RSC-24DC/21/EX - Relay module



2909524

<https://www.phoenixcontact.com/gb/products/2909524>

## Technical data

### Notes

#### Utilization restriction

|          |   |
|----------|---|
| EMC note | EMC: class A product, see manufacturer's declaration in the download area |
|----------|---|

### Product properties

|                         |  |
|-------------------------|--|
| Product type            | Relay Module                                       |
| Product family          | PLC-INTERFACE                                      |
| Application             | Class I, Division 2<br>potentially explosive areas |
| Operating mode          | 100% operating factor                              |
| Mechanical service life | 2x 10 <sup>7</sup> cycles                          |

#### Insulation characteristics: Standards/regulations

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Pollution degree     | 3   |

#### Data management status

|                              |            |
|------------------------------|------------|
| Date of last data management | 22.09.2025 |
|------------------------------|------------|

### Electrical properties

|   |  |
|---|--|
| Maximum power dissipation for nominal condition | 0.22 W                                   |
| Test voltage (Winding/contact)                  | 4 kV AC (50 Hz, 1 min., winding/contact) |

### Input data

#### Coil side

|  |  |
|--|--|
| Nominal input voltage U <sub>N</sub>                 | 24 V DC  |
| Input voltage range                                  | 18.5 V DC ... 33.6 V DC (20 °C)  |
| Nominal voltage (plugged-in electromechanical relay) | 24 V DC  |
| Drive and function                                   | monostable   |
| Drive (polarity)                                     | polarized  |
| Typical input current at U <sub>N</sub>              | 9 mA   |
| Typical response time                                | 5 ms   |
| Typical release time                                 | 8 ms   |
| Protective circuit                                   | Reverse polarity protection; Polarity protection diode<br>Surge protection; Freewheeling diode |
| Operating voltage display                            | Yellow LED   |

### Output data

#### Switching

|                        |                      |
|------------------------|----------------------|
| Contact switching type | 1 changeover contact |
|------------------------|----------------------|

# PLC-RSC-24DC/21/EX - Relay module



2909524

<https://www.phoenixcontact.com/gb/products/2909524>

|                                       |   |
|---------------------------------------|---|
| Type of switch contact                | Single contact  |
| Contact connection type               | Power contact   |
| Contact material                      | AgSnO   |
| Maximum switching voltage             | 250 V AC/DC (The separating plate PLC-ATP should be installed for voltages larger than 250 V (L1, L2, L3) between identical terminal blocks in adjacent modules. Potential bridging is then carried out with FBST 8-PLC... or ...FBST 500...) |
| Minimum switching voltage             | 5 V AC/DC (100 mA)  |
| Limiting continuous current           | 6 A (Derating)  |
| Maximum inrush current                | 10 A (4 s)  |
| Min. switching current                | 10 mA (12 V)  |
| Interrupting rating (ohmic load) max. | 140 W (24 V DC)<br>20 W (48 V DC)<br>18 W (60 V DC)<br>23 W (110 V DC)<br>40 W (220 V DC)<br>1500 VA (250 V AC)   |
| Switching capacity                    | 2 A (24 V (DC13))<br>0.2 A (110 V (DC13))<br>0.1 A (220 V (DC13))<br>3 A (24 V (AC15))<br>3 A (120 V (AC15))<br>3 A (230 V (AC15))  |

## Connection data

|                                  |   |
|----------------------------------|---|
| Connection method                | Screw connection  |
| Stripping length                 | 8 mm  |
| Screw thread                     | M3  |
| 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><br>0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Single ferrule)<br>2x 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (TWIN ferrule) |
| Conductor cross-section AWG      | 26 ... 14   |
| Tightening torque                | 0.6 Nm ... 0.8 Nm   |

## Dimensions

|        |        |
|--------|--------|
| Width  | 6.2 mm |
| Height | 80 mm  |
| Depth  | 94 mm  |

## Material specifications

|  |                 |
|--|-----------------|
| Color  | gray (RAL 7042) |
| Flammability rating according to UL 94 (Housing) | V0 (Housing)    |

## Environmental and real-life conditions

# PLC-RSC-24DC/21/EX - Relay module



2909524

<https://www.phoenixcontact.com/gb/products/2909524>

## Ambient conditions

|   |                   |
|---|-------------------|
| Degree of protection (Relay)            | RT III (Relay)    |
| Degree of protection (Relay base)       | IP20 (Relay base) |
| Ambient temperature (operation)         | -40 °C ... 70 °C  |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C  |
| Altitude                                | ≤ 2000 m          |

## Approvals

### CE

|             |              |
|-------------|--------------|
| Certificate | CE-compliant |
|-------------|--------------|

### ATEX

|                |                            |
|----------------|----------------------------|
| Identification | Ⓜ II 3G Ex ec nC IIC T4 Gc |
| Certificate    | IBExU16ATEXB015 X          |

### IECEX

|                |                    |
|----------------|--------------------|
| Identification | Ex ec nC IIC T4 Gc |
| Certificate    | IECEX IBE 16.0029X |

### UKCA Ex (UKEX)

|                |                             |
|----------------|-----------------------------|
| Identification | Ⓜ II 3 G Ex ec nC IIC T4 Gc |
| Certificate    | PxCIF21UKEX2909514X         |

### CCC / China-Ex

|                |                    |
|----------------|--------------------|
| Identification | Ex ec nC IIC T4 Gc |
| Certificate    | 2021122304114118   |

### UL, USA/Canada

|                |                                       |
|----------------|---------------------------------------|
| Identification | Class I, Zone 2, AEx ec nC IIC T4     |
|                | Class I, Zone 2, Ex ec nC IIC Gc T4 X |

### Shipbuilding approval

|             |            |
|-------------|------------|
| Certificate | TAE0000196 |
|-------------|------------|

### Corrosive gas test

|                |                            |
|----------------|----------------------------|
| Identification | ISA-S71.04. G3 Harsh Group |
|                | EN 60068-2-60              |

### Shipbuilding data

|             |   |
|-------------|---|
| Temperature | D   |
| Humidity    | A   |
| Vibration   | B/C   |
| EMC         | B   |
| Enclosure   | Required protection according to the Rules shall be provided upon installation on board |

## EMC data

# PLC-RSC-24DC/21/EX - Relay module



2909524

<https://www.phoenixcontact.com/gb/products/2909524>

|                               |  |
|-------------------------------|--|
| Electromagnetic compatibility | Conformance with EMC directive         |
| Low Voltage Directive         | Conformance with Low Voltage Directive |

## Standards and regulations

### Standards/regulations

|                       |                 |
|-----------------------|-----------------|
| Standards/regulations | IEC 60664       |
|                       | IEC 60947-5-1   |
|                       | IEC/EN 60079-0  |
|                       | IEC/EN 60079-7  |
|                       | IEC/EN 60079-15 |

### GB Standard

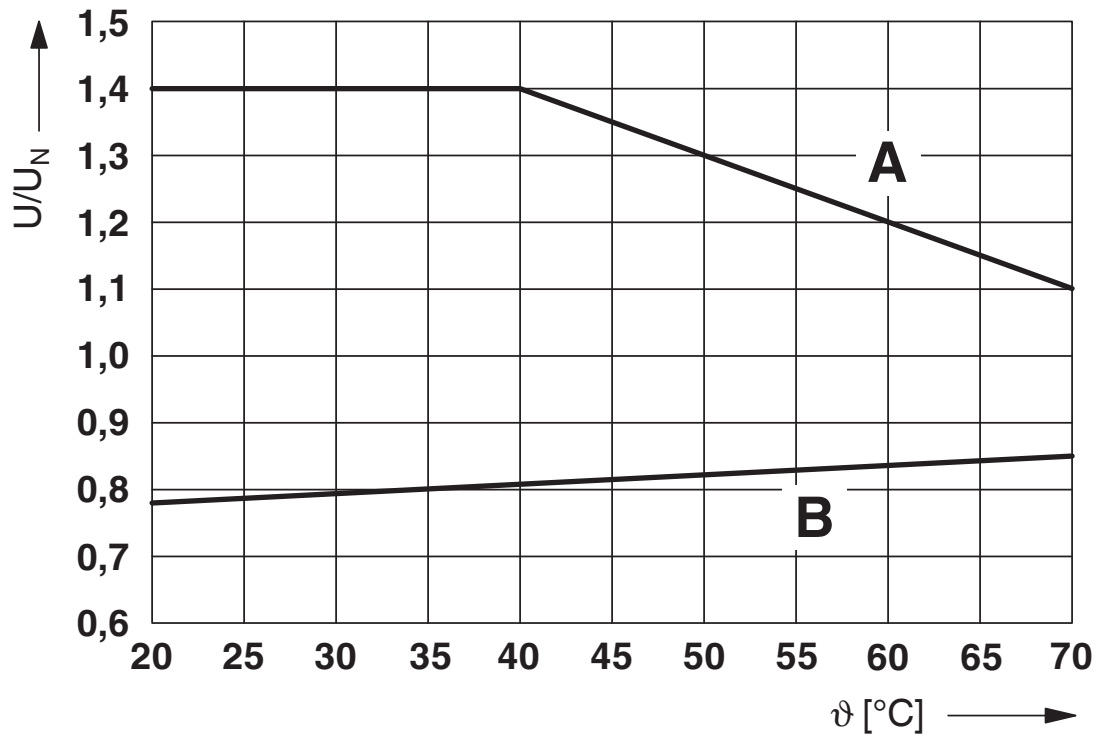
|                       |             |
|-----------------------|-------------|
| Standards/regulations | GB/T 3836.1 |
|                       | GB/T 3836.3 |
|                       | GB/T 3836.8 |

## Mounting

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

## Drawings

Diagram



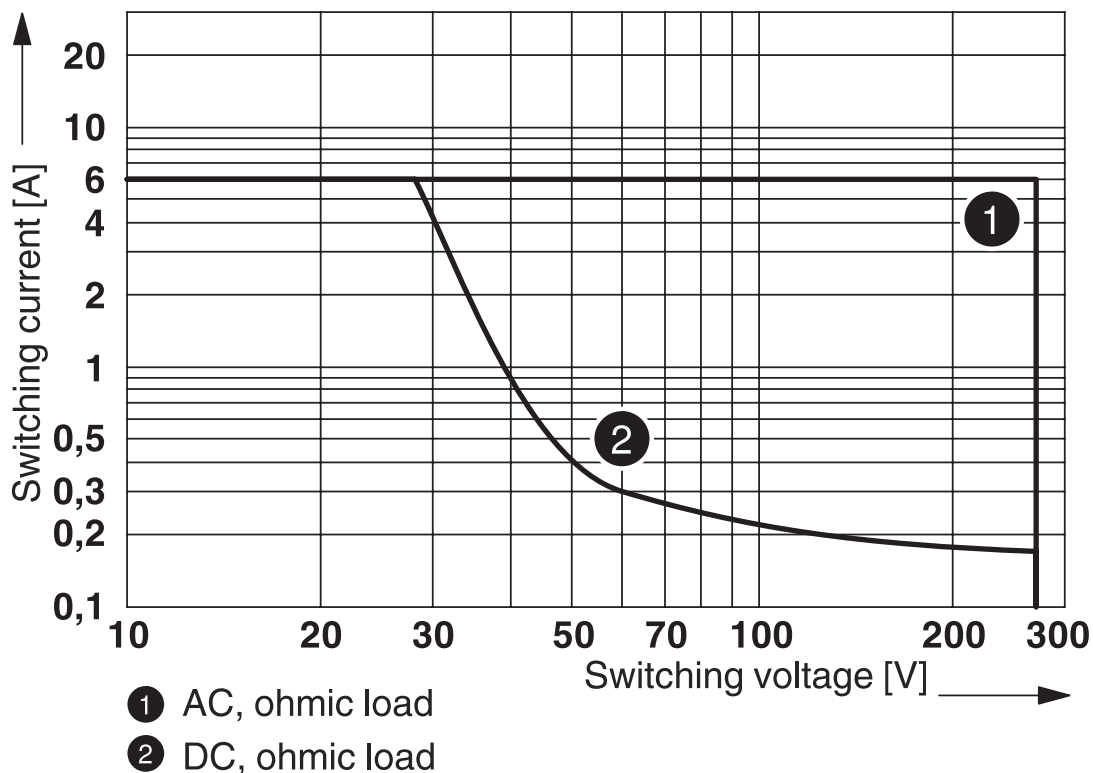
### Curve A

Maximum permissible continuous voltage  $U_{\text{max}}$  with limiting continuous current on the contact side (see relevant technical data)

### Curve B

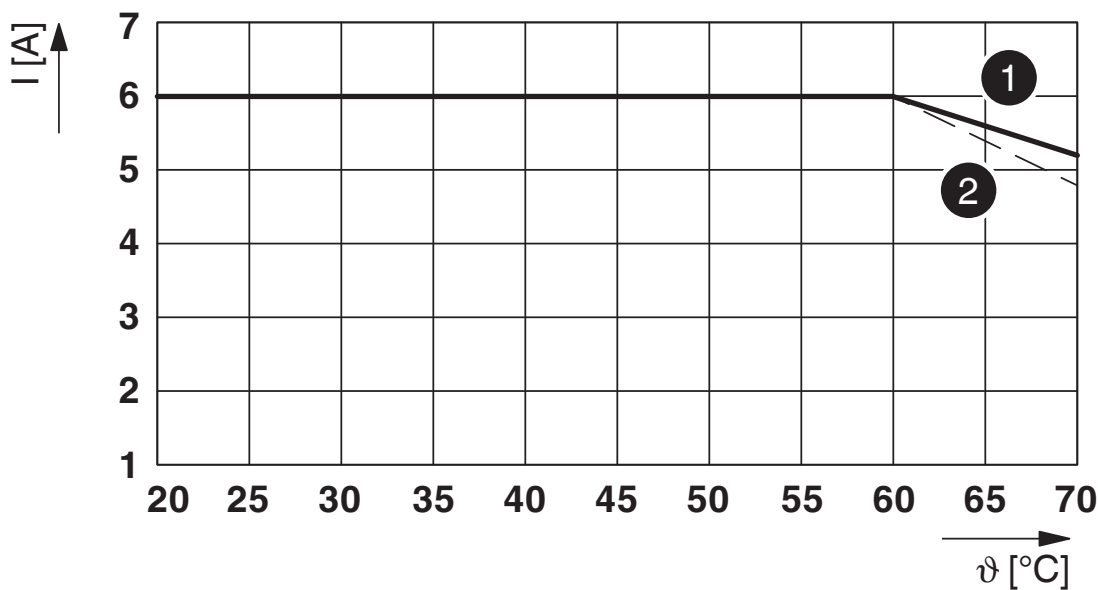
Minimum permissible operate voltage  $U_{\text{op}}$  after pre-excitation (see relevant technical data)

Diagram



Interrupting rating

Diagram



Limiting continuous current per contact for 0.85 ... 1.1  $U_N$  (contact-side)

(1) Limiting continuous current for horizontal installation position without clearance

(2) Limiting continuous current for vertical installation position without clearance

Diagram



Permissible humidity for operation and storage.

The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures  $\leq 0^\circ\text{C}$  must be prevented

Area B: Condensation at ambient temperatures  $> 0^\circ\text{C}$  must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature  $\leq 25^\circ\text{C}$ .

Circuit diagram



# PLC-RSC-24DC/21/EX - Relay module



2909524

<https://www.phoenixcontact.com/gb/products/2909524>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2909524>



**DNV GL**

Approval ID: TAE0000196



**cULus Listed**

Approval ID: E140324



**EAC Ex**

Approval ID: RU C-DE.AB72.B.02328



**IECEx**

Approval ID: IECEx IBE 16.0029X



**ATEX**

Approval ID: 16ATEXB015X



**cULus Listed**

Approval ID: E199827



**KC-s**

Approval ID: 18-KA4BO-0620X



**CCC**

Approval ID: 2021122304114118

# PLC-RSC-24DC/21/EX - Relay module



2909524

<https://www.phoenixcontact.com/gb/products/2909524>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27371601 |
| ECLASS-15.0 | 27371601 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001437 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39122300 |
|-------------|----------|

# PLC-RSC-24DC/21/EX - Relay module



2909524

<https://www.phoenixcontact.com/gb/products/2909524>

## Environmental product compliance

### EU RoHS

|   |              |
|---|--------------|
| Fulfills EU RoHS substance requirements | Yes          |
| Exemption                               | 7(a), 7(c)-I |

### 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.) | Hexahydromethylphthalic anhydride(CAS: n/a) |
|                                     | Lead(CAS: 7439-92-1)                        |
| SCIP                                | c2b6375b-bce0-4280-b2e5-576b866b80b6        |

Phoenix Contact 2025 © - all rights reserved  
<https://www.phoenixcontact.com>

PHOENIX CONTACT Ltd  
Halesfield 13, Telford  
Shropshire, TF7 4PG  
01952 681700  
[info@phoenixcontact.co.uk](mailto:info@phoenixcontact.co.uk)