# PLC-RSC- 24DC/2X21/FG - Relay module

2910535

https://www.phoenixcontact.com/us/products/2910535

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PLC-INTERFACE, consisting of a relay base and plug-in relay with force-guided contacts in accordance with DIN EN 61810-3, Screw connection, 2 changeover contacts, forcibly actuated, Freewheeling diode, Input voltage: 24 V DC

## Product description

The force-guided coupling relay module is approved for industrial control equipment in accordance with UL 508 (cULus listed). The requirements for type A in accordance with DIN EN 61810-3 are satisfied if the circuit is designed as 1 N/O contact / 1 N/C contact.

## Commercial data

| | |
|---|---|
| Item number | 2910535 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Sales key | C461 |
| Product key | DK623J |
| GTIN | 4055626486864 |
| Weight per piece (including packing) | 80 g |
| Weight per piece (excluding packing) | 64 g |
| Customs tariff number | 85364190 |
| Country of origin | DE |

# Technical data

## Product properties

| | |
|---|---|
| Product type | Relay Module |
| Product family | PLC-INTERFACE |
| Application | Forcibly guided contacts |
| Operating mode | 100% operating factor |
| Mechanical service life | approx. $10^7$ cycles |
| $B_{10d}$ (AC1) | 600000 Cycles (250 V / 6 A; 1 NO) |
| | 900000 Cycles (250 V / 3 A; 1 NO) |
| | 1800000 Cycles (250 V / 1,5 A; 1 NO) |
| $B_{10d}$ (AC15) | 180000 Cycles (250 V / 3 A; 1 NO) |
| | 560000 Cycles (250 V / 2 A; 1 NO) |
| | 4600000 Cycles (250 V / 0,75 A; 1 NO) |
| $B_{10d}$ (DC13) | 360000 Cycles (24 V / 3 A; 1 NO) |
| | 740000 Cycles (24 V / 1,5 A; 1 NO) |
| | 4200000 Cycles (24 V / 0,75 A; 1 NO) |

Insulation characteristics: Standards/regulations

| | |
|---|---|
| Insulation | Safe isolation, reinforced insulation |
| Overvoltage category | III |
| Pollution degree | 2 |

Data management status

| | |
|---|---|
| Date of last data management | 01.04.2026 |

## Electrical properties

| | |
|---|---|
| Maximum power dissipation for nominal condition | 0.72 W |
| Test voltage (Winding/contact) | 4 $kV_{rms}$ (50 Hz, 1 min., winding/contact) |
| Test voltage (Changeover contact/changeover contact) | 2.5 $kV_{rms}$ (50 Hz, 1 min., changeover contact/changeover contact) |

Standards/regulations

| | |
|---|---|
| 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 | 20.2 V DC ... 32.4 V DC (20 °C) |
| Input voltage range in reference to $U_N$ | see diagram |
| Nominal voltage (plugged-in electromechanical relay) | 24 V DC |
| Drive and function | monostable |
| Drive (polarity) | polarized |
| Typical input current at $U_N$ | 30 mA |

| | |
|---|---|
| Typical response time | 10 ms |
| Typical release time | 10 ms |
| Protective circuit | Freewheeling diode |
| Operating voltage display | Yellow LED |

## Output data

Switching

| | |
|---|---|
| Contact switching type | 2 changeover contacts, forcibly actuated |
| Type of switch contact | Single contact |
| Contact material | AgNi |
| Maximum switching voltage | 250 V AC/DC |
| Minimum switching voltage | 5 V (10 mA) |
| Limiting continuous current | 6 A |
| Maximum inrush current | 6 A |
| Min. switching current | 10 mA (5 V) |
| Interrupting rating (ohmic load) max. | 144 W (24 V DC) |
| | 288 W (48 V DC) |
| | 88 W (110 V DC) |
| | 110 W (220 V DC) |
| | 1500 VA (250 V AC) |
| Switching power min. | 150 mW |
| Switching capacity | 3 A (24 V (DC13)) |
| | 3 A (230 V, AC15) |
| Force-guided contacts in accordance with EN 61810-3 | Type B |

## Connection data

| | |
|---|---|
| Connection method | Screw connection |
| Stripping length | 8 mm |
| Screw thread | M3 |
| Conductor cross-section rigid | 0.14 mm² ... 2.5 mm² |
| Conductor cross-section flexible | 0.14 mm² ... 2.5 mm² |
| | 0.2 mm² ... 2.5 mm² (Single ferrule) |
| | 2x 0.5 mm² ... 1.5 mm² (TWIN ferrule) |
| Conductor cross-section AWG | 26 ... 14 |
| Tightening torque | 0.6 Nm ... 0.8 Nm |

## Dimensions

Item dimensions

| | |
|---|---|
| Width | 14 mm |
| Height | 80 mm |
| Depth | 104 mm |

## Material specifications

| | |
|---|---|
| Color | gray (RAL 7042) |

## Environmental and real-life conditions

Ambient conditions

| | |
|---|---|
| Degree of protection (Relay) | RT II (Relay) |
| Degree of protection (Relay base) | IP20 (Relay base) |
| Degree of protection (Installation location) | ≥ IP54 (Installation location) |
| Ambient temperature (operation) | -20 °C ... 60 °C |
| Ambient temperature (storage/transport) | -20 °C ... 85 °C |
| Altitude | ≤ 2000 m |

## Approvals

CE

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

UKCA

| | |
|---|---|
| Certificate | UKCA-compliant |

UL, USA

| | |
|---|---|
| Identification | UL 508 |
| | UL 508 Recognized |

UL, USA/Canada

| | |
|---|---|
| Identification | UL 508 |
| | UL 508 Recognized |

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

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

## Standards and regulations

Standards/regulations

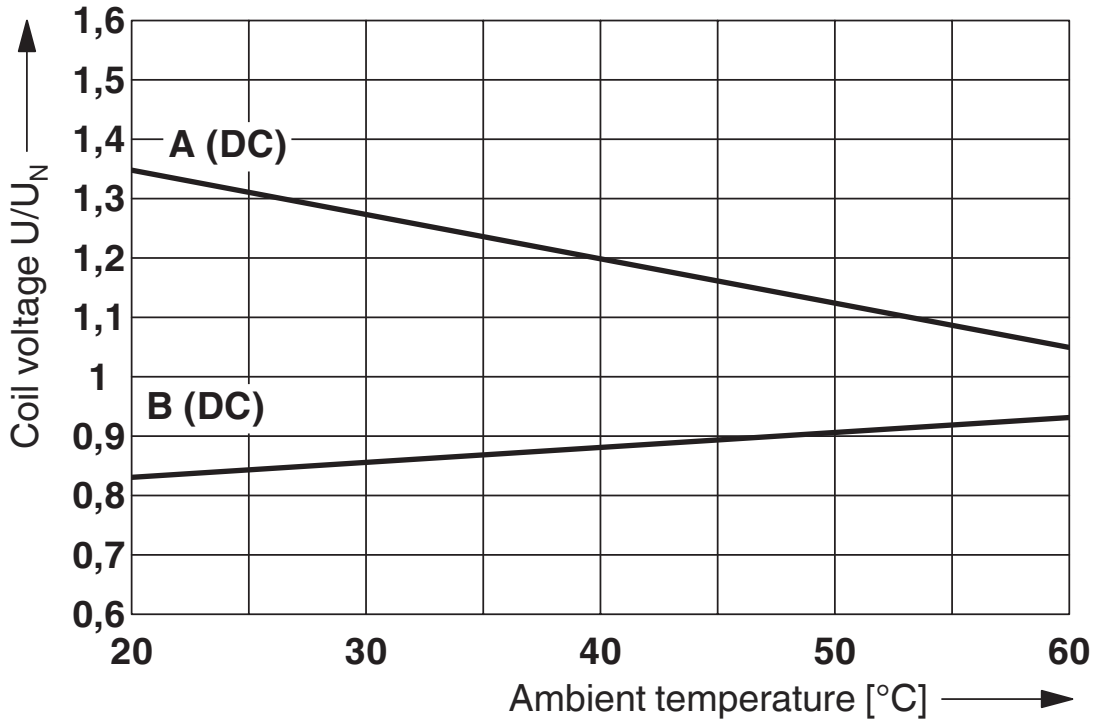
| | |
|---|---|
| Standards/regulations | IEC 60947-5-1 |
| | DIN EN 61810-3 |

## Mounting

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

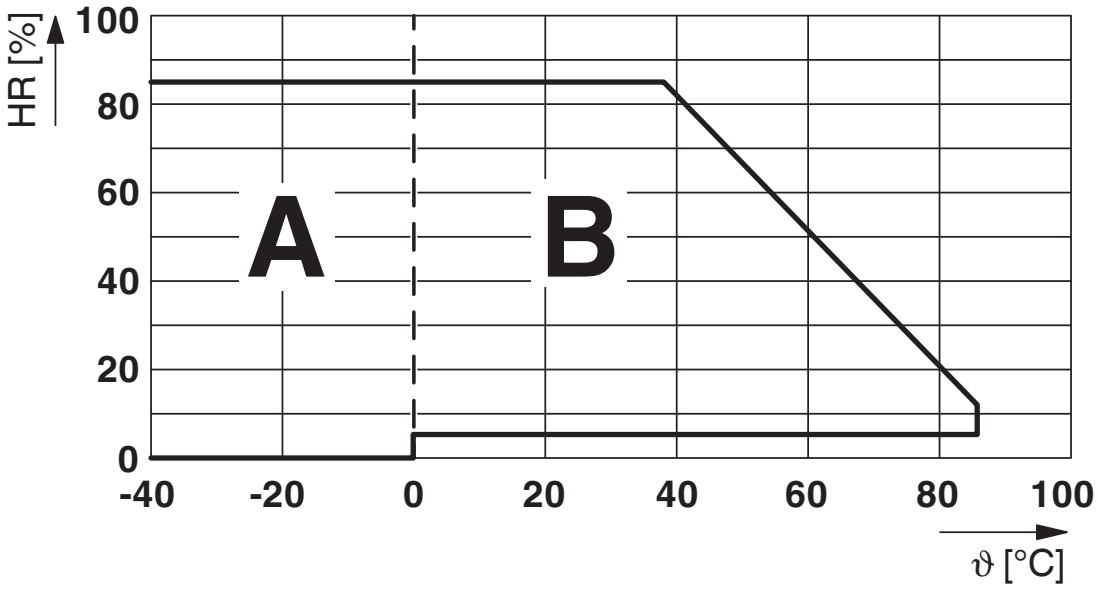
## Drawings

Diagram




Curve A: maximum continuous voltage at limiting continuous current
Curve B: minimum pick-up voltage for pre-excitation with $U_N$ and limiting continuous current

Diagram

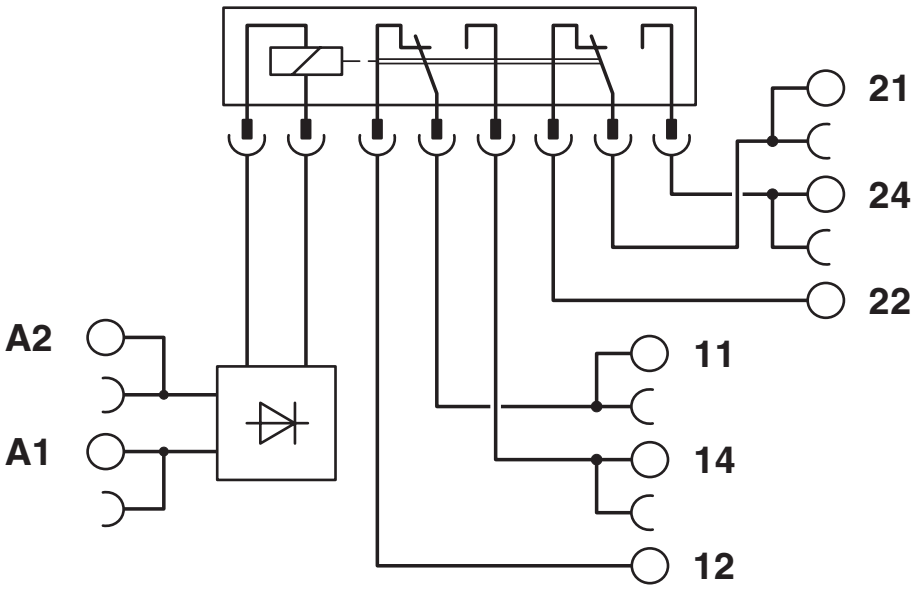



Permissible humidity for operation and storage.
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures ≤ 0°C must be prevented
Area B: Condensation at ambient temperatures > 0°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 ≤ 25°C.

Circuit diagram



## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2910535

**cULus Listed**
Approval ID: E140324

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Approval ID: E140324

**cULus Listed**
Approval ID: E140324

**DNV**
Approval ID: TAE0000196

## Classifications

### ECLASS

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

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC001437 |

### UNSPSC

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

## Environmental product compliance

EU RoHS

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|---|---|
| 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 | 3b9416de-058b-4bd1-bcb1-6a6388430581 |

EF3.1 Climate Change

| | |
|---|---|
| CO2e kg | 0.756 kg CO2e |

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