# PLC-RSC- 24DC/21HC/MS - Relay module

2910514

https://www.phoenixcontact.com/us/products/2910514

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PLC-INTERFACE, consisting of a relay base and pluggable power contact relay with manual operation, integrated status LED and freewheeling diode, Screw connection, 1 changeover contact, Polarity protection diode, Freewheeling diode, Input voltage: 24 V DC

## Commercial data

| | |
|---|---|
| Item number | 2910514 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Sales key | C461 |
| Product key | DK623A |
| GTIN | 4055626486673 |
| Weight per piece (including packing) | 82.4 g |
| Weight per piece (excluding packing) | 67 g |
| Customs tariff number | 85364190 |
| Country of origin | DE |

# Technical data

## Product properties

| | |
|---|---|
| Product type | Relay Module |
| Product family | PLC-INTERFACE |
| Application | Palm switch |
| | High continuous currents |
| Operating mode | 100% operating factor |
| Mechanical service life | 5x $10^6$ cycles |

### Insulation characteristics

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

### Data management status

| | |
|---|---|
| Date of last data management | 21.03.2025 |

## Electrical properties

| | |
|---|---|
| Maximum power dissipation for nominal condition | 0.44 W |
| Test voltage (Winding/contact) | 4 $kV_{rms}$ (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 | 20.2 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 $U_N$ | 18 mA |
| Typical response time | 10 ms |
| Typical release time | 10 ms |
| Protective circuit | Reverse polarity protection; Polarity protection diode |
| | Freewheeling diode; 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 |

| | |
|---|---|
| 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 | 12 V (10 mA) |
| Limiting continuous current | 10 A |
| Maximum inrush current | 24 A (20 ms) |
| Min. switching current | 10 mA (12 V) |
| Interrupting rating (ohmic load) max. | 264 W (24 V DC) |
| | 62 W (48 V DC) |
| | 48 W (60 V DC) |
| | 52 W (110 V DC) |
| | 66 W (220 V DC) |
| | 2750 VA (250 V AC) |
| Switching capacity | 2 A (24 V (DC13)) |
| | 3 A (230 V, AC15) |

## 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

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

## Material specifications

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

## 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) | -40 °C ... 60 °C |
| Ambient temperature (storage/transport) | -20 °C ... 85 °C |
| Altitude | ≤ 2000 m |

## Approvals

CE

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

UKCA

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

Shipbuilding approval

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

UL, USA

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

UL, USA/Canada

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

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

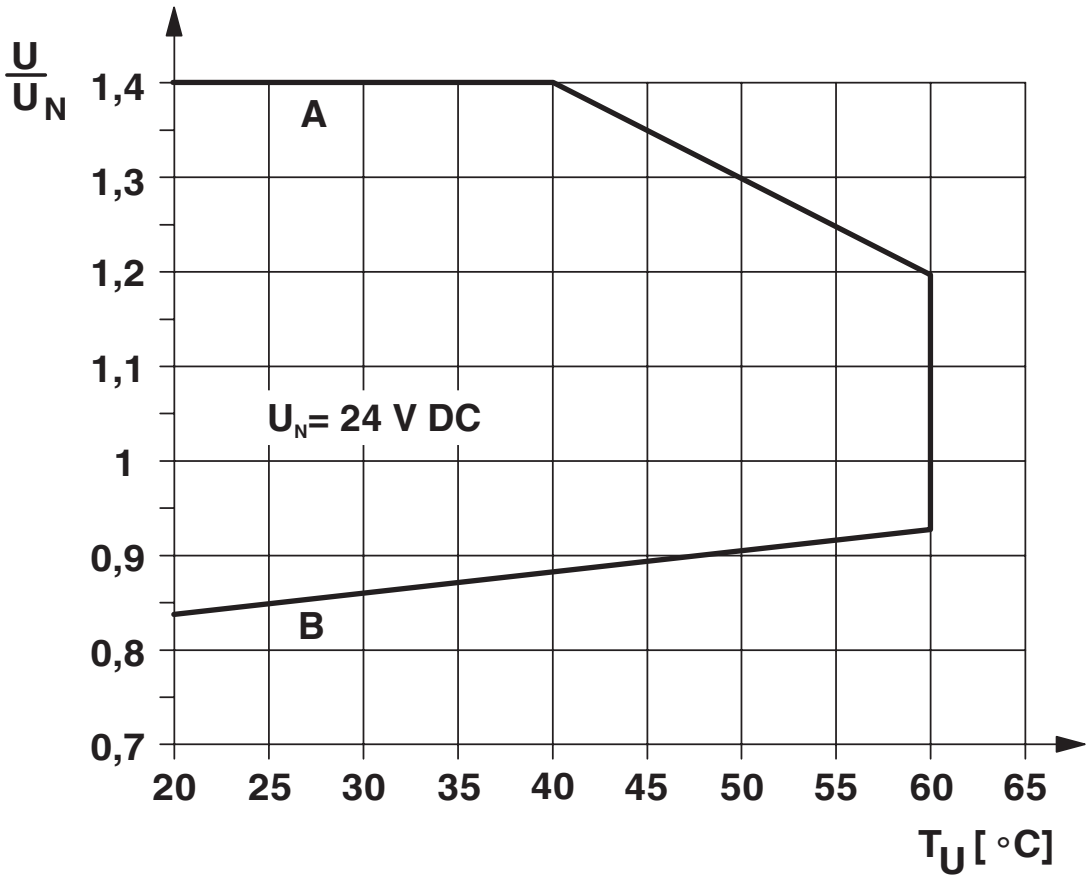
| | |
|---|---|
| Standards/regulations | IEC 60947-5-1 |

## Mounting

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

## Drawings

Diagram



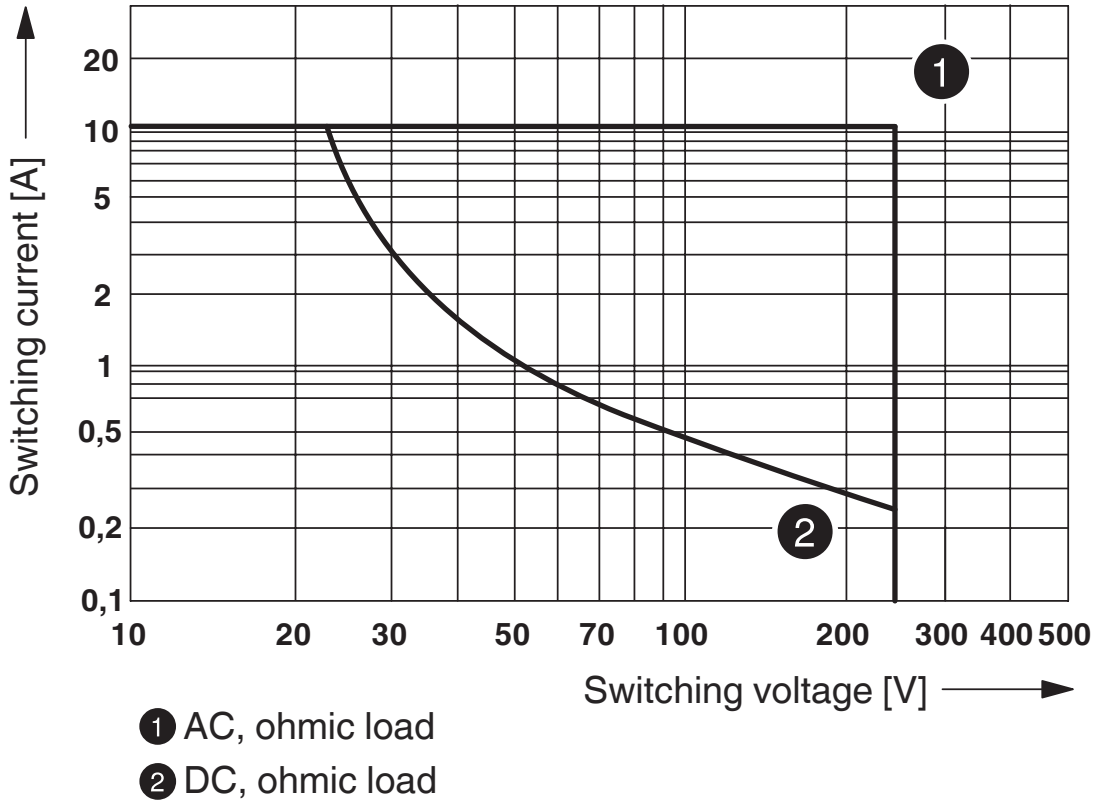

### Curve A

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

### Curve B

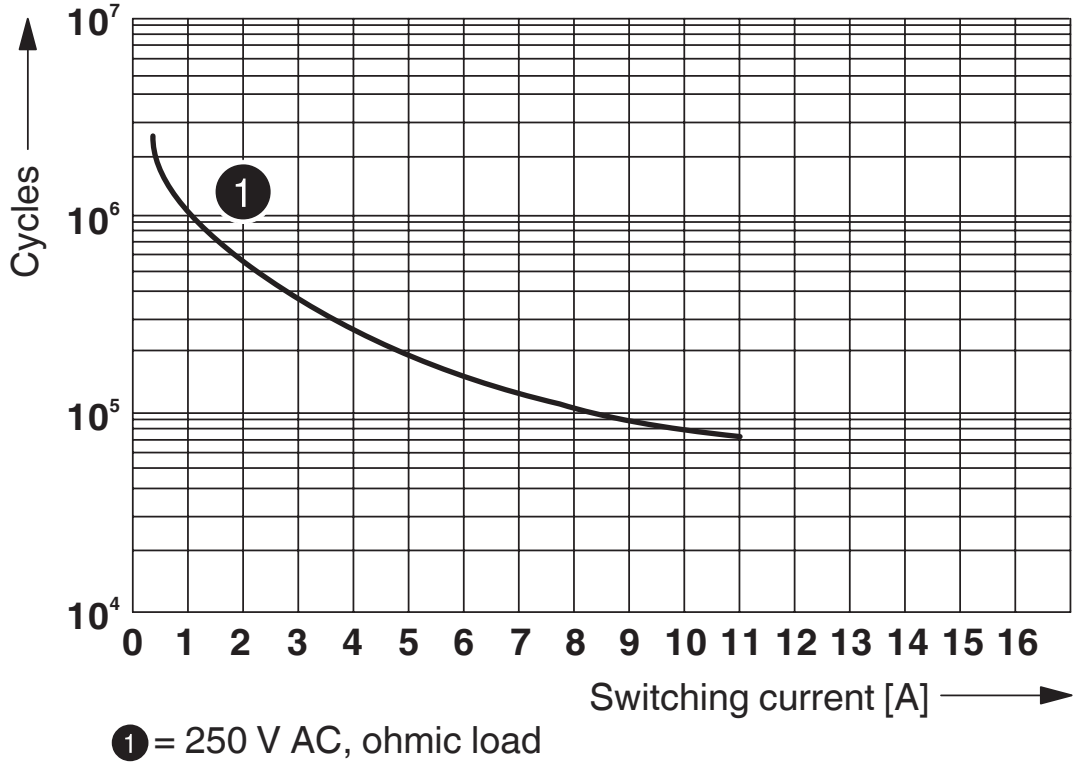
Minimum permissible operate voltage $U_{op}$ after pre-excitation (see relevant technical data)

Diagram



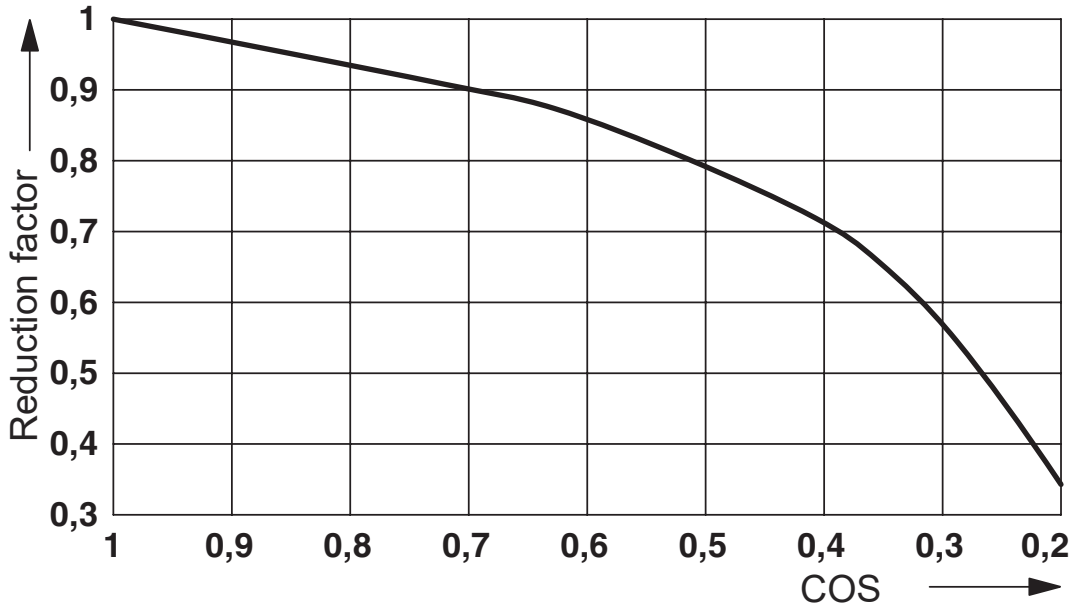

Interrupting rating

Diagram



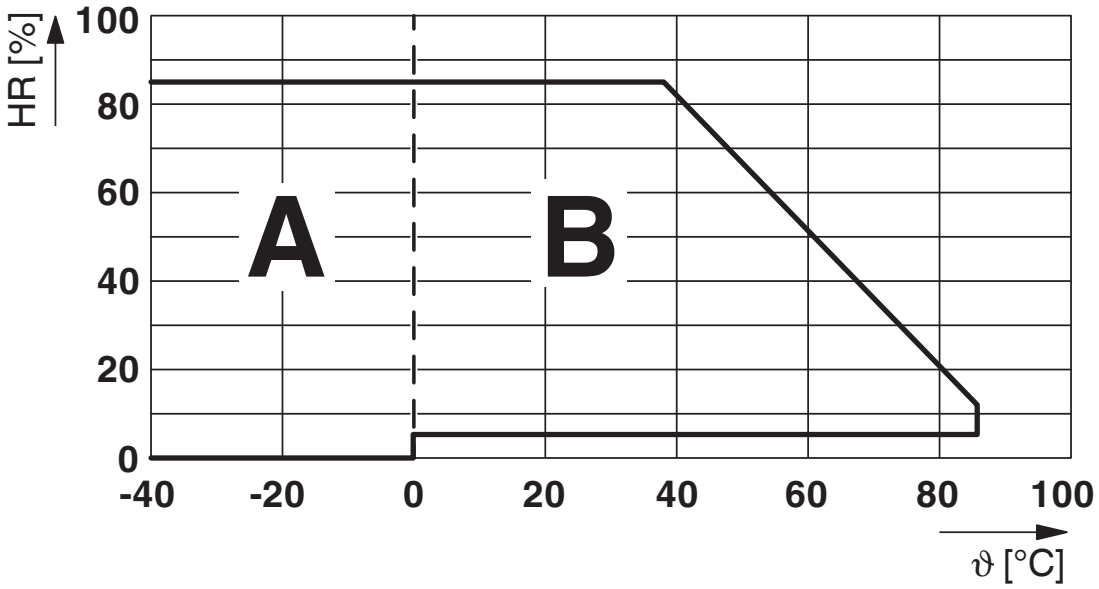

Electrical service life

Diagram




Service life reduction factor

Diagram

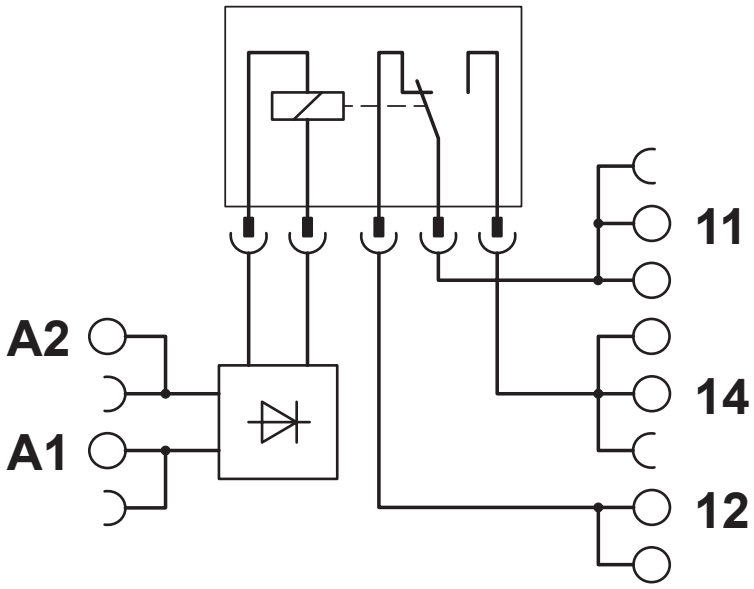



Permissible humidity for operation and storage.
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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/2910514

**EAC**
Approval ID: RU*C-DE.*08.B.00010

**DNV GL**
Approval ID: TAE0000196

**cULus Listed**
Approval ID: E140324

## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

## 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 | d0c6ce27-1bd5-4bfa-9f07-41bc4fcf78d3 |

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