# RIF-1-RPT-LDP-24DC/2X21/FG - Relay module

2908215

https://www.phoenixcontact.com/us/products/2908215

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Preassembled relay module with Push-in connection, consisting of: relay base, coupling relay with force-guided contacts in accordance with DIN EN 61810-3, plug-in display/interference suppression module, and retaining bracket, contact switching type: 2 changeover contacts, 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 | 2908215 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Sales key | C465 |
| Product key | DK652D |
| GTIN | 4055626289151 |
| Weight per piece (including packing) | 74.487 g |
| Weight per piece (excluding packing) | 71.52 g |
| Customs tariff number | 85364110 |
| Country of origin | CZ |

## Set consists of

### REL-SR- 24DC/2X21/FG X - Coupling relay

1473564

https://www.phoenixcontact.com/us/products/1473564



Coupling relay with force-guided contacts in accordance with DIN EN 61810-3, contact switching type 2 changeover contacts. 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.

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

2900939

https://www.phoenixcontact.com/us/products/2900939



Plug-in module, for mounting on RIF-1, RIF-2, RIF-3, and RIF-4, with freewheeling diode and yellow LED, polarity: A1+, A2-, input voltage: 12 V DC ... 24 V DC ±30 %

## RIF-RH-1-H - Retaining bracket

2904468

https://www.phoenixcontact.com/us/products/2904468



Relay retaining bracket, with ejector function and holder for marking material, suitable for RIF-1 relay base, for 25 mm tall miniature power relay and solid-state relay

# Technical data

## Product properties

| | |
|---|---|
| Product type | Relay Module |
| Product family | RIFLINE complete |
| 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) | 300000 Cycles (24 V / 3 A; 1 NO) |
| | 1000000 Cycles (24 V / 1,5 A; 1 NO) |
| | 3000000 Cycles (24 V / 0,75 A; 1 NO) |

Insulation characteristics: Air clearances and creepage distances between the power circuits

| | |
|---|---|
| Insulation | Safe isolation between input and output |
| | Basic insulation between the changeover contacts |
| Overvoltage category | III |
| Pollution degree | 2 |

Data management status

| | |
|---|---|
| Date of last data management | 03.11.2026 |

## Electrical properties

| | |
|---|---|
| Maximum power dissipation for nominal condition | 0.72 W |
| Test voltage (Winding/contact) | 4 $kV_{rms}$ (50 Hz, 60 s) |
| Test voltage (open contact) | 1.5 $kV_{rms}$ (50 Hz, 60 s) |
| Test voltage (Changeover contact/changeover contact) | 2.5 $kV_{rms}$ (50 Hz, 60 s) |

Air clearances and creepage distances between the power circuits

| | |
|---|---|
| Rated insulation voltage | 250 V AC (Input/output) |
| Rated surge voltage | 6 kV (Input/output) |
| | 4 kV (between the changeover contacts) |

Short-circuit protection device

| | |
|---|---|
| Current | 10 A (RT28-32) |
| Voltage | 500 V (SCPD) |
| Short-circuit current | 1 kA (conditional short-circuit current) |

## Input data

Coil side

| | |
|---|---|
| Nominal operating voltage $U_N$ | 24 V DC |
| Input voltage range | 20.4 V DC ... 28.8 V DC (20 °C) |
| Input voltage range in reference to $U_N$ | see diagram |
| Drive and function | monostable |
| Drive (polarity) | polarized |
| Typical input current at $U_N$ | 30 mA |
| Typical response time | 15 ms |
| Typical release time | 10 ms |
| Coil voltage | 24 V DC |
| 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 | AgSnO |
| Maximum switching voltage | 250 V AC/DC |
| Limiting continuous current | 6 A |
| Interrupting rating (ohmic load) max. | 144 W (24 V DC) |
| | 58 W (48 V DC) |
| | 54 W (60 V DC) |
| | 55 W (110 V DC) |
| | 55 W (220 V DC) |
| | 1500 VA (250 V AC) |
| Utilization category CB Scheme (IEC 60947-5-1) | AC15, 3 A/240 V (N/O contact) |

## Connection data

| | |
|---|---|
| Connection method | Push-in connection |
| Stripping length | 8 mm |
| Conductor cross-section rigid | 0.14 mm² ... 1.5 mm² |
| Conductor cross-section flexible | 0.14 mm² ... 1.5 mm² |
| | 0.14 mm² ... 1.5 mm² (Ferrule with plastic sleeve) |
| | 0.14 mm² ... 1 mm² (Ferrule with plastic sleeve, two conductors on double terminal block) |
| Conductor cross-section AWG | 26 ... 16 |

## Dimensions

Item dimensions

| | |
|---|---|
| Width | 16 mm |
| Height | 96 mm |
| Depth | 70 mm |

Drill hole

| | |
|---|---|
| Diameter | 3.2 mm |

## Material specifications

| | |
|---|---|
| Color | gray (RAL 7042) |
| Flammability rating according to UL 94 (Housing) | V2 (Housing) |

## Environmental and real-life conditions

Ambient conditions

| | |
|---|---|
| Degree of protection (Relay base) | IP20 (Relay base) |
| Degree of protection (Relay) | RT I (Relay) |
| Ambient temperature (operation) | -25 °C ... 60 °C |
| Ambient temperature (storage/transport) | -25 °C ... 85 °C |
| Altitude | ≤ 2000 m |

## Approvals

CE

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

UKCA

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

UL, USA/Canada

| | |
|---|---|
| Identification | cULus Listed UL 508 |
| Certificate | NRNT.E172140 |

Corrosive gas test

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

## Standards and regulations

All specifications in accordance with the standard

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

Air clearances and creepage distances between the power circuits

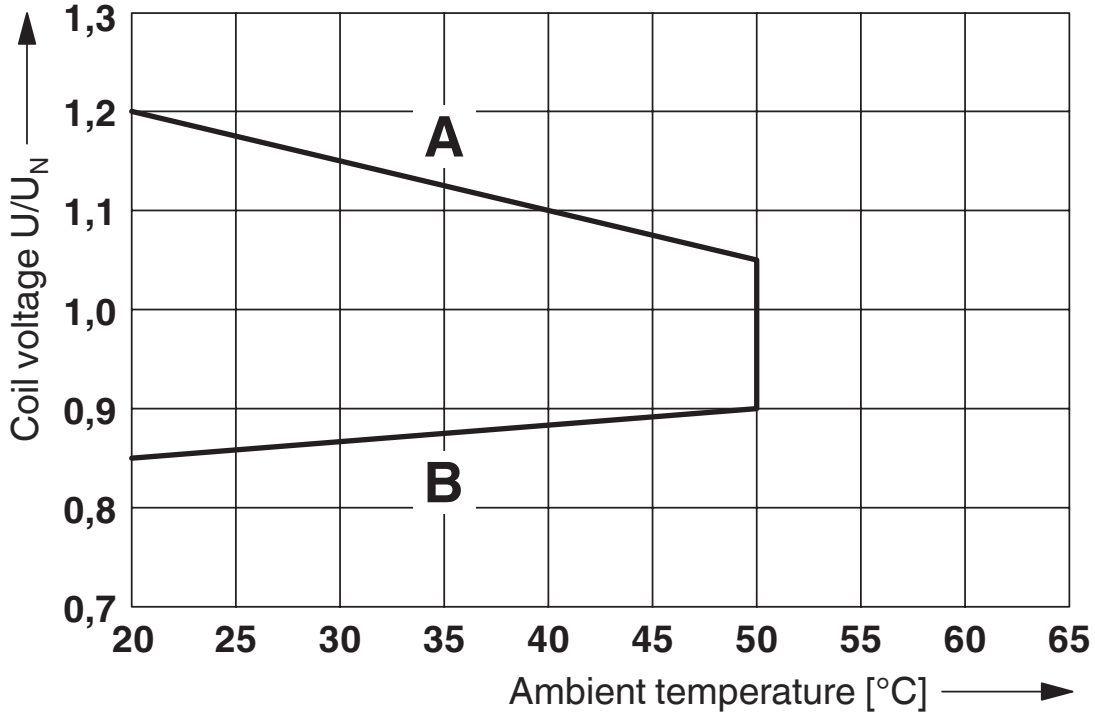
| | |
|---|---|
| Standards/regulations | DIN EN 60947-5-1 |

## Mounting

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

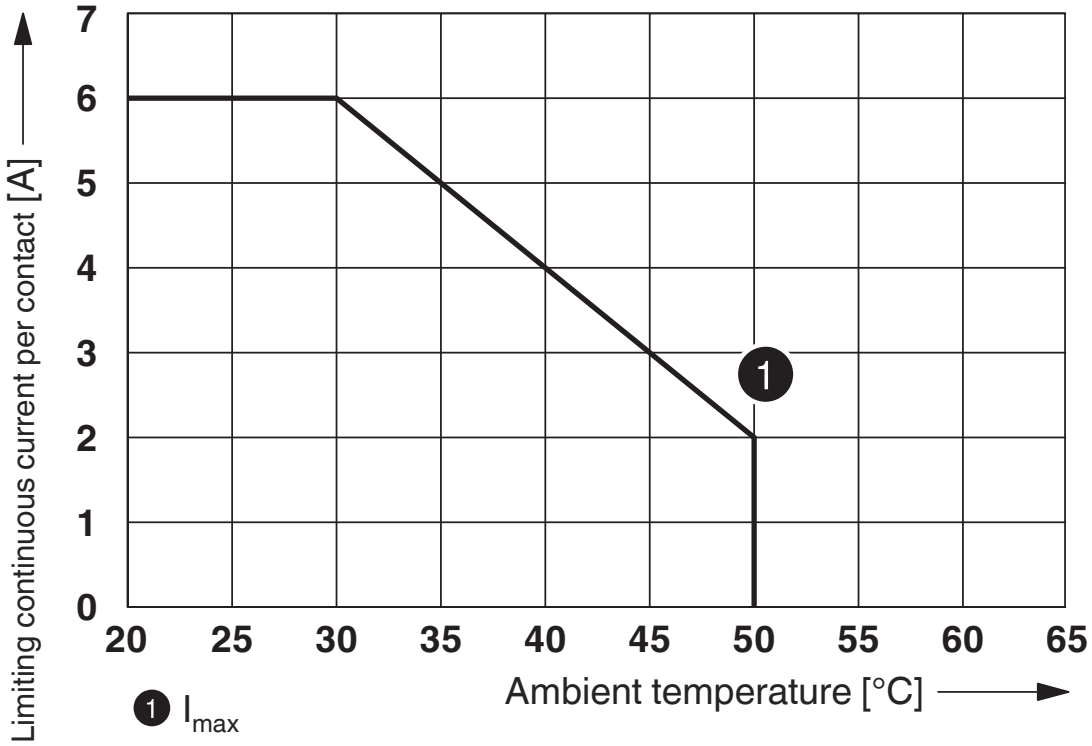
## Drawings

Diagram



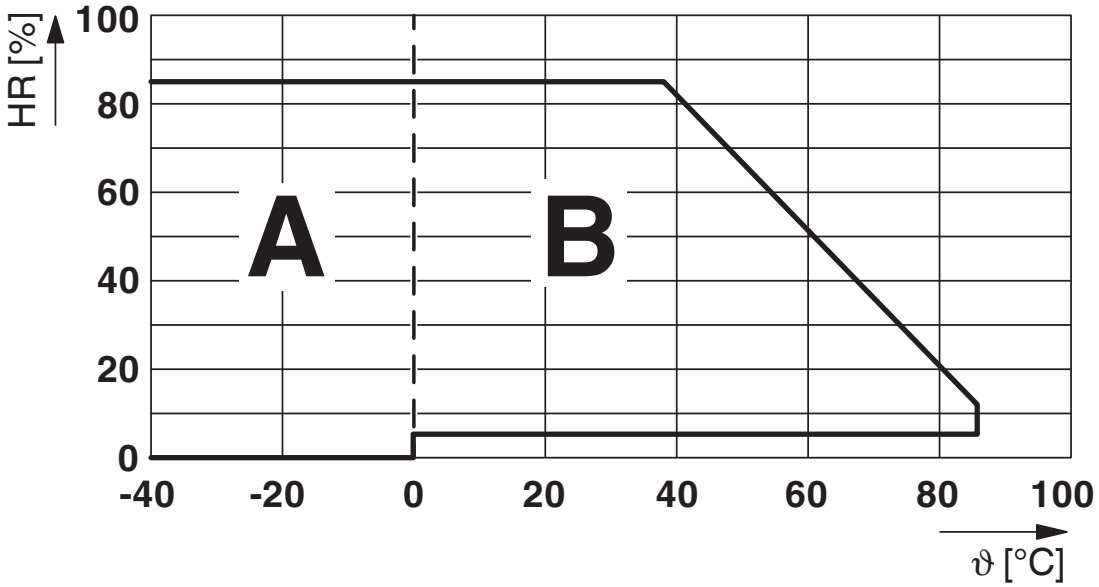

Operating voltage range

Diagram




Contact derating

Diagram

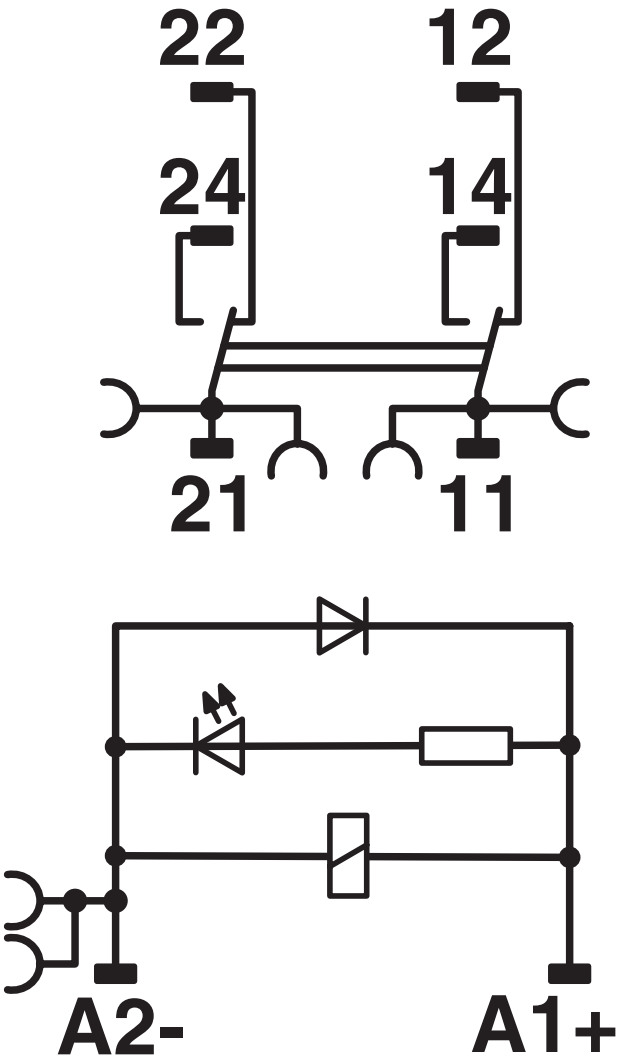



Permissible humidity for operation and storage.
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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/2908215

**UL Listed**
Approval ID: FILE E 172140

**cUL Listed**
Approval ID: FILE E 172140

**DNV**
Approval ID: TAA000018V

## 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

| | |
|---|---|
| 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.) | Lead(CAS: 7439-92-1) |
| SCIP | 2f07a933-e75a-4d9a-aac6-da148b306deb |


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