

RIF-1-RPT-LV-120AC/1X21MS - Relay module



2909776

<https://www.phoenixcontact.com/us/products/2909776>

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.



Preassembled relay module with Push-in connection, consisting of: relay base, relay retaining bracket, plug-in interference suppression module, and power contact relay with test button and integrated status LED. Contact switching type: 1 changeover contact. Input voltage: 120 V AC

Product description

The pluggable electromechanical and solid-state relays in the RIFLINE complete product range and the base are recognized and approved in accordance with UL 508. The relevant approvals can be called up at the individual components in question.

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 2909776 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Sales key | C465 |
| Product key | DK6529 |
| GTIN | 4055626380292 |
| Weight per piece (including packing) | 70.8 g |
| Weight per piece (excluding packing) | 70.8 g |
| Customs tariff number | 85364110 |
| Country of origin | CN |

RIF-1-RPT-LV-120AC/1X21MS - Relay module



2909776

<https://www.phoenixcontact.com/us/products/2909776>

Set consists of

RIF-1-BPT/2X21 - Relay base

2900931

<https://www.phoenixcontact.com/us/products/2900931>



Relay base RIF-1..., for miniature power relay with 1 or 2 changeover contacts or solid-state relays of the same design, Push-in connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

REL-MR-120AC/21HC/MS - Single relay

2987901

<https://www.phoenixcontact.com/us/products/2987901>



Plug-in miniature relay, with power contact, 1 changeover contact, test button, mechanical switching position indicator, status LED, input voltage 120 V AC

RIF-1-RPT-LV-120AC/1X21MS - Relay module

2909776

<https://www.phoenixcontact.com/us/products/2909776>



RIF-V-120-230 UC - Plug-in module

2900948

<https://www.phoenixcontact.com/us/products/2900948>



Plug-in module, for mounting on RIF-1, RIF-2, RIF-3, and RIF-4, with varistor, input voltage: 120 V AC ... 230 V AC / DC $\pm 20\%$

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 | Universal Palm switch |
| Operating mode | 100% operating factor |
| Mechanical service life | approx. 5×10^6 cycles |

Insulation characteristics

| | |
|----------------------|---|
| 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 | 20.01.2026 |
|------------------------------|------------|

Electrical properties

| | |
|---|---|
| Service life electrical | see diagram |
| Maximum power dissipation for nominal condition | 0.84 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/output) 4 kV (between the changeover contacts) |

Input data

Coil side

| | |
|---|------------------------------|
| Nominal input voltage U_N | 120 V AC |
| Input voltage range | 96 V AC ... 132 V AC (20 °C) |
| Input voltage range in reference to U_N | see diagram |
| Mains frequency | 50/60 Hz |
| Drive and function | monostable |
| Drive (polarity) | polarized |
| Typical input current at U_N | 7 mA |
| Typical response time | 4 ms ... 10 ms |
| Typical release time range | 3 ms ... 20 ms |
| Coil voltage | 120 V AC |
| Protective circuit | Varistor |
| Operating voltage display | Yellow LED |

Output data

RIF-1-RPT-LV-120AC/1X21MS - Relay module



2909776

<https://www.phoenixcontact.com/us/products/2909776>

Switching

| | |
|--|---|
| Contact switching type | 1 changeover contact |
| Type of switch contact | Single contact |
| Contact material | AgNi |
| Maximum switching voltage | 250 V AC/DC |
| Minimum switching voltage | 12 V (10 mA) |
| Limiting continuous current | 8 A (see diagram) |
| Maximum inrush current | 32 A (20 ms, N/O contacts) |
| 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) 2500 VA (250 V AC) |
| Switching power min. | 120 mW |
| Utilization category CB Scheme (IEC 60947-5-1) | AC15, 3 A/250 V (N/O contact) DC13, 2 A/24 V (N/O contact) |

Connection data

| | |
|----------------------------------|---|
| Connection method | Push-in connection |
| Stripping length | 8 mm |
| Conductor cross-section rigid | 0.14 mm ² ... 1.5 mm ² |
| Conductor cross-section flexible | 0.14 mm ² ... 1.5 mm ² 0.14 mm ² ... 1.5 mm ² (Ferrule with plastic sleeve) 0.14 mm ² ... 1 mm ² (Ferrule with plastic sleeve, two conductors on double terminal block) |
| Conductor cross-section AWG | 26 ... 16 (solid) 26 ... 16 (flexible) |

Dimensions

Item dimensions

| | |
|--------|-------|
| Width | 16 mm |
| Height | 96 mm |
| Depth | 75 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

RIF-1-RPT-LV-120AC/1X21MS - Relay module



2909776

<https://www.phoenixcontact.com/us/products/2909776>

Ambient conditions

| | |
|---|-------------------|
| Degree of protection (Relay base) | IP20 (Relay base) |
| Degree of protection (Relay) | RT II (Relay) |
| Ambient temperature (operation) | -40 °C ... 50 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

Approvals

Corrosive gas test

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

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



- ① DC coils
- ② AC coils

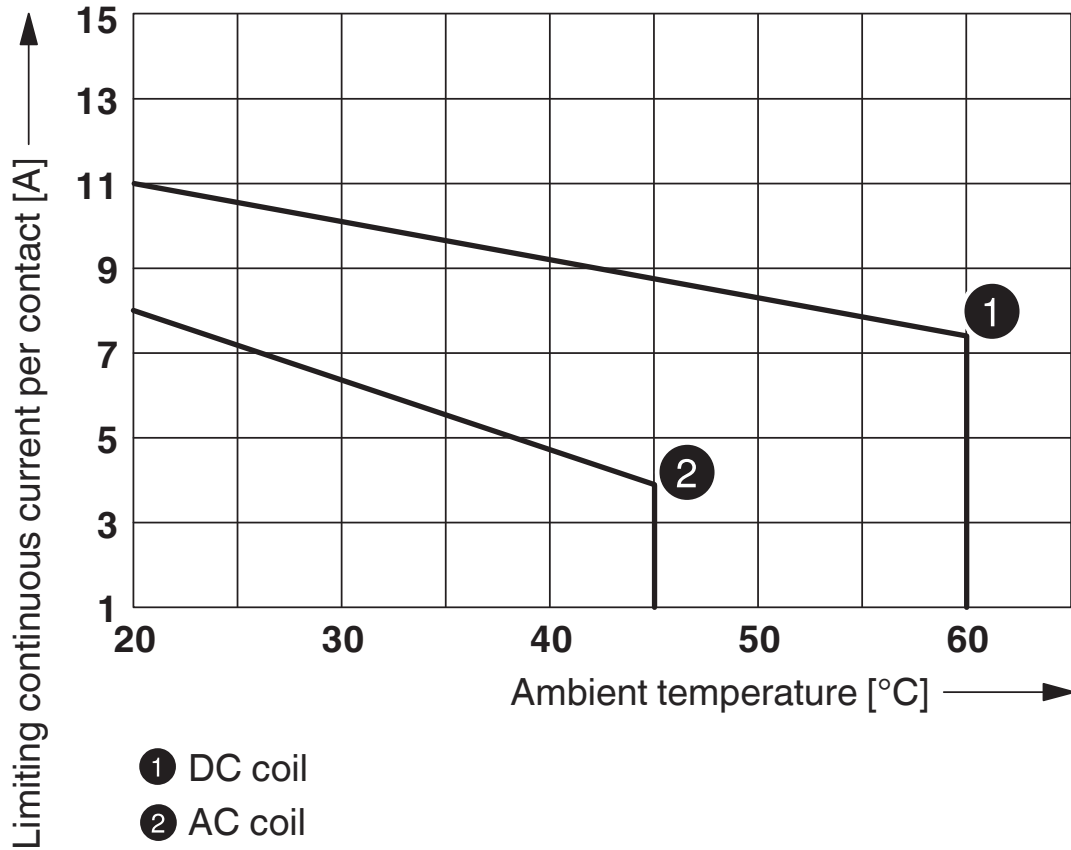
Operating voltage range

Diagram



Interrupting rating

Diagram



Contact derating

Diagram



Electrical service life

Diagram



Service life reduction factor



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



AC coils

RIF-1-RPT-LV-120AC/1X21MS - Relay module



2909776

<https://www.phoenixcontact.com/us/products/2909776>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2909776>



EAC

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



CCC

Approval ID: 2024010303656844

DNV

Approval ID: TAA000018V

RIF-1-RPT-LV-120AC/1X21MS - Relay module



2909776

<https://www.phoenixcontact.com/us/products/2909776>

Classifications

ECLASS

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

ETIM

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

UNSPSC

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

2909776

<https://www.phoenixcontact.com/us/products/2909776>

Environmental product compliance

EU RoHS

| | |
|---|--------|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 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.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com