

## Relay Module - RIF-2-RPT-LDP-24DC/2X21 - 2903315

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Pre-assembled relay module with push-in connection, consisting of: relay base, power contact relay, and retaining bracket. Contact type: 2 PDTs. Input voltage: 24 V DC



### Key Commercial Data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 10 STK                                                                                                  |
| GTIN                                 | <br>4 046356 732178 |
| GTIN                                 | 4046356732178                                                                                           |
| Weight per Piece (excluding packing) | 100.000 g                                                                                               |
| Custom tariff number                 | 85364110                                                                                                |
| Country of origin                    | China                                                                                                   |

### Technical data

#### Note

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

#### Dimensions

|        |       |
|--------|-------|
| Width  | 31 mm |
| Height | 96 mm |
| Depth  | 75 mm |

#### Ambient conditions

|                                         |                  |
|-----------------------------------------|------------------|
| Ambient temperature (operation)         | -40 °C ... 60 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

#### Coil side

|                                           |             |
|-------------------------------------------|-------------|
| Nominal input voltage $U_N$               | 24 V DC     |
| Input voltage range in reference to $U_N$ | see diagram |
| Typical input current at $U_N$            | 42 mA       |

# Relay Module - RIF-2-RPT-LDP-24DC/2X21 - 2903315

## Technical data

### Coil side

|                                         |               |
|-----------------------------------------|---------------|
| Typical response time                   | 13 ms         |
| Typical release time                    | 14 ms         |
| Coil voltage                            | 24 V DC       |
| Protective circuit                      | Damping diode |
| Operating voltage display               | Yellow LED    |
| Power dissipation for nominal condition | 1.01 W        |

### Contact side

|                                                        |                           |
|--------------------------------------------------------|---------------------------|
| Contact type                                           | 2 PDT                     |
| Type of switch contact                                 | Single contact            |
| Contact material                                       | AgNi                      |
| Maximum switching voltage                              | 250 V AC/DC               |
| Minimum switching voltage                              | 5 V (At 24 mA)            |
| Min. switching current                                 | 5 mA (at 24 V)            |
| Maximum inrush current                                 | 30 A (20 ms, N/O contact) |
| Limiting continuous current                            | 10 A (see diagram)        |
| Interrupting rating (ohmic load) max.                  | 240 W (at 24 V DC)        |
|                                                        | 124 W (at 48 V DC)        |
|                                                        | 108 W (at 60 V DC)        |
|                                                        | 52 W (at 110 V DC)        |
|                                                        | 48 W (at 220 V DC)        |
|                                                        | 2500 VA (for 250 V AC)    |
| Switching capacity in acc. with DIN VDE 0660/IEC 60947 | 2 A (at 24 V, DC13)       |
|                                                        | 0.22 A (at 120 V, DC13)   |
|                                                        | 0.11 A (at 250 V, DC13)   |
|                                                        | 3 A (at 120 V, AC15)      |
|                                                        | 1.5 A (at 240 V, AC15)    |

### Connection data input side

|                                  |                                              |
|----------------------------------|----------------------------------------------|
| Connection name                  | Coil side                                    |
| Connection method                | Push-in connection                           |
| Stripping length                 | 8 mm                                         |
| Conductor cross section solid    | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross section flexible | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross section AWG      | 26 ... 16                                    |

### Connection data output side

|                                  |                                              |
|----------------------------------|----------------------------------------------|
| Connection name                  | Contact side                                 |
| Connection method                | Push-in connection                           |
| Stripping length                 | 8 mm                                         |
| Conductor cross section solid    | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross section flexible | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |

# Relay Module - RIF-2-RPT-LDP-24DC/2X21 - 2903315

## Technical data

### Connection data output side

|                             |           |
|-----------------------------|-----------|
| Conductor cross section AWG | 26 ... 16 |
|-----------------------------|-----------|

### General

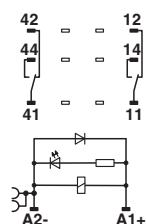
|                                          |                                       |
|------------------------------------------|---------------------------------------|
| Test voltage relay winding/relay contact | 2.5 kV <sub>rms</sub> (50 Hz, 1 min.) |
| Test voltage relay contact/relay contact | 2.5 kV <sub>rms</sub> (50 Hz, 1 min.) |
| Operating mode                           | 100% operating factor                 |
| Degree of protection                     | IP20 (Relay socket)                   |
|                                          | RT I (Relay)                          |
| Mechanical service life                  | Approx. $2 \times 10^7$ cycles        |
| Mounting position                        | any                                   |
| Assembly instructions                    | In rows with zero spacing             |

### Standards and Regulations

|                                  |                  |
|----------------------------------|------------------|
| Connection in acc. with standard | CSA              |
| Standards/regulations            | DIN EN 50178     |
|                                  | IEC 62103        |
| Rated insulation voltage         | 250 V AC         |
| Rated surge voltage              | 4 kV             |
| Insulation                       | Basic insulation |
| Degree of pollution              | 2                |
| Overvoltage category             | III              |

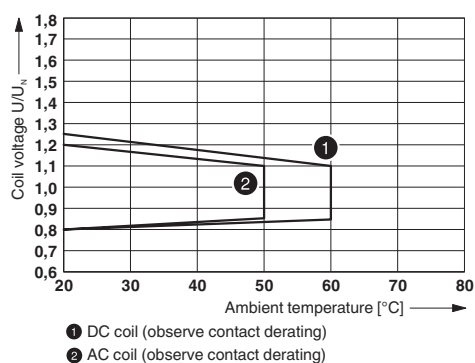
## Drawings

Circuit diagram



DC coils

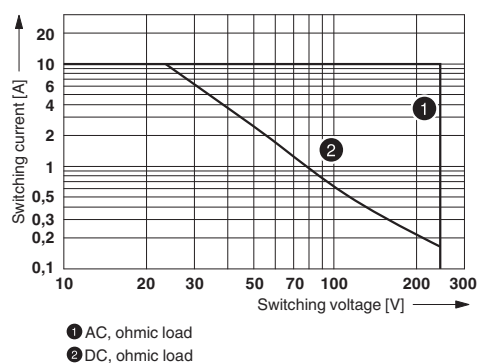
Diagram



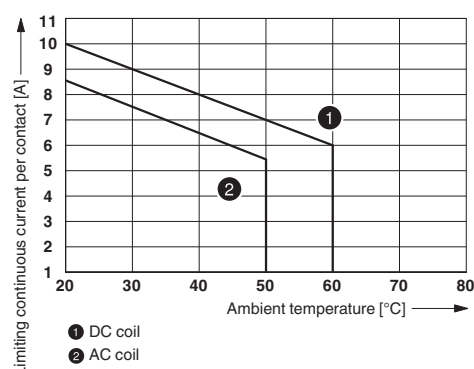
Operating voltage range

## Relay Module - RIF-2-RPT-LDP-24DC/2X21 - 2903315

Diagram

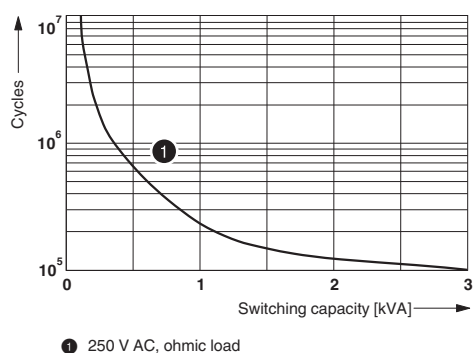


Diagram



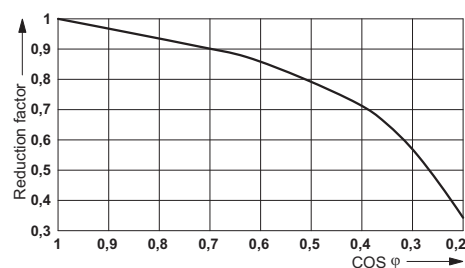
Interrupting rating

Diagram



Contact derating

Diagram



Electrical service life

Service life reduction factor

### Articles in set

Relay socket - RIF-2-BPT/4X21 - 2900934



RIF-2... relay base, for industrial relay with 2 or 4 PDTs, push-in connection, plug-in option for input/suppressor modules, for mounting on NS 35/7,5

Single relay - REL-IR2/LDP- 24DC/2X21 - 2903660



Plug-in industrial relay with power contacts, 2 PDTs, test key, status LED, freewheeling diode, mechanical switch position indicator, polarity: A1+, A2-, input voltage: 24 V DC

## Relay Module - RIF-2-RPT-LDP-24DC/2X21 - 2903315

### Articles in set

Retaining bracket - RIF-RH-2 - 2900954



Relay retaining bracket, with ejector function and holder for marking material, suitable for RIF-2 relay base, for industrial relay

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27371102 |
| eCl@ss 4.1 | 27371102 |
| eCl@ss 5.0 | 27371603 |
| eCl@ss 5.1 | 27371603 |
| eCl@ss 6.0 | 27371603 |
| eCl@ss 7.0 | 27371603 |
| eCl@ss 8.0 | 27371601 |
| eCl@ss 9.0 | 27371601 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001456 |
| ETIM 4.0 | EC001456 |
| ETIM 5.0 | EC001437 |
| ETIM 6.0 | EC001437 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211917 |
| UNSPSC 7.0901 | 39121516 |
| UNSPSC 11     | 39121516 |
| UNSPSC 12.01  | 39121516 |
| UNSPSC 13.2   | 39122334 |

### Approvals

#### Approvals

Approvals

CSA / EAC / LR / EAC

Ex Approvals

## Relay Module - RIF-2-RPT-LDP-24DC/2X21 - 2903315

### Approvals

#### Approval details

|     |                                                                                   |                                                                                                                                                                                           |                          |
|-----|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| CSA |  | <a href="http://www.csagroup.org/services/testing-and-certification/certified-product-listing/">http://www.csagroup.org/services/testing-and-certification/certified-product-listing/</a> | 2607057                  |
| EAC |  |                                                                                                                                                                                           | EAC-Zulassung            |
| LR  |  | <a href="http://www.lr.org/en">http://www.lr.org/en</a>                                                                                                                                   | 15/20011                 |
| EAC |  |                                                                                                                                                                                           | RU C-<br>DE.A*30.B.01082 |

### Accessories

#### Accessories

##### End block

End clamp - CLIPFIX 35 - 3022218



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

##### Insulating sleeve

Insulating sleeve - MPS-IH WH - 0201663



Insulating sleeve, Color: white

## Relay Module - RIF-2-RPT-LDP-24DC/2X21 - 2903315

### Accessories

Insulating sleeve - MPS-IH RD - 0201676



Insulating sleeve, Color: red

Insulating sleeve - MPS-IH BU - 0201689



Insulating sleeve, Color: blue

Insulating sleeve - MPS-IH YE - 0201692



Insulating sleeve, Color: yellow

Insulating sleeve - MPS-IH GN - 0201702



Insulating sleeve, Color: green

Insulating sleeve - MPS-IH GY - 0201728



Insulating sleeve, Color: gray

## Relay Module - RIF-2-RPT-LDP-24DC/2X21 - 2903315

### Accessories

Insulating sleeve - MPS-IH BK - 0201731



Insulating sleeve, Color: black

---

### Jumper

Plug-in bridge - FBS 2-6 - 3030336



Plug-in bridge, Pitch: 6.2 mm, Length: 23 mm, Width: 10.7 mm, Number of positions: 2, Color: red

---

Plug-in bridge - FBS 2-6 BU - 3036932



Plug-in bridge, Pitch: 6.2 mm, Number of positions: 2, Color: blue

---

Plug-in bridge - FBS 2-6 GY - 3032237



Plug-in bridge, Pitch: 6.2 mm, Number of positions: 2, Color: gray

---

### Terminal marking

Zack marker strip - ZB 5 :UNBEDRUCKT - 1050004



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, Mounting type: Snap into tall marker groove, for terminal block width: 5.2 mm, Lettering field: 5.1 x 10.5 mm



## Relay Module - RIF-2-RPT-LDP-24DC/2X21 - 2903315

### Accessories

Zack marker strip - ZB 15:UNBEDRUCKT - 0811972



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, Mounting type: Snap into tall marker groove, for terminal block width: 15.2 mm, Lettering field: 10.5 x 15.1 mm

---

### Test plug terminal block

Test plugs - MPS-MT - 0201744



Test plugs, with solder connection up to 1 mm<sup>2</sup> conductor cross section, Color: silver

---

### Spare parts

Relay socket - RIF-2-BPT/4X21 - 2900934



RIF-2... relay base, for industrial relay with 2 or 4 PDTs, push-in connection, plug-in option for input/suppressor modules, for mounting on NS 35/7,5

---

Single relay - REL-IR2/LDP- 24DC/2X21 - 2903660



Plug-in industrial relay with power contacts, 2 PDTs, test key, status LED, freewheeling diode, mechanical switch position indicator, polarity: A1+, A2-, input voltage: 24 V DC

---

Retaining bracket - RIF-RH-2 - 2900954



Relay retaining bracket, with ejector function and holder for marking material, suitable for RIF-2 relay base, for industrial relay