

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


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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       |

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## 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> |

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## Technical data

### Connection data output side

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

### General

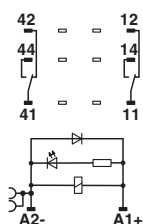
|  |                                       |
|--|---------------------------------------|
| Test voltage relay winding/relay contact | 2.5 kV <sub>rms</sub> (50 Hz, 1 min.) |
| Test voltage relay contact/relay contact | 2.5 kV <sub>rms</sub> (50 Hz, 1 min.) |
| Operating mode                           | 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              |

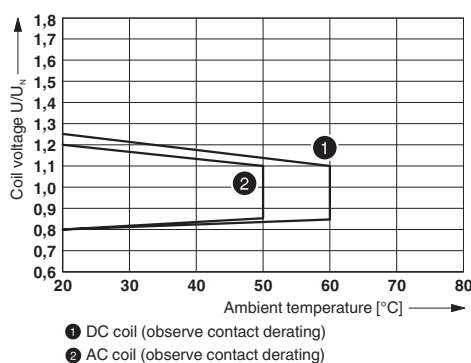
## Drawings

Circuit diagram



DC coils

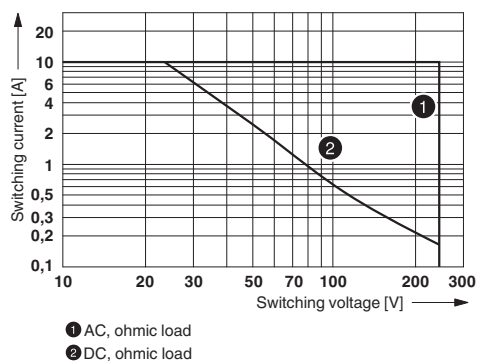
Diagram



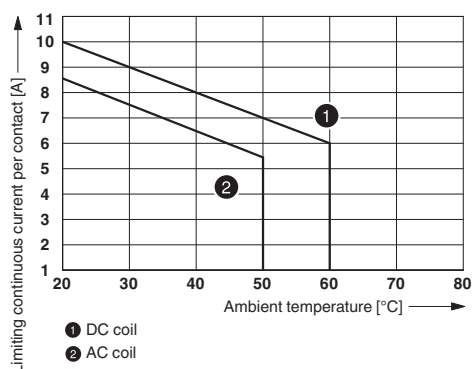
Operating voltage range

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

Diagram

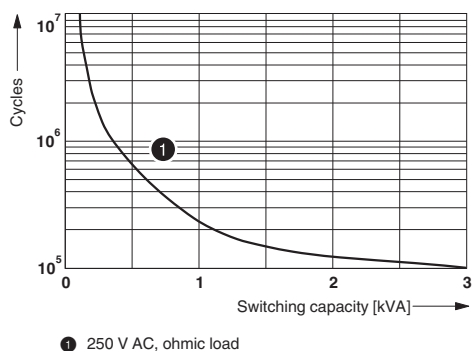


Diagram



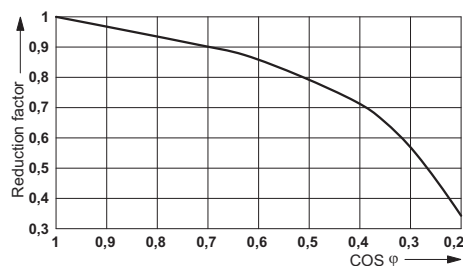
Interrupting rating

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

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## 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

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Approvals

CSA / EAC / LR / EAC

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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-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

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Insulating sleeve - MPS-IH BU - 0201689



Insulating sleeve, Color: blue

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Insulating sleeve - MPS-IH YE - 0201692



Insulating sleeve, Color: yellow

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Insulating sleeve - MPS-IH GN - 0201702



Insulating sleeve, Color: green

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Insulating sleeve - MPS-IH GY - 0201728



Insulating sleeve, Color: gray

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

### Accessories

Insulating sleeve - MPS-IH BK - 0201731



Insulating sleeve, Color: black

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### 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

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



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

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



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

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### 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

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### 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

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### 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

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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

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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