

## Relay Module - RIF-0-RPT-12DC/21AU - 2903369

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Pre-assembled relay module with push-in connection, consisting of: relay base with ejector and multi-layer gold contact relay. Contact type: 1 PDT. Input voltage: 12 V DC



### Key commercial data

|                                      |          |
|--------------------------------------|----------|
| Packing unit                         | 1 pc     |
| Weight per Piece (excluding packing) | 28.0 GRM |
| Custom tariff number                 | 85364110 |
| Country of origin                    | Germany  |

### Technical data

#### Note

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

#### Dimensions

|        |        |
|--------|--------|
| Width  | 6.2 mm |
| Height | 93 mm  |
| Depth  | 78 mm  |

#### Ambient conditions

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

#### Coil side

|                                           |             |
|-------------------------------------------|-------------|
| Nominal input voltage $U_N$               | 12 V DC     |
| Input voltage range in reference to $U_N$ | see diagram |
| Typical input current at $U_N$            | 16 mA       |
| Typical response time                     | 5 ms        |
| Typical release time                      | 8 ms        |

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## Technical data

### Coil side

|                           |               |
|---------------------------|---------------|
| Operating voltage display | Yellow LED    |
| Protective circuit        | Damping diode |

### Contact side

|                                                        |                                                                  |
|--------------------------------------------------------|------------------------------------------------------------------|
| Contact type                                           | 1 PDT                                                            |
| Contact material                                       | AgSnO, hard gold-plated                                          |
| Maximum switching voltage                              | 30 V AC                                                          |
|                                                        | 36 V DC                                                          |
| Minimum switching voltage                              | 100 mV (at 10 mA)                                                |
| Maximum inrush current                                 | 50 mA                                                            |
| Min. switching current                                 | 1 mA                                                             |
| Limiting continuous current                            | 50 mA                                                            |
| Interrupting rating (ohmic load) max.                  | 1.2 W (at 24 V DC)                                               |
| Switching capacity in acc. with DIN VDE 0660/IEC 60947 | 1 A (24 V (DC13))                                                |
|                                                        | 3 A (230 V (AC 15))                                              |
| Note                                                   | the following values are applicable if a gold layer is destroyed |
| Maximum switching voltage                              | 250 V AC/DC                                                      |
| Minimum switching voltage                              | 5 V (at 100 mA)                                                  |
| Limiting continuous current                            | 6 A                                                              |
| Min. switching current                                 | 10 mA (at 12 V)                                                  |
| Interrupting rating (ohmic load) max.                  | 140 W (at 24 V DC)                                               |
|                                                        | 20 W (at 48 V DC)                                                |
|                                                        | 18 W (at 60 V DC)                                                |
|                                                        | 23 W (at 110 V DC)                                               |
|                                                        | 40 W (at 220 V DC)                                               |
|                                                        | 1500 VA (for 250 V AC)                                           |
| Switching capacity in acc. with DIN VDE 0660/IEC 60947 | 2 A (at 24 V, DC13)                                              |
|                                                        | 0.2 A (at 110 V, DC13)                                           |
|                                                        | 0.1 A (at 220 V, DC13)                                           |
|                                                        | 3 A (at 24 V, AC15)                                              |
|                                                        | 3 A (at 120 V, AC15)                                             |
|                                                        | 3 A (at 230 V, AC15)                                             |

### Connection data

|                                       |                      |
|---------------------------------------|----------------------|
| Connection method                     | Push-in connection   |
| Stripping length                      | 8 mm                 |
| Conductor cross section stranded min. | 0.14 mm <sup>2</sup> |
| Conductor cross section stranded max. | 1.5 mm <sup>2</sup>  |

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### Technical data

#### Connection data

|                                                                            |                      |
|----------------------------------------------------------------------------|----------------------|
| Conductor cross section solid min.                                         | 0.14 mm <sup>2</sup> |
| Conductor cross section solid max.                                         | 1.5 mm <sup>2</sup>  |
| Conductor cross section stranded, with ferrule with plastic sleeve min.    | 0.14 mm <sup>2</sup> |
| Conductor cross section stranded, with ferrule with plastic sleeve max.    | 1.5 mm <sup>2</sup>  |
| Conductor cross section stranded, with ferrule without plastic sleeve min. | 0.14 mm <sup>2</sup> |
| Conductor cross section stranded, with ferrule without plastic sleeve max. | 1.5 mm <sup>2</sup>  |
| Conductor cross section AWG/kcmil max                                      | 16                   |
| Conductor cross section AWG/kcmil min.                                     | 26                   |

#### General

|                                          |                                     |
|------------------------------------------|-------------------------------------|
| Test voltage relay winding/relay contact | 4 kV <sub>rms</sub> (50 Hz, 1 min.) |
| Operating mode                           | 100% operating factor               |
| Degree of protection                     | IP20 (Relay socket)                 |
|                                          | RT III (Relay)                      |
| Mechanical service life                  | Approx. $2 \times 10^7$ cycles      |
| Standards/regulations                    | DIN EN 50178                        |
|                                          | IEC 62103                           |
| Rated insulation voltage                 | 250 V AC                            |
| Pollution degree                         | 2                                   |
| Surge voltage category                   | III                                 |
| Mounting position                        | any                                 |
| Assembly instructions                    | In rows with zero spacing           |

### Articles in set

Single relay - REL-MR- 12DC/21AU - 2961163



Plug-in miniature power relay, with multi-layer gold contact, 1 PDT, input voltage 12 V DC

Relay socket - RIF-0-BPT/21 - 2900958



RIF-0... relay base, for miniature power relay with 1 PDT or solid-state relays of the same design, push-in connection, for mounting on NS 35/7,5

## Relay Module - RIF-0-RPT-12DC/21AU - 2903369

### Articles in set

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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 | 27371603 |

#### ETIM

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

#### UNSPSC

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

### 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

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#### Insulating sleeve

## Relay Module - RIF-0-RPT-12DC/21AU - 2903369

### Accessories

Insulating sleeve - MPS-IH WH - 0201663



Insulating sleeve, Color: white

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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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## Relay Module - RIF-0-RPT-12DC/21AU - 2903369

### Accessories

Insulating sleeve - MPS-IH GY - 0201728



Insulating sleeve, Color: gray

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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, Number of positions: 2, Color: red

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Plug-in bridge - FBS 3-6 - 3030242



Plug-in bridge, Number of positions: 3, Color: red

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Plug-in bridge - FBS 4-6 - 3030255



Plug-in bridge, Number of positions: 4, Color: red

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## Relay Module - RIF-0-RPT-12DC/21AU - 2903369

### Accessories

Plug-in bridge - FBS 5-6 - 3030349



Plug-in bridge, Number of positions: 5, Color: red

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Plug-in bridge - FBS 10-6 - 3030271



Plug-in bridge, Number of positions: 10, Color: red

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Plug-in bridge - FBS 20-6 - 3030365



Plug-in bridge, Number of positions: 20, Color: red

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Plug-in bridge - FBS 50-6 - 3032224



Plug-in bridge, Number of positions: 50, Color: red

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



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

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## Relay Module - RIF-0-RPT-12DC/21AU - 2903369

### Accessories

Plug-in bridge - FBS 3-6 BU - 3036945



Plug-in bridge, Number of positions: 3, Color: blue

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Plug-in bridge - FBS 4-6 BU - 3036958



Plug-in bridge, Number of positions: 4, Color: blue

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Plug-in bridge - FBS 5-6 BU - 3036961



Plug-in bridge, Number of positions: 5, Color: blue

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Plug-in bridge - FBS 10-6 BU - 3032198



Plug-in bridge, Number of positions: 10, Color: blue

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Plug-in bridge - FBS 20-6 BU - 3032208



Plug-in bridge, Number of positions: 20, Color: blue

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## Relay Module - RIF-0-RPT-12DC/21AU - 2903369

### Accessories

Plug-in bridge - FBS 50-6 BU - 3032211



Plug-in bridge, Number of positions: 50, Color: blue

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



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

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Plug-in bridge - FBS 3-6 GY - 3032240



Plug-in bridge, Number of positions: 3, Color: gray

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Plug-in bridge - FBS 4-6 GY - 3032279



Plug-in bridge, Number of positions: 4, Color: gray

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Plug-in bridge - FBS 5-6 GY - 3032266



Plug-in bridge, Number of positions: 5, Color: gray

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## Relay Module - RIF-0-RPT-12DC/21AU - 2903369

### Accessories

Plug-in bridge - FBS 10-6 GY - 3032253



Plug-in bridge, Number of positions: 10, Color: gray

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### Terminal marking

Zack marker strip - ZB 6:UNBEDRUCKT - 1051003



Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm

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### Test plug terminal block

Test plugs - MPS-MT - 0201744



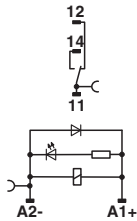
Test plugs, Color: silver

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### Drawings

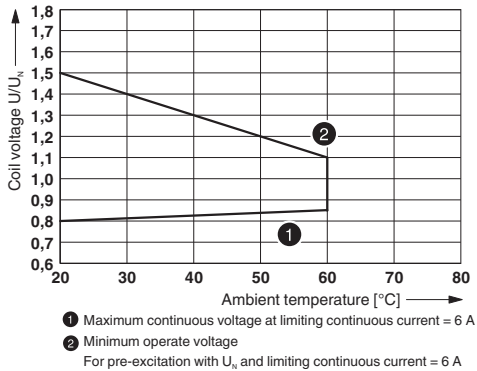
Relay Module - RIF-0-RPT-12DC/21AU - 2903369

Circuit diagram



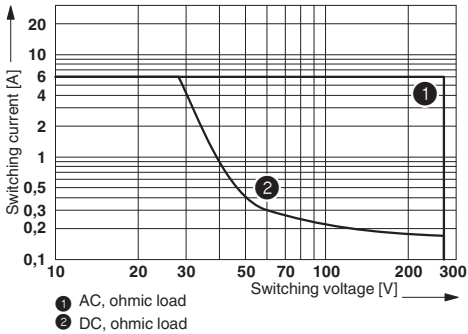
DC coils

Diagram



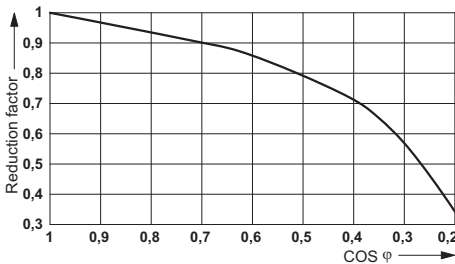
Operating voltage range

Diagram



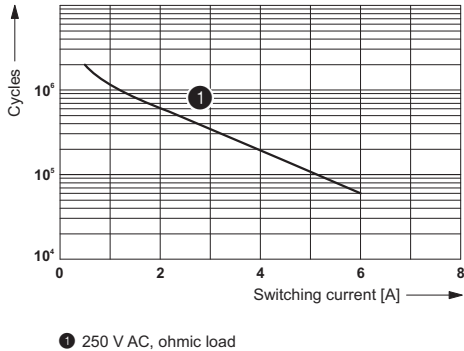
Interrupting rating

Diagram



Service life reduction factor

Diagram



Electrical service life

