

## Relay Module - RIF-2-RSC-LV-120AC/4X21 - 2903317

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Pre-assembled relay module with screw connection, consisting of: relay base, power contact relay, plug-in display/interference suppression module, and retaining bracket. Contact type: 4 changeover contacts. Input voltage: 120 V AC

The figure shows the 24 V DC version

RoHS

### Key Commercial Data

|                      |                                                                                                         |
|----------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit         | 1 STK                                                                                                   |
| GTIN                 | <br>4 046356 732192 |
| GTIN                 | 4046356732192                                                                                           |
| Custom tariff number | 85364900                                                                                                |
| Country of origin    | Germany                                                                                                 |

### Technical data

#### Note

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

#### Dimensions

|        |       |
|--------|-------|
| Width  | 27 mm |
| Height | 89 mm |
| Depth  | 75 mm |

#### Ambient conditions

|                                         |                  |
|-----------------------------------------|------------------|
| Ambient temperature (operation)         | -40 °C ... 50 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

#### Coil side

# Relay Module - RIF-2-RSC-LV-120AC/4X21 - 2903317

## Technical data

### Coil side

|                                           |                |
|-------------------------------------------|----------------|
| Nominal input voltage $U_N$               | 120 V AC       |
| Input voltage range in reference to $U_N$ | see diagram    |
| Mains frequency                           | 50 Hz          |
|                                           | 60 Hz          |
| Typical input current at $U_N$            | 13 mA          |
| Typical response time                     | 5 ms ... 15 ms |
| Typical release time range                | 5 ms ... 20 ms |
| Coil voltage                              | 120 V AC       |
| Protective circuit                        | Varistor       |
| Operating voltage display                 | Yellow LED     |

### Contact side

|                                                        |                           |
|--------------------------------------------------------|---------------------------|
| Contact type                                           | 4 PDTs                    |
| 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                                 | 16 A (20 ms, N/O contact) |
| Limiting continuous current                            | 5 A (see diagram)         |
| Interrupting rating (ohmic load) max.                  | 120 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)        |
|                                                        | 1250 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)   |
|                                                        | 1.5 A (at 24 V, AC15)     |
|                                                        | 1.5 A (at 120 V, AC15)    |
|                                                        | 1 A (at 240 V, AC15)      |

### Connection data input side

|                               |                                            |
|-------------------------------|--------------------------------------------|
| Connection name               | Coil side                                  |
| Connection method             | Screw connection                           |
| Stripping length              | 8 mm                                       |
| Conductor cross section solid | 0.14 mm <sup>2</sup> ... 6 mm <sup>2</sup> |

# Relay Module - RIF-2-RSC-LV-120AC/4X21 - 2903317

## Technical data

### Connection data input side

|                                  |                                            |
|----------------------------------|--------------------------------------------|
| Conductor cross section flexible | 0.14 mm <sup>2</sup> ... 4 mm <sup>2</sup> |
| Conductor cross section AWG      | 26 ... 10                                  |

### Connection data output side

|                                  |                                            |
|----------------------------------|--------------------------------------------|
| Connection name                  | Contact side                               |
| Connection method                | Screw connection                           |
| Stripping length                 | 8 mm                                       |
| Conductor cross section solid    | 0.14 mm <sup>2</sup> ... 6 mm <sup>2</sup> |
| Conductor cross section flexible | 0.14 mm <sup>2</sup> ... 4 mm <sup>2</sup> |
| Conductor cross section AWG      | 26 ... 10                                  |

### General

|                                          |                                       |
|------------------------------------------|---------------------------------------|
| Test voltage relay winding/relay contact | 2.5 kV <sub>rms</sub> (50 Hz, 1 min.) |
| Test voltage relay contact/relay contact | 2 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. 2x 10 <sup>7</sup> cycles     |
| Mounting position                        | any                                   |
| Assembly instructions                    | In rows with zero spacing             |

### Standards and Regulations

|                          |                  |
|--------------------------|------------------|
| Standards/regulations    | DIN EN 50178     |
| Rated insulation voltage | 250 V AC         |
| Rated surge voltage      | 2.5 kV           |
| Insulation               | Basic insulation |
| Degree of pollution      | 2                |
| Overvoltage category     | II               |

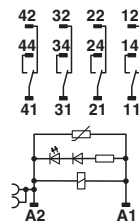
### Environmental Product Compliance

|            |                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------|
| China RoHS | Environmentally Friendly Use Period = 50                                                            |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

## Drawings

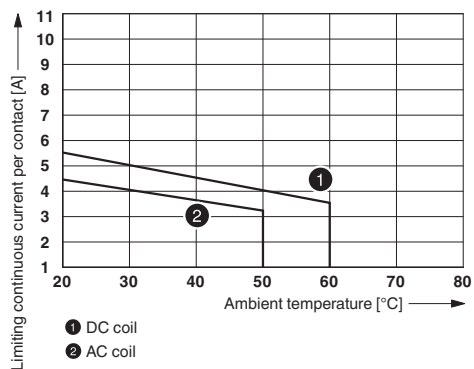
## Relay Module - RIF-2-RSC-LV-120AC/4X21 - 2903317

Circuit diagram



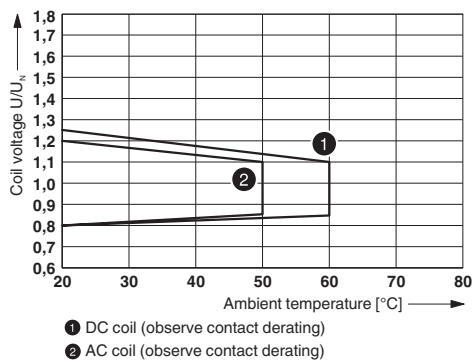
AC coils

Diagram

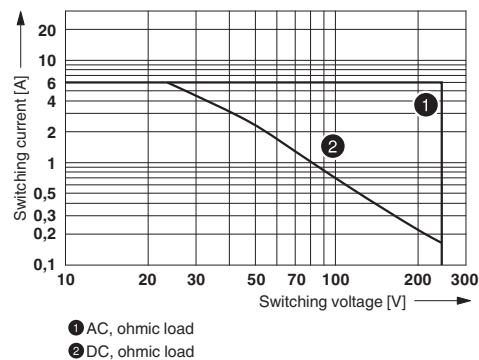


Contact derating

Diagram

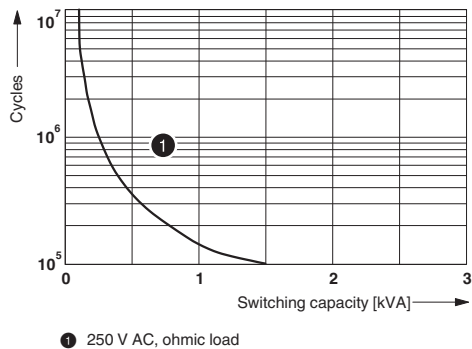


Diagram



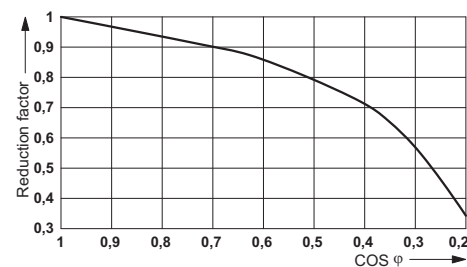
Operating voltage range

Diagram



Interrupting rating

Diagram



Electrical service life

Service life reduction factor

## Relay Module - RIF-2-RSC-LV-120AC/4X21 - 2903317

### Articles in set

Relay socket - RIF-2-BSC/4X21 - 2900932



RIF-2... relay base, for industrial relay with 2 or 4 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

Single relay - REL-IR4/L-120AC/4X21 - 2903687



Plug-in industrial relay with power contacts, 4 PDTs, test key, status LED, mechanical switch position indicator, coil voltage: 120 V AC

Plug-in module - RIF-V-120-230 UC - 2900948



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

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 5.0 | 27371601 |
| eCl@ss 5.1 | 27371601 |
| eCl@ss 6.0 | 27371601 |
| eCl@ss 7.0 | 27371601 |
| eCl@ss 8.0 | 27371601 |
| eCl@ss 9.0 | 27371601 |

## Relay Module - RIF-2-RSC-LV-120AC/4X21 - 2903317

### Classifications

#### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC001437 |
| ETIM 3.0 | EC001437 |
| ETIM 4.0 | EC001437 |
| ETIM 5.0 | EC001437 |
| ETIM 6.0 | EC001437 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211916 |
| UNSPSC 7.0901 | 39121515 |
| UNSPSC 11     | 39121515 |
| UNSPSC 12.01  | 39121515 |
| UNSPSC 13.2   | 39122334 |

### 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

Insulating sleeve - MPS-IH WH - 0201663



Insulating sleeve, Color: white

## Relay Module - RIF-2-RSC-LV-120AC/4X21 - 2903317

### 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-RSC-LV-120AC/4X21 - 2903317

### 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: 3 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, Length: 3 mm, Width: 10.7 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, Length: 3 mm, Width: 10.7 mm, Number of positions: 2, Color: gray

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### Marker carriers

Marker carriers - STP 5-2 - 0800967



Double marker carrier, snaps onto the double-level spring-cage terminal block STTB 2,5, STTB 4, PTTB 2,5, PTTB 4 can be marked with UC-TM 5, ZB 5 or UC-TMF 5, ZBF 5



## Relay Module - RIF-2-RSC-LV-120AC/4X21 - 2903317

### Accessories

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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

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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-BSC/4X21 - 2900932



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