

## Relay Module - RIF-2-RPT-LV-24AC/4X21 - 2903306

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Pre-assembled relay module with push-in connection, consisting of: relay base, power contact relay, plug-in display/suppressor module, and retaining bracket. Contact type: 4 PDTs. Input voltage: 24 V AC

RoHS

COMPLETE RoHS

### Key Commercial Data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 1 pc                                                                                                    |
| GTIN                                 | <br>4 046356 732147 |
| GTIN                                 | 4046356732147                                                                                           |
| Weight per Piece (excluding packing) | 104.000 g                                                                                               |
| 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  | 31 mm |
| Height | 96 mm |
| Depth  | 75 mm |

#### Ambient conditions

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

# Relay Module - RIF-2-RPT-LV-24AC/4X21 - 2903306

## Technical data

### Coil side

|                                           |                |
|-------------------------------------------|----------------|
| Nominal input voltage $U_N$               | 24 V AC        |
| Input voltage range in reference to $U_N$ | see diagram    |
| Mains frequency                           | 50/60 Hz       |
| Typical input current at $U_N$            | 66 mA          |
| Typical response time                     | 5 ms ... 15 ms |
| Typical release time range                | 5 ms ... 20 ms |
| Coil voltage                              | 24 V AC        |
| Protective circuit                        | Varistor       |
| Operating voltage display                 | Yellow LED     |
| Power dissipation for nominal condition   | 1.58 W         |

### 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                    | 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)      |

### 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                 |
| Mechanical service life                  | approx. $2 \times 10^7$ cycles        |

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## Technical data

### General

|                       |                           |
|-----------------------|---------------------------|
| Mounting position     | any                       |
| Assembly instructions | In rows with zero spacing |

### Connection data

|                                  |                                                                                                                   |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------|
| 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>                                                                      |
|                                  | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (Ferrule with plastic sleeve)                                        |
|                                  | 0.14 mm <sup>2</sup> ... 1 mm <sup>2</sup> (Ferrule with plastic sleeve, two conductors on double terminal block) |
| Conductor cross section AWG      | 26 ... 16 (solid)                                                                                                 |
|                                  | 26 ... 16 (flexible)                                                                                              |

### Connection data 2

|                                  |                                                                                                                   |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------|
| 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>                                                                      |
|                                  | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (Ferrule with plastic sleeve)                                        |
|                                  | 0.14 mm <sup>2</sup> ... 1 mm <sup>2</sup> (Ferrule with plastic sleeve, two conductors on double terminal block) |
| Conductor cross section AWG      | 26 ... 16 (solid)                                                                                                 |
|                                  | 26 ... 16 (flexible)                                                                                              |

### Standards and Regulations

|                                        |                  |
|----------------------------------------|------------------|
| Connection in acc. with standard       | CSA              |
| Standards/regulations                  | DIN EN 50178     |
| Rated insulation voltage               | 250 V AC         |
| Rated surge voltage                    | 2.5 kV           |
| Insulation                             | Basic insulation |
| Pollution degree                       | 2                |
| Overvoltage category                   | II               |
| Flammability rating according to UL 94 | V2               |

### Environmental Product Compliance

|            |                                          |
|------------|------------------------------------------|
| China RoHS | Environmentally Friendly Use Period = 50 |
|------------|------------------------------------------|

## Relay Module - RIF-2-RPT-LV-24AC/4X21 - 2903306

### Technical data

#### Environmental Product Compliance

|  |                                                                                                     |
|--|-----------------------------------------------------------------------------------------------------|
|  | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |
|--|-----------------------------------------------------------------------------------------------------|

### Articles in set

#### Relay base - 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-IR4/L- 24AC/4X21 - 2903686



Plug-in industrial relay with power contacts, 4 PDTs, test key, status LED, mechanical switch position indicator, coil voltage: 24 V AC

#### Plug-in module - RIF-V-12-24 UC - 2900945



Plug-in module, for mounting on RIF-1, RIF-2, RIF-3, and RIF-4, with varistor, input voltage: 12 ... 24 V AC/DC ±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 |
|------------|----------|

## Relay Module - RIF-2-RPT-LV-24AC/4X21 - 2903306

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 5.1 | 27371600 |
| eCl@ss 6.0 | 27371600 |
| eCl@ss 7.0 | 27371601 |
| eCl@ss 8.0 | 27371601 |
| eCl@ss 9.0 | 27371601 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC001437 |
| ETIM 3.0 | EC001437 |
| ETIM 4.0 | EC001437 |
| ETIM 5.0 | EC001437 |
| ETIM 6.0 | EC001437 |
| ETIM 7.0 | EC001437 |

#### UNSPSC

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

### Approvals

#### Approvals

#### Approvals

DNV GL / CSA / PRS / LR / EAC

#### Ex Approvals

#### Approval details

DNV GL



<https://approvalfinder.dnvgl.com/>

TAA000018V

## Relay Module - RIF-2-RPT-LV-24AC/4X21 - 2903306

### Approvals

|     |                                                                                   |                                                                                                                                         |                   |
|-----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| CSA |  | <a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a> | 2607057           |
| PRS |  | <a href="http://www.prs.pl/">http://www.prs.pl/</a>                                                                                     | TE/2108/880590/16 |
| LR  |  | <a href="http://www.lr.org/en">http://www.lr.org/en</a>                                                                                 | 15/20011          |
| EAC |  |                                                                                                                                         | TR_TS_D_00573_c   |

### 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-LV-24AC/4X21 - 2903306

### 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



## Relay Module - RIF-2-RPT-LV-24AC/4X21 - 2903306

### 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, 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, 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, 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-RPT-LV-24AC/4X21 - 2903306

### Accessories

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#### Terminal marking

Zack marker strip - ZB 5 :UNBEDRUCKT - 1050004



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 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: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 15.2 mm, lettering field size: 10.5 x 15.1 mm

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Marker for terminal blocks - UC-TM 16 - 0819217



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 16 mm, lettering field size: 15.45 x 10.5 mm

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Marker for terminal blocks - UC-TMF 16 - 0819262



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 16 mm, lettering field size: 15.45 x 5.1 mm

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#### Test plug terminal block

## Relay Module - RIF-2-RPT-LV-24AC/4X21 - 2903306

### Accessories

Test plugs - MPS-MT - 0201744



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

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### Spare parts

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