

# RIF-1-RPT-LDP-24DC/2X21AU - Relay Module



2903330

<https://www.phoenixcontact.com/us/products/2903330>

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 documentation. Our general terms of use for downloads are valid.



Preassembled relay module with Push-in connection, consisting of: relay base, multi-layer contact relay, plug-in display/interference suppression module, and retaining bracket. Contact switching type: 2 changeover contacts. Input voltage: 24 V DC

## Product description

The pluggable electromechanical and solid-state relays in the RIFLINE complete product range and the base are recognized and approved in accordance with UL 508. The relevant approvals can be called up at the individual components in question.

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 2903330             |
| Packing unit                         | 10 pc               |
| Minimum order quantity               | 10 pc               |
| Sales key                            | C465                |
| Product key                          | CK652G              |
| Catalog page                         | Page 327 (C-5-2019) |
| GTIN                                 | 4046356732314       |
| Weight per piece (including packing) | 67.7 g              |
| Weight per piece (excluding packing) | 67.7 g              |
| Customs tariff number                | 85364110            |
| Country of origin                    | DE                  |

# RIF-1-RPT-LDP-24DC/2X21AU - Relay Module



2903330

<https://www.phoenixcontact.com/us/products/2903330>

## Set consists of

### RIF-1-BPT/2X21 - Relay base

2900931

<https://www.phoenixcontact.com/us/products/2900931>



Relay base RIF-1..., for miniature power relay with 1 or 2 changeover contacts or solid-state relays of the same design, Push-in connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

---

### REL-MR- 24DC/21-21AU - Single relay

2961215

<https://www.phoenixcontact.com/us/products/2961215>



Plug-in miniature power relay, with multi-layer gold contact, 2 changeover contacts, input voltage 24 V DC

# RIF-1-RPT-LDP-24DC/2X21AU - Relay Module



2903330

<https://www.phoenixcontact.com/us/products/2903330>

## RIF-LDP-12-24 DC - Plug-in module

2900939

<https://www.phoenixcontact.com/us/products/2900939>



Plug-in module, for mounting on RIF-1, RIF-2, RIF-3, and RIF-4, with freewheeling diode and yellow LED, polarity: A1+, A2-, input voltage: 12 V DC ... 24 V DC  $\pm 30\%$

---

## RIF-RH-1 - Retaining bracket

2900953

<https://www.phoenixcontact.com/us/products/2900953>



Relay retaining bracket, with ejector function and holder for marking material, suitable for RIF-1 relay base, for 16 mm tall miniature power relay and solid-state relay

## Technical data

### Notes

|         |   |
|---------|---|
| General | FBS 2-6... plug-in bridge for the input side (A2) and FBS-2-8... plug-in bridge for the output side (11/21) |
|---------|---|

### Product properties

|                         |                                |
|-------------------------|--------------------------------|
| Product type            | Relay Module                   |
| Product family          | RIFLINE complete               |
| Application             | Universal                      |
| Operating mode          | 100% operating factor          |
| Mechanical service life | approx. $3 \times 10^7$ cycles |

### Insulation characteristics

|            |  |
|------------|--|
| Insulation | Safe isolation between input and output          |
|            | Basic insulation between the changeover contacts |

### Insulation characteristics

|                      |  |
|----------------------|--|
| Insulation           | Safe isolation between input and output          |
|                      | Basic insulation between the changeover contacts |
| Overvoltage category | III  |
| Pollution degree     | 2  |

### Electrical properties

|  |  |
|--|--|
| Service life electrical                              | see diagram  |
| Maximum power dissipation for nominal condition      | 0.43 W   |
| Test voltage (Winding/contact)                       | 4 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)                         |
| Test voltage (Changeover contact/changeover contact) | 2.5 kV <sub>rms</sub> (50 Hz, 1 min., changeover contact/changeover contact) |
| Rated surge voltage                                  | 6 kV (Input/output)  |
|  | 4 kV (between the changeover contacts)                                       |

### Input data

#### Coil side

|   |                                 |
|---|---------------------------------|
| Nominal input voltage $U_N$               | 24 V DC                         |
| Input voltage range                       | 19.2 V DC ... 33.6 V DC (20 °C) |
| Input voltage range in reference to $U_N$ | see diagram                     |
| Drive and function                        | monostable                      |
| Drive (polarity)                          | polarized                       |
| Typical input current at $U_N$            | 18 mA                           |
| Typical response time                     | 8 ms                            |
| Typical release time                      | 10 ms                           |
| Coil voltage                              | 24 V DC                         |
| Protective circuit                        | Freewheeling diode              |

# RIF-1-RPT-LDP-24DC/2X21AU - Relay Module



2903330

<https://www.phoenixcontact.com/us/products/2903330>

|                           |            |
|---------------------------|------------|
| Operating voltage display | Yellow LED |
|---------------------------|------------|

## Output data

### Switching

|  |   |
|--|---|
| Contact switching type                         | 2 changeover contacts   |
| Type of switch contact                         | Single contact  |
| Contact material                               | AgNi, hard gold-plated  |
| Maximum switching voltage                      | 30 V AC<br>36 V DC  |
| Minimum switching voltage                      | 100 mV (10 mA)  |
| Limiting continuous current                    | 50 mA   |
| Maximum inrush current                         | 50 mA   |
| Min. switching current                         | 1 mA (24 V)   |
| Interrupting rating (ohmic load) max.          | 1.2 W (at 24 V DC)  |
| Utilization category CB Scheme (IEC 60947-5-1) | AC15, 1.5 A/240 V (N/O contact)<br>AC15, 2 A/250 V (N/C contact)<br>DC13, 2 A/24 V (N/C contact)<br>DC13, 0.2 A/250 V (N/O contact) |

Switching: when the gold layer is destroyed

|                                       |  |
|---------------------------------------|--|
| Note                                  | <b>the following values are applicable if a gold layer is destroyed</b>  |
| Contact material                      | AgNi   |
| Maximum switching voltage             | 250 V AC/DC  |
| Minimum switching voltage             | 5 V (at 10 mA)   |
| Maximum inrush current                | 25 A (20 ms, N/O contacts)   |
| Min. switching current                | 10 mA (At 5 V)   |
| Interrupting rating (ohmic load) max. | 192 W (at 24 V DC)<br>96 W (at 48 V DC)<br>60 W (at 60 V DC)<br>44 W (at 110 V DC)<br>57 W (at 220 V DC)<br>2000 VA (for 250 V AC)             |
| Switching capacity                    | 2 A (at 24 V, DC13)<br>0.2 A (at 110 V, DC13)<br>0.2 A (at 250 V, DC13)<br>2 A (at 24 V, AC15)<br>2 A (at 120 V, AC15)<br>2 A (at 250 V, AC15) |

## Connection data

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

# RIF-1-RPT-LDP-24DC/2X21AU - Relay Module



2903330

<https://www.phoenixcontact.com/us/products/2903330>

|                                  |   |
|----------------------------------|---|
| 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)  |

## Dimensions

### Drill hole

|          |        |
|----------|--------|
| Diameter | 3.2 mm |
| Width    | 16 mm  |
| Height   | 96 mm  |
| Depth    | 75 mm  |

## Material specifications

|  |                 |
|--|-----------------|
| Color                                  | gray (RAL 7042) |
| Flammability rating according to UL 94 | V2 (Housing)    |

## Environmental and real-life conditions

### Ambient conditions

|   |                   |
|---|-------------------|
| Degree of protection (Relay base)       | IP20 (Relay base) |
| Degree of protection (Relay)            | RT III (Relay)    |
| Ambient temperature (operation)         | -40 °C ... 70 °C  |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C  |

## Approvals

### Corrosive gas test

|                |                            |
|----------------|----------------------------|
| Identification | ISA-S71.04. G3 Harsh Group |
|                | EN 60068-2-60              |

## Standards and regulations

|                       |               |
|-----------------------|---------------|
| Standards/regulations | IEC 60947-5-1 |
|-----------------------|---------------|

## Mounting

|                       |                           |
|-----------------------|---------------------------|
| Mounting type         | DIN rail mounting         |
| Assembly instructions | in rows with zero spacing |
| Mounting position     | any                       |

# RIF-1-RPT-LDP-24DC/2X21AU - Relay Module



2903330

<https://www.phoenixcontact.com/us/products/2903330>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27371601 |
| ECLASS-12.0 | 27371601 |
| ECLASS-13.0 | 27371601 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001437 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39122300 |
|-------------|----------|

# RIF-1-RPT-LDP-24DC/2X21AU - Relay Module



2903330

<https://www.phoenixcontact.com/us/products/2903330>

## Environmental product compliance

|            |  |
|------------|--|
| REACH SVHC | Lead 7439-92-1   |
| China RoHS | Environmentally Friendly Use Period = 50 years   |
|            | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

Phoenix Contact 2024 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)