

# RIF-0-OPT-24DC/48DC/100 - Solid-state relay module



2905294

<https://www.phoenixcontact.com/us/products/2905294>

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Pre-assembled solid-state relay module with push-in connection, consisting of: relay base with ejector and plug-in miniature solid-state relay. Input voltage: 24 V DC. Output: 3 - 48 V DC/100 mA

## 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                          | 2905294             |
| Packing unit                         | 10 pc               |
| Minimum order quantity               | 10 pc               |
| Sales key                            | C465                |
| Product key                          | CK652K              |
| Catalog page                         | Page 323 (C-5-2019) |
| GTIN                                 | 4046356945424       |
| Weight per piece (including packing) | 23.96 g             |
| Weight per piece (excluding packing) | 22.9 g              |
| Customs tariff number                | 85364110            |
| Country of origin                    | HU                  |

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## Set consists of

### RIF-0-BPT/1 - Relay base

2901873

<https://www.phoenixcontact.com/us/products/2901873>



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

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### OPT-24DC/ 48DC/100 - Miniature solid-state relay

2966618

<https://www.phoenixcontact.com/us/products/2966618>



Plug-in miniature solid-state relay, input solid-state relay, 1 N/O contact, input: 24 V DC, output: 3 - 48 V DC/100 mA

## Technical data

### Product properties

|                |                          |
|----------------|--------------------------|
| Product type   | Solid-state relay module |
| Product family | RIFLINE complete         |
| Application    | Universal                |
| Operating mode | 100% operating factor    |

### Insulation characteristics

|            |                  |
|------------|------------------|
| Insulation | Basic insulation |
|------------|------------------|

### Insulation characteristics: Air clearances and creepage distances between the power circuits

|                      |                  |
|----------------------|------------------|
| Insulation           | Basic insulation |
| Overvoltage category | III              |
| Pollution degree     | 2                |

### Electrical properties

|   |   |
|---|---|
| Maximum power dissipation for nominal condition | 0.2 W   |
| Test voltage (Input/output)                     | 2.5 kV <sub>rms</sub> (50 Hz, 1 min., input/output) |

### Air clearances and creepage distances between the power circuits

|                          |          |
|--------------------------|----------|
| Rated insulation voltage | 250 V AC |
| Rated surge voltage      | 4 kV     |

### Input data

|  |                         |
|--|-------------------------|
| Rated actuating voltage $U_C$                        | 24 V DC                 |
| Voltage range with reference to $U_C$                | 0.8 ... 1.2             |
| Rated actuating current $I_C$                        | 8.5 mA                  |
| Input voltage range                                  | 19.2 V DC ... 28.8 V DC |
| "0" signal switching threshold in reference to $U_C$ | < 0.4                   |
| "1" signal switching threshold in reference to $U_C$ | > 0.8                   |
| Typical response time                                | 20 $\mu$ s              |
| Typical turn-off time                                | 300 $\mu$ s             |
| Status display                                       | Yellow LED              |
| Protective circuit                                   | Freewheeling diode      |
| Transmission frequency                               | 300 Hz                  |

### Output data

|  |                       |
|--|-----------------------|
| Contact switching type                           | 1 N/O contact         |
| Design of digital output                         | electronic            |
| Output voltage range                             | 3 V DC ... 48 V DC    |
| Limiting continuous current                      | 100 mA                |
| Surge voltage protection                         | > 56 V                |
| Voltage drop at max. limiting continuous current | < 1 V                 |
| Output circuit                                   | 2-conductor, floating |

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|  |                             |
|--|-----------------------------|
| Protective circuit                             | Reverse polarity protection |
|  | Surge protection            |
| Utilization category CB Scheme (IEC 60947-5-1) | DC12, 0.1 A/24 V            |

## 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>                               |
| 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) |
| Conductor cross section AWG      | 24 ... 16  |

## Dimensions

|        |        |
|--------|--------|
| Width  | 6.2 mm |
| Height | 93 mm  |
| Depth  | 66 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                    | IP20             |
| Ambient temperature (operation)         | -25 °C ... 60 °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

### Air clearances and creepage distances between the power circuits

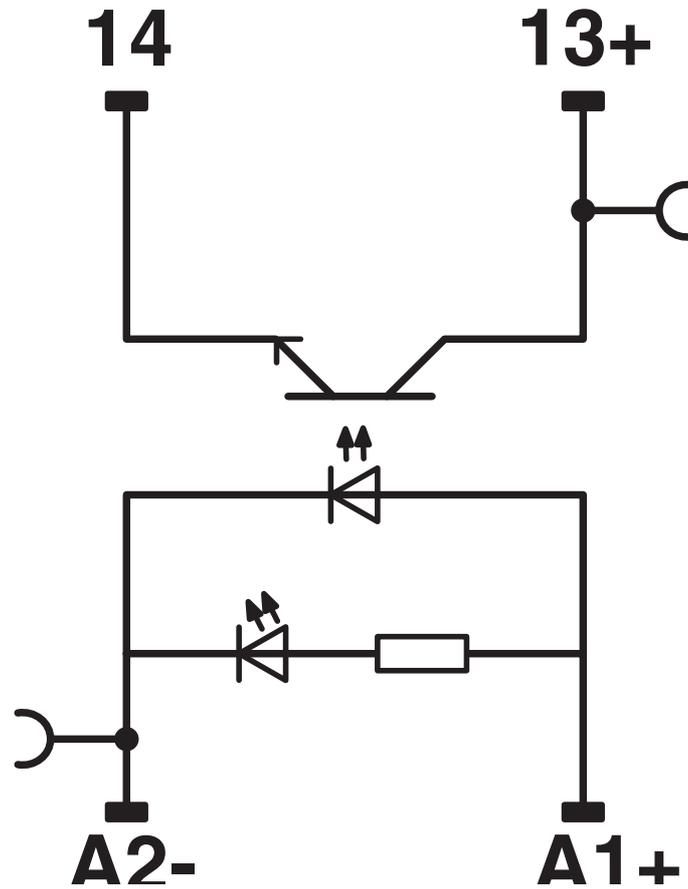
|                       |                  |
|-----------------------|------------------|
| Standards/regulations | DIN EN 60947-5-1 |
|-----------------------|------------------|

## Mounting

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

Drawings

Circuit diagram



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## Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2905294>



**EAC**

Approval ID: TR\_TS\_D\_00573\_c



**DNV GL**

Approval ID: TAA000018V

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27371604 |
| ECLASS-12.0 | 27371604 |
| ECLASS-13.0 | 27371604 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001504 |
|----------|----------|

### UNSPSC

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

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## 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" |

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