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# RIF-0-OPT-24DC/24DC/2 - Solid-state relay module

2905293

https://www.phoenixcontact.com/pc/products/2905293

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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 - 33 V DC/3 A

## 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 | 2905293 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Product key | DK652J |
| Catalog page | Page 322 (C-5-2019) |
| GTIN | 4046356945417 |
| Weight per piece (including packing) | 24.26 g |
| Weight per piece (excluding packing) | 23 g |
| Customs tariff number | 85364110 |
| Country of origin | HU |

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## Set consists of

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

2901873

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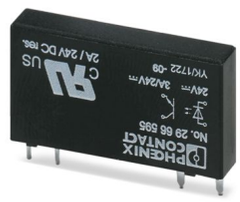
RIF-0... relay base, for miniature power relay with 1 N/O contact or solid-state relays of the same design, push-in connection, for mounting on NS 35/7,5

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### OPT-24DC/ 24DC/  2 - Miniature solid-state relay

2966595

https://www.phoenixcontact.com/pc/products/2966595




Plug-in miniature solid-state relay, power solid-state relay, 1 N/O contact, input: 24 V DC, output: 3 ... 33 V DC/3 A

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## Technical data

### Product properties

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

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

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

Data management status

| | |
|---|---|
| Date of last data management | 21.01.2025 |

### Electrical properties

| | |
|---|---|
| Maximum power dissipation for nominal condition | 0.2 W |
| Test voltage (Input/output) | 2.5 $kV_{rms}$ (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 µs |
| Typical turn-off time | 300 µs |
| Status display | LED (yellow) |
| 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 ... 33 V DC |
| Limiting continuous current | 3 A (see derating curve) |
| Maximum inrush current | 15 A (10 ms) |
| Surge voltage protection | > 33 V |
| Voltage drop at max. limiting continuous current | < 200 mV |

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| | |
|---|---|
| Output circuit | 2-conductor, floating |
| Protective circuit | Reverse polarity protection |
| | Surge protection |
| Utilization category CB Scheme (IEC 60947-5-1) | DC12, 3 A/24 V |

## Connection data

| | |
|---|---|
| Connection method | Push-in connection |
| Stripping length | 8 mm |
| Conductor cross section rigid | 0.14 mm² ... 1.5 mm² |
| Conductor cross section flexible | 0.14 mm² ... 1.5 mm² |
| | 0.14 mm² ... 1.5 mm² (Ferrule with plastic sleeve) |
| Conductor cross section AWG | 24 ... 16 |

## Dimensions

Item 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 note | in rows with zero spacing |
| Mounting position | any |

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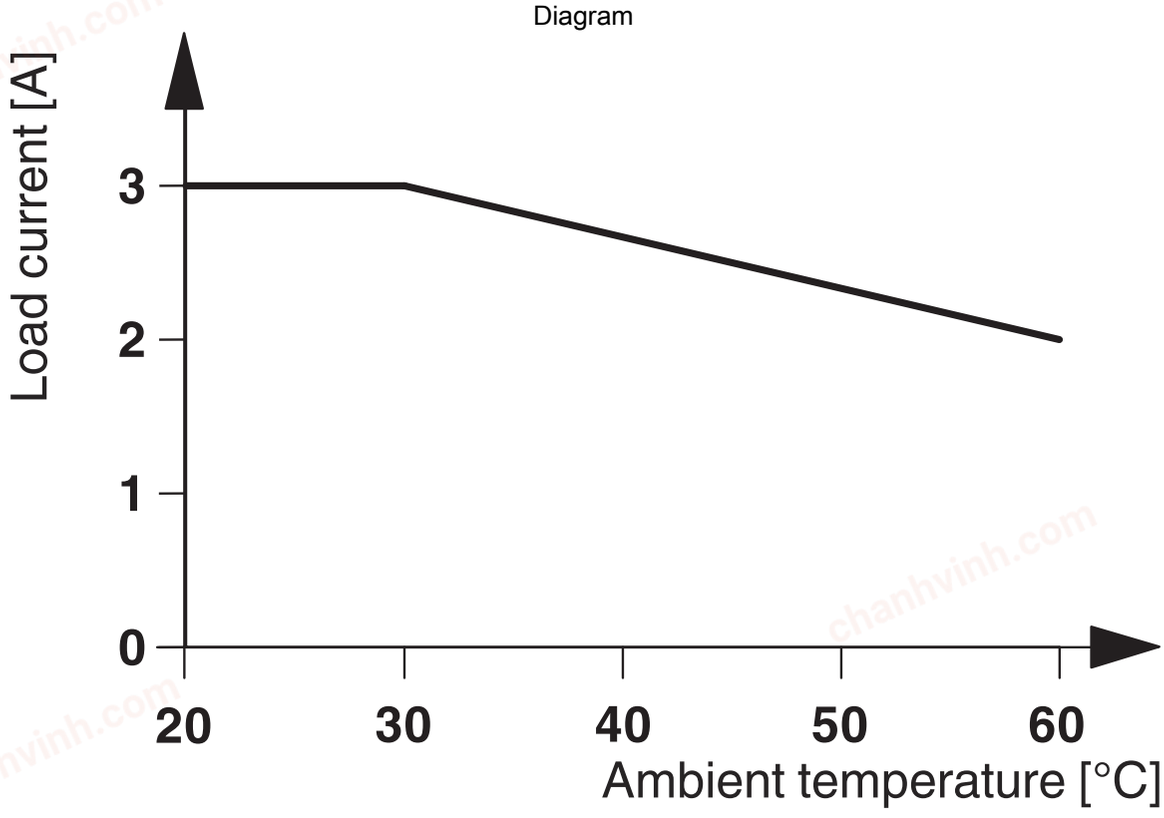
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## Drawings

Diagram



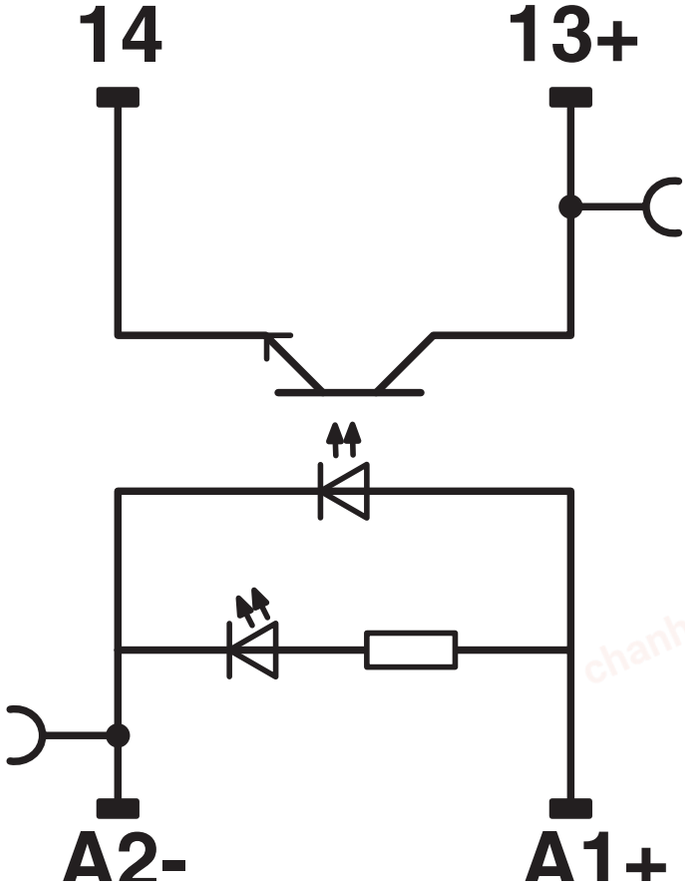
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Circuit diagram



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## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/pc/products/2905293

**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

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 7(a), 7(c)-I |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|---|---|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |
| | Lead(CAS: 7439-92-1) |
| SCIP | 7425184a-0222-459a-b557-cf7bf8a3b488 |

EF3.0 Climate Change

| | |
|---|---|
| CO2e kg | 0.385 kg CO2e |

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