

ST-OV4- 24DC/ 24DC/4-PRO - Solid-state relay

2905585

<https://www.phoenixcontact.com/us/products/2905585>

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Plug-in power protective circuit solid-state relay, with signal logic, can be plugged into 4-pos. basic terminal blocks, input: 24 V DC, output: short-circuit-proof, 18 - 36 V DC/4 A

The figure shows the version ST-OV4-24DC/24DC/1-PRO

Your advantages

- Feedback in the event of an error
- Safe detection and signaling of a wire break on the load side
- Time-dependent overload shutdown for reliable protection against continuous overloads
- Fast short circuit shutdown with simultaneous current limitation
- After an overload or short-circuit has been triggered, a defined reset of the control voltage must be carried out
- Brief inrush peaks are ignored

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2905585 |
| Packing unit | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | C460 |
| Product key | DK61B2 |
| GTIN | 4017918107611 |
| Weight per piece (including packing) | 35.72 g |
| Weight per piece (excluding packing) | 35.72 g |
| Customs tariff number | 85364190 |
| Country of origin | DE |

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Technical data

Product properties

| | |
|------------------------------|--------------------------|
| Product type | Single solid-state relay |
| Insulation characteristics | |
| Insulation | Basic insulation |
| Data management status | |
| Date of last data management | 05.09.2025 |

Electrical properties

| | |
|--------------------------------|-----------------------------|
| Test voltage (Input/output) | 2.5 kV AC (Input/output) |
| Test voltage (Output / output) | 2.5 kV AC (Output / output) |

Input data

| | |
|---|--|
| Nominal input voltage U_N | 24 V DC |
| Input voltage range in reference to U_N | 0.5 ... 1.5 |
| Input voltage range | 12 V DC ... 36 V DC |
| Switching threshold "0" signal, voltage | 5 V DC |
| Switching threshold "1" signal voltage | 8.5 V DC |
| Typical input current at U_N | 6.5 mA |
| Typical response time | 300 μ s |
| Typical turn-off time | 700 μ s |
| Status display | LED (yellow) |
| Operating voltage display | Yellow LED |
| Protective circuit | Reverse polarity protection; Polarity protection diode |
| Transmission frequency | 100 Hz |

Output data

| | |
|--|---|
| Design of digital output | electronic |
| Output voltage range | 18 V DC ... 36 V DC |
| Limiting continuous current | 4 A (see derating curve) |
| Min. load current | 1 mA |
| Current limitation at short-circuits | approx. 70 A |
| Voltage drop at max. limiting continuous current | 200 mV |
| Output circuit | 3-conductor, ground-referenced |
| Error indication | Red LED |
| Protective circuit | Reverse polarity protection Freewheeling diode; Freewheeling diode |
| Wire-break message for load current | < 100 μ A |
| Overload disconnection ($\sim 1.4 \times$ continuous current) | ≤ 100 ms (See the time-current characteristic curve) |
| Short-circuit disconnection | < 200 μ s (See the time-current characteristic curve) |
| Output voltage range | 5 V DC ... 36 V DC |

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| | |
|--|--|
| Limiting continuous current | 50 mA |
| Voltage drop at max. limiting continuous current | ≤ 1.5 V |
| Output circuit | 2-conductor, floating |
| Protective circuit | Reverse polarity protection; Polarity protection diode |

Dimensions

| | |
|--------|---------|
| Width | 27 mm |
| Height | 63.5 mm |
| Depth | 114 mm |

Environmental and real-life conditions

Ambient conditions

| | |
|---|----------------|
| Ambient temperature (operation) | 0 °C ... 60 °C |
| Ambient temperature (storage/transport) | 0 °C ... 70 °C |

Standards and regulations

| | |
|-----------------------|-----------|
| Standards/regulations | IEC 60664 |
| | EN 50178 |

Mounting

| | |
|-------------------|---------------------------|
| Assembly note | in rows with zero spacing |
| Mounting position | any |

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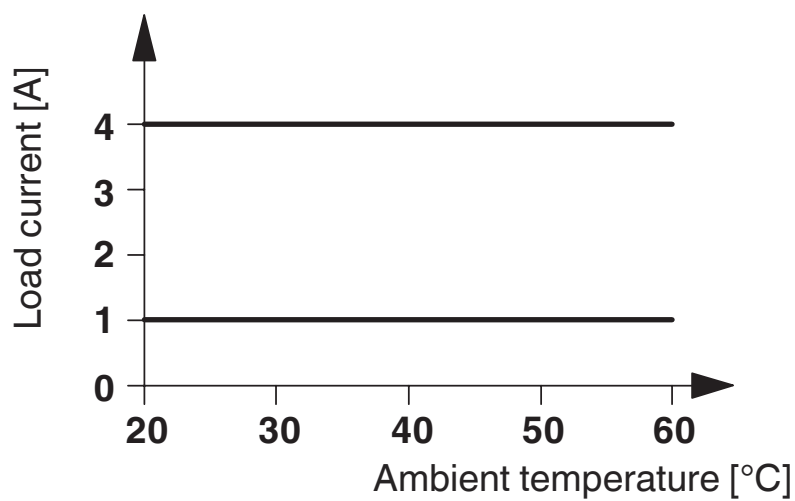


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Drawings

Diagram



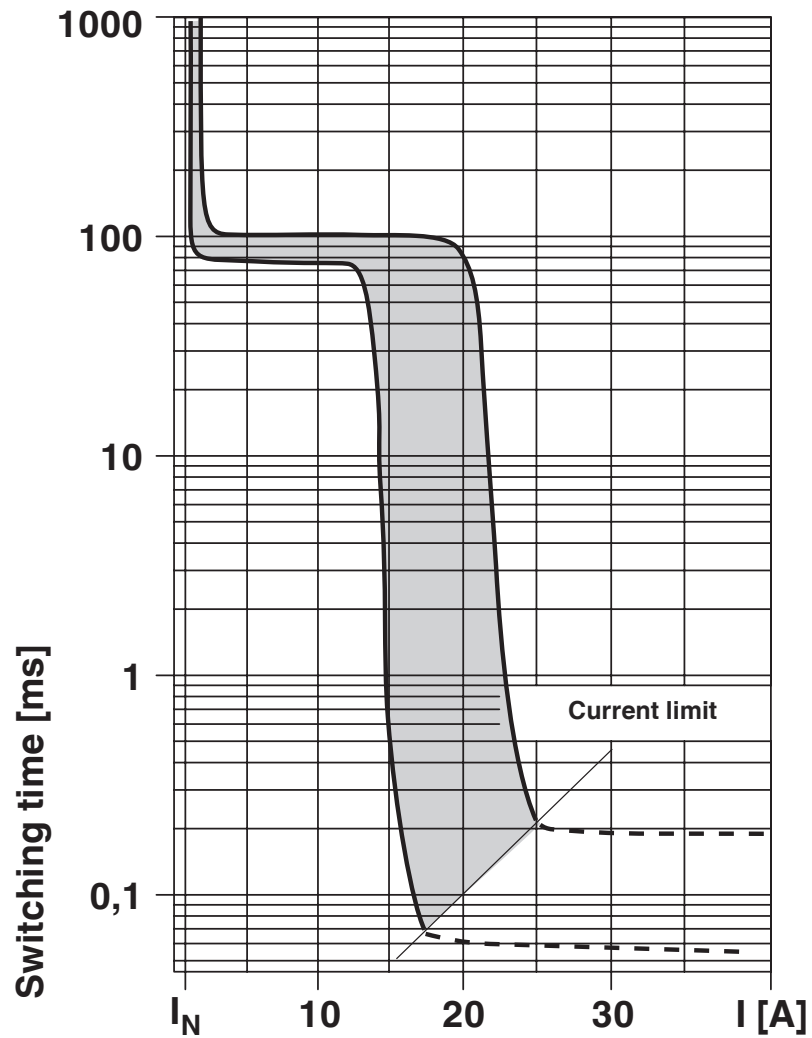
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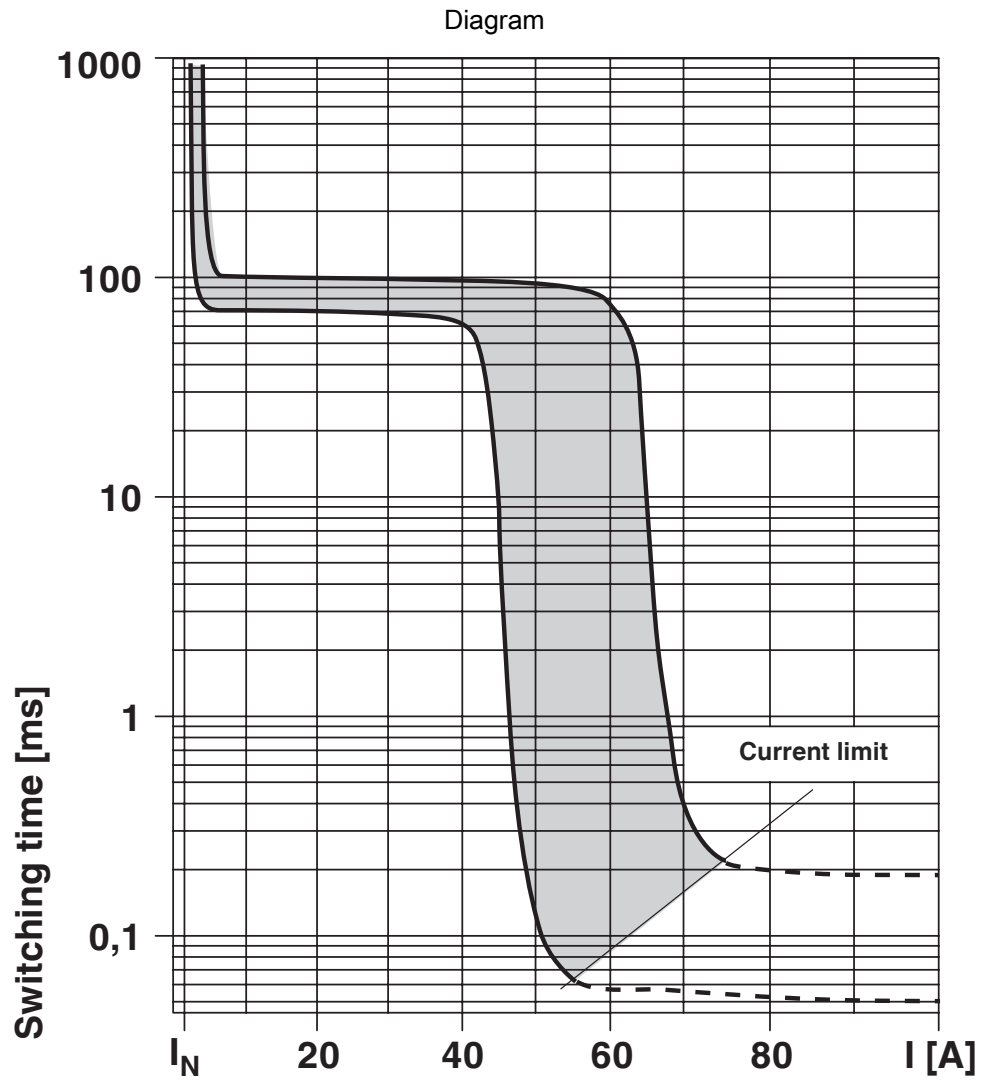
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Diagram



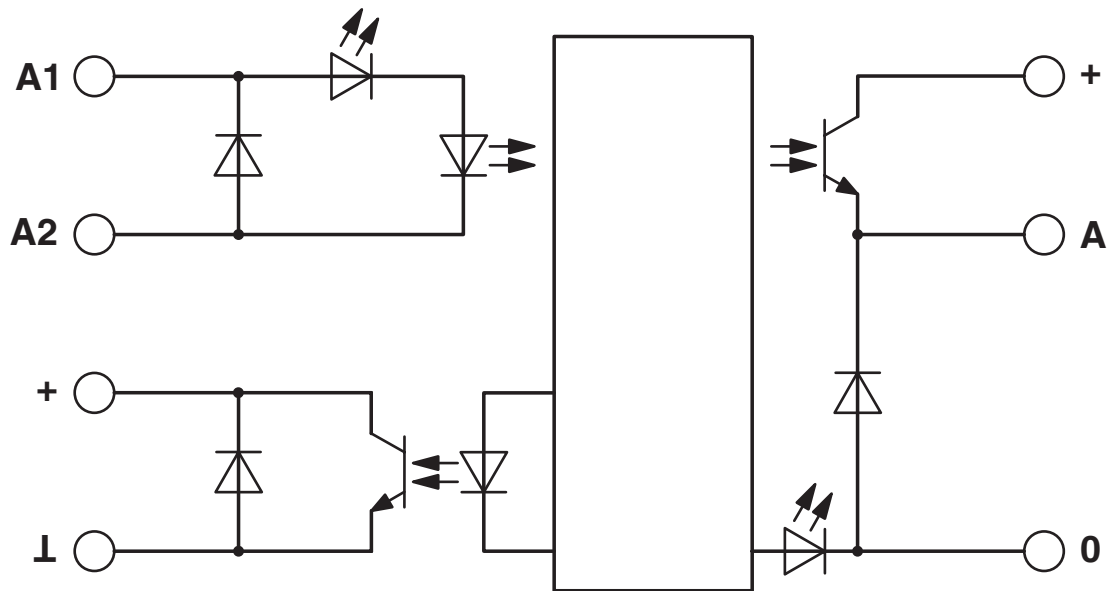


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Circuit diagram



1 = protection and signal logic

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Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

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.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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