

PLC-SP-ELR W1/ 2-24DC - Reversing load relay



2980555

<https://www.phoenixcontact.com/us/products/2980555>

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PLC-INTERFACE as an electronic reversing load relay, consisting of PLC-BSP.../21 basic terminal block with spring-cage connection and integrated circuit, for driving DC motors, with LED and protective circuit, output: 10 ... 30 V DC/2 A

Your advantages

- Wear-free reversing
- Short-circuit, surge, and overload-proof output
- Braking by controlling both inputs
- Integrated locking circuit and load wiring

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2980555 |
| Packing unit | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | C461 |
| Product key | DK7621 |
| GTIN | 4046356103954 |
| Weight per piece (including packing) | 54.9 g |
| Weight per piece (excluding packing) | 38.9 g |
| Customs tariff number | 85371098 |
| Country of origin | DE |

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Technical data

Product properties

| | |
|----------------|-----------------------|
| Product type | Solid-state contactor |
| Product family | PLC-INTERFACE |
| Operating mode | 100% operating factor |

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

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

Electrical properties

| | |
|---|---------|
| Number of phases | 1 |
| Maximum power dissipation for nominal condition | 0.4 W |
| Mains type | 1-phase |

Air clearances and creepage distances between the power circuits

| | |
|--------------------------|--------|
| Rated insulation voltage | 50 V |
| Rated surge voltage | 0.5 kV |

Supply

| | |
|--|--|
| Input name | Device supply |
| Nominal input voltage U_N | 24 V DC $\pm 20\%$ (Control voltage U_{ST} right/left) |
| Input voltage range | 19.2 V DC ... 28.8 V DC |
| Typical input current at U_N | approx. 3 mA (Control input current I_{ST} right/left) |
| Rated control circuit supply voltage U_S | 24 V DC |
| Control supply voltage range | 19.2 V DC ... 28.8 V DC |
| Typical response time | 200 μ s |
| Protective circuit | Reverse polarity protection; Polarity protection diode Surge protection |
| Status display | LED (yellow) |
| Surge voltage protection | > 33 V DC |
| Transmission frequency | 300 Hz |
| Switchover time R_L/L_L (turn-on time) | 80 ms |

Input data

Control

| | |
|---|--------------------------|
| Input name | Control input right/left |
| Nominal input voltage U_N | 24 V DC |
| Input voltage range in reference to U_N | 0.8 ... 1.2 |
| Input voltage range | 19.2 V DC ... 28.8 V DC |
| Input voltage range in reference to U_N | 0.8 ... 1.2 |

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Output data

Output data

| | |
|------------------------------|--|
| Operating voltage range | 10 V DC ... 30 V DC |
| Nominal output voltage | 24 V DC |
| Nominal output voltage range | 10 V DC ... 30 V DC |
| Load current | 2 A |
| Quiescent current | 10 mA |
| Protective circuit | Reverse polarity protection; Polarity protection diode Surge protection |
| Surge voltage protection | > 33 V DC |
| Operating voltage display | Green LED |

Motor switching output

| | |
|--------------------------|---------------------------------------|
| Note | Short-circuit and overload protection |
| Continuous load current | 2 A (see derating curve) |
| Short-circuit current | 15 A (during braking) |
| Protective circuit | Surge protection RC element |
| Surge voltage protection | > 33 V DC |

Connection data

Control circuits

| | |
|----------------------------------|--|
| Connection method | Spring-cage connection |
| Stripping length | 8 mm |
| Conductor cross-section rigid | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross-section flexible | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross-section AWG | 26 ... 14 |

Load circuit

| | |
|----------------------------------|--|
| Connection method | Spring-cage connection |
| Stripping length | 8 mm |
| Conductor cross-section rigid | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross-section flexible | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross-section AWG | 26 ... 14 |

Dimensions

| | |
|--------|--------|
| Width | 6.5 mm |
| Height | 80 mm |
| Depth | 86 mm |

Material specifications

| | |
|--|------------------|
| Color | green (RAL 6021) |
| Flammability rating according to UL 94 | V0 |

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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 |

Standards and regulations

Air clearances and creepage distances between the power circuits

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

Mounting

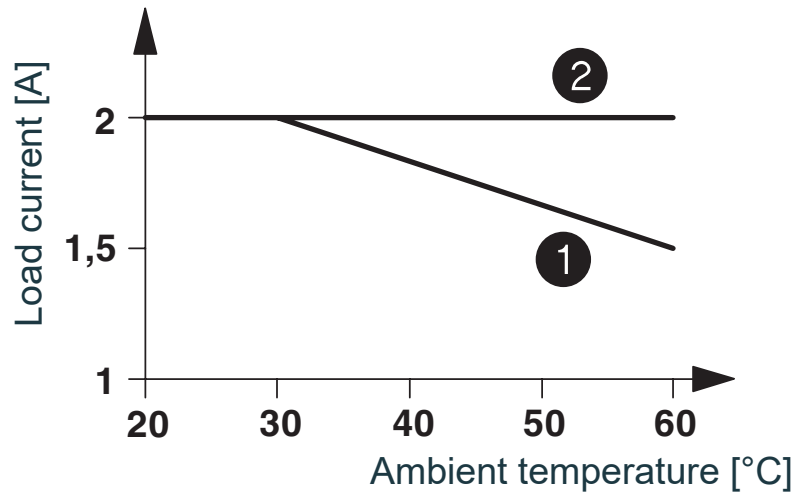
| | |
|-------------------|--------------------------------|
| Mounting type | DIN rail mounting |
| Assembly note | in rows with zero spacing |
| Mounting position | Vertical (horizontal DIN rail) |

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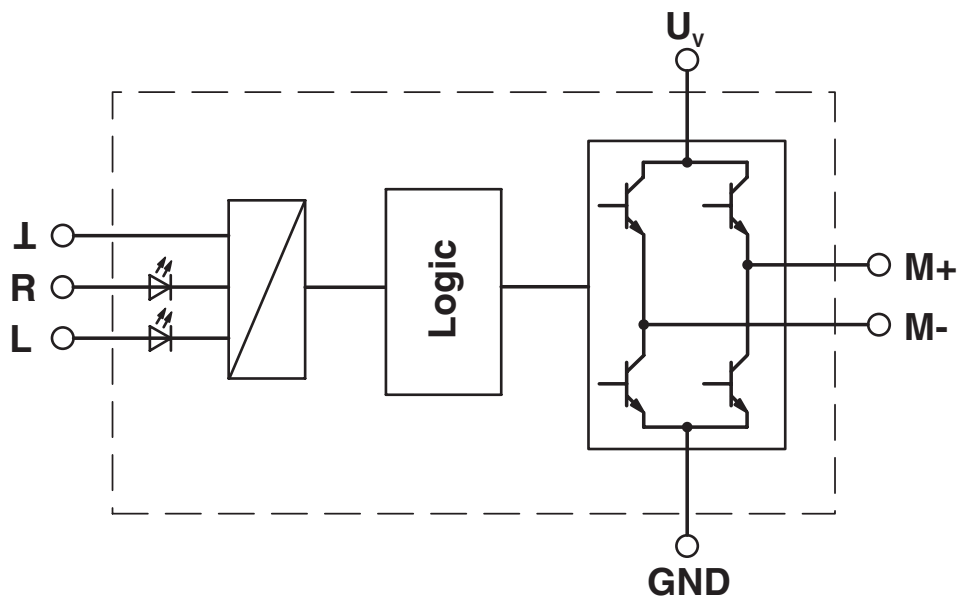
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Diagram



- ① In rows with zero spacing
- ② stand-alone device

Circuit diagram



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Environmental product compliance

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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