

EMG 17-REL/SG-B 48/21/M - Relay module



2953935

<https://www.phoenixcontact.com/us/products/2953935>

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Relay module, with soldered-in remanence miniature switching relay, with negative switching diode wiring, contacts (AgSnO): small to large loads, 1 changeover contact, input voltage 48 V DC

The figure shows version EMG 17-REL, with soldered-in Latching miniature switching relay

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2953935 |
| Packing unit | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | C460 |
| Product key | DK6142 |
| GTIN | 4017918084677 |
| Weight per piece (including packing) | 48.62 g |
| Weight per piece (excluding packing) | 48.62 g |
| Customs tariff number | 85364190 |
| Country of origin | DE |

Technical data

Product properties

| | |
|-------------------------|-----------------------|
| Product type | Relay Module |
| Application | Universal |
| Operating mode | 100% operating factor |
| Mechanical service life | approx. 10^7 cycles |

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

| | |
|----------------------|---------------------------------------|
| Insulation | Safe isolation, reinforced insulation |
| Overvoltage category | III |
| Pollution degree | 2 |

Data management status

| | |
|------------------------------|------------|
| Date of last data management | 12.09.2025 |
|------------------------------|------------|

Electrical properties

| | |
|---|--|
| Maximum power dissipation for nominal condition | 0.41 W |
| Test voltage (Winding/contact) | 4 kV _{rms} (50 Hz, 1 min., winding/contact) |

Air clearances and creepage distances between the power circuits

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

Input data

Coil side

| | |
|---|--|
| Nominal input voltage U_N | 48 V DC |
| Input voltage range | 38.4 V DC ... 52.8 V DC |
| Input voltage range in reference to U_N | 0.8 ... 1.1 |
| Drive and function | bistable |
| Typical input current at U_N | typ. 8.5 mA |
| Typical response time | 5 ms |
| Typical release time | 5 ms |
| Pulse time range | 30 ms ... 5 s |
| Coil voltage | 24 V DC |
| Protective circuit | Freewheeling diode; Freewheeling diode Reverse polarity protection; Polarity protection diode |

Output data

Switching

| | |
|---------------------------|--------------------------------------|
| Contact switching type | Single contact, 1 changeover contact |
| Type of switch contact | Single contact |
| Contact material | AgSnO |
| Maximum switching voltage | 250 V AC/DC |

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| | |
|---------------------------------------|------------------------|
| Minimum switching voltage | 5 V (at 100 mA) |
| | 24 V (At 1 mA) |
| Limiting continuous current | 6 A |
| Maximum inrush current | 8 A |
| Min. switching current | 1 mA (at 24 V) |
| | 100 mA (At 5 V) |
| Interrupting rating (ohmic load) max. | 144 W (at 24 V DC) |
| | 43 W (at 48 V DC) |
| | 42 W (at 60 V DC) |
| | 55 W (at 110 V DC) |
| | 100 W (at 220 V DC) |
| | 1500 VA (for 250 V AC) |

Switching: when the gold layer is destroyed

| | |
|---------------------------------------|------------------------|
| Maximum switching voltage | 250 V AC/DC |
| Limiting continuous current | 5 A |
| Maximum inrush current | 6 A |
| Interrupting rating (ohmic load) max. | 120 W (at 24 V DC) |
| | 40 W (at 48 V DC) |
| | 35 W (at 60 V DC) |
| | 30 W (at 110 V DC) |
| | 55 W (at 220 V DC) |
| | 1250 VA (for 250 V AC) |

Connection data

Coil side

| | |
|----------------------------------|---|
| Connection method | Screw connection |
| Stripping length | 8 mm |
| Screw thread | M3 |
| Conductor cross-section rigid | 0.2 mm ² ... 4 mm ² |
| Conductor cross-section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section AWG | 24 ... 12 |

Contact side

| | |
|----------------------------------|---|
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Dimensions

| | |
|--------|---------|
| Width | 17.5 mm |
| Height | 75 mm |
| Depth | 62.5 mm |

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Material specifications

| | |
|-------|------------------|
| Color | green (RAL 6021) |
|-------|------------------|

Environmental and real-life conditions

Ambient conditions

| | |
|---|------------------|
| Ambient temperature (operation) | -40 °C ... 50 °C |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |

Standards and regulations

Air clearances and creepage distances between the power circuits

| | |
|-----------------------|--------------|
| Standards/regulations | DIN EN 50178 |
|-----------------------|--------------|

Mounting

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

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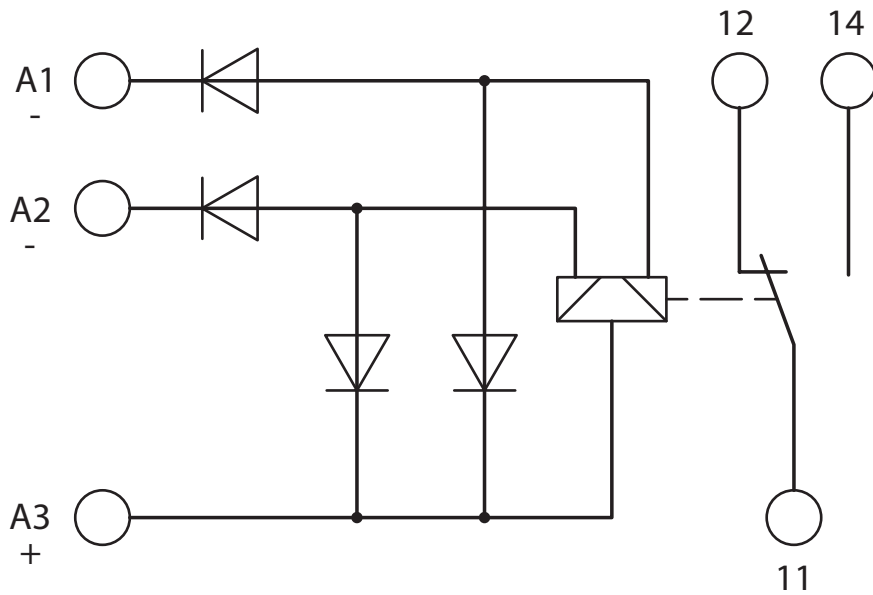


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Drawings

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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