

EMG 22-REL/KSR-G 24/TRP 5 - Hybrid relay

2949790

<https://www.phoenixcontact.com/us/products/2949790>

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Relay module, with miniature switching relay, with integrated PNP transistor control, for low control currents, contact (AgNi): medium to large loads, 1 changeover contact, nominal control voltage 5 V DC

The figure shows version EMG 22,5 REL, with integrated p-n-p transistor control

Your advantages

- Low control current (terminal block B), type-dependent from 0.5 mA
- Safe isolation between coil and contact side
- Integrated input circuit and interference suppression circuit
- Type-dependent positive or negative control current

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2949790 |
| Packing unit | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | C460 |
| Product key | DK61A1 |
| GTIN | 4017918083878 |
| Weight per piece (including packing) | 65.41 g |
| Weight per piece (excluding packing) | 65.38 g |
| Customs tariff number | 85364190 |
| Country of origin | DE |

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Technical data

Product properties

| | |
|-------------------------|--------------------------------|
| Product type | Relay Module |
| Application | Universal |
| Operating mode | 100% operating factor |
| Mechanical service life | approx. 5×10^7 cycles |

Insulation characteristics

| | |
|----------------------|------------------|
| Insulation | Basic 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 | 0.5 W |
| Test voltage (Winding/contact) | 4 kV AC (50 Hz, 1 min., winding/contact) |

Input data

Coil side

| | |
|---|--|
| Nominal input voltage U_N | 24 V DC |
| Input voltage range | 21.6 V DC ... 26.4 V DC |
| Input voltage range in reference to U_N | 0.9 ... 1.1 |
| Drive and function | monostable |
| Typical input current at U_N | 21 mA |
| Typical response time | 9 ms |
| Typical release time | 10 ms |
| Protective circuit | Reverse polarity protection; Polarity protection diode Freewheeling diode; Freewheeling diode |
| Operating voltage display | Yellow LED |
| Nominal control voltage | 5 V DC |
| Minimum control voltage | -2.4 V DC |
| Maximum control voltage | -5.25 V DC |
| Minimum control current | 1.2 mA |
| Maximum control current | 1.7 mA |

Control

| | |
|-------------------------|------------|
| Nominal control voltage | 5 V DC |
| Minimum control voltage | -2.4 V DC |
| Maximum control voltage | -5.25 V DC |
| Minimum control current | 1.2 mA |
| Maximum control current | 1.7 mA |

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Output data

Switching

| | |
|---------------------------------------|--------------------------------------|
| Contact switching type | Single contact, 1 changeover contact |
| Type of switch contact | Single contact |
| Contact material | AgNi |
| Maximum switching voltage | 250 V AC/DC |
| Limiting continuous current | 5 A |
| Maximum inrush current | 8 A |
| Interrupting rating (ohmic load) max. | 120 W (at 24 V DC) |
| | 60 W (at 48 V DC) |
| | 50 W (at 60 V DC) |
| | 50 W (at 110 V DC) |
| | 80 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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| Conductor cross-section AWG | 24 ... 12 |

Dimensions

| | |
|--------|---------|
| Width | 22.5 mm |
| Height | 75 mm |
| Depth | 62.5 mm |

Material specifications

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

Environmental and real-life conditions

Ambient conditions

| | |
|---------------------------------|------------------|
| Ambient temperature (operation) | -20 °C ... 50 °C |
|---------------------------------|------------------|

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| | |
|---|------------------|
| Ambient temperature (storage/transport) | -20 °C ... 70 °C |
|---|------------------|

Standards and regulations

| | |
|-----------------------|-------------|
| Standards/regulations | IEC 60664 |
| | IEC 60664-1 |

Mounting

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

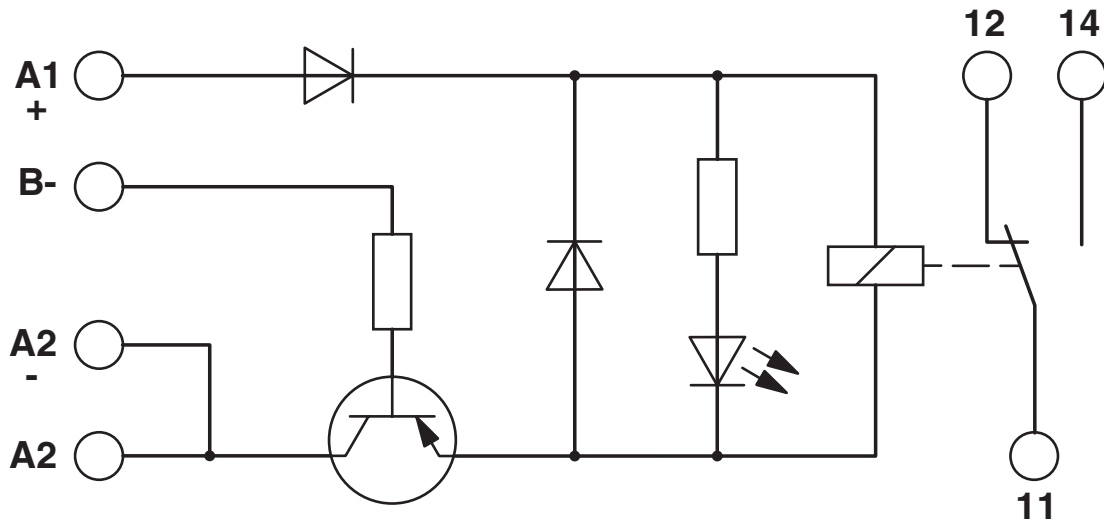
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Drawings

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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