

2952169

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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 24 V DC

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                          | 2952169                        |
| Packing unit                         | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | C460                           |
| Product key                          | CK61A1                         |
| Catalog page                         | Page 455 (C-5-2017)            |
| GTIN                                 | 4017918084332                  |
| Weight per piece (including packing) | 64.43 g                        |
| Weight per piece (excluding packing) | 64.43 g                        |
| Customs tariff number                | 85364190                       |
| Country of origin                    | DE                             |

# EMG 22-REL/KSR-G 24/TRP35 - Hybrid relay



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## Technical data

### Product properties

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

### Insulation characteristics

|            |                  |
|------------|------------------|
| Insulation | Basic insulation |
|------------|------------------|

### Insulation characteristics

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

### 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<br>Freewheeling diode; Freewheeling diode |
| Operating voltage display                 | Yellow LED                                                                                       |
| Nominal control voltage                   | 24 V DC                                                                                          |
| Minimum control voltage                   | -17.5 V DC                                                                                       |
| Maximum control voltage                   | -38.5 V DC                                                                                       |
| Minimum control current                   | 0.6 mA                                                                                           |
| Maximum control current                   | 1.4 mA                                                                                           |

#### Control

|                         |            |
|-------------------------|------------|
| Nominal control voltage | 24 V DC    |
| Minimum control voltage | -17.5 V DC |
| Maximum control voltage | -38.5 V DC |
| Minimum control current | 0.6 mA     |
| Maximum control current | 1.4 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 <sup>2</sup> ... 4 mm <sup>2</sup>   |
| Conductor cross section flexible | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross section AWG      | 24 ... 12                                   |

### Contact side

|                                  |                                             |
|----------------------------------|---------------------------------------------|
| Connection method                | Screw connection                            |
| Stripping length                 | 8 mm                                        |
| Screw thread                     | M3                                          |
| Conductor cross section rigid    | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>   |
| Conductor cross section flexible | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| 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                       |

# EMG 22-REL/KSR-G 24/TRP35 - Hybrid relay

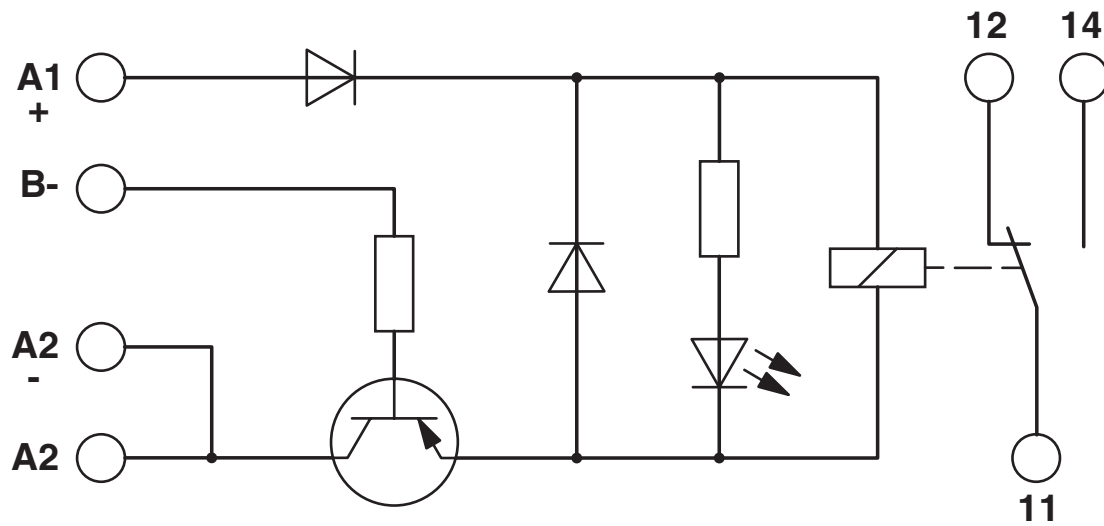
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## Drawings

Circuit diagram



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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27371601 |
|-------------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39122334 |
|-------------|----------|

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)                                                                                                                                                                                                              |

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## Accessories

### EMG-GKS 12 - Marking material

2947035

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Device marking label, width: 12 mm, area: 12 x 8 mm, e.g. for EML(10x7) R adhesive marking material

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