

# Hybrid relay - EMG 22-REL/KSR-G 24/TRN12 - 2952363

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://download.phoenixcontact.com>)



Relay module, with miniature switching relay, with integrated NPN transistor control, for low control currents, contact (AgNi): Medium to large loads, 1 PDT, 12 V DC nominal control voltage

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

## Product Features

- Low control current (terminal block B), type-dependent from 0.5 mA
- Safe isolation according to DIN EN 50178 between coil and contact
- Integrated input circuit and interference suppression circuit
- Type-dependent positive or negative control current



## Key commercial data

|                         |               |
|-------------------------|---------------|
| <b>package_quantity</b> | 10            |
| <b>GTIN</b>             | 4017918084462 |

## Technical data

Note:

|                                |   |
|--------------------------------|---|
| <b>Utilization restriction</b> | EMC: class A product, see manufacturer's declaration in the download area |
|--------------------------------|---|

## Dimensions

|               |         |
|---------------|---------|
| <b>Width</b>  | 22.5 mm |
| <b>Height</b> | 75 mm   |
| <b>Depth</b>  | 62.5 mm |

## Ambient conditions

|  |                  |
|--|------------------|
| <b>Ambient temperature (operation)</b>         | -20 °C ... 50 °C |
| <b>Ambient temperature (storage/transport)</b> | -20 °C ... 70 °C |

## Coil side

|   |             |
|---|-------------|
| <b>Nominal input voltage <math>U_N</math></b>               | 24 V DC     |
| <b>Input voltage range in reference to <math>U_N</math></b> | 0.9 ... 1.1 |
| <b>Nominal input current at <math>U_{IN}</math></b>         | 21 mA       |
| <b>Minimum control voltage</b>                              | 5 V DC      |

# Hybrid relay - EMG 22-REL/KSR-G 24/TRN12 - 2952363

## Technical data

### Coil side

|                           |  |
|---------------------------|--|
| Maximum control voltage   | 13.2 V DC  |
| Minimum control current   | 0.5 mA   |
| Maximum control current   | 1 mA   |
| Typical response time     | 9 ms   |
| Typical release time      | 10 ms  |
| Operating voltage display | Yellow LED   |
| Protective circuit        | Protection against polarity reversal Polarity protection diode |
| Protective circuit        | Free-wheeling diode Damping diode                              |

### Contact side

|                                       |                        |
|---------------------------------------|------------------------|
| Contact type                          | Single contact, 1-PDT  |
| Contact material                      | AgNi                   |
| Maximum switching voltage             | 250 V AC/DC            |
| Maximum inrush current                | 8 A                    |
| Limiting continuous current           | 5 A                    |
| Interrupting rating (ohmic load) max. | 120 W (at 24 V DC)     |
| Interrupting rating (ohmic load) max. | 60 W (at 48 V DC)      |
| Interrupting rating (ohmic load) max. | 50 W (at 60 V DC)      |
| Interrupting rating (ohmic load) max. | 50 W (at 110 V DC)     |
| Interrupting rating (ohmic load) max. | 80 W (at 220 V DC)     |
| Interrupting rating (ohmic load) max. | 1250 VA (for 250 V AC) |

### General

|  |                                |
|--|--------------------------------|
| Test voltage relay winding/relay contact | 4 kV AC (50 Hz, 1 min.)        |
| Operating mode                           | 100% operating factor          |
| Mechanical service life                  | Approx. $5 \times 10^7$ cycles |
| Standards/regulations                    | IEC 60664                      |
| Standards/regulations                    | EN 50178                       |
| Standards/regulations                    | IEC 62103                      |
| Rated surge voltage / insulation         | Basic insulation               |
| Pollution degree                         | 2                              |
| Surge voltage category                   | III                            |
| Mounting position                        | Any                            |

### Connection data

|  |                     |
|--|---------------------|
| Connection method                      | Screw connection    |
| Conductor cross section solid min.     | 0.2 mm <sup>2</sup> |
| Conductor cross section solid max.     | 4 mm <sup>2</sup>   |
| Conductor cross section stranded min.  | 0.2 mm <sup>2</sup> |
| Conductor cross section stranded max.  | 2.5 mm <sup>2</sup> |
| Conductor cross section AWG/kcmil min. | 24                  |
| Conductor cross section AWG/kcmil max  | 12                  |
| Stripping length                       | 8 mm                |

# Hybrid relay - EMG 22-REL/KSR-G 24/TRN12 - 2952363

## Technical data

### Connection data

|                     |    |
|---------------------|----|
| <b>Screw thread</b> | M3 |
|---------------------|----|

## classifications

### eCl@ss

|                   |          |
|-------------------|----------|
| <b>eCl@ss 4.0</b> | 27371102 |
| <b>eCl@ss 4.1</b> | 27371102 |
| <b>eCl@ss 5.0</b> | 27371001 |
| <b>eCl@ss 5.1</b> | 27371001 |
| <b>eCl@ss 6.0</b> | 27371001 |
| <b>eCl@ss 7.0</b> | 27371001 |
| <b>eCl@ss 8.0</b> | 27371001 |

### ETIM

|                 |          |
|-----------------|----------|
| <b>ETIM 2.0</b> | EC000196 |
| <b>ETIM 3.0</b> | EC000196 |
| <b>ETIM 4.0</b> | EC000196 |
| <b>ETIM 5.0</b> | EC000196 |

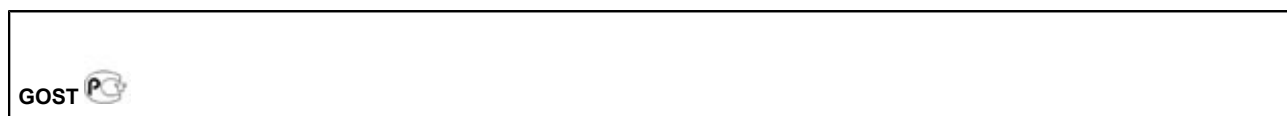
### UNSPSC

|                      |          |
|----------------------|----------|
| <b>UNSPSC 6.01</b>   | 30211916 |
| <b>UNSPSC 7.0901</b> | 39121515 |
| <b>UNSPSC 11</b>     | 39121515 |
| <b>UNSPSC 12.01</b>  | 39121515 |
| <b>UNSPSC 13.2</b>   | 39121515 |

## approvals

GOST /

### Approval details



## accessories

EMG-GKS 12 - 2947035

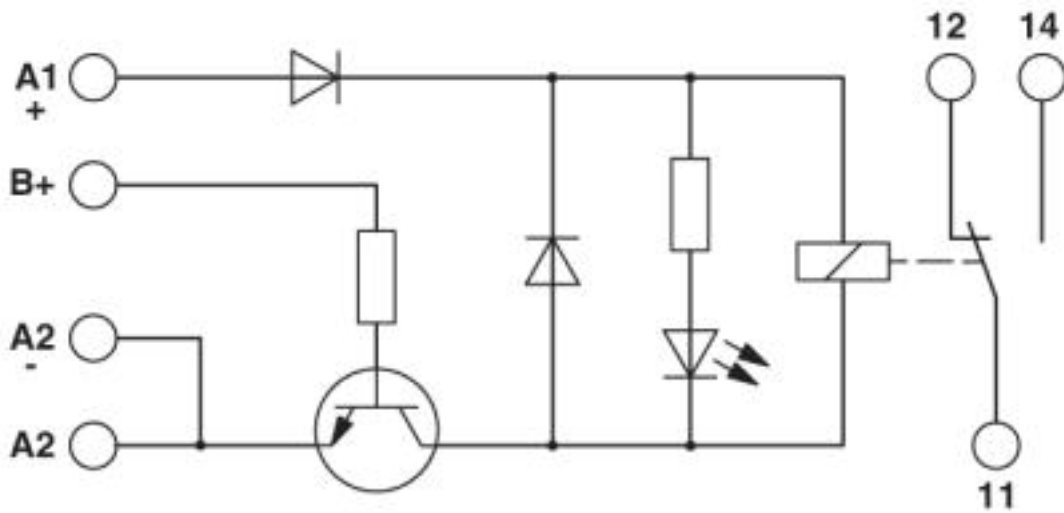


# Hybrid relay - EMG 22-REL/KSR-G 24/TRN12 - 2952363

accessories

## Drawings

Circuit diagram



© Phoenix Contact 2013 - all rights reserved  
<http://www.phoenixcontact.com>