

## Relay Module - EMG 10-REL/KSR-120/21-LC - 2964445

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Relay module, with soldered-in miniature switching relay, contact (AgNi): Medium to large loads, 1 PDT, input voltage 120 V AC/DC

The figure shows the EMG 10-REL/KSR-G 24/21-LC variant

### Why buy this product

- Safe isolation according to DIN EN 50178 between coil and contact
- Integrated input circuit and interference suppression circuit



### Key Commercial Data

|                                      |   |
|--------------------------------------|---|
| Packing unit                         | 1 STK   |
| GTIN                                 | <br>4 017918 125110 |
| Weight per Piece (excluding packing) | 42.56 g   |
| Custom tariff number                 | 85364900  |
| Country of origin                    | Germany   |

### Technical data

#### Note

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

#### Dimensions

|        |         |
|--------|---------|
| Width  | 10.6 mm |
| Height | 75 mm   |
| Depth  | 62.5 mm |

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## Technical data

### Ambient conditions

|   |                  |
|---|------------------|
| Ambient temperature (operation)         | -20 °C ... 40 °C |
| Ambient temperature (storage/transport) | -20 °C ... 70 °C |

### Coil side

|   |                                   |
|---|-----------------------------------|
| Nominal input voltage $U_N$               | 120 V AC/DC                       |
| Input voltage range in reference to $U_N$ | 0.8 ... 1.1                       |
| Typical input current at $U_N$            | 5 mA                              |
| Typical response time                     | 7 ms                              |
| Typical release time                      | 11 ms                             |
| Protective circuit                        | Bridge rectifier Bridge rectifier |
|   | Surge protection Varistor         |
| Operating voltage display                 | Yellow LED                        |
| Power dissipation for nominal condition   | 0.6 W                             |

### 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           | 6 A                    |
| Interrupting rating (ohmic load) max. | 140 W (at 24 V DC)     |
|                                       | 53 W (at 48 V DC)      |
|                                       | 45 W (at 60 V DC)      |
|                                       | 35 W (at 110 V DC)     |
|                                       | 55 W (at 220 V DC)     |
|                                       | 1500 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. $2 \times 10^7$ cycles |
| Standards/regulations                    | IEC 60664                      |
|  | EN 50178                       |
|  | IEC 62103                      |
| Rated surge voltage/insulation           | Basic insulation               |
| Degree of pollution                      | 2                              |
| Overvoltage category                     | III                            |
| Mounting position                        | any                            |
| Assembly instructions                    | In rows with zero spacing      |

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## Technical data

### Connection data input side

|                                  |   |
|----------------------------------|---|
| Connection name                  | Coil side                                   |
| Connection method                | Screw connection                            |
| Stripping length                 | 8 mm  |
| Screw thread                     | M3  |
| Conductor cross section solid    | 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                                   |

## Connection data output side

|                                  |   |
|----------------------------------|---|
| Connection name                  | Contact side                                |
| Connection method                | Screw connection                            |
| Stripping length                 | 8 mm  |
| Screw thread                     | M3  |
| Conductor cross section solid    | 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                                   |

## Standards and Regulations

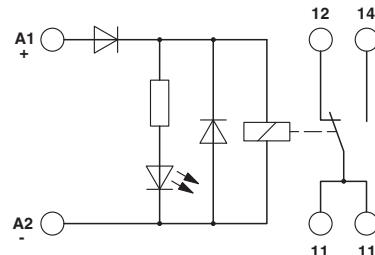
|                                  |                  |
|----------------------------------|------------------|
| Connection in acc. with standard | CUL              |
| Standards/regulations            | IEC 60664        |
|                                  | EN 50178         |
|                                  | IEC 62103        |
| Rated surge voltage/insulation   | Basic insulation |
| Degree of pollution              | 2                |
| Overvoltage category             | III              |

## Drawings

## Connection diagram



## Circuit diagram



## Relay Module - EMG 10-REL/KSR-120/21-LC - 2964445

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27371102 |
| eCl@ss 4.1 | 27371102 |
| eCl@ss 5.0 | 27371001 |
| eCl@ss 5.1 | 27371001 |
| eCl@ss 6.0 | 27371001 |
| eCl@ss 7.0 | 27371001 |
| eCl@ss 8.0 | 27371601 |
| eCl@ss 9.0 | 27371601 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000196 |
| ETIM 3.0 | EC000196 |
| ETIM 4.0 | EC000196 |
| ETIM 5.0 | EC001437 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211916 |
| UNSPSC 7.0901 | 39121515 |
| UNSPSC 11     | 39121515 |
| UNSPSC 12.01  | 39121515 |
| UNSPSC 13.2   | 39121515 |

### Approvals

#### Approvals

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#### Approvals

UL Recognized / cUL Recognized / EAC / EAC / cULus Recognized

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#### Ex Approvals

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#### Approvals submitted

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#### Approval details

## Relay Module - EMG 10-REL/KSR-120/21-LC - 2964445

### Approvals

UL Recognized



cUL Recognized



EAC

EAC

cULus Recognized



### Accessories

#### Accessories

Marking material - EMG-SGKS 10 - 2947585



Equipment marker, narrow