

## Relay Module - EMG 10-REL/KSR- 48/21-LC - 2964526

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Relay module, with soldered-in miniature switching relay, contact (AgNi): Medium to large loads, 1 PDT, input voltage 48 V AC/DC

### 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 | 10 STK                                                                               |
| GTIN         |  |
| GTIN         | 4017918126353                                                                        |

### 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 |

#### Ambient conditions

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

#### Coil side

|                                           |             |
|-------------------------------------------|-------------|
| Nominal input voltage $U_N$               | 48 V AC/DC  |
| Input voltage range in reference to $U_N$ | 0.9 ... 1.1 |
| Typical input current at $U_N$            | 7 mA        |

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## Technical data

### Coil side

|                                         |                                   |
|-----------------------------------------|-----------------------------------|
| Typical response time                   | 7 ms                              |
| Typical release time                    | 11 ms                             |
| Protective circuit                      | Bridge rectifier Bridge rectifier |
| Operating voltage display               | Yellow LED                        |
| Power dissipation for nominal condition | 0.34 W                            |

### Contact side

|                                       |                        |
|---------------------------------------|------------------------|
| Contact type                          | Single contact, 1-PDT  |
| Type of switch contact                | Single contact         |
| 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 |
| Mounting position                        | any                            |
| Assembly instructions                    | In rows with zero spacing      |

### 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> |

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## Technical data

### Connection data output side

|                             |           |
|-----------------------------|-----------|
| Conductor cross section AWG | 24 ... 12 |
|-----------------------------|-----------|

### Standards and Regulations

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

### Environmental Product Compliance

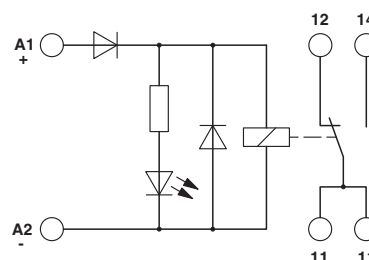
|            |                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1                                                                                      |
| China RoHS | Environmentally Friendly Use Period = 50                                                            |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

## Drawings

Connection diagram



Circuit diagram



## Approvals

### Approvals

#### Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

#### Ex Approvals

### Approval details

UL Recognized



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 238705

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### Approvals

cUL Recognized



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 238705

EAC



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DE.A\*30.B.01082

cULus Recognized



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