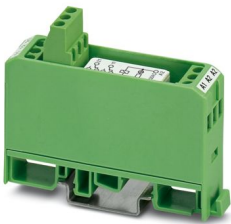


2941468  
<https://www.phoenixcontact.com/gb/products/2941468>

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Relay module, with soldered-in miniature switching relay, contact (AgNi+Au): small to large loads, 2 changeover contacts, input voltage 230 V AC

Your advantages

- Safe isolation between coil and contact side
- Integrated input circuit and interference suppression circuit

Commercial data

|                                      |                    |
|--------------------------------------|--------------------|
| Item number                          | 2941468            |
| Packing unit                         | 10 pc              |
| Minimum order quantity               | 1 pc               |
| Sales key                            | CK6146             |
| Product key                          | CK6146             |
| Catalog page                         | Page 135 (IF-2011) |
| GTIN                                 | 4017918080464      |
| Weight per piece (including packing) | 55.77 g            |
| Weight per piece (excluding packing) | 56.37 g            |
| Customs tariff number                | 85364190           |
| Country of origin                    | DE                 |

## Technical data

### Notes

|                         |   |
|-------------------------|---|
| General                 | Only available as AC voltage version.                                     |
| Utilization restriction |   |
| EMC note                | EMC: class A product, see manufacturer's declaration in the download area |

### Product properties

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

### Insulation characteristics

|            |  |
|------------|--|
| Insulation | Basic insulation   |
|            | Safe isolation, reinforced insulation, and 6 kV between input circuit and output contact current paths |

### Insulation characteristics: Air clearances and creepage distances between the power circuits

|                      |  |
|----------------------|--|
| Insulation           | Basic insulation   |
|                      | Safe isolation, reinforced insulation, and 6 kV between input circuit and output contact current paths |
| Overvoltage category | II   |
| Pollution degree     | 2  |

### Insulation characteristics: Air clearances and creepage distances between input and contact circuit (or output contact current path)

|                      |                                       |
|----------------------|---------------------------------------|
| Insulation           | Safe isolation, reinforced insulation |
| Overvoltage category | III                                   |
| Pollution degree     | 2                                     |

### Electrical properties

|   |  |
|---|--|
| Maximum power dissipation for nominal condition | 0.92 W   |
| Test voltage (Winding/contact)                  | 4 kV AC (50 Hz, 1 min., winding/contact)                       |
| Test voltage (Contact/contact)                  | 1 kV AC (50 Hz, 1 min., changeover contact/changeover contact) |

### Air clearances and creepage distances between the power circuits

|                          |          |
|--------------------------|----------|
| Rated insulation voltage | 260 V AC |
| Rated surge voltage      | 2.3 kV   |

### Air clearances and creepage distances between input and contact circuit (or output contact current path)

|                          |          |
|--------------------------|----------|
| Rated insulation voltage | 260 V AC |
| Rated surge voltage      | 6 kV     |

### Input data

# EMG 17-REL/KSR-W230/21-21-LCAU - Relay Module



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## Coil side

|                                |                               |
|--------------------------------|-------------------------------|
| Nominal input voltage $U_N$    | 230 V AC                      |
| Input voltage range            | 184 V AC ... 253 V AC (20 °C) |
| Mains frequency                | 50/60 Hz                      |
| Drive and function             | monostable                    |
| Drive (polarity)               | polarized                     |
| Typical input current at $U_N$ | 4 mA                          |
| Typical response time          | 7 ms                          |
|                                | 3 ms ... 12 ms                |
| Typical release time           | 3 ms                          |
| Typical release time range     | 2 ms ... 9 ms                 |
| Operating voltage display      | Glow lamp                     |

## Output data

### Switching

|                                       |                        |
|---------------------------------------|------------------------|
| Contact switching type                | 2 changeover contacts  |
| Type of switch contact                | Single contact         |
| Contact material                      | AgNi, hard gold-plated |
| Maximum switching voltage             | 30 V AC                |
|                                       | 36 V DC                |
| Limiting continuous current           | 50 mA                  |
| Maximum inrush current                | 0.2 A                  |
| Interrupting rating (ohmic load) max. | 1.2 W (at 24 V DC)     |

### Switching: when the gold layer is destroyed

|                                       |  |
|---------------------------------------|--|
| Note                                  | the following values are applicable if a gold layer is destroyed |
| Maximum switching voltage             | 250 V AC/DC  |
| Limiting continuous current           | 5 A  |
| Maximum inrush current                | 6 A  |
| Interrupting rating (ohmic load) max. | 120 W (at 24 V DC)   |
|                                       | 95 W (at 48 V DC)  |
|                                       | 60 W (at 60 V DC)  |
|                                       | 40 W (at 110 V DC)   |
|                                       | 55 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> |

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|                                  |   |
|----------------------------------|---|
| 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  | 17.5 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 ... 40 °C |
| Ambient temperature (storage/transport) | -20 °C ... 70 °C |

## Standards and regulations

## Air clearances and creepage distances between the power circuits

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

## Air clearances and creepage distances between input and contact circuit (or output contact current path)

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

## Standards/regulations

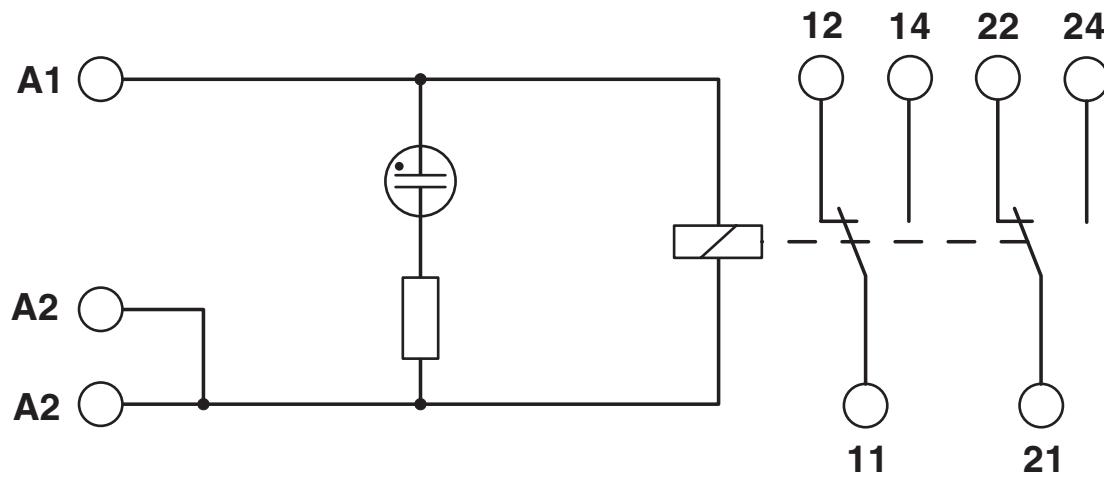
|                       |            |
|-----------------------|------------|
| Standards/regulations | EN 61810-1 |
|-----------------------|------------|

## Mounting

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


## Drawings

Circuit diagram




Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2941468>



**cUL Recognized**  
Approval ID: FILE E 238705



**UL Recognized**  
Approval ID: FILE E 238705



**EAC**  
Approval ID: TR\_TS\_D\_00573\_c



**EAC**  
Approval ID: RU\*C-DE.\*08.B.00010

**cULus Recognized**

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27371601 |
| ECLASS-12.0 | 27371601 |
| ECLASS-13.0 | 27371601 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001437 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39122300 |
|-------------|----------|

Environmental product compliance

|            |  |
|------------|--|
| REACH SVHC | Lead 7439-92-1   |
| China RoHS | Environmentally Friendly Use Period = 50 years   |
|            | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |



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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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PHOENIX CONTACT Ltd  
Halesfield 13, Telford  
Shropshire, TF7 4PG  
01952 681700  
[info@phoenixcontact.co.uk](mailto:info@phoenixcontact.co.uk)