

EMG 45-REL/IR-W 24/HWR - Relay module



2949376

<https://www.phoenixcontact.com/us/products/2949376>

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 documentation. Our general terms of use for downloads are valid.



Relay module, with soldered-in industrial relay, contact: 2 changeover contacts, for multi-input fault warnings, with input diode gate in P polarity (6 diodes 1N4007) and capacitor parallel to the coil as well as a multi-input LED display, input voltage 24 V AC

The figure shows version EMG 45-REL/IR-G 24/HWR

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2949376 |
| Packing unit | 5 pc |
| Minimum order quantity | 1 pc |
| Note | Made to order (non-returnable) |
| Product key | DK6147 |
| GTIN | 4017918083762 |
| Weight per piece (including packing) | 126.56 g |
| Weight per piece (excluding packing) | 126.56 g |
| Country of origin | DE |

Technical data

Notes

| | |
|--------------------|---|
| Notes on operation | During installation, the system must be connected in phase. |
|--------------------|---|

Product properties

| | |
|-------------------------|--------------------------------|
| Product type | Relay Module |
| Application | Fault reporting system |
| Mechanical service life | approx. 5×10^7 cycles |

Insulation characteristics

| | |
|----------------------|----|
| Overvoltage category | II |
| Pollution degree | 2 |

Data management status

| | |
|------------------------------|------------|
| Date of last data management | 01.04.2026 |
|------------------------------|------------|

Electrical properties

| | |
|---|--|
| Maximum power dissipation for nominal condition | 1.25 W |
| Test voltage (Winding/contact) | 2 kV AC (50 Hz, 1 min., winding/contact) |

Input data

Diode

| | |
|------------------------------------|---|
| Description of the input | 6 diodes, with P polarity |
| Diode type | 1 N 4007 |
| Max. operating voltage U_{max} | 250 V AC |
| Peak reverse voltage per diode | 1300 V |
| Reverse current per diode | 30 μ A |
| Conducting state voltage per diode | approx. 0.8 V |
| Conducting state current per diode | 0.7 A (with single load) 0.2 A (with simultaneous loads) |

Coil side

| | |
|---|--|
| Nominal input voltage U_N | 24 V AC |
| Input voltage range | 21.6 V AC ... 26.4 V AC |
| Input voltage range in reference to U_N | 0.9 ... 1.1 |
| Drive and function | monostable |
| Typical input current at U_N | approx. 52 mA |
| Typical response time | 5 ms ... 15 ms |
| Typical release time range | 15 ms ... 30 ms |
| Protective circuit | Decoupling diodes; Decoupling diodes Capacitor; Capacitor |
| Operating voltage display | LED red |
| Coil resistance | 770 Ω |

EMG 45-REL/IR-W 24/HWR - Relay module



2949376

<https://www.phoenixcontact.com/us/products/2949376>

| | |
|---------------------------|----------------|
| Nominal power consumption | approx. 740 mW |
|---------------------------|----------------|

Output data

Switching

| | |
|---------------------------------------|---------------------------------------|
| Contact switching type | Single contact, 2 changeover contacts |
| Type of switch contact | Single contact |
| Contact material | AgNi |
| Maximum switching voltage | 250 V AC/DC |
| Limiting continuous current | 3 A |
| Maximum inrush current | 5 A |
| Interrupting rating (ohmic load) max. | 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 ² ... 4 mm ² |
| Conductor cross-section flexible | 0.2 mm ² ... 2.5 mm ² |
| 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 ² ... 4 mm ² |
| Conductor cross-section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section AWG | 24 ... 12 |

Dimensions

| | |
|--------|---------|
| Width | 45 mm |
| Height | 75 mm |
| Depth | 82.5 mm |

Material specifications

| | |
|-------|------------------|
| Color | green (RAL 6021) |
|-------|------------------|

Environmental and real-life conditions

Ambient conditions

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

Standards and regulations

| | |
|-----------------------|-----------------------------------|
| Standards/regulations | DIN VDE 0110b, Gr. C for 250 V DC |
|-----------------------|-----------------------------------|

EMG 45-REL/IR-W 24/HWR - Relay module



2949376

<https://www.phoenixcontact.com/us/products/2949376>

| | |
|--|---|
| | DIN EN 50178/VDE 0160 (in relevant parts) |
|--|---|

Mounting

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

EMG 45-REL/IR-W 24/HWR - Relay module

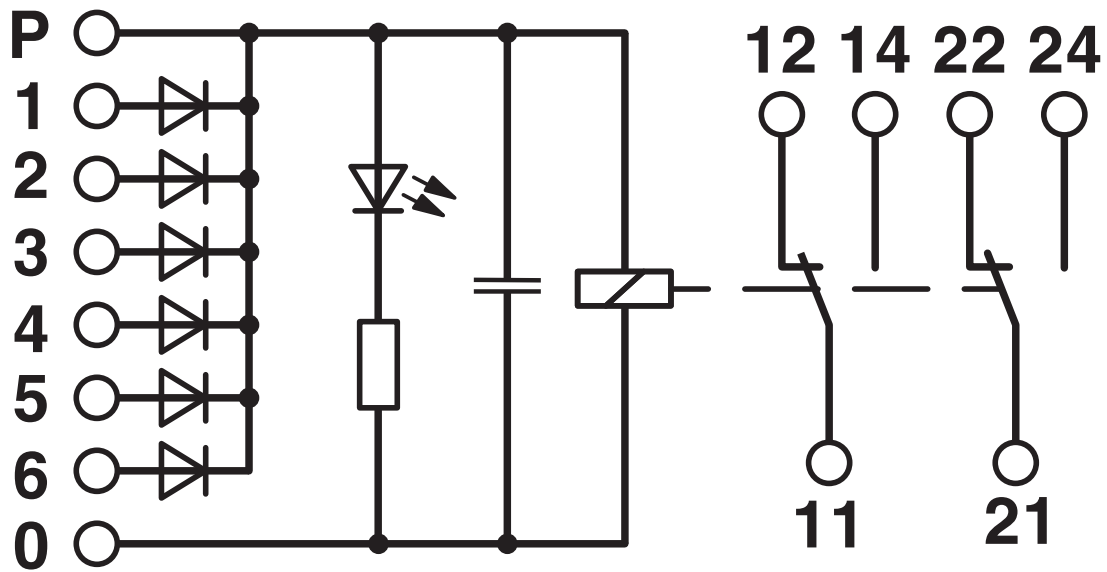


2949376

<https://www.phoenixcontact.com/us/products/2949376>

Drawings

Circuit diagram



EMG 45-REL/IR-W 24/HWR - Relay module



2949376

<https://www.phoenixcontact.com/us/products/2949376>

Environmental product compliance

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.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com