

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

Commercial data

Item number	2949376
Packing unit	5 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Product key	CK6147
Catalog page	Page 117 (IF-2005)
GTIN	4017918083762
Weight per piece (including packing)	126.56 g
Weight per piece (excluding packing)	126.56 g
Country of origin	DE

# EMG 45-REL/IR-W 24/HWR - Relay Module



2949376

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

## 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. $5 \times 10^7$ cycles

### Insulation characteristics

Overvoltage category	II
Pollution degree	2

### 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 $\mu$ 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 $\Omega$
Nominal power consumption	approx. 740 mW

### Output data

# EMG 45-REL/IR-W 24/HWR - Relay Module



2949376

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

## 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 <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

### 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	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
	DIN EN 50178/VDE 0160 (in relevant parts)

## Mounting

# EMG 45-REL/IR-W 24/HWR - Relay Module



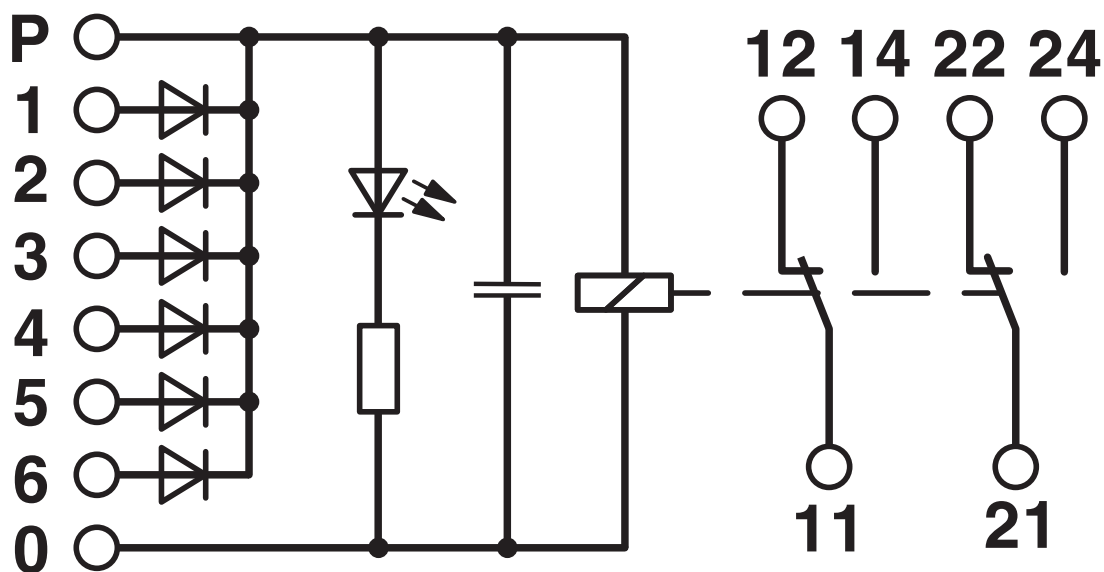
2949376

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

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

## Drawings

Circuit diagram



# EMG 45-REL/IR-W 24/HWR - Relay Module



2949376

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

## Classifications

### ECLASS

ECLASS-11.0	27371601
-------------	----------

# 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 2024 © - 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](mailto:info@phoenixcon.com)