

# EMG 17-REL/SG-B 48/21/M - Relay module



2953935

<https://www.phoenixcontact.com/us/products/2953935>

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Relay module, with soldered-in remanence miniature switching relay, with negative switching diode wiring, contacts (AgSnO): small to large loads, 1 changeover contact, input voltage 48 V DC

The figure shows version EMG 17-REL, with soldered-in Latching miniature switching relay

## Commercial data

Item number	2953935
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C460
Product key	DK6142
GTIN	4017918084677
Weight per piece (including packing)	48.62 g
Weight per piece (excluding packing)	48.62 g
Customs tariff number	85364190
Country of origin	DE

## Technical data

### Product properties

Product type	Relay Module
Application	Universal
Operating mode	100% operating factor
Mechanical service life	approx. $10^7$ cycles

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

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

Data management status

Date of last data management	01.04.2026
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### Electrical properties

Maximum power dissipation for nominal condition	0.41 W
Test voltage (Winding/contact)	4 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)

Air clearances and creepage distances between the power circuits

Rated insulation voltage	250 V AC
Rated surge voltage	4 kV

### Input data

Coil side

Nominal input voltage $U_N$	48 V DC
Input voltage range	38.4 V DC ... 52.8 V DC
Input voltage range in reference to $U_N$	0.8 ... 1.1
Drive and function	bistable
Typical input current at $U_N$	typ. 8.5 mA
Typical response time	5 ms
Typical release time	5 ms
Pulse time range	30 ms ... 5 s
Coil voltage	24 V DC
Protective circuit	Freewheeling diode; Freewheeling diode Reverse polarity protection; Polarity protection diode

### Output data

Switching

Contact switching type	Single contact, 1 changeover contact
Type of switch contact	Single contact
Contact material	AgSnO
Maximum switching voltage	250 V AC/DC

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Minimum switching voltage	5 V (at 100 mA)
	24 V (At 1 mA)
Limiting continuous current	6 A
Maximum inrush current	8 A
Min. switching current	1 mA (at 24 V)
	100 mA (At 5 V)
Interrupting rating (ohmic load) max.	144 W (at 24 V DC)
	43 W (at 48 V DC)
	42 W (at 60 V DC)
	55 W (at 110 V DC)
	100 W (at 220 V DC)
	1500 VA (for 250 V AC)

Switching: when the 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)
	40 W (at 48 V DC)
	35 W (at 60 V DC)
	30 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>
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
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Conductor cross-section AWG	24 ... 12

## Dimensions

Width	17.5 mm
Height	75 mm
Depth	62.5 mm

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## Material specifications

Color	green (RAL 6021)
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## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 50 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C

## Standards and regulations

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

Standards/regulations	DIN EN 50178
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## Mounting

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

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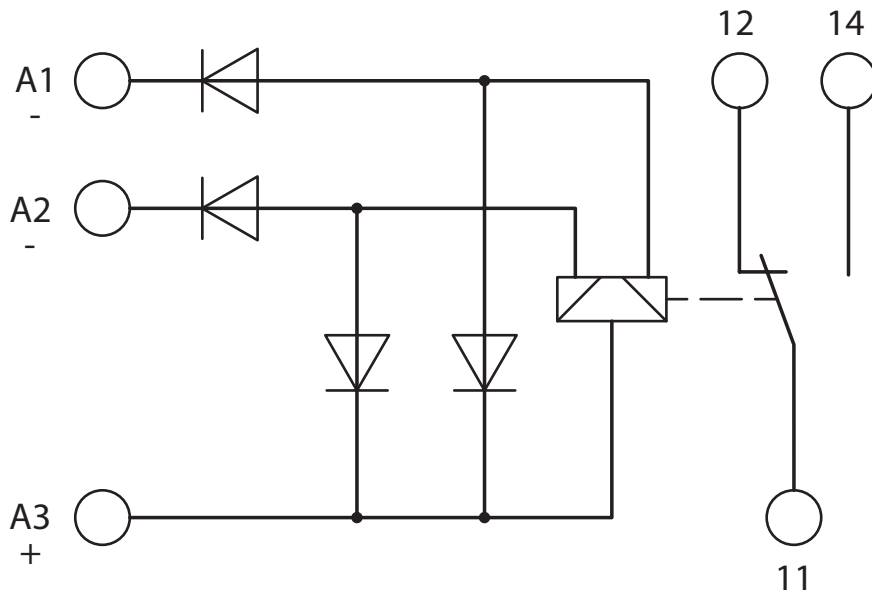


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## Drawings

Circuit diagram



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## 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%
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