

# EMG 10-OE-120AC/ 48DC/100 - Solid-state relay module



2948940

<https://www.phoenixcontact.com/us/products/2948940>

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Input solid-state relay, with LED and protective circuit in input and output circuits, input: 120 V AC, output: 4 - 48 V DC/max. 100 mA

The figure shows version EMG 10-OE, with DC voltage output, max. 100 mA

## Commercial data

Item number	2948940
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	NULL
Product key	DK61C1
GTIN	4017918083618
Weight per piece (including packing)	40.1 g
Weight per piece (excluding packing)	40.1 g
Customs tariff number	85364900
Country of origin	DE

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## Technical data

### Product properties

Product type	Solid-state relay module
Application	Output function
Operating mode	100% operating factor

### Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

### Data management status

Date of last data management	01.04.2026
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### Electrical properties

Test voltage (Input/output)	3.5 kV AC (Input/output)
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### Input data

Nominal input voltage $U_N$	120 V AC
Input voltage range in reference to $U_N$	0.9 ... 1.1
Input voltage range	108 V AC ... 132 V AC
Switching threshold "0" signal in reference to $U_N$	$\leq 0.4$
Switching threshold "1" signal in reference to $U_N$	$\geq 0.8$
Typical input current at $U_N$	4.8 mA
Typical response time	10 ms
Typical turn-off time	10 ms
Status display	LED (yellow)
Protective circuit	Reverse polarity protection; Polarity protection diode Surge protection
Transmission frequency	10 Hz

### Output data

Design of digital output	electronic
Output nominal voltage	48 V DC
Output voltage range	4 V DC ... 48 V DC
Limiting continuous current	100 mA
Voltage drop at max. limiting continuous current	0.9 V
Output circuit	2-conductor, floating
Protective circuit	Reverse polarity protection; Polarity protection diode Surge protection

### Connection data

#### Input side

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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

## Output 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	10 mm
Height	75 mm
Depth	102 mm

## Material specifications

Color	green (RAL 6021)
Flammability rating according to UL 94	V0

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-20 °C ... 70 °C

## Standards and regulations

Standards/regulations	IEC 60664
	EN 50178

## Mounting

Assembly note	in rows with zero spacing
Mounting position	any

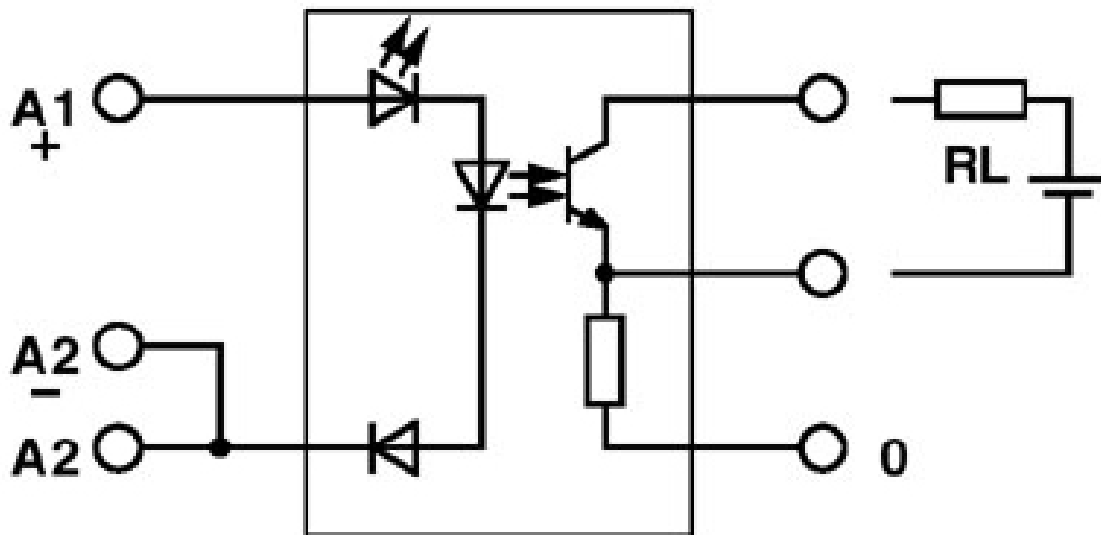
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## Drawings

Circuit diagram



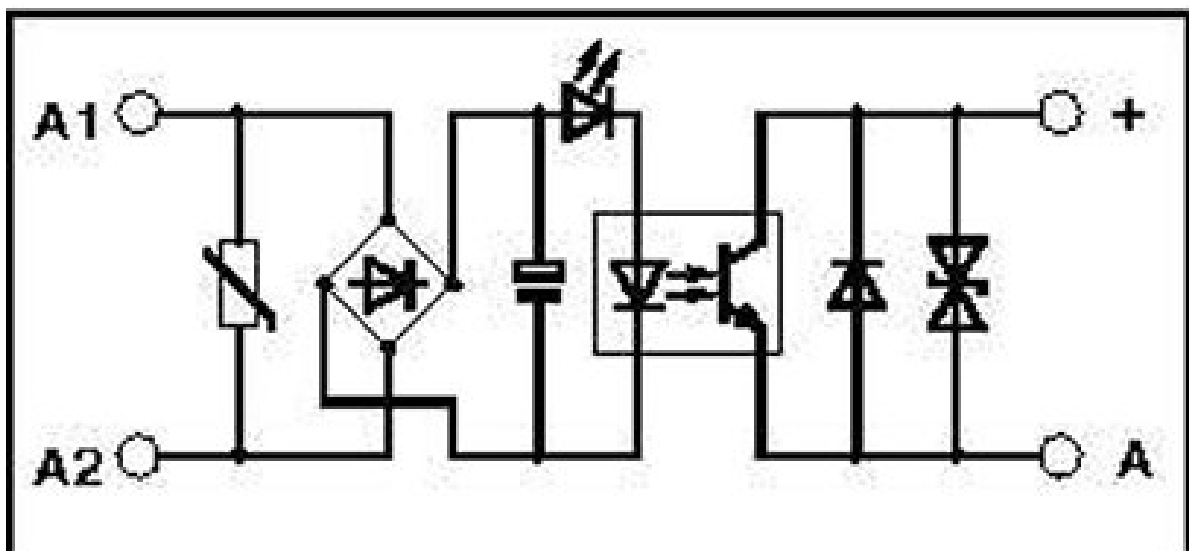
Output: 2-conductor, floating, negative switching

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Circuit diagram



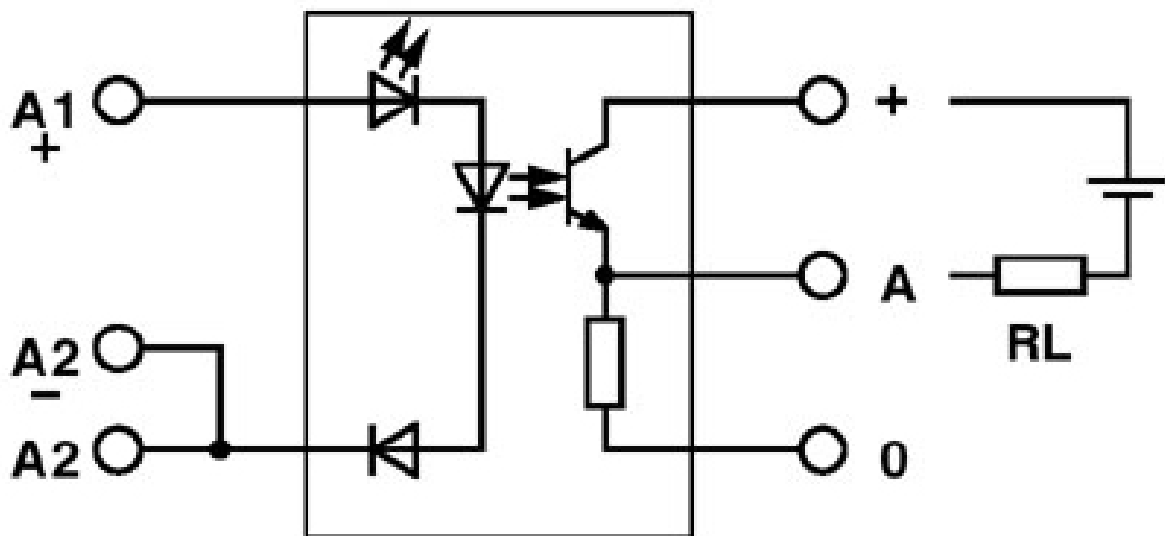
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Circuit diagram



Output: 2-conductor, floating, positive switching

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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.
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### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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