

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	≤ 0.4
Switching threshold "1" signal in reference to U_N	≥ 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 ² ... 4 mm ²
Conductor cross-section flexible	0.2 mm ² ... 2.5 mm ²
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 ² ... 4 mm ²
Conductor cross-section flexible	0.2 mm ² ... 2.5 mm ²
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

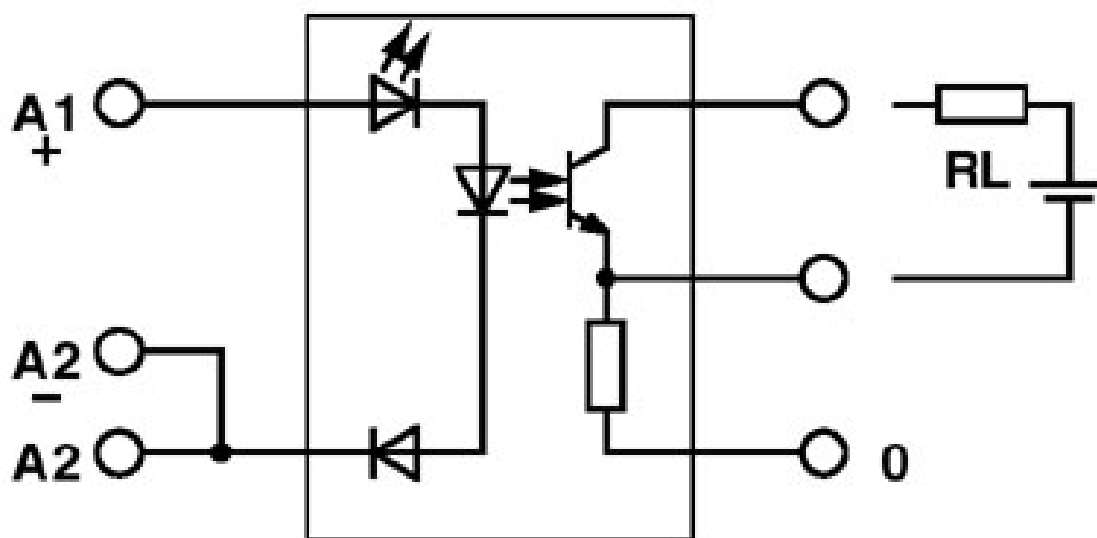
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Drawings

Circuit diagram



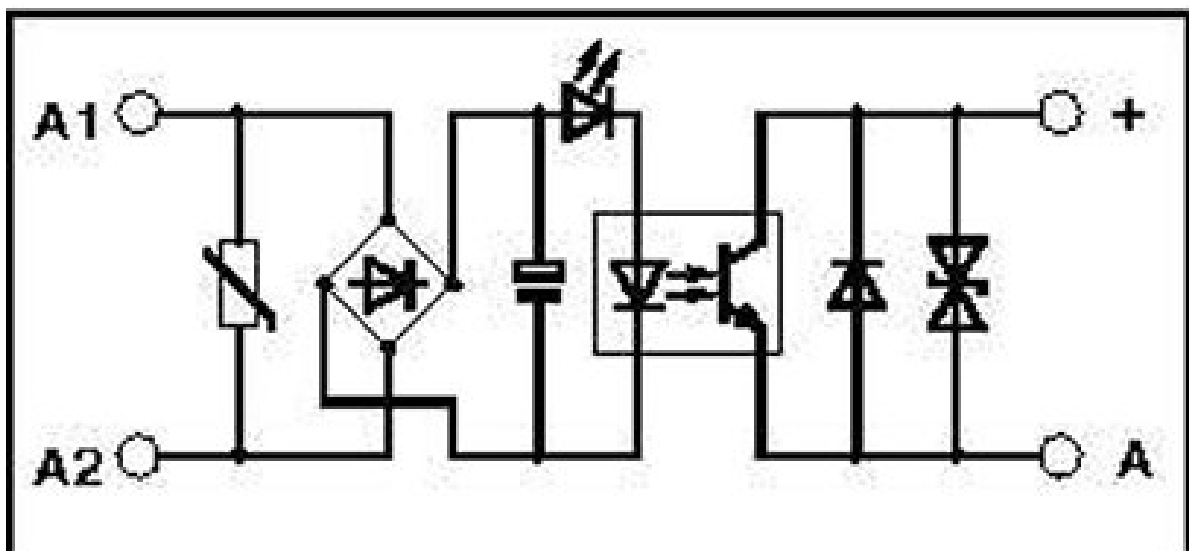
Output: 2-conductor, floating, negative switching

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Circuit diagram



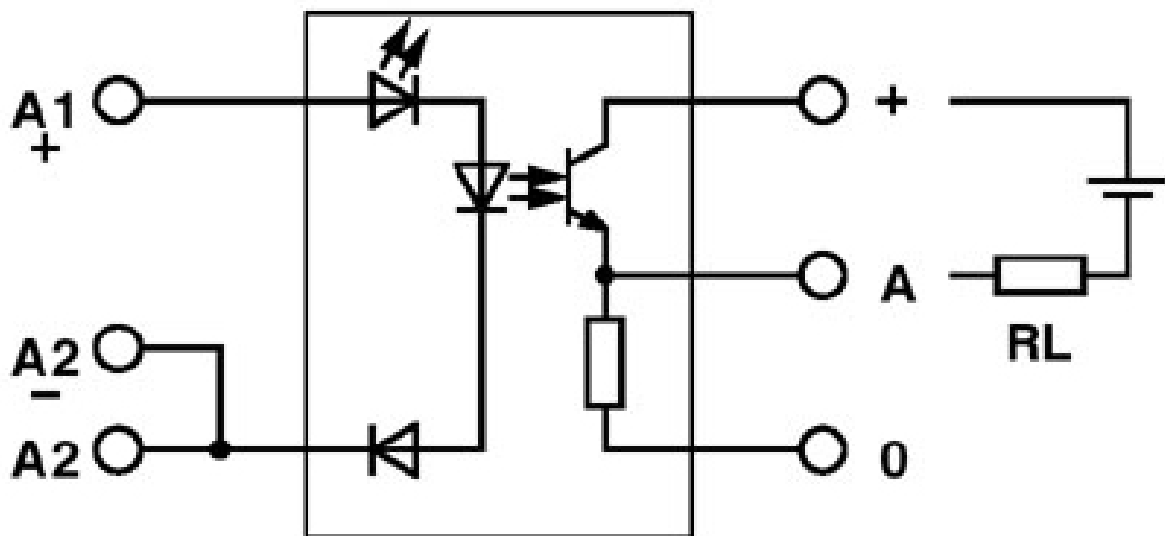
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Circuit diagram



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.

EU REACH SVHC

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