

EMG 10-OE- 12DC/ 48DC/100 - Solid-state relay module



2948898

<https://www.phoenixcontact.com/us/products/2948898>

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Input solid-state relay, with LED and protective circuit in input and output circuits, input: 12 V DC, output: 4 - 48 V DC/max. 100 mA

Commercial data

Item number	2948898
Packing unit	10 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	C460
Product key	DK61C1
GTIN	4017918083564
Weight per piece (including packing)	37.97 g
Weight per piece (excluding packing)	37.97 g
Customs tariff number	85364190
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	15.09.2025
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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	12 V DC
Input voltage range in reference to U_N	0.8 ... 1.2
Input voltage range	9.6 V DC ... 14.4 V DC
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	10 mA
Typical response time	20 μ s
Typical turn-off time	100 μ s
Status display	LED (yellow)
Protective circuit	Reverse polarity protection; Polarity protection diode Surge protection
Transmission frequency	500 Hz

Output data

Contact switching type	1 N/O contact
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

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Input 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

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

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

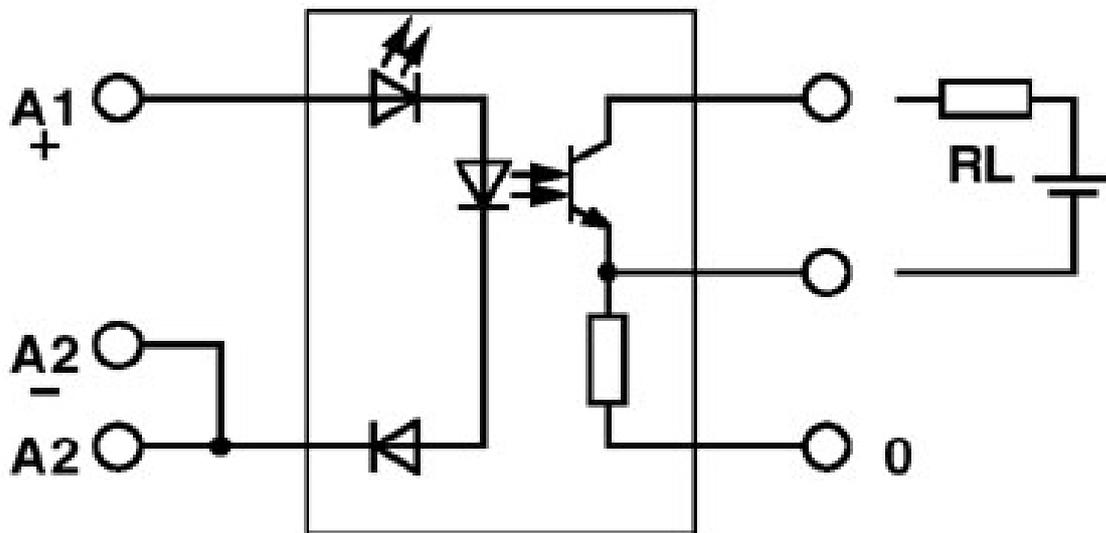
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Drawings

Circuit diagram



Output: 2-conductor, floating, negative switching

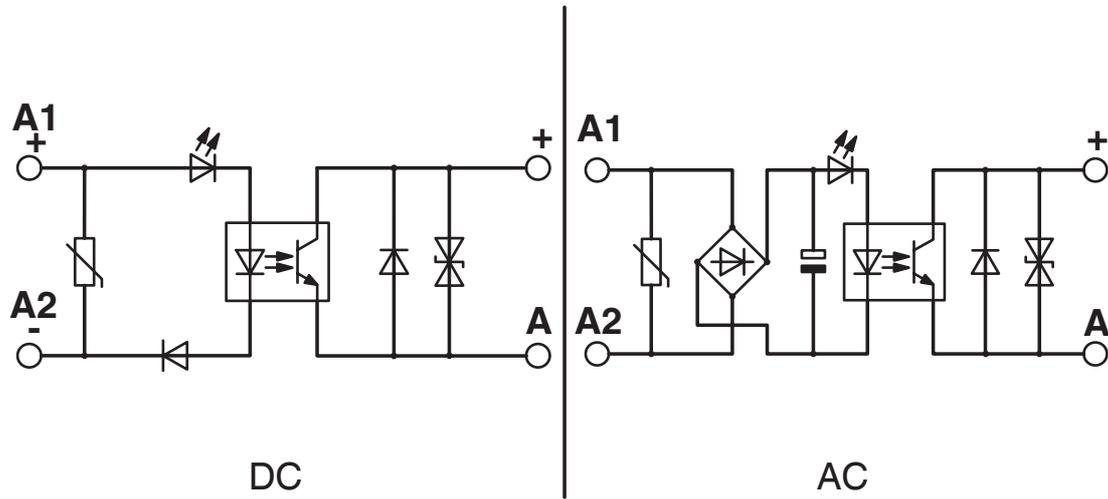
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Circuit diagram

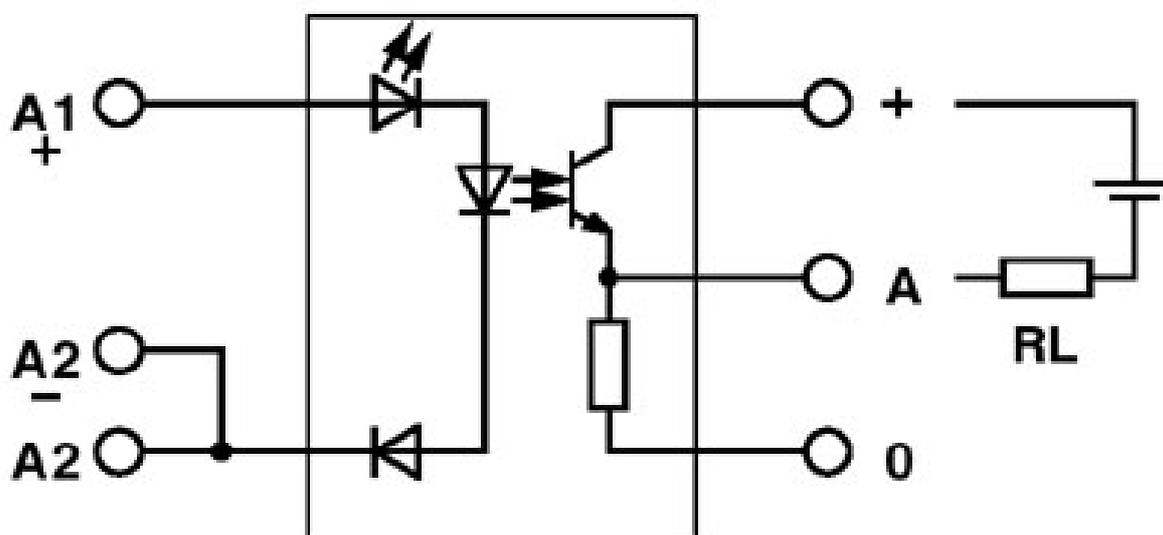


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Circuit diagram



Output: 2-conductor, floating, positive switching

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2948898>



EAC

Approval ID: RU*C-DE.*08.B.00010

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Classifications

ECLASS

ECLASS-13.0	27371604
ECLASS-15.0	27371604

ETIM

ETIM 9.0	EC001504
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UNSPSC

UNSPSC 21.0	39122300
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I

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.)	Hexahydromethylphthalic anhydride(CAS: n/a)
	Lead(CAS: 7439-92-1)
SCIP	83256335-ff96-4b1d-99d3-2d3e5e5d68d8

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