

# EMG 10-OV- 5DC/24DC/1 - Solid-state relay module



2944203

<https://www.phoenixcontact.com/us/products/2944203>

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Power solid-state relay, with LED and protective circuit in input and output circuits, input: 5 V DC, output: 5 - 36 V DC/ max. 1 A

## Commercial data

Item number	2944203
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	C460
Product key	DK61C1
GTIN	4017918081508
Weight per piece (including packing)	37.78 g
Weight per piece (excluding packing)	39.46 g
Customs tariff number	85364190
Country of origin	DE

## Technical data

### Notes

#### Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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### Product properties

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

#### Insulation characteristics

Insulation	Basic insulation
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#### 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 $U_N$	5 V DC
Input voltage range in reference to $U_N$	0.9 ... 1.1
Input voltage range	4.5 V DC ... 5.5 V DC
Switching threshold "0" signal in reference to $U_N$	$\leq 0.6$
Switching threshold "1" signal in reference to $U_N$	$\geq 0.9$
Typical input current at $U_N$	4.2 mA
Typical response time	0.1 ms
Typical turn-off time	0.2 ms
Status display	LED (yellow)
Protective circuit	Reverse polarity protection; Polarity protection diode
Transmission frequency	500 Hz

### Output data

Contact switching type	1 N/O contact
Design of digital output	electronic
Output nominal voltage	24 V DC
Output voltage range	5 V DC ... 36 V DC
Limiting continuous current	1 A (see derating curve)
Surge current	2 A ( $t = 1$ s)
Peak offstate voltage	45 V DC (Collector-emitter reverse voltage)
Voltage drop at max. limiting continuous current	$\leq 1$ V
Output circuit	2-conductor, floating

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Protective circuit	Reverse polarity protection; Polarity protection diode
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## Connection data

### Input 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
Tightening torque	0.5 Nm ... 0.6 Nm

### 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

### Item 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 ... 50 °C
Ambient temperature (storage/transport)	-20 °C ... 70 °C

## Standards and regulations

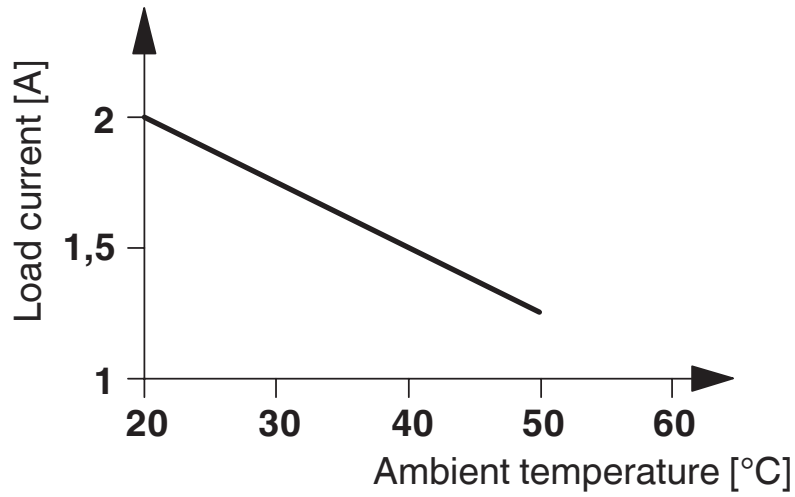
Standards/regulations	IEC 60664
	EN 50178

## Mounting

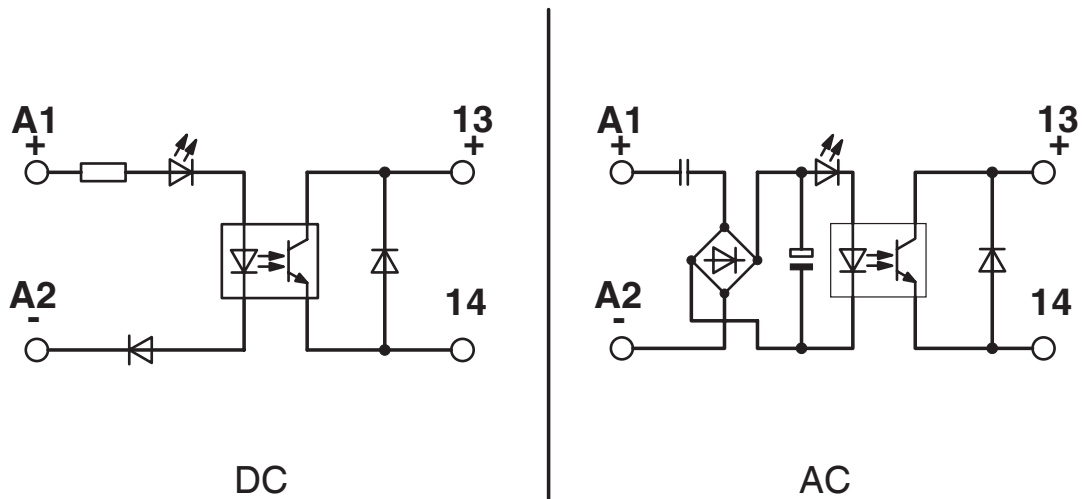
Mounting type	DIN rail mounting
Assembly note	in rows with zero spacing
Mounting position	any

## Drawings

Diagram



Circuit diagram



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## Classifications

### ECLASS

ECLASS-13.0	27371604
ECLASS-15.0	27371604

### ETIM

ETIM 10.0	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	99923bb1-7eb7-4979-88fc-7e32245ed2b6

### EF3.1 Climate Change

CO2e kg	1.248 kg CO2e
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