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

Product properties

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

Insulation characteristics

Insulation	Basic insulation

Data management status

Date of last data management	29.10.2026

Electrical properties

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

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	≤ 0.6
Switching threshold "1" signal in reference to U_N	≥ 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	≤ 1 V
Output circuit	2-conductor, floating

Protective circuit	Reverse polarity protection; Polarity protection diode

Connection data

Input side

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm² ... 4 mm²
Conductor cross-section flexible	0.2 mm² ... 2.5 mm²
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 mm² ... 4 mm²
Conductor cross-section flexible	0.2 mm² ... 2.5 mm²
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

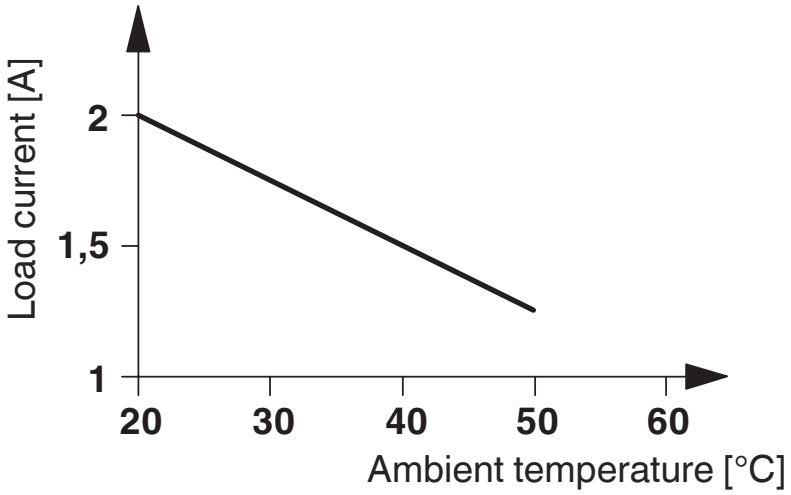
Standards/regulations	IEC 60664
	EN 50178

Mounting

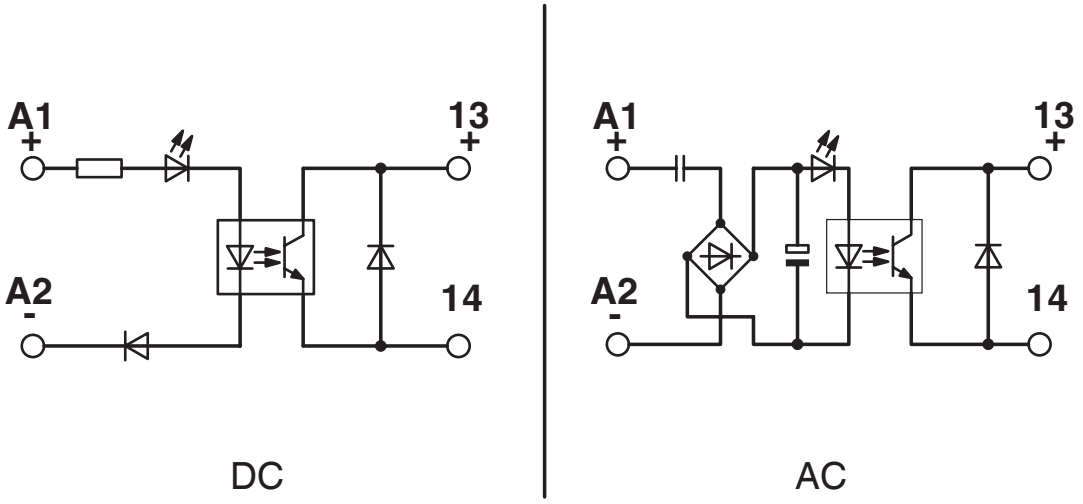
Mounting type	DIN rail mounting
Assembly note	in rows with zero spacing
Mounting position	any

Drawings

Diagram



Circuit diagram



Classifications

ECLASS

ECLASS-13.0	27371604
ECLASS-15.0	27371604

ETIM

ETIM 10.0	EC001504

UNSPSC

UNSPSC 21.0	39122300

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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