

# EMG 17-OV-TTL/ 24DC/2 - Solid-state relay module



2943259

<https://www.phoenixcontact.com/us/products/2943259>

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Power solid-state relay, with LED and protective circuit in input and output circuits, input: TTL 5 V DC, output: short-circuit-proof, 24 V DC/max. 2 A

## Commercial data

Item number	2943259
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	C460
Product key	DK61C1
GTIN	4017918107543
Weight per piece (including packing)	54.4 g
Weight per piece (excluding packing)	54.4 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	TTL signal at input
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)	2.5 kV AC (Input/output)
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### Input data

Nominal input voltage $U_N$	5 V DC (TTL)
Input voltage range in reference to $U_N$	0.8 ... 1.2
Input voltage range	4 V DC ... 6 V DC
Switching threshold "0" signal, voltage	0.8 V (TTL)
Switching threshold "1" signal voltage	2 V (TTL)
Typical input current at $U_N$	2.6 mA
Typical response time	170 $\mu$ s
Typical turn-off time	190 $\mu$ s
Status display	LED (yellow)
Protective circuit	Reverse polarity protection; Polarity protection diode Surge protection; Suppressor diode Free running; Freewheeling diode
Auxiliary voltage TTL input	5 V DC $\pm$ 20 %
Auxiliary current TTL input	2.8 mA
Transmission frequency	1000 Hz

### Output data

Contact switching type	1 N/O contact
Design of digital output	electronic
Output voltage range	10 V DC ... 30 V DC

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Limiting continuous current	2 A (see derating curve)
Leakage current	150 µA
Peak offstate voltage	33 V DC (Collector-emitter reverse voltage)
Current limitation at short-circuits	> 2 A (short-circuit-proof)
Voltage drop at max. limiting continuous current	≤ 0.3 V
Output circuit	3-conductor, ground-referenced
Error indication	Red LED
Protective circuit	Reverse polarity protection; Polarity protection diode Freewheeling diode; Freewheeling diode Surge protection; Suppressor diode

## 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

### 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	17.5 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

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## 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

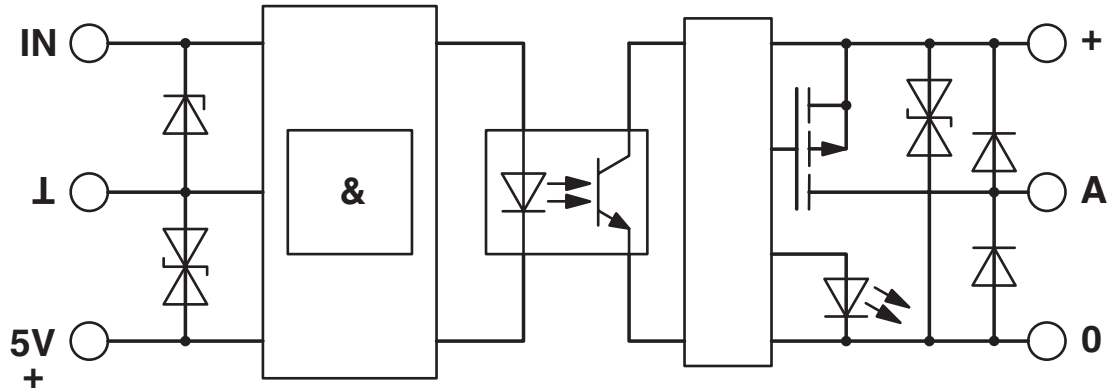
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## Drawings

Circuit diagram



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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	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.)	Lead(CAS: 7439-92-1)
SCIP	29fd27b8-0caa-46f7-bad7-2a5b41b51f4d

### EF3.1 Climate Change

CO2e kg	2.195 kg CO2e
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