

# PLC-OSP- 24DC/ 48DC/500/W - Solid-state relay module



2980649

<https://www.phoenixcontact.com/us/products/2980649>

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PLC electronic changeover contact with spring-cage connection, for mounting on DIN rail NS 35/7,5, input: 24 V DC, output: 3-48 V DC/500 mA

## Your advantages

- Resistant to vibrations and shocks
- Wear-free switching with no contact bounce
- Protective circuit in input and output
- DC voltage outputs of up to 300 V DC/1 A or up to 24 V DC/10 A
- Electronic changeover contact output up to 48 V DC/500 mA
- Status indicator
- Option of bridging adjacent modules

## Commercial data

Item number	2980649
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C461
Product key	DK6223
GTIN	4046356051385
Weight per piece (including packing)	29.75 g
Weight per piece (excluding packing)	28.57 g
Customs tariff number	85364190
Country of origin	DE

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## Technical data

### Product properties

Product type	Solid-state relay module
Product family	PLC-INTERFACE
Application	With integrated solid-state relay
Operating mode	100% operating factor

### Insulation characteristics: Standards/regulations

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

Maximum power dissipation for nominal condition	0.07 W
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### Standards/regulations

Rated insulation voltage	300 V
Rated surge voltage	4 kV

### Input data

Nominal input voltage $U_N$	24 V DC
Input voltage range in reference to $U_N$	0.8 ... 1.2
Input voltage range	19.2 V DC ... 28.8 V DC
Switching threshold "0" signal in reference to $U_N$	$\leq 0.4$
Switching threshold "1" signal in reference to $U_N$	$\geq 0.8$
Typical input current at $U_N$	3 mA
Typical response time	0.03 ms
Typical turn-off time	0.15 ms
Operating voltage display	Yellow LED
Protective circuit	Reverse polarity protection; Polarity protection diode Surge protection
Transmission frequency	1000 Hz

### Output data

Contact switching type	1 changeover contact
Design of digital output	electronic
Output voltage range	3 V DC ... 48 V DC
Limiting continuous current	500 mA (see derating curve)
Min. load current	1 mA
Voltage drop at max. limiting continuous current	< 1.2 V
Output circuit	2-conductor, floating

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Protective circuit	Reverse polarity protection; Polarity protection diode
	Surge protection

## Connection data

### Input side

Connection method	Spring-cage connection
Stripping length	8 mm
Conductor cross-section rigid	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	26 ... 14

### Output side

Connection method	Spring-cage connection
Stripping length	8 mm
Conductor cross-section rigid	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	26 ... 14

## Dimensions

Width	6.2 mm
Height	80 mm
Depth	86 mm

## Material specifications

Color	green (RAL 6021)
Flammability rating according to UL 94 (Housing)	V0 (Housing)

## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

## Standards and regulations

### Standards/regulations

Standards/regulations	IEC 60664
	EN 50178

## Mounting

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

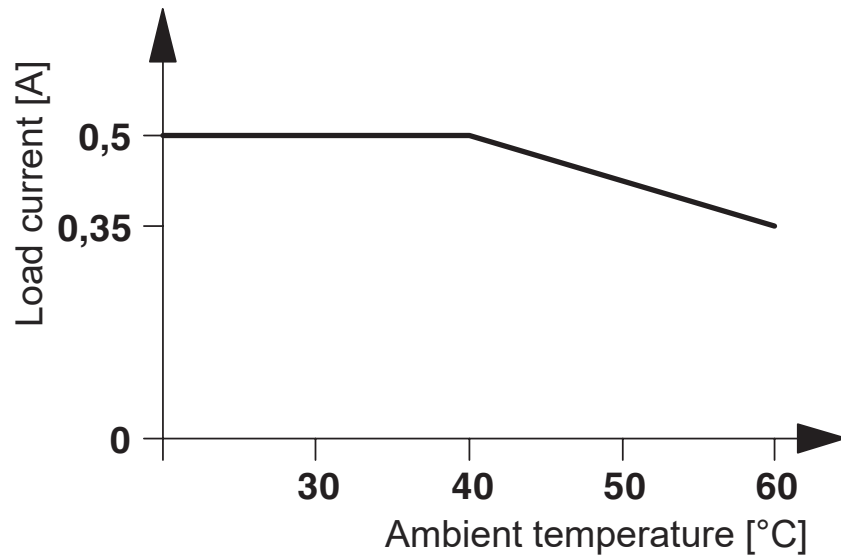
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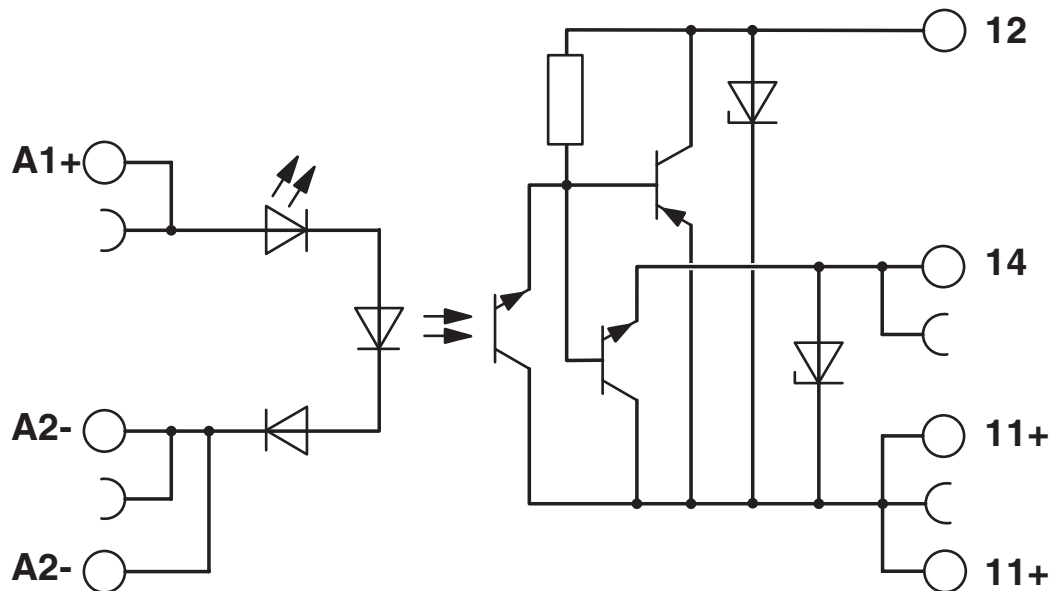
## Drawings

Diagram



The figure shows the derating curve for PLC-...24DC/48DC/500/W

Circuit diagram



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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.
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### EU REACH SVHC

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