

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



2980636

<https://www.phoenixcontact.com/us/products/2980636>

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PLC-INTERFACE with electronic changeover contact, consisting of PLC-BSC.../21 basic terminal block with screw connection and integrated miniature solid-state relay, for mounting on NS 35/7,5 DIN rail, 1 changeover contact, input: 24 V DC, output: 3 V DC ... 48 V DC/500 mA

## Your advantages

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

## Commercial data

Item number	2980636
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C461
Product key	DK6223
GTIN	4046356051378
Weight per piece (including packing)	34.12 g
Weight per piece (excluding packing)	33.47 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
Contact connection type	Power contact
Output voltage range	3 V DC ... 48 V DC
Limiting continuous current	500 mA (see derating curve)
Load current	$\geq 10$ mA (Terminal block 12) $\geq 5$ mA (Terminal block 14)

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Quiescent current	≤ 1.5 mA (Terminal block 12)
	≤ 0.05 mA (Terminal block 14)
Voltage drop at max. limiting continuous current	< 1.2 V
Output circuit	2-conductor, floating
Protective circuit	Reverse polarity protection; Polarity protection diode
	Surge protection

## Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
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>
	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Single ferrule)
	2x 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (TWIN ferrule)
Conductor cross-section AWG	26 ... 14
Tightening torque	0.45 Nm ... 0.55 Nm (Usually these terminal blocks must be supported during conductor connection (held by one hand, supported on the housing))

## Dimensions

### Item dimensions

Width	6.2 mm
Height	80 mm
Depth	94 mm

## Material specifications

Color	gray (RAL 7042)
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

## Approvals

### Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

## Standards and regulations

### Standards/regulations

Standards/regulations	IEC 60664
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	EN 50178
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## Mounting

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

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

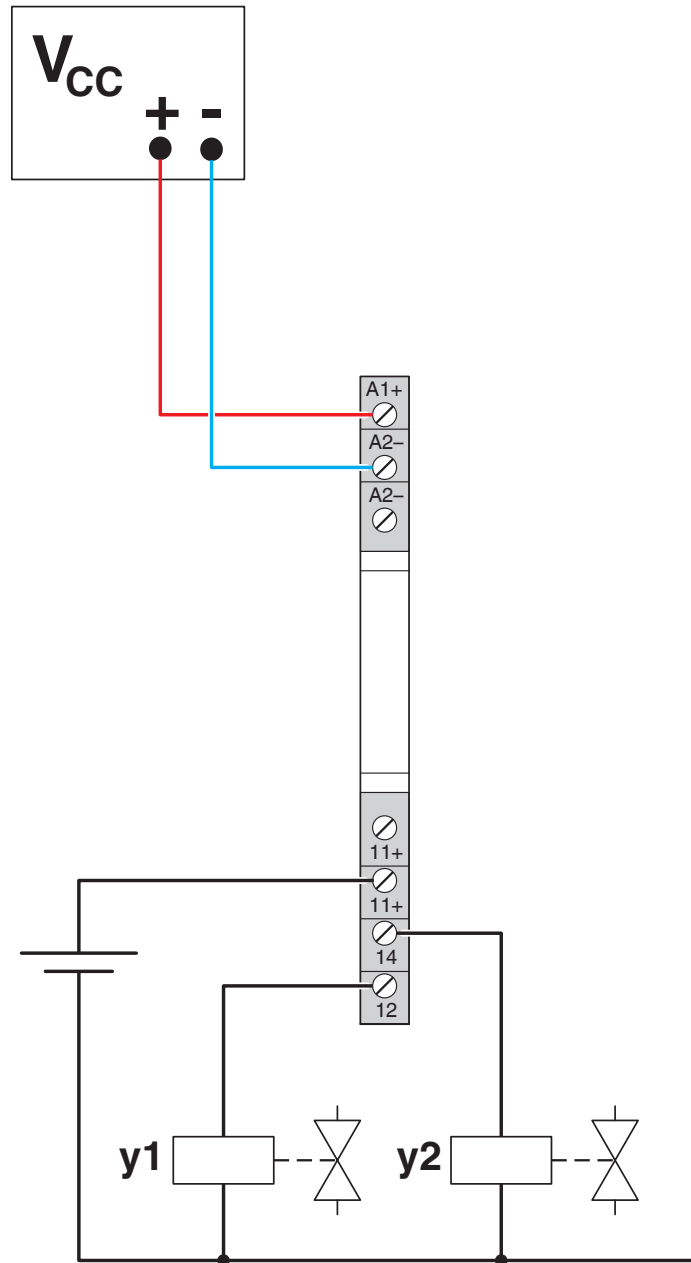


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## Drawings

Application drawing



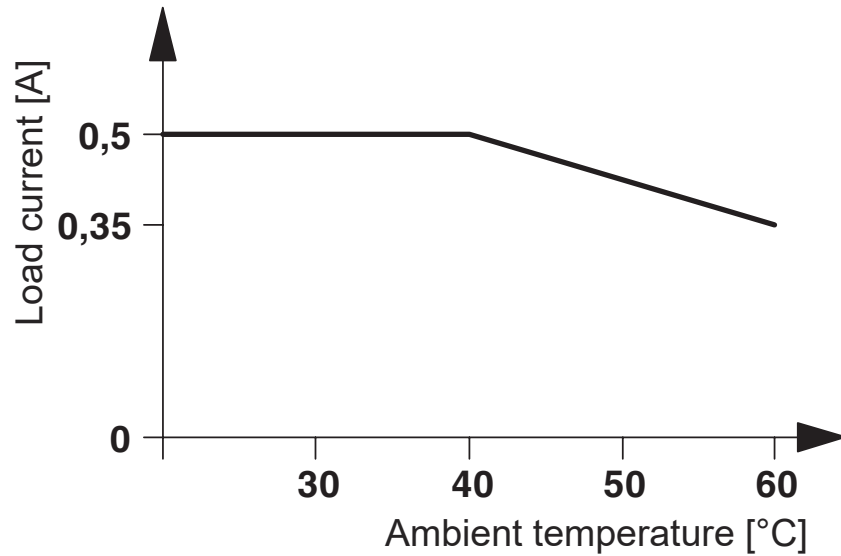
# PLC-OSC- 24DC/ 48DC/500/W - Solid-state relay module



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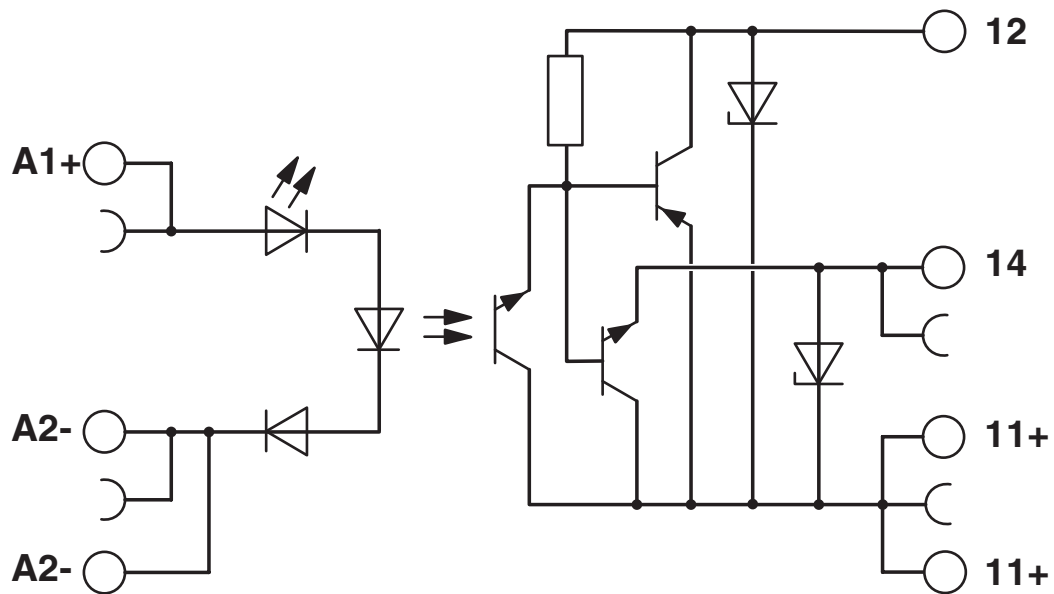
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Diagram



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

Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2980636>



**EAC**

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



**cULus Listed**

Approval ID: E140324



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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	0f09da59-40bc-43cd-b727-561effe90045

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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)