

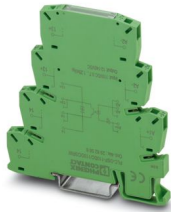
# PLC-OSP-110DC/110DC/ 3RW - Solid-state relay module



2982566

<https://www.phoenixcontact.com/us/products/2982566>

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PLC-INTERFACE for railway applications, consisting of basic terminal block with spring-cage connection and integrated miniature solid-state relay, range:  $0.7 \times U_N$  to  $1.25 \times U_N$ , temperature range:  $-25^\circ\text{C}$  to  $+70^\circ\text{C}$ , 1 N/O contact, input: 110 V DC, output: 12 ... 140 V DC/3 A

The figure shows the 24 V version.

## Your advantages

- Shock resistance in accordance with DIN 50155 (requirements in accordance with EN 61373)
- Temperature range:  $-25^\circ\text{C}$  ...  $+70^\circ\text{C}$
- Input voltage range of  $0.7 - 1.25 \times U_N$

## Commercial data

Item number	2982566
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C461
Product key	DK6223
GTIN	4046356082488
Weight per piece (including packing)	35.6 g
Weight per piece (excluding packing)	33.49 g
Customs tariff number	85364900
Country of origin	DE

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## Technical data

### Product properties

Product type	Solid-state relay module
Product family	PLC-INTERFACE
Application	Railway applications
Operating mode	100% operating factor

Insulation characteristics: Air clearances and creepage distances between the power circuits

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	0.61 W
Test voltage (Input/output)	2.5 kV <sub>rms</sub> (Input/output)

Air clearances and creepage distances between the power circuits

Rated insulation voltage	160 V DC
Rated surge voltage	4 kV

### Input data

Nominal input voltage $U_N$	110 V DC
Input voltage range in reference to $U_N$	0.7 ... 1.25 ( $t < 1$ s = 0.6 ... 1.4 x $U_N$ )
Input voltage range	77 V DC ... 137.5 V DC
Switching threshold "0" signal in reference to $U_N$	< 0.3
Switching threshold "1" signal in reference to $U_N$	> 0.6
Typical input current at $U_N$	5.5 mA
Typical response time	400 $\mu$ s
Typical turn-off time	200 $\mu$ s
Operating voltage display	Yellow LED
Protective circuit	Reverse polarity protection; Series polarity protection diode
	Surge protection
Surge voltage protection	> 150 V
Transmission frequency	300 Hz

### Output data

Contact switching type	1 N/O contact
Design of digital output	electronic
Output nominal voltage	110 V DC
Output voltage range	12 V DC ... 140 V DC ( $t < 1$ s = 1.40 x $U_N$ )
Limiting continuous current	3 A (see derating curve)

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Surge voltage protection	> 150 V
Voltage drop at max. limiting continuous current	< 150 mV
Output circuit	2-conductor, floating
Protective circuit	Reverse polarity protection; Parallel 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)
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## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

## Standards and regulations

### Air clearances and creepage distances between the power circuits

Standards/regulations	IEC 60664 EN 50178
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## Mounting

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

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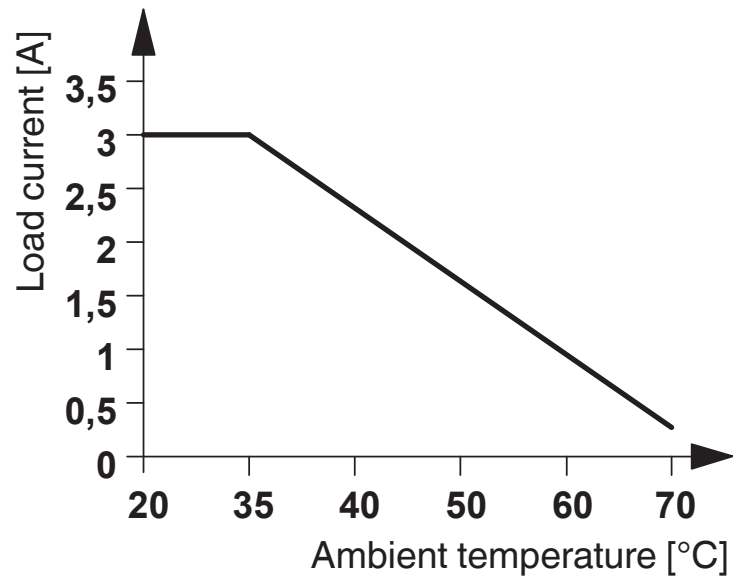


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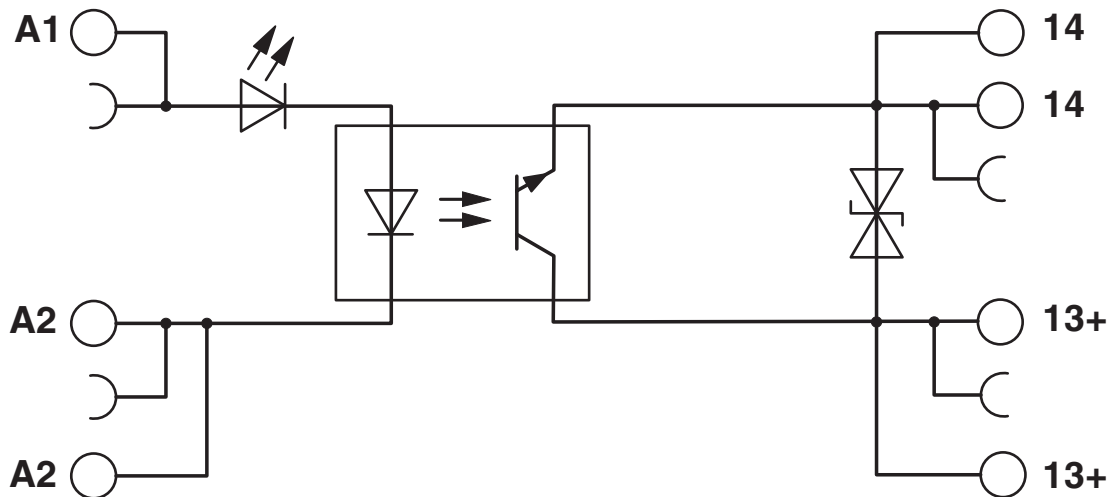
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## Drawings

Diagram



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.

### EU REACH SVHC

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