

# PLC-OSC-125DC/ 24DC/ 2 - Solid-state relay module



2980050

<https://www.phoenixcontact.com/us/products/2980050>

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PLC-INTERFACE, consisting of PLC-BSP.../21 basic terminal block with screw connection and plug-in miniature solid-state relay, for mounting on NS 35/7,5, 1 N/O contact, input: 125 V DC, output: 3 - 33 V DC/3 A

## Your advantages

- Slim design
- Efficient connection to system cabling using V8 adapter
- RT III sealed solid-state relay
- Integrated input circuit
- Functional plug-in bridges
- High switching power
- Zero voltage switch at AC output

## Commercial data

Item number	2980050
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C461
Product key	DK6223
GTIN	4017918619053
Weight per piece (including packing)	38.75 g
Weight per piece (excluding packing)	32 g
Customs tariff number	85364900
Country of origin	DE

## Technical data

### Product properties

Product type	Solid-state relay module
Product family	PLC-INTERFACE
Application	Universal
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	15.09.2025
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### Electrical properties

Maximum power dissipation for nominal condition	0.38 W
Test voltage (Input/output)	2.5 kV (50 Hz, 1 min., input/output)

### Input data

Nominal input voltage $U_N$	125 V DC
Nominal voltage (plugged-in solid-state relay)	60 V DC
Input voltage range in reference to $U_N$	0.8 ... 1.1
Input voltage range	100 V DC ... 137.5 V DC
Switching threshold "0" signal in reference to $U_N$	$\leq 0.3$
Switching threshold "1" signal in reference to $U_N$	$\geq 0.8$
Typical input current at $U_N$	3 mA
Typical response time	40 $\mu$ s (at $U_N$ )
Typical turn-off time	600 $\mu$ s (at $U_N$ )
Operating voltage display	Yellow LED
Protective circuit	Reverse polarity protection; Polarity protection diode
Transmission frequency	100 Hz

### Output data

Contact switching type	1 N/O contact
Design of digital output	electronic
Output voltage range	3 V DC ... 33 V DC
Limiting continuous current	3 A (see derating curve)
Maximum inrush current	15 A (10 ms)
Voltage drop at max. limiting continuous current	$\leq 200$ mV
Output circuit	2-conductor, floating
Protective circuit	Reverse polarity protection; Polarity protection diode
	Surge protection

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## 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	0.6 Nm ... 0.8 Nm

## 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)	-25 °C ... 70 °C

## Approvals

### CE

Certificate	CE-compliant
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### UKCA

Certificate	UKCA-compliant
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### Shipbuilding approval

Certificate	TAE0000196
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### Corrosive gas test

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

Temperature	D
Humidity	A
Vibration	B/C
EMC	B

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Enclosure	Required protection according to the Rules shall be provided upon installation on board
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## EMC data

Electromagnetic compatibility	Conformance with EMC directive
Low Voltage Directive	Conformance with Low Voltage Directive

## Standards and regulations

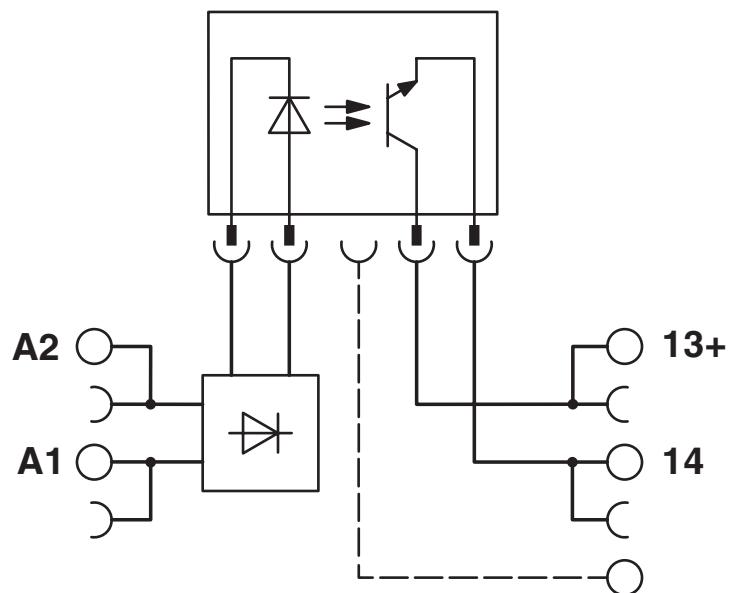
Standards/regulations	
Standards/regulations	IEC 60947-5-1

## Mounting

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

## Drawings

Circuit diagram



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## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2980050>



**EAC**

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



**DNV GL**

Approval ID: TAE0000196



**cULus Listed**

Approval ID: E140324

## Classifications

### ECLASS

ECLASS-13.0	27371604
ECLASS-15.0	27371604

### ETIM

ETIM 9.0	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.)	Hexahydromethylphthalic anhydride(CAS: n/a)
	Lead(CAS: 7439-92-1)
SCIP	15cabe07-c630-4130-b035-c5bcb88185da

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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)