

# PLC-OSC- 24DC/TTL - Solid-state relay module



2982728

<https://www.phoenixcontact.com/us/products/2982728>

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PLC solid-state relay with screw connection, for mounting on DIN rail NS 35/7.5, input: 24 V DC, output: TTL (5 V DC)

## Your advantages

- 6.2 mm narrow design width
- Screw and spring-cage connection
- Resistant to vibrations and shocks
- Status indicator
- Bridging options
- Integrated protection circuit
- Switching power TTL (5 V), fan out = 1

## Commercial data

Item number	2982728
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C461
Product key	CK6223
Catalog page	Page 416 (C-5-2019)
GTIN	4046356170604
Weight per piece (including packing)	34.51 g
Weight per piece (excluding packing)	30 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	TTL signal at output
Operating mode	100% operating factor

### Data management status

Date of last data management	16.09.2024
Article revision	08

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

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

### Electrical properties

Maximum power dissipation for nominal condition	0.08 W
Test voltage (Input/output)	2.5 kV <sub>rms</sub> (50 Hz, 1 min., input/output)

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

Rated insulation voltage	250 V DC
Rated surge voltage	4 kV

### Input data

Rated actuating voltage $U_C$	24 V DC
Voltage range with reference to $U_C$	0.8 ... 1.2
Rated actuating current $I_C$	3.4 mA
Switching threshold "0" signal in reference to $U_N$	< 0.4
Switching threshold "1" signal in reference to $U_N$	> 0.8
Typical input current at $U_N$	3.4 mA
Typical response time	35 $\mu$ s
Typical turn-off time	35 $\mu$ s
Operating voltage display	Yellow LED
Protective circuit	Reverse polarity protection; Parallel polarity protection diode Surge protection
Surge voltage protection	> 33 V
Transmission frequency	1 kHz

### Output data

Designation	Output data
Contact switching type	1 N/O contact
Design of digital output	electronic
Contact connection type	Signal contact

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Rated control circuit supply voltage $U_S$	5 V DC
Voltage range with reference to $U_S$	0.9 ... 1.2
Output voltage range	4.5 V DC ... 6 V DC
Limiting continuous current	50 mA (a TTL load (Fan out = 1))
Fan out	1
Surge voltage protection	> 8 V
Voltage drop at max. limiting continuous current	< 80 mV
Output circuit	3-conductor, ground-referenced
Protective circuit	Reverse polarity protection; Parallel 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

Width	6.2 mm
Height	80 mm
Depth	94 mm

## Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V0 (Housing)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
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
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## Standards and regulations

Air clearances and creepage distances between the power circuits

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

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

# PLC-OSC- 24DC/TTL - Solid-state relay module

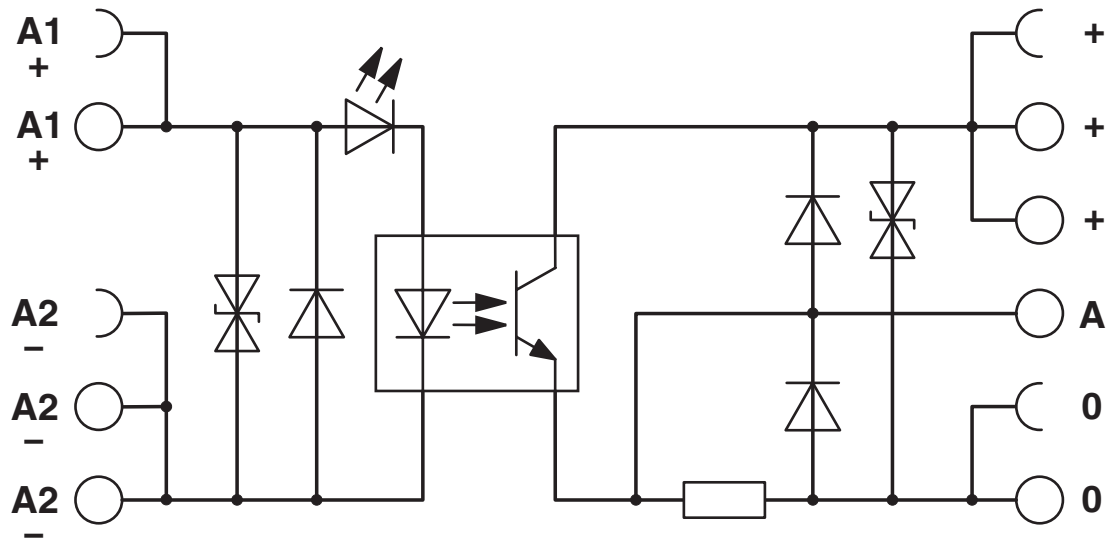


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## Drawings

Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2982728>



**cUL Recognized**  
Approval ID: E238705



**UL Recognized**  
Approval ID: E238705



**EAC**  
Approval ID: TR\_TS\_D\_00573\_c



**UL Listed**  
Approval ID: FILE E 172140



**cUL Listed**  
Approval ID: FILE E 172140



**cULus Listed**  
Approval ID: E140324

**cULus Recognized**

**cULus Listed**

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## Classifications

### ECLASS

ECLASS-11.0	27371604
ECLASS-12.0	27371604
ECLASS-13.0	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.)	Lead(CAS: 7439-92-1)
SCIP	ab4f4702-1e37-43e4-8dde-45a9720c9169

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