

PLC-OPT- 5DC/24DC/100KHZ-G - Solid-state relay module

2902973
<https://www.phoenixcontact.com/us/products/2902973>

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Input solid-state relay, with DC voltage output push-pull, transmission frequency: 100 kHz, with light indicator and protective circuit in input and output circuits, input: 5 V DC, output: 14 - 30 V DC/50 mA

Commercial data

Item number	2902973
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C461
Product key	CK62A3
Catalog page	Page 413 (C-5-2019)
GTIN	4046356702799
Weight per piece (including packing)	34.6 g
Weight per piece (excluding packing)	32.86 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	100 kHz input optocoupler
Operating mode	100% operating factor

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

Insulation	Basic insulation
Overvoltage category	II
Pollution degree	2

Data management status

Date of last data management	16.09.2024
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Electrical properties

Maximum power dissipation for nominal condition	0.04 W
Test voltage (Input/output)	2.5 kV _{rms} (50 Hz, 1 min., input/output)

Air clearances and creepage distances between the power circuits

Rated insulation voltage	50 V DC
Rated surge voltage	0.5 kV

Input data

Nominal input voltage U_N	5 V DC
Input voltage range in reference to U_N	0.5 ... 1.2
Input voltage range	2.5 V DC ... 6 V DC
Switching threshold "0" signal in reference to U_N	< 0.3
Switching threshold "1" signal in reference to U_N	> 0.5
Typical input current at U_N	8 mA
Typical response time	1 μ s
Typical turn-off time	2 μ s
Operating voltage display	Yellow LED
Protective circuit	Reverse polarity protection
	Surge protection
Surge voltage protection	> 14 V
Transmission frequency	100 kHz

Output data

Designation	Output data
Contact switching type	1 N/O contact
Design of digital output	electronic
Output voltage range	14 V DC ... 30 V DC
Limiting continuous current	50 mA

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Quiescent current	15 mA
Surge voltage protection	> 35 V
Voltage drop at max. limiting continuous current	< 2.2 V
Output circuit	3-conductor push-pull, ground referenced
Protective circuit	Reverse polarity protection
	Surge protection

Connection data

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section rigid	0.14 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 2.5 mm ²
	0.2 mm ² ... 2.5 mm ² (Single ferrule)
	2x 0.5 mm ² ... 1 mm ² (TWIN ferrule)
Conductor cross section AWG	26 ... 14

Dimensions

Width	6.2 mm
Height	80 mm
Depth	94 mm

Material specifications

Color	gray (RAL 7042)
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 75 °C

Approvals

Corrosive gas test

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

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
Assembly note	in rows with zero spacing
Mounting position	any

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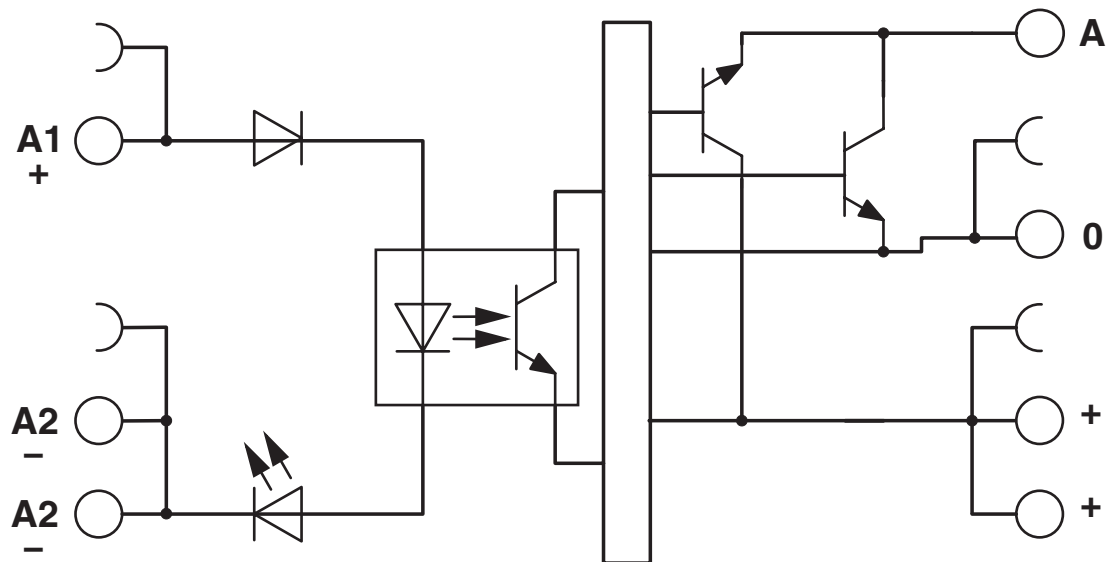


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Drawings

Circuit diagram



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Approvals

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cULus Listed

Approval ID: E140324

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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	ddb61312-c8d8-4c4b-8897-5728f8c984d0

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