

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



2902971

<https://www.phoenixcontact.com/us/products/2902971>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



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: 4 V DC ... 18 V DC/50 mA

## Commercial data

Item number	2902971
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	C461
Product key	DK62A3
GTIN	4046356702775
Weight per piece (including packing)	38.8 g
Weight per piece (excluding packing)	32.86 g
Customs tariff number	85364190
Country of origin	DE

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



2902971

<https://www.phoenixcontact.com/us/products/2902971>

## 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	01.04.2026
------------------------------	------------

### Electrical properties

Maximum power dissipation for nominal condition	0.04 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	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 $\mu$ s
Typical turn-off time	2 $\mu$ 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	4 V DC ... 18 V DC
Limiting continuous current	50 mA

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



2902971

<https://www.phoenixcontact.com/us/products/2902971>

Quiescent current	8.5 mA
Surge voltage protection	> 35 V
Voltage drop at max. limiting continuous current	< 1.2 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 <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 mm <sup>2</sup> (TWIN ferrule)
Conductor cross-section AWG	26 ... 14

## Dimensions

### Item dimensions

Width	6.2 mm
Height	80 mm
Depth	94 mm

## Material specifications

Color	gray (RAL 7042)
-------	-----------------

## 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
-----------------------	---------------

## Mounting

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

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



2902971

<https://www.phoenixcontact.com/us/products/2902971>

Mounting position	any
-------------------	-----

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



2902971

<https://www.phoenixcontact.com/us/products/2902971>

## Drawings

Circuit diagram



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



2902971

<https://www.phoenixcontact.com/us/products/2902971>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2902971>



**cULus Listed**

Approval ID: E140324



**cULus Listed**

Approval ID: E140324

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



2902971

<https://www.phoenixcontact.com/us/products/2902971>

## Classifications

### ECLASS

ECLASS-13.0	27371604
ECLASS-15.0	27371604

### ETIM

ETIM 10.0	EC001504
-----------	----------

### UNSPSC

UNSPSC 21.0	39122300
-------------	----------

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



2902971

<https://www.phoenixcontact.com/us/products/2902971>

## 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	78ec2ae3-a7c7-4f90-b587-da4d43afa331

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

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