

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



2902972

<https://www.phoenixcontact.com/us/products/2902972>

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: 24 V DC, output: 4 - 18 V DC/50 mA

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 2902972 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | C461 |
| Product key | DK62A3 |
| GTIN | 4046356702805 |
| Weight per piece (including packing) | 34.5 g |
| Weight per piece (excluding packing) | 32.86 g |
| Customs tariff number | 85364190 |
| Country of origin | DE |

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



2902972

<https://www.phoenixcontact.com/us/products/2902972>

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 | 0.19 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 | 24 V DC |
| Input voltage range in reference to U_N | 0.8 ... 1.2 |
| Input voltage range | 19.2 V DC ... 28.8 V DC |
| 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 | 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 | > 33 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- 24DC/ 5DC/100KHZ-G - Solid-state relay module



2902972

<https://www.phoenixcontact.com/us/products/2902972>

| | |
|--|--|
| 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 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

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



2902972

<https://www.phoenixcontact.com/us/products/2902972>

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

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



2902972

<https://www.phoenixcontact.com/us/products/2902972>

Drawings

Circuit diagram



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



2902972

<https://www.phoenixcontact.com/us/products/2902972>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2902972>



cULus Listed

Approval ID: E140324



cULus Listed

Approval ID: E140324

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



2902972

<https://www.phoenixcontact.com/us/products/2902972>

Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27371604 |
| ECLASS-15.0 | 27371604 |

ETIM

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

UNSPSC

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

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



2902972

<https://www.phoenixcontact.com/us/products/2902972>

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 | db8cfc65-9be4-4f01-b771-56188a871356 |

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