# imall

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# Solid-state relay module - PLC-OPT- 5DC/ 24DC/100KHZ - 2902969

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Input solid-state relay, transmission frequency: 100 kHz, with LED and protective circuit in input and output circuits, input: 5 V DC, output: 4 - 30 V DC/50 mA

The figure shows a version with a screw connection



### Key commercial data

| Packing unit                         | 1 pc     |
|--------------------------------------|----------|
| Weight per Piece (excluding packing) | 40.0 GRM |
| Custom tariff number                 | 85364190 |
| Country of origin                    | Germany  |

### Technical data

#### Note

| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |
|-------------------------|---|
|-------------------------|---|

#### Dimensions

| Width  | 6.2 mm |
|--------|--------|
| Height | 80 mm  |
| Depth  | 86 mm  |

#### Ambient conditions

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

#### Input data

| Nominal input voltage $U_N$               | 5 V DC  |
|---|---------|
| Input voltage range in reference to $U_N$ | 0.8 1.2 |



# Solid-state relay module - PLC-OPT- 5DC/ 24DC/100KHZ - 2902969

# Technical data

#### Input data

| 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 $U_N$                         | 7 mA                                 |
| Typical response time                                  | 1.5 µs                               |
| Typical turn-off time                                  | 2 µs                                 |
| Operating voltage display                              | LED yellow                           |
| Type of protection                                     | Protection against polarity reversal |
|  | Surge protection                     |
| Surge voltage protection                               | > 14 V                               |
| Transmission frequency                                 | 100 kHz                              |

#### Output data

| Designation                                      | Output data                          |
|--|--------------------------------------|
| Output voltage range                             | 4 V DC 30 V DC                       |
| Limiting continuous current                      | 50 mA                                |
| Quiescent current                                | 4.3 mA                               |
| Surge voltage protection                         | > 35 V                               |
| Voltage drop at max. limiting continuous current | < 0.5 V                              |
| Output circuit                                   | 3-conductor, ground-referenced       |
| Type of protection                               | Protection against polarity reversal |
|  | Surge protection                     |

#### Connection data

| Connection method                      | Push-in connection   |
|--|----------------------|
| Stripping length                       | 8 mm                 |
| Conductor cross section solid min.     | 0.14 mm <sup>2</sup> |
| Conductor cross section solid max.     | 2.5 mm <sup>2</sup>  |
| Conductor cross section stranded min.  | 0.2 mm <sup>2</sup>  |
| Conductor cross section stranded max.  | 0.14 mm <sup>2</sup> |
| Conductor cross section AWG/kcmil min. | 26                   |
| Conductor cross section AWG/kcmil max  | 14                   |

General

| Test voltage input/output | 2.5 kV <sub>rms</sub> (50 Hz, 1 min.)                 |
|---------------------------|---|
| Mounting position         | any   |
| Assembly instructions     | In rows with zero spacing                             |
| Operating mode            | 100% operating factor                                 |
| Designation               | Air and creepage distances between the power circuits |
| Standards/regulations     | DIN EN 50178  |



# Solid-state relay module - PLC-OPT- 5DC/ 24DC/100KHZ - 2902969

# Technical data

#### General

| Rated surge voltage / insulation | 0.5 kV / basic insulation |
|----------------------------------|---------------------------|
| Rated insulation voltage         | 50 V DC                   |
| Pollution degree                 | 2                         |
| Surge voltage category           | П                         |

## Classifications

# eCl@ss

| eCl@ss 4.0 | 27371102 |
|------------|----------|
| eCl@ss 4.1 | 27371102 |
| eCl@ss 5.0 | 27371001 |
| eCl@ss 5.1 | 27371001 |
| eCl@ss 6.0 | 27371001 |
| eCl@ss 7.0 | 27371001 |
| eCl@ss 8.0 | 27371001 |

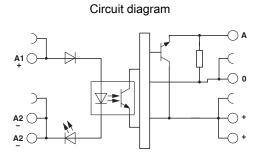
### ETIM

| ETIM 3.0 | EC001504 |
|----------|----------|
| ETIM 4.0 | EC000196 |
| ETIM 5.0 | EC000196 |

### UNSPSC

| UNSPSC 6.01   | 30211916 |
|---------------|----------|
| UNSPSC 7.0901 | 39121542 |
| UNSPSC 11     | 39121542 |
| UNSPSC 12.01  | 39121542 |
| UNSPSC 13.2   | 39121542 |

# Drawings



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