

2903171

https://www.phoenixcontact.com/us/products/2903171

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1-channel pulse expansion module, input: 24 V DC, output: 3 - 48 V DC/100 mA, supply: 24 V DC, screw connection

# Product description

# DIP switch settings:

#### **Function**

DIP A low - no restart when triggered again (default)

DIP A high - restart when triggered again

DIP B low - input pulse time > 2 ms (default)

DIP B high - input pulse time > 100  $\mu s$ 

#### Pulse expansion times

DIP 1 - 10 ms

DIP 2 - 20 ms

DIP 3 - 40 ms

DIP 4 - 80 ms

DIP 5 - 160 ms

DIP 6 - 320 ms

DIP 7 - 640 ms

DIP 8 - 1280 ms

No DIP switch set: no switching function for the output

If the input signal is longer than the selected time, the output is switched off after removal of the input signal.

The settings are applied after a voltage reset of the rated control supply voltage.

#### Commercial data

| Item number                          | 2903171             |
|--------------------------------------|---------------------|
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Sales key                            | C461                |
| Product key                          | CK6215              |
| Catalog page                         | Page 424 (C-5-2019) |
| GTIN                                 | 4046356727853       |
| Weight per piece (including packing) | 40.8 g              |
| Weight per piece (excluding packing) | 34.16 g             |
| Customs tariff number                | 85371098            |
| Country of origin                    | DE                  |



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# Technical data

#### Product properties

| Product type               | Solid-state relay module |
|----------------------------|--------------------------|
| Product family             | PLC-INTERFACE            |
| Application                | Pulse stretching         |
| Operating mode             | 100% operating factor    |
| Insulation characteristics |                          |
| Insulation                 | Basic insulation         |

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

| Insulation           | Basic insulation |
|----------------------|------------------|
| Overvoltage category | II               |
| Pollution degree     | 2                |

## Electrical properties

| Maximum power dissipation for nominal condition  | 0.07 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                           | 5   |
| Air clearances and creepage distances between the power circuits  Rated insulation voltage | 50 V DC   |

## Input data

| 041/100                         |
|---------------------------------|
| 24 V DC                         |
| 0.8 1.2                         |
| 13 mA (Input low, output low)   |
| 19 mA (Input high, output high) |
| 24 V DC                         |
| 3 mA                            |
| 19.2 V DC 28.8 V DC             |
| < 0.4                           |
| > 0.8                           |
| Yellow LED                      |
| Green LED                       |
| Reverse polarity protection     |
| Surge protection                |
| > 33 V DC                       |
|                                 |

## Output data

| Contact switching type      | 1 N/O contact  |
|-----------------------------|----------------|
| Design of digital output    | electronic     |
| Output voltage range        | 3 V DC 48 V DC |
| Limiting continuous current | 100 mA         |



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| Surge voltage protection                         | > 54 V DC                      |
|--|--------------------------------|
| Voltage drop at max. limiting continuous current | < 1 V DC                       |
| Output circuit                                   | 3-conductor, ground-referenced |
| Protective circuit                               | Reverse polarity protection    |
|  | Surge protection               |
|  | Free running                   |

#### Connection data

| Connection method                | Screw connection   |
|----------------------------------|--|
| Stripping length                 | 8 mm   |
| Screw thread                     | M3   |
| Conductor cross section rigid    | 0.14 mm² 2.5 mm²   |
| Conductor cross section flexible | 0.14 mm² 2.5 mm²   |
|                                  | 0.2 mm² 2.5 mm² (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  | 95 mm  |

## Material specifications

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

# Environmental and real-life conditions

#### Ambient conditions

| Degree of protection                    | IP20         |
|---|--------------|
| Ambient temperature (operation)         | -25 °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



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| Mounting type         | DIN rail mounting         |
|-----------------------|---------------------------|
| Assembly instructions | in rows with zero spacing |
| Mounting position     | any                       |



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# Classifications

UNSPSC 21.0

#### **ECLASS**

| ECLASS-11.0 | 27371604 |
|-------------|----------|
| ECLASS-12.0 | 27371604 |
| ECLASS-13.0 | 27371604 |
| ETIM        |          |
| ETIM 9.0    | EC001504 |
| UNSPSC      |          |

39122300



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# Environmental product compliance

| REACh SVHC | Lead 7439-92-1   |
|------------|--|
|            |  |
| China RoHS | Environmentally Friendly Use Period = 50 years   |
|            | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

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