

PSR-M-E2-DO16-PI - Extension module



1105136

<https://www.phoenixcontact.com/us/products/1105136>

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Extension module with 16 signal outputs, TBUS interface, plug-in Push-in terminal block, TBUS connector included

Product description

The configurable and individually scalable PSRmodular safety system is a flexible safety solution for monitoring your machine or system. The extension module provides the system with additional signal outputs.

Your advantages

- Cost-effective safety solution with a high level of adaptability to individual requirements
- Fast startup, thanks to easy hardware and software configuration
- Machine downtimes minimized with comprehensive, easy-to-understand diagnostics
- Tool-free and time-saving installation thanks to Push-in technology
- Narrow housing width of just 22.6 mm

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1105136 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | DN02 |
| Product key | DNA364 |
| GTIN | 4055626975900 |
| Weight per piece (including packing) | 175.4 g |
| Weight per piece (excluding packing) | 175.4 g |
| Customs tariff number | 85371098 |
| Country of origin | IT |

Technical data

Notes

| | |
|---------------------|-------------------------|
| Note on application | Only for industrial use |
|---------------------|-------------------------|

Product properties

| | |
|--------------|------------------|
| Product type | Coupling relay |
| Application | Extension module |

Data management status

| | |
|------------------|----|
| Article revision | 00 |
|------------------|----|

Insulation characteristics

| | |
|------------------|----------------|
| Protection class | III (EN 50178) |
|------------------|----------------|

Times

| | |
|---------------|-----------------------|
| Response time | see user manual |
| Restart time | min. 5 s (Boot time) |
| | max. 10 s (Boot time) |

Electrical properties

| | |
|---|---|
| Maximum power dissipation for nominal condition | 3.5 W (with max. permissible load) |
| Nominal operating mode | 100% operating factor |
| Interfaces | DIN rail TBUS for connection to the master module, supplied as standard |

Air clearances and creepage distances between the power circuits

| | |
|--------------------------------|---|
| Rated insulation voltage | 250 V AC |
| Rated surge voltage/insulation | Basic insulation 4 kV between all current paths and housing |

Supply

| | |
|--|--|
| Designation | A1/A2 |
| Rated control circuit supply voltage U_S | 19.2 V DC ... 28.8 V DC |
| Rated control circuit supply voltage U_S | 24 V DC -20 % / +20 % (provide external protection, typically 5 A) |
| Rated control supply current I_S | typ. 30 mA |
| Power consumption at U_S | typ. 0.72 W |
| Inrush current | 2 A ($\Delta t = 1$ ms at U_S) |
| Filter time | typ. 5 ms (at A1 in the event of voltage dips at U_S) |
| Protective circuit | Serial protection against polarity reversal |
| | Suppressor diode |

Supply

| | |
|--|--|
| Designation | 24V/A2 |
| Rated control circuit supply voltage U_S | 24 V DC -20 % / +20 % (provide external protection, typically 5 A) |
| Rated control supply current I_S | typ. 20 mA (Outputs active, without load) |

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| | |
|--------------------|---|
| Inrush current | 10 A (at both terminal points 5 and 6, $\Delta t = 1 \text{ ms}$ at U_s) |
| Filter time | typ. 1 ms (in the event of voltage dips) |
| Protective circuit | Suppressor diode |

Output data

Signal: MO1 ... MO16

| | |
|----------------------------------|---|
| Output description | PNP, IEC 61131-2 Typ 0,1 |
| | non-safety-related |
| | Reference ground A2 |
| Number of outputs | 16 |
| Output voltage when switched off | max. 0.1 V |
| Voltage | 24 V DC (via 24 V) |
| Maximum inrush current | 1.1 A ($\Delta t = 3 \text{ s}$ at U_s) |
| Limiting continuous current | 100 mA (per channel) |
| | 1.6 A (Total current of all digital signal outputs) |
| Leakage current | max. 100 μA |
| Switching frequency | max. $1/4 \times t_{\text{Cycle}}$ [Hz] |
| Protective circuit | Suppressor diode |
| Short-circuit protection | Yes (self-limitation at 1.1 A) |
| Cable length | max. 100 m (per output) |

Connection data

Connection technology

| | |
|-----------|-----|
| pluggable | yes |
|-----------|-----|

Conductor connection

| | |
|----------------------------------|---|
| Connection method | Push-in connection |
| Conductor cross section rigid | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section AWG | 24 ... 14 |
| Stripping length | 10 mm |

Signaling

| | |
|---------------------------|-----------------------------------|
| Status display | 1 x LED (green), 2 x LED (orange) |
| | 16 x LED (yellow) |
| Operating voltage display | 1 x green LED |
| Error indication | 2 x LED (red) |

Dimensions

| | |
|--------|-----------|
| Width | 22.61 mm |
| Height | 107.74 mm |
| Depth | 113.6 mm |

Material specifications

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| | |
|------------------|-----------------------------|
| Color (Housing) | yellow (RAL 1018) |
| Housing material | Polyamide PA non-reinforced |

Environmental and real-life conditions

Ambient conditions

| | |
|--|--|
| Degree of protection | IP20 |
| Min. degree of protection of inst. location | IP54 |
| Ambient temperature (operation) | -10 °C ... 55 °C (observe derating) |
| Ambient temperature (storage/transport) | -20 °C ... 85 °C |
| Maximum altitude | ≤ 2000 m (Above sea level) |
| Max. permissible humidity (storage/transport) | 95 % (non-condensing) |
| Max. permissible relative humidity (operation) | 95 % (non-condensing) |
| Shock | 10g for $\Delta t = 16$ ms (continuous shock, 1000 shocks in each space direction) |
| Vibration (operation) | 10 Hz ... 150 Hz, 2g |

Standards and regulations

Air clearances and creepage distances between the power circuits

| | |
|-----------------------|----------|
| Standards/regulations | EN 50178 |
|-----------------------|----------|

Mounting

| | |
|-------------------|------------------------|
| Mounting type | DIN rail mounting |
| Assembly note | Observe derating |
| Mounting position | vertical or horizontal |

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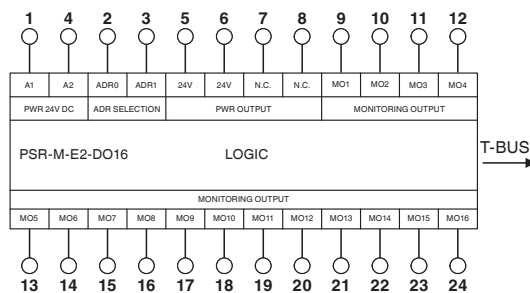


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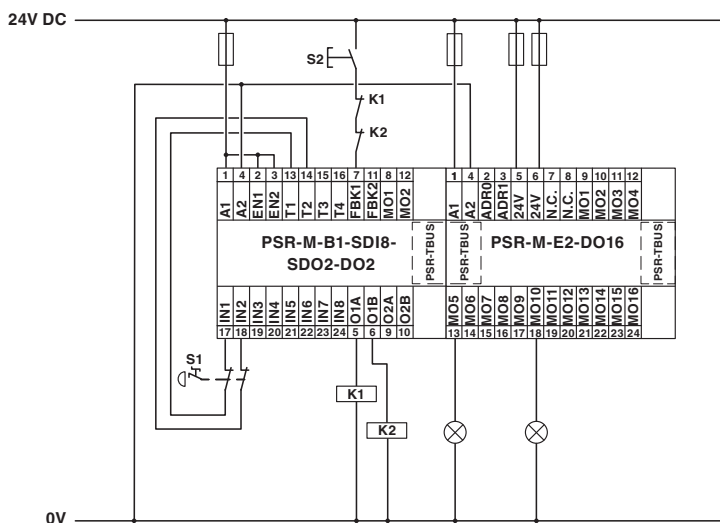
Drawings

Block diagram



Block diagram

Application drawing



Example application

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Approvals

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UL Listed

Approval ID: FILE E 238705



cUL Listed

Approval ID: FILE E 238705



EAC

Approval ID: RU*-DE*B.00606/20



Functional Safety

Approval ID: Z10 029429 0013

cULus Listed

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27371819 |
| ECLASS-13.0 | 27371819 |
| ECLASS-12.0 | 27371819 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC001449 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39122200 |
|-------------|----------|

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Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

China RoHS

| | |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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Accessories

CP-MSTB - Coding profile

1734634

<https://www.phoenixcontact.com/us/products/1734634>

Coding profile, is inserted into the slot on the plug or inverted header, red insulating material



CR-MSTB - Coding section

1734401

<https://www.phoenixcontact.com/us/products/1734401>

Coding section, inserted into the recess in the header or the inverted plug, red insulating material



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CRIMPFOX 6 - Crimping pliers

1212034

<https://www.phoenixcontact.com/us/products/1212034>



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

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