

Safety module - IB IL 24 PSDOR 4-PAC - 2985864

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Safety-oriented decentral relay output module, IP20 degree of protection, for the INTERBUS-Safety and the PROFIsafe system. This module has four safe digital relay outputs, each having two contacts.

Product description

The safety module is an output module from the Inline product range, designed for use in an INTERBUS-Safety or PROFIsafe system. The safety module can be used as part of an Inline station at any point within an INTERBUS-Safety or PROFIsafe Inline system. The transmission speed of the safety module can be set to 500 kbaud or 2 Mbaud using a switch. Only one transmission speed must be used uniformly within a station. The module has four safe digital relay outputs, each with two relay contacts. The outputs can be parameterized according to the application and enable the integration of actuators in the safe INTERBUS system (INTERBUS-Safety) and in the PROFIsafe system.

The safety-related segment circuit can be switched on or off using suitable wiring.

When the output is switched off, the supply to the subsequent modules is disconnected safely.

The module also has two clock outputs with assigned alarm inputs for monitoring external contact extensions.


Depending on the installation and parameterization, in these systems the safety module can achieve the following safety integrity:

- Up to category 4 according to standard EN 954-1
- Up to SIL 3 according to standards EN 61508 and EN 62061
- Up to PL e according to standard EN ISO 13849-1

Why buy this product

- SIL 3 according to IEC 61508/EN 61508
- SIL CL 3 according to IEC 62061/DIN EN 62061
- PL e according to EN ISO 13849-1

Key commercial data

| | |
|------------------------|---|
| Packing unit | 0 |
| Minimum order quantity | 1 |
| Catalog page | Page 45 (AX-2011) |
| GTIN |  4 046356 131599 |
| Custom tariff number | 85389091 |
| Country of origin | GERMANY |

Technical data

Interface

| | |
|--------------------|------------------------------------|
| Fieldbus system | INTERBUS |
| Name | Local bus |
| Connection method | Inline data jumper |
| Transmission speed | 500 kbaud/2 Mbaud, can be selected |
| Transmission speed | 500 kBit/ / 2 MBit/s |

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Technical data

Digital outputs

| | |
|------------------------------------|--|
| Output name | Relay output |
| Connection method | Spring-cage connection |
| Connection method | 2, 3, 4-wire |
| Number of outputs | 4 (Safety relays) |
| Output voltage | 24 V DC (US - 1 V) |
| Nominal output voltage | 24 V DC (Inline connector) |
| Output current | max. 4 A (Inline connector, pro contact, observe derating) |
| Output current | max. 6 A (COMBICON connector, pro contact, observe derating) |
| Maximum output current per channel | 4 A |

Power supply for module electronics

| | |
|-------------------------|----------------------------------|
| Supply voltage | 24 V DC (via voltage jumper) |
| Supply voltage range | 19.2 V DC ... 30 V DC |
| Communications power UL | 7.5 V (via voltage jumper) |
| Current consumption | max. 360 mA (from the local bus) |

General data

| | |
|--|---|
| Width | 73.2 mm |
| Height | 119.8 mm |
| Depth | 71.5 mm |
| Note on dimensions | Housing dimensions |
| Weight | 310 g |
| Note on weight specifications | with male connectors |
| Mounting type | DIN rail |
| Ambient temperature (operation) | -25 °C ... 55 °C |
| Ambient temperature (storage/transport) | -25 °C ... 70 °C |
| Permissible humidity (operation) | 10 % ... 85 % (Take suitable measures against increased air humidity within the permitted temperature range.) |
| Permissible humidity (storage/transport) | 10 % ... 85 % (Take suitable measures against increased air humidity within the permitted temperature range.) |
| Air pressure (operation) | 80 kPa ... 108 kPa (up to 2000 m above sea level) |
| Air pressure (storage/transport) | 66 kPa ... 108 kPa (up to 3500 m above mean sea level) |
| Degree of protection | IP20 |
| Protection class | I, IEC 61140, EN 61140, VDE 0140-1 |
| Test section | 5 V supply, incoming remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min |
| Test section | 5 V supply, outgoing remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min |
| Test section | 7.5 V supply (bus logics)/24 V supply (I/O) 500 V AC 50 Hz 1 min |
| Test section | 24 V supply (UM, US), GND, clock outputs/7.5 V supply (bus logic), relay outputs 500 V AC 50 Hz 1 min |
| Test section | COMBICON X3 relay outputs/COMBICON X4 relay outputs, Inline connector relay outputs, 7.5 V supply (bus logic), 24 V supply (UM, US), GND, clock outputs, FE 2500 V AC 50 Hz 1 min |
| Test section | COMBICON X4 relay outputs/COMBICON X3 relay outputs, Inline connector relay outputs, 7.5 V supply (bus logic), 24 V supply (UM, US), GND, clock outputs, 2500 V AC 50 Hz 1 min |

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Technical data

Inline potential routing

| | |
|-----------------------------|--|
| Communications power UL | 7.5 V DC (see safety data) |
| Current consumption from UL | max. 360 mA |
| Main circuit supply UM | 24 V DC |
| Supply voltage range UM | 19.2 V DC ... 30 V DC (including all tolerances, including ripple) |
| Current consumption from UM | Typ. 30 mA (all outputs set including actuator current) |
| Current consumption from UM | max. 0.03 A |
| Segment supply voltage US | 24 V |

Classifications

eclass

| | |
|------------|----------|
| eCl@ss 4.0 | 27240404 |
| eCl@ss 4.1 | 27240404 |
| eCl@ss 5.0 | 27242204 |
| eCl@ss 5.1 | 27242604 |
| eCl@ss 6.0 | 27242604 |
| eCl@ss 7.0 | 27242604 |

etim

| | |
|----------|----------|
| ETIM 3.0 | EC001599 |
| ETIM 4.0 | EC001599 |
| ETIM 5.0 | EC001599 |

unspsc

| | |
|---------------|----------|
| UNSPSC 6.01 | 43172015 |
| UNSPSC 7.0901 | 43201404 |
| UNSPSC 11 | 43172015 |
| UNSPSC 12.01 | 43201404 |
| UNSPSC 13.2 | 43201404 |

Approvals

Approvals

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UL Listed / cUL Listed / PROFIBUS / PROFIBUS / UL Listed / cUL Listed / cUL Listed

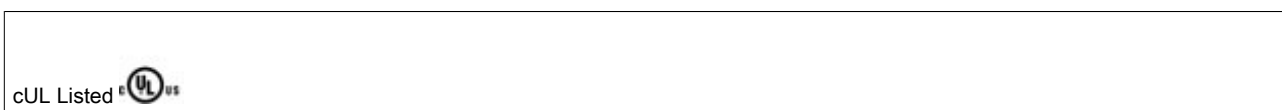
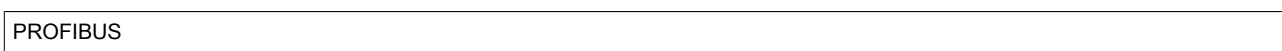
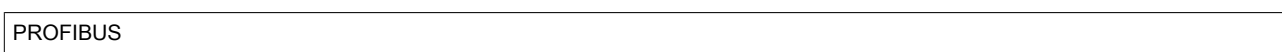
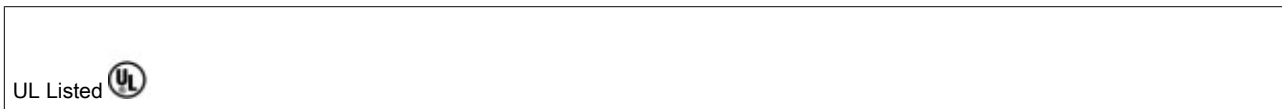
Ex Approvals

Approvals submitted

Safety module - IB IL 24 PSDOR 4-PAC - 2985864

Approvals

Approval details



Accessories

Accessories

Marking

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



Labeling field - IB IL FIELD 8 - 2727515

Labeling field, width: 48.8 mm



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Accessories

Insert strip - ESL 62X10 - 0809492

Insert strip, Sheet, white, Unlabeled, Can be labeled with: Office-Drucksysteme, Plotter: Laser printer, Mounting type: Insert, Lettering field: 62 x 10 mm



Insert strip - ESL 62X46 - 0809502

Insert strip, Sheet, white, Unlabeled, Can be labeled with: Office-Drucksysteme, Plotter: Laser printer, Mounting type: Insert, Lettering field: 62 x 46 mm



Plug/Adapter

Connector set - IB IL 24 SDOR 4-PLSET/CP - 2916914

Connector set (yellow), color coded, for safe SDOR boards.



User manual - UM DE IB IL 24 PSDOR 4-PAC - 2910716

User manual, german



User manual - UM EN IB IL 24 PSDOR 4-PAC - 2910729

User manual, English



Safety module - IB IL 24 PSDOR 4-PAC - 2985864

Accessories

User manual - UM QS EN IB IL 24 PSDX - S7 - 2910648



User manual, English

User manual - UM QS DE IB IL 24 PSDX - S7 - 2910651



User manual, german