

Safety module - IB IL 24 PSDO 8-PAC - 2985631

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Safety-oriented digital output module, IP20 degree of protection, for the INTERBUS-Safety and the PROFIsafe system. The module has four safe digital outputs with two-channel occupancy or eight safe digital outputs with single-channel occupancy

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 outputs for two-channel assignment or eight safe digital outputs for single-channel assignment. 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. 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

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

Key commercial data

Packing unit	0
Minimum order quantity	1
Catalog page	Page 45 (AX-2011)
GTIN	 4 046356 131605
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

Digital outputs

Output name	Digital outputs
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Technical data

Digital outputs

Connection method	Spring-cage connection
Connection method	2, 3, 4-wire
Number of outputs	4 (with two-channel assignment)
Number of outputs	8
Protective circuit	Overload protection, short-circuit protection of outputs
Output voltage	24 V DC (US - 1 V)
Nominal output voltage	24 V DC
Output current	max. 6 A (Total current of all outputs, -25 °C ... 50 °C)
Output current	max. 4 A (Total current of all outputs, >50 °C ... 55 °C)
Maximum output current per channel	2 A
Maximum output current per module	3 A (See technical data)
Maximum output current per group	3 A
Nominal load, inductive	(see safety data)
Nominal load, lamp	(see safety data)
Nominal load, ohmic	(see safety data)

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. 230 mA (from the local bus)

General data

Width	48.8 mm
Height	119.8 mm
Depth	71.5 mm
Note on dimensions	Housing dimensions
Weight	200 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	III, 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

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Technical data

General data

Test section	24 V supply (I/O) / functional earth ground 500 V AC 50 Hz 1 min
Diagnostics messages	Short-circuit / overload of the digital outputs Error message in diagnostics code (bus) and display by means of the LED on the motor

Inline potential routing

Communications power UL	7.5 V DC (see safety data)
Current consumption from UL	max. 230 mA (see safety data)
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. 6.03 A
Segment supply voltage US	24 V

Classifications

eClass

eCl@ss 4.0	27250308
eCl@ss 4.1	27250308
eCl@ss 5.0	27250308
eCl@ss 5.1	27242904
eCl@ss 6.0	27242604
eCl@ss 7.0	27242604

ETIM

ETIM 2.0	EC001433
ETIM 3.0	EC001617
ETIM 4.0	EC001599

UNSPSC

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

Approvals

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UL Recognized / cUL Recognized / PROFIBUS / UL Recognized / cUL Recognized / PROFIBUS / cULus Recognized

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Approvals

Ex Approvals

Approvals submitted

Approval details

UL Recognized 

cUL Recognized 

PROFIBUS

UL Recognized 

cUL Recognized 

PROFIBUS

cULus Recognized 

Accessories

Accessories

Marking

Labeling field - IB IL FIELD 2 - 2727501

Labeling field, width: 12.2 mm



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Accessories

Labeling field - IB IL FIELD 8 - 2727515

Labeling field, width: 48.8 mm



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 SDO 8-PLSET/CP - 2916927



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

User manual - UM DE IB IL 24 SDO 8-PAC - 2888835



User Manual, German, for INTERBUS Safety output modules

Safety module - IB IL 24 PSDO 8-PAC - 2985631

Accessories

User manual - UM EN IB IL 24 SDO 8-PAC - 2888864



User Manual, English for PLCopen-certified INTERBUS Safety function blocks

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

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