

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

Product Features

- 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

package_quantity	1
GTIN	4046356131605

Technical data

Note:

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

Width	48.8 mm
Height	119.8 mm
Depth	71.5 mm
Note on dimensions	Housing dimensions

Ambient conditions

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.)

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Ambient conditions

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

Interfaces

Fieldbus system	INTERBUS
Name	Inline local bus
Connection method	Inline data jumper
Transmission speed	500 kBit/ / 2 MBit/s

Digital outputs

Output name	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 ($U_s - 1$ 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 U_L	7.5 V (via voltage jumper)
Current consumption	max. 230 mA (from the local bus)

General

Weight	200 g
Note on weight specifications	with male connectors
Mounting type	DIN rail
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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General

Test section	24 V supply (I/O) / functional earth ground 500 V AC 50 Hz 1 min
Category according to EN 13849-1	4
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 potentials

Communications power U_L	7.5 V DC (see safety data)
Current consumption from U_L	max. 230 mA (see safety data)
Main circuit supply U_M	24 V DC
Supply voltage range U_M	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current consumption from U_M	typ. 30 mA (all outputs set including actuator current)
Current consumption from U_M	max. 6.03 A

classifications

eCl@ss

eCl@ss 4.0	27240409
eCl@ss 4.1	27240409
eCl@ss 5.0	[NO ASSET AVAILABLE: TXB,7175196,P]
eCl@ss 5.1	27242904
eCl@ss 6.0	27242604
eCl@ss 7.0	27242604
eCl@ss 8.0	27242604

ETIM

ETIM 2.0	EC001433
ETIM 3.0	EC001617
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

Functional Safety / Functional Safety / UL Listed / cUL Listed / cULus Listed /

Approval details

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

approvals

Functional Safety

UL Listed

cUL Listed

cULus Listed

accessories

Connector set

IB IL 24 SDO 8-PLSET/CP - 2916927



Documentation

UM DE IB IL 24 SDO 8-PAC - 2888835



UM EN IB IL 24 SDO 8-PAC - 2888864



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accessories

UM QS EN IB IL 24 PSDX - S7 - 2910648



UM QS DE IB IL 24 PSDX - S7 - 2910651



Labeling panel

IB IL FIELD 2 - 2727501



IB IL FIELD 8 - 2727515



Terminal marking

ESL 62X10 - 0809492



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accessories

ESL 62X46 - 0809502



Solid-state contactor

PSR-FTB/20/86 - 2904477



PSR-FTB/1.5/11.5 - 2904476



Drawings

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