

Safety module - IB IL 24 LPSDO 8 V2-PAC - 2700606

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Safety-related digital output module, IP20 protection, for the SafetyBridge system. The module has four safe digital outputs with two-channel occupancy or 8 safe digital outputs with single-channel occupancy

Product description

The safety module is an output module from the Inline product range and is used in a SafetyBridge system. The safety module can be used as a part of an Inline station at any point within an INTERBUS, PROFINET or PROFIBUS 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 with two-channel occupancy or eight safe digital outputs with single-channel occupancy. In the SafetyBridge system, you can achieve the following safety integrity by using this safety module depending on the installation and parameterization:

- up to category 4 according to EN 954-1 standard,
- up to SIL 3 according to EN 61508 standard,
- up to SIL CL 3 according to EN 62061 standard,
- up to PL e according to EN ISO 13849-1 standard.

Product Features

- Generation and monitoring of the SafetyBridge protocol
- Processing of the parameterized safety logic

Key commercial data

GTIN	 4 046356 585859
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Technical data

Note:

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

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

Digital outputs

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Technical data

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 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)

SafetyBridge properties

Connection to I/O modules	max. 5 (safe digital I/O modules)
Logic memory	24 kByte

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.)

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General data

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
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 potential routing

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 (see safety data)
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
Segment supply voltage U_S	24 V (see safety data)

Classifications

ETIM

ETIM 2.0	EC001433
ETIM 3.0	EC001599
ETIM 4.0	EC001599
ETIM 5.0	EC001601

UNSPSC

UNSPSC 11	39121311
UNSPSC 12.01	39121311
UNSPSC 13.2	39121311
UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404

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Classifications

eCl@ss

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

Approvals

Approvals

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UL Listed / cUL Listed / Functional Safety / cULus Listed

Ex Approvals

Approvals submitted

Approval details

UL Listed

cUL Listed

Functional Safety

cULus Listed

Accessories

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Safety module - IB IL 24 LPSDO 8 V2-PAC - 2700606

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



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.

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Accessories

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



User Manual, German, for INTERBUS Safety output modules

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
