

Safety module - IB IL 24 PSDI 8-PAC - 2985688

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Safety-related digital input module, IP20 protection, for the SafetyBridge, INTERBUS-Safety, and PROFIsafe system. The module has 4 safe digital inputs for two-channel assignment or 8 safe digital inputs for single-channel assignment.

Product description


The safety module is an input module from the Inline product range, designed for use in a SafetyBridge, INTERBUS-Safety or PROFIsafe system. The safety module can be used as part of an Inline station at any point within a SafetyBridge, 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 inputs for two-channel assignment or eight safe digital inputs for single-channel assignment. The inputs can be parameterized according to the application and enable the integration of sensors in the safe SafetyBridge, INTERBUS (INTERBUS-Safety), and 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

- 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 44 (AX-2011)
GTIN	 4 046356 131582
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/s 2MBit/s

Digital inputs

Input name	Digital inputs
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Technical data

Digital inputs

Connection method	Spring-cage connection
Connection method	2, 3, 4-wire
Number of inputs	4 / 8 (two channel/one channel)
Typical response time	(See technical data)
Input characteristic curve	IEC 61131-2 type 3
Input voltage	24 V DC (via clock outputs UT1 and UT2 or external supply)
Input voltage range "0" signal	-3 V DC ... 5 V DC
Input voltage range "1" signal	11 V DC ... 30 V DC
Typical input current per channel	4.2 mA (at 24 V)

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. 180 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
Test section	24 V supply (I/O) / functional earth ground 500 V AC 50 Hz 1 min

Inline potential routing

Communications power UL	7.5 V DC (see safety data)
Current consumption from UL	max. 180 mA
Main circuit supply UM	24 V DC
Supply voltage range UM	19.2 V DC ... 30 V DC (including ripple)

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Inline potential routing

Current consumption from UM	Typ. 25 mA (plus current consumption of the inputs when supplied via the clock outputs, plus current consumption of the connected initiators when via through the clock outputs)
Current consumption from UM	max. 825 mA (see safety data)
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