

Safety module - IB IL 24 LPSDO 8 V3-PAC - 2701625

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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, designed for use in a SafetyBridge technology system. The safety module can be used as part of an Inline station at any point within an INTERBUS, DeviceNet™, CANopen®, EtherNet/IP™, Sercos, Modbus, PROFINET or PROFIBUS system. The transmission speed of the safety module can be set to 500 kbaud or 2 Mbaud using a switch. One transmission speed must be used consistently within a station. The module has four safe digital outputs for two-channel assignment or eight safe digital outputs for single-channel assignment. Depending on the installation and parameterization, in the SafetyBridge system the safety module can achieve the following safety integrity:

- Up to SIL 3 according to standard EN 61508
- Up to SIL CL 3 according to standard EN 62061
- Up to Cat. 4/PL e according to standard EN ISO 13849-1

Product Features

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

Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	360.0 GRM
Custom tariff number	85389091
Country of origin	Germany

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

Safety module - IB IL 24 LPSDO 8 V3-PAC - 2701625

Technical data

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.)
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/s / 2MBit/s

Digital outputs

Output name	Digital outputs
Connection method	Spring-cage connection
	2, 3, 4-wire
Number of outputs	4 (with two-channel assignment)
	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)
	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)

General

Safety module - IB IL 24 LPSDO 8 V3-PAC - 2701625

Technical data

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
	5 V supply, outgoing remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min
	7.5 V supply (bus logics)/24 V supply (I/O) 500 V AC 50 Hz 1 min
	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 (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)
	max. 6.03 A
Segment supply voltage U_S	24 V (see safety data)

SafetyBridge properties

Connection to I/O modules	max. 16 (safe digital I/O modules)
Logic memory	60 kByte

Classifications

eCl@ss

eCl@ss 4.0	27240409
eCl@ss 4.1	27240409
eCl@ss 5.0	27242205
eCl@ss 5.1	27242605
eCl@ss 6.0	27242605
eCl@ss 7.0	27242605
eCl@ss 8.0	27242605

Safety module - IB IL 24 LPSDO 8 V3-PAC - 2701625

Classifications

ETIM

ETIM 3.0	EC001599
ETIM 4.0	EC002498
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


Approvals


UL Listed / cUL Listed / Functional Safety / cULus Listed

Ex Approvals

Approvals submitted

Approval details

UL Listed 

cUL Listed 
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Functional Safety

Safety module - IB IL 24 LPSDO 8 V3-PAC - 2701625

Approvals

