

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 at any point within a SafetyBridge, INTERBUS-Safety or PROFIsafe 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 digital outputs for single-channel assignment.

Your advantages

- SIL 3 according to IEC 61508/EN 61508
- SILCL 3 according to EN 62061
- PL e according to EN ISO 13849-1



Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4046356131605
Weight per Piece (excluding packing)	360.000 g
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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Technical data

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.)
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 sea level)
Degree of protection	IP20

Interfaces

Designation	Inline local bus
No. of channels	2
Connection method	Inline data jumper
Transmission speed	500 kbps / 2 Mbps (can be switched)

Digital outputs

Output name	Digital outputs
Connection method	Spring-cage connection
Connection technology	2, 3-wire
Number of outputs	4 (with two-channel assignment)
	8
Type of protection	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 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

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Technical data

Power supply for module electronics

Supply voltage	24 V DC (via voltage jumper)
Supply voltage range	19.2 V DC ... 30 V DC

General

Mounting type	DIN rail
Net weight	245.6 g
Note on weight specifications	with connectors
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

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

Safety-related characteristic data

Designation	IEC 61508 - High demand
Safety Integrity Level (SIL)	max. 3 (two channel; dependent in parameterization and wiring)
Designation	IEC 61508 - Low demand
Safety Integrity Level (SIL)	max. 3 (two channel; dependent in parameterization and wiring)
Designation	EN ISO 13849
Performance level (PL)	max. e (two channel; dependent in parameterization and wiring)
Category	max. 4 (two channel; dependent in parameterization and wiring)
Designation	EN 62061
Safety Integrity Level Claim Limit (SIL CL)	max. 3 (two channel; dependent in parameterization and wiring)

Standards and Regulations

Protection class	III, IEC 61140, EN 61140, VDE 0140-1
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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Classifications

eCl@ss

eCl@ss 4.0	27240400
eCl@ss 4.1	27240400
eCl@ss 5.0	27250600
eCl@ss 5.1	27242900
eCl@ss 6.0	27242600
eCl@ss 7.0	27242604
eCl@ss 8.0	27242604
eCl@ss 9.0	27242604

ETIM

ETIM 2.0	EC001433
ETIM 3.0	EC001617
ETIM 4.0	EC001599
ETIM 5.0	EC001599
ETIM 6.0	EC001599
ETIM 7.0	EC001599

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	32151602

Approvals

Approvals

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

Ex Approvals

Approval details

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Approvals

Functional Safety		968/EZ 424.05/17
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Functional Safety		968/EZ 650.02/17
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UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
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cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
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PROFIsafe		Z20081
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Functional Safety		968/EZ 424.05/17
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PROFIsafe		Z20209
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cULus Listed		
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Accessories

Accessories

Connector set

Connector set - IB IL 24 SDO 8-PLSET/CP - 2916927



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

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Accessories

Filter terminal block

Filter terminal block - PSR-FTB/20/86 - 2904477



Terminal block for filtering test pulses from safe semiconductor outputs with adjustable filter values (20 μ F/86 μ F), as well as for EMC filtering of 24 V signals up to an amperage of 2 A.

Filter terminal block - PSR-FTB/1.5/11.5 - 2904476



Terminal block for filtering test pulses from safe semiconductor outputs with adjustable filter values (1.5 μ F/11.5 μ F), as well as for EMC filtering of 24 V signals up to an amperage of 2 A.

Labeling panel

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



Terminal marking

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Accessories

Insert strip - ESL 62X10 - 0809492



Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems: Laser printer, mounting type: insert, lettering field size: 62 x 10 mm, Number of individual labels: 72

Insert strip - ESL 62X46 - 0809502



Insert strip, Sheet, white, unlabeled, can be labeled with: Office printing systems: Laser printer, mounting type: insert, lettering field size: 62 x 46 mm, Number of individual labels: 120