PHŒNIX CONTACT

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 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 inputs for two-channel assignment or eight digital inputs for single-channel assignment.

Why buy this product

☑ SIL 3 according to IEC 61508/EN 61508

☑ SILCL 3 according to EN 62061

☑ PL e according to EN ISO 13849-1

RoHS   **PL** EN ISO 13849   **SILCL** IEC 62061

Key Commercial Data

Packing unit	1 STK
GTIN	4 046356 131582
GTIN	4046356131582
Weight per Piece (excluding packing)	340.000 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 inputs

Input name	Digital inputs
Connection method	Spring-cage connection
Connection technology	2, 3, 4-wire
Number of inputs	4 (with two-channel assignment)
	8 (for single-channel assignment)
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
Input voltage range	-3 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

General

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Technical data

General

Mounting type	DIN rail
Net weight	349.4 g
Note on weight specifications	with connectors

Inline potentials

Designation	Communications power U_L
Supply voltage	7.5 V DC (see safety data)
Current consumption	max. 180 mA
Designation	Main circuit supply U_M
Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (including ripple)
Current consumption	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)
	max. 825 mA (see safety data)

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

Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Classifications

eCl@ss

eCl@ss 4.0	27240409
eCl@ss 4.1	27240409
eCl@ss 5.0	27250604

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Classifications

eCl@ss

eCl@ss 5.1	27242904
eCl@ss 6.0	27242604
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

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

Ex Approvals

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324

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Approvals

cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324

Functional Safety		968/EZ 424.02/13

PROFIsafe	Z20079

Functional Safety		968/EZ 424.05/17

Functional Safety		968/EZ 424.05/17

Functional Safety		968/EZ 650.02/17

cULus Listed	

Accessories

Accessories

Connector set

Connector set - IB IL 24 SDI 8-PLSET/CP - 2916930

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

Labeling panel

https://www.phoenixcontact.com/us/products/2985688

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Accessories

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

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

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