

Safety module - IB IL 24 PSDI 8-PAC



2985688

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

Please be informed that the data shown in this PDF document is generated from our Online Catalog. Please find the complete data in the user documentation. Our General Terms of Use for Downloads are valid.



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.

Your advantages

- SIL 3 according to IEC 61508/EN 61508
- SIL 3 in accordance with EN 62061
- PL e in accordance with EN ISO 13849-1

Commercial Data

Item number	2985688
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Sales Key	C18
Product Key	DNA421
Catalog Page	Page 267 (C-6-2019)
GTIN	4046356131582
Weight per Piece (including packing)	350.5 g
Weight per Piece (excluding packing)	349.4 g
Customs tariff number	85389091
Country of origin	DE

Safety module - IB IL 24 PSDI 8-PAC

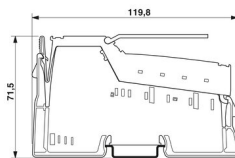
2985688

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



Technical Data

Dimensions

Dimensional drawing	
Width	48.8 mm
Height	119.8 mm
Depth	71.5 mm
Note on dimensions	Housing dimensions

Material specifications

Color	yellow
-------	--------

Interfaces

Inline local bus

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

System properties

Module

ID code (dec.)	163
ID code (hex)	A3
Length code (hex)	04
Length code (dec)	04
Process data channel	8 Byte
Input address area	8 Byte ((Operating mode: SafetyBridge))
Output address area	8 Byte ((Operating mode: SafetyBridge))
Register length	8 Byte
Required parameter data	1 Byte ((Operating mode: SafetyBridge))
Required configuration data	5 Byte ((Operating mode: SafetyBridge))

Input data

Digital

Input name	Digital inputs
Description of the input	IEC 61131-2 type 3
Number of inputs	4 (for 2-channel assignment)

Safety module - IB IL 24 PSDI 8-PAC



2985688

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

	8 (for 1-channel assignment)
Cable length	max. 200 m (200 m from the clock output to the safe input (total based on forward and return path))
Connection method	Spring-cage connection
Connection technology	2-, 3-, 4-conductor
Input voltage	24 V DC (via clock outputs UT1 and UT2 or external supply)
Input voltage range	-3 V DC ... 30 V DC
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)
Typical response time	See technical data

Product properties

Type	modular
Product type	I/O component
Application	Functional safety

Electrical properties

Maximum power dissipation for nominal condition	24.12 W
Transmission medium	Copper

Potentials: Communications power (U_L)

Supply voltage	7.5 V DC (see safety data)
Current draw	max. 180 mA

Potentials: 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 draw	max. 825 mA (see safety data) 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)

Supply: Module electronics

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

Connection data

Connection technology

Connection name	Inline connector
pluggable	yes

Conductor connection

Connection method	Spring-cage connection
Conductor cross section solid	0.2 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 1.5 mm ²
Conductor cross section AWG	24 ... 16

Safety module - IB IL 24 PSDI 8-PAC



2985688

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

Inline connector

Connection method	Spring-cage connection
Conductor cross section, rigid	0.2 mm² ... 1.5 mm²
Conductor cross section, flexible	0.2 mm² ... 1.5 mm²
Conductor cross section AWG	24 ... 16

Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
Degree of protection	IP20
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)
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.)

Standards and regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
------------------	---------------------------------------

Mounting

Mounting type	DIN rail mounting
---------------	-------------------

Safety module - IB IL 24 PSDI 8-PAC

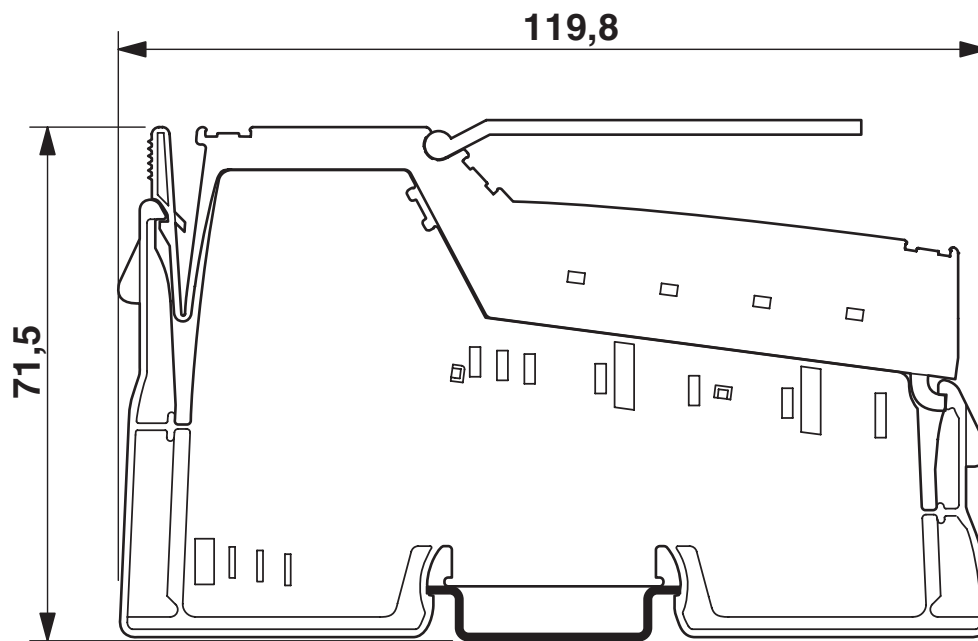
2985688

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



Drawings

Dimensional drawing



Dimensions (in mm)

Safety module - IB IL 24 PSDI 8-PAC



2985688

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

Approvals



UL Listed

Approval ID: FILE E 140324



cUL Listed

Approval ID: FILE E 140324



cUL Listed

Approval ID: FILE E 140324



UL Listed

Approval ID: FILE E 140324



Functional Safety

Approval ID: 968/FSP 2449.00/22



Functional Safety

Approval ID: 968/FSP 2449.00/22

PROFIsafe

Approval ID: Z20079

PROFIsafe

Approval ID: Z20079



Functional Safety

Approval ID: 968/FSP 2449.00/22



Functional Safety

Approval ID: 968/FSP 2449.00/22



Functional Safety

Approval ID: 968/EZ 650.02/17



Functional Safety

Approval ID: 968/EZ 650.02/17

Safety module - IB IL 24 PSDI 8-PAC



2985688

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

PROFIsafe

Approval ID: Z20206

PROFIsafe

Approval ID: Z20206



Functional Safety

Approval ID: 968/EZ 650.04/20



Functional Safety

Approval ID: 968/EZ 650.04/20

Safety module - IB IL 24 PSDI 8-PAC

2985688

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



Classifications

ECLASS

ECLASS-9.0	27242604
ECLASS-10.0.1	27242604
ECLASS-11.0	27242604

ETIM

ETIM 8.0	EC001599
----------	----------

UNSPSC

UNSPSC 21.0	32151600
-------------	----------

Safety module - IB IL 24 PSDI 8-PAC

2985688

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



Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

Safety module - IB IL 24 PSDI 8-PAC

2985688

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



Accessories

Connector set

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

<https://www.phoenixcontact.com/us/products/2916930>

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



Labeling field

Labeling field - IB IL FIELD 2 - 2727501

<https://www.phoenixcontact.com/us/products/2727501>

Labeling field, width: 12.2 mm



Safety module - IB IL 24 PSDI 8-PAC

2985688

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



Labeling field

Labeling field - IB IL FIELD 8 - 2727515

<https://www.phoenixcontact.com/us/products/2727515>

Labeling field, width: 48.8 mm



Insert strip

Insert strip - ESL 62X10 - 0809492

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



Safety module - IB IL 24 PSDI 8-PAC

2985688

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



Insert strip

Insert strip - ESL 62X46 - 0809502

<https://www.phoenixcontact.com/us/products/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: 15



Phoenix Contact 2022 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com