

# Safety module - IB IL 24 PSDO 8-PAC - 2985631

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



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.

## 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



## Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 131605
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
-------------------------	---

# Safety module - IB IL 24 PSDO 8-PAC - 2985631

## 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
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
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 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

### Power supply for module electronics

# Safety module - IB IL 24 PSDO 8-PAC - 2985631

## 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
Communications power $U_L$	7.5 V (via voltage jumper)
Current consumption	max. 230 mA (from the local bus)

### 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

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
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

### 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

# Safety module - IB IL 24 PSDO 8-PAC - 2985631

## Classifications

### eCl@ss

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

---

#### Approvals

Functional Safety / UL Listed / cUL Listed / PROFIBUS / Functional Safety / cULus Listed

---

#### Ex Approvals

---

### Approval details

Functional Safety		968/EZ 424.02/13
-------------------	--	------------------

# Safety module - IB IL 24 PSDO 8-PAC - 2985631

## Approvals

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
-----------	--	---	---------------

cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
------------	--	---	---------------

PROFIBUS	<a href="http://www.profibus.com">http://www.profibus.com</a>	Z20081
----------	---	--------

Functional Safety		968/EZ 424.04/16
-------------------	--	------------------

cULus Listed	
--------------	--

## Accessories

### Accessories

#### Connector set

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



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

## Documentation

User manual - UM DE IB IL 24 SDO 8-PAC - 2888835



User Manual, German, for INTERBUS Safety output modules

# Safety module - IB IL 24 PSDO 8-PAC - 2985631

## Accessories

User manual - UM EN IB IL 24 SDO 8-PAC - 2888864

User Manual, English for PLCopen-certified INTERBUS Safety function blocks



---

## 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  $\mu$ F/86  $\mu$ 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  $\mu$ F/11.5  $\mu$ 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



## Safety module - IB IL 24 PSDO 8-PAC - 2985631

### Accessories

---

#### 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: 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: 62 x 46 mm

