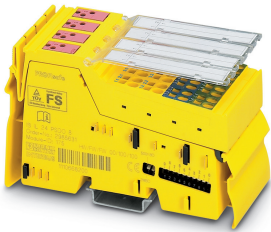


# Safety module - IB IL 24 PSDO 8-PAC - 2985631

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Safety-related digital output module, IP20 degree of protection, for SafetyBridge, INTERBUS-Safety, and PROFIsafe systems. The module has four safe digital outputs for two-channel assignment or eight safe digital outputs for single-channel assignment

## 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	 4 046356 131605
GTIN	4046356131605

## 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

### Ambient conditions

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## 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 sea level)
Degree of protection	IP20

### Interfaces

Designation	Inline local bus
Number	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-conductor
Number of outputs	4 (with two-channel assignment) 8 (for single-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)
Nominal load, inductive	see safety data
Nominal load, lamp	see safety data
Nominal load, ohmic	see safety data
Behavior with inductive overload	Output can be destroyed

### 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
Color	yellow
Net weight	245.6 g
Note on weight specifications	with connectors
Diagnostics messages	Short-circuit or overload of the digital outputs Error message in diagnostics code (bus) and display by means of the LED on the motor

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## Technical data

### Inline potentials

Designation	Communications power (U <sub>L</sub> )
Supply voltage	7.5 V DC (see safety data)
Current consumption	max. 230 mA (see safety data)
Designation	Main circuit supply (U <sub>M</sub> )
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 <sub>S</sub> )

### 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 = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Classifications

### eCl@ss

eCl@ss 10.0.1	27242604
eCl@ss 11.0	27242604
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 9.0	27242604

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## Classifications

### ETIM

ETIM 2.0	EC001433
ETIM 3.0	EC001617
ETIM 4.0	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
UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602
UNSPSC 21.0	32151602

## Approvals

### Approvals

#### Approvals

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

#### Ex Approvals

### Approval details

Functional Safety		968/EZ 424.05/17
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Functional Safety		968/EZ 650.02/17
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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
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## Approvals

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
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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.

#### 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.

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## Accessories

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### 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

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: 15

