

# IB IL 24 PSDOR 4-PAC - Safety module



2985864

<https://www.phoenixcontact.com/us/products/2985864>

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Safety-related decentralized relay output module, IP20 degree of protection, for SafetyBridge, INTERBUS-Safety, and PROFIsafe systems. The module has four safe relay outputs, each with two contacts.

## 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 can be set to 500 kBaud or 2 Mbaud on the safety module using a switch. One transmission speed must be used consistently within a station. The module has four safe relay outputs, each with two relay contacts.

## Your advantages

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

## Commercial data

Item number	2985864
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN03
Product key	DNA432
GTIN	4046356131599
Weight per piece (including packing)	461.5 g
Weight per piece (excluding packing)	386 g
Customs tariff number	85389091
Country of origin	DE

## Technical data

### Dimensions

Width	73.2 mm
Height	119.8 mm
Depth	71.5 mm
Note on dimensions	Housing dimensions

### Notes

#### Note on application

Note on application	Only for industrial use
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### Material specifications

Color (Housing)	yellow (RAL 1018)
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### Interfaces

#### Inline local bus

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

### System properties

#### Programming data (LocalbusSlave)

Length code (hex)	04
ID code (dec.)	167
Length code (dec)	04
Process data channel	8 Byte ((Operating mode: SafetyBridge))
Input address area	8 Byte ((Operating mode: SafetyBridge))
Output address area	8 Byte ((Operating mode: SafetyBridge))
Parameter channel (PCP)	0 Byte ((Operating mode: SafetyBridge))
Register length (bus)	8 Byte ((Operating mode: SafetyBridge))

#### Fieldbus data telegram

Required parameter data	1 Byte ((Operating mode: SafetyBridge))
Required configuration data	5 Byte ((Operating mode: SafetyBridge))

### Output data

#### Relay

Number of outputs	4 (Safety relays with 2 floating contacts each)
Connection method	Spring-cage connection
Contact switching type	N/O contact

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## Product properties

Product type	I/O component
Product family	Inline
Application	Functional safety
	PROFIsafe
Type	modular

## Electrical properties

Transmission medium	Copper
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### Potentials: Communications power ( $U_L$ )

Supply voltage	7.5 V DC (see safety data)
Current draw	max. 360 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. 0.03 A
	typ. 30 mA (all outputs set including actuator current)

### Potentials: Segment circuit supply ( $U_S$ )

Supply voltage	24 V
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### Supply: Module electronics

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

### Electrical isolation/isolation of the voltage ranges

Test voltage: 5 V supply, incoming remote bus/7.5 V supply (bus logics)	500 V AC, 50 Hz, 1 min
Test voltage: 5 V supply, outgoing remote bus/7.5 V supply (bus logics)	500 V AC, 50 Hz, 1 min
Test voltage: 7.5 V supply (bus logics)/24 V supply (I/O)	500 V AC, 50 Hz, 1 min
Test voltage: 24 V supply ( $U_M$ , $U_S$ ), GND, clock outputs/7.5 V supply (bus logic), relay outputs	500 V AC, 50 Hz, 1 min
Test voltage: COMBICON X3 relay outputs/COMBICON X4 relay outputs, Inline connector relay outputs, 7.5 V supply (bus logic), 24 V supply ( $U_M$ , $U_S$ ), GND, clock outputs, FE	2500 V AC, 50 Hz, 1 min
Test voltage: COMBICON X4 relay outputs/COMBICON X3 relay outputs, Inline connector relay outputs, 7.5 V supply (bus logic), 24 V supply ( $U_M$ , $U_S$ ), GND, clock outputs,	2500 V AC, 50 Hz, 1 min

## Connection data

### Connection technology

Connection name	Inline connector
pluggable	yes

### Inline connector

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Connection method	Spring-cage connection
pluggable	yes
Conductor cross-section, rigid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross-section, flexible	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 16

## Environmental and real-life conditions

### 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

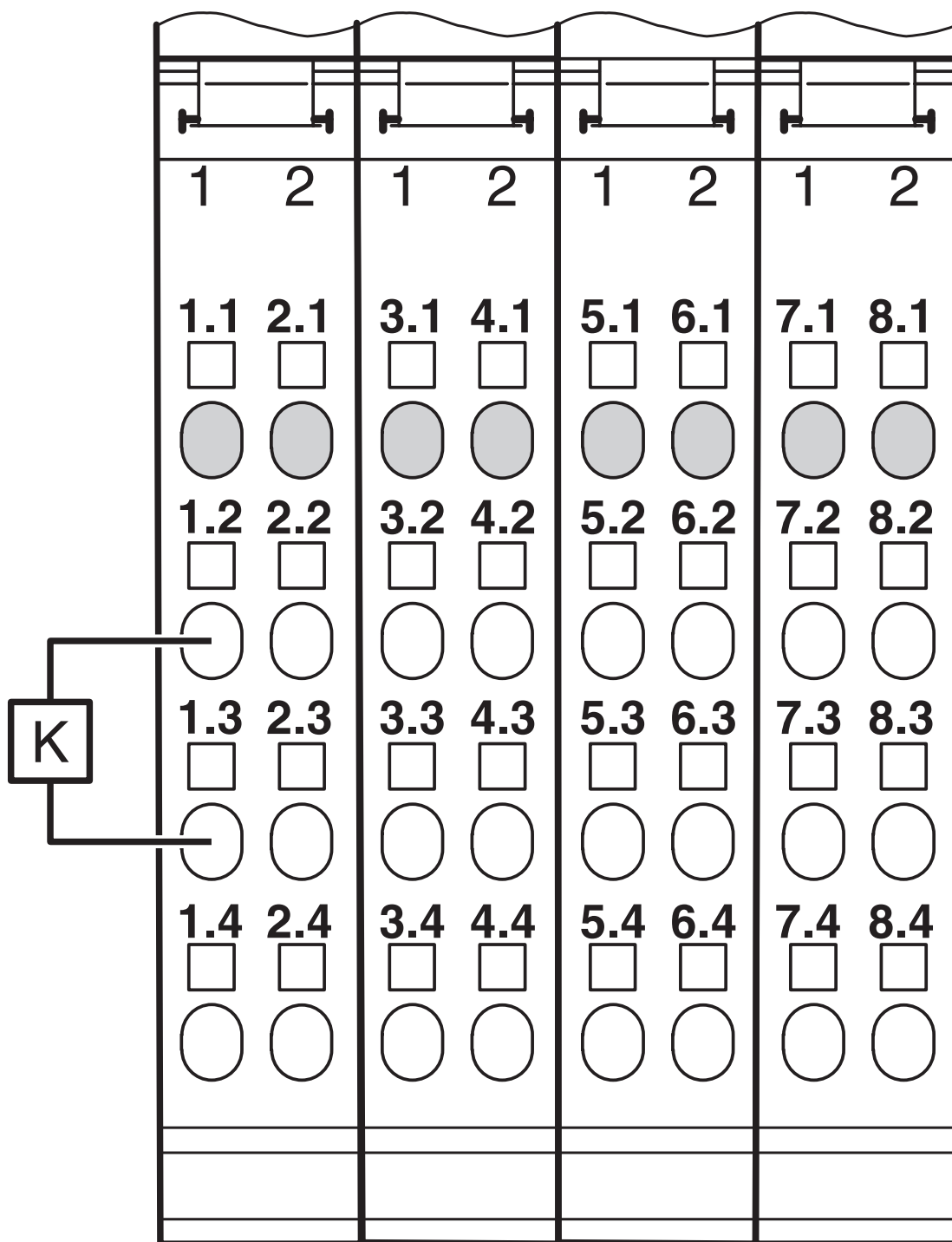
Protection class	I (IEC 61140, EN 61140, VDE 0140-1)
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## Mounting

Mounting type	DIN rail mounting
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Drawings

Connection diagram



Example connection of a contactor

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2985864>



**cULus Listed**

Approval ID: E140324

**PROFIsafe**

Approval ID: Z20211



**Functional Safety**

Approval ID: 968/FSP 2449.00/22

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## Classifications

### ECLASS

ECLASS-13.0	27242604
ECLASS-15.0 ASSET	27250101
ECLASS-15.0	27242604

### ETIM

ETIM 10.0	EC001599
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### UNSPSC

UNSPSC 21.0	32151600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	5baf3f4-7fc1-4e11-acb1-6ed436545098

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