

IB IL 24 PSDOR 4-PAC - Safety module



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 61508/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	DNA
Product key	DNA432
Catalog page	Page 268 (C-6-2019)
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

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Technical data

Dimensions

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

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.)	167
ID code (hex)	A7
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))

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

Product properties

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

Electrical properties

Maximum power dissipation for nominal condition	8.7 W
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Transmission medium	Copper
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
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
Conductor connection	
Connection method	Spring-cage connection
Conductor cross section rigid	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
Inline connector	
Connection method	Spring-cage connection
Conductor cross section, rigid	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
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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

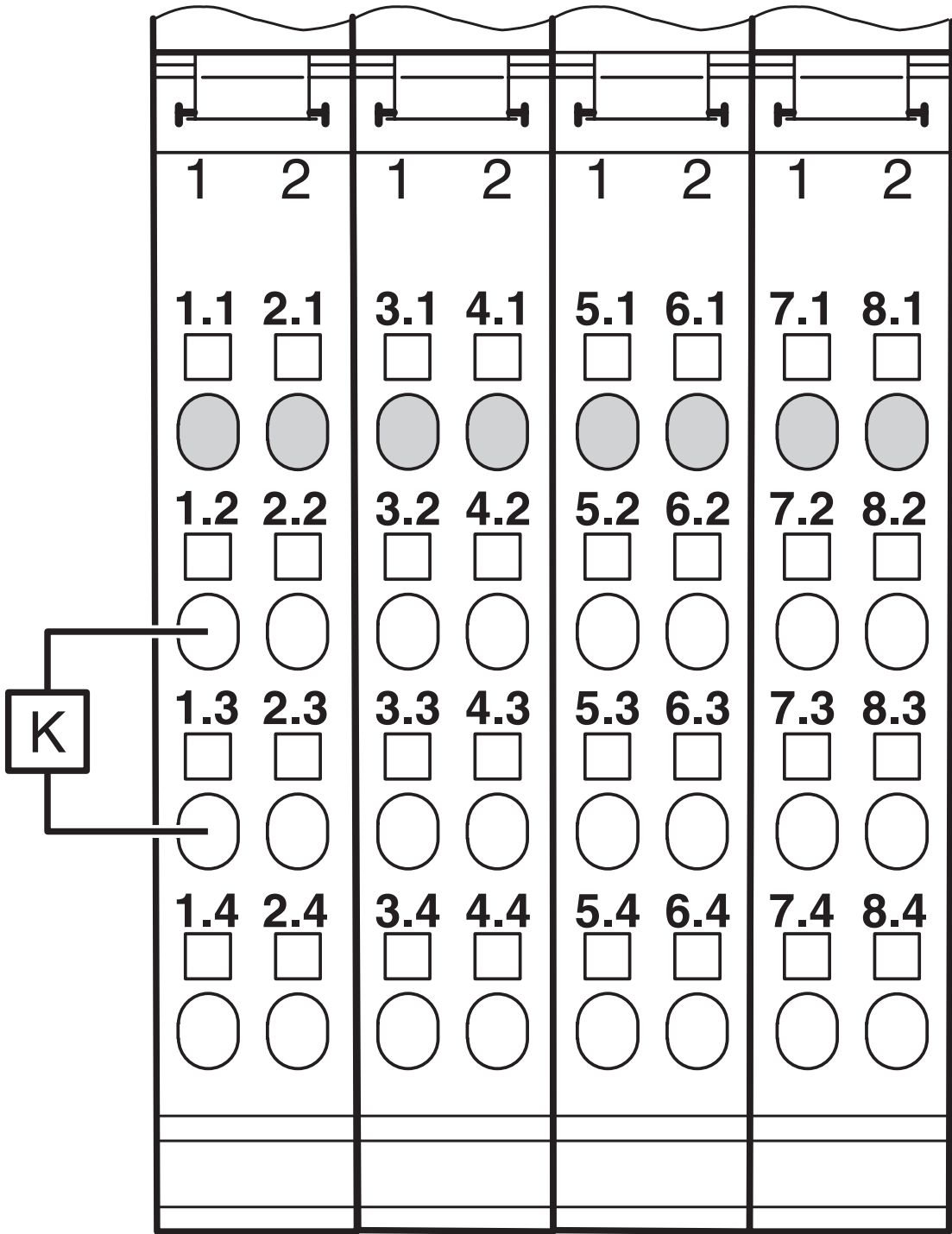
Protection class	I (IEC 61140, EN 61140, VDE 0140-1)
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Mounting

Mounting type	DIN rail mounting
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Drawings

Connection diagram



Example connection of a contactor

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Approvals

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UL Listed

Approval ID: FILE E 140324



cUL 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: Z20211



Functional Safety

Approval ID: 968/EZ 650.04/20



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Approval ID: 968/EZ 650.04/20

cULus Listed

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Classifications

ECLASS

ECLASS-11.0	27242604
ECLASS-12.0	27242604
ECLASS-13.0	27242604

ETIM

ETIM 9.0	EC001599
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UNSPSC

UNSPSC 21.0	32151600
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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"

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PHOENIX CONTACT s.r.o.
Námestie Mateja Korvína 1
811 07 Bratislava
+421 2 3210 1470
obchod.sk@phoenixcontact.com