

IB IL 24 SDOR 4-PAC - Safety module



2985851

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Safe, decentral relay output module, IP20 degree of protection for the Inline product range. This module has four safe relay outputs, each having two contacts.

Product description

The safety module is an output module from the Inline product range and is used in an INTERBUS-Safety system.

The safety module can be used as a part of an Inline station at any point within an INTERBUS-Inline system. The transmission speed of the safety module can be set to 500 kBaud or 2 Mbaud using a switch. Only one transmission speed must be used uniformly within an INTERBUS system.

This module has four safety relays that can be operated with single or double-channels depending on the parameters.

The parameters of the relay outputs can be set in accordance with the application and make it possible to integrate actuators in the safe INTERBUS (INTERBUS-Safety).

The safety-related segment circuit can be switched on or off using suitable wiring.

When the output is switched off, the supply to the downstream modules is disconnected safely.

The module also has two clock outputs with allocated alarm inputs to monitor external contact extensions.

In an INTERBUS-Safety system, you can achieve the following safety integrity by using the safety module depending on the installation and parameterization:

- Up to category 4 according to the EN 954-1 standard,
- Up to SIL 3 according to the standards EN 61508 and EN 62061,
- Up to PL e according to the prEN ISO 13849-1 standard.

The output data is exchanged between the safe INTERBUS controller and the module using safe messages (see UM DE INTERBUS-SAFETY SYS).

Your advantages

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

Commercial data

Item number	2985851
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	DN03
Product key	DNA432
GTIN	4046356131643
Weight per piece (including packing)	394.2 g
Weight per piece (excluding packing)	145.6 g
Customs tariff number	85389091

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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

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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Material specifications

Color	yellow
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Interfaces

Inline local bus

Connection method	Inline data jumper
Transmission speed	500 kbps / 2 Mbps

System properties

Programming data

ID code (dec.)	175
Process data channel	see safety data

Output data

Digital:

Output name	Relay output
Connection method	Spring-cage connection
Connection technology	2-, 3-, 4-conductor
Number of outputs	4
Output voltage	24 V DC ($U_S - 1 V$)
Maximum output current per channel	4 A
Max. current carrying capacity per output	See technical data
Maximum output current per module	3 A (See technical data)
Nominal output voltage	See technical data
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

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Product properties

Product type	I/O component
Product family	Inline
Application	IB-Safety
Type	modular
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

Electrical properties

Maximum power dissipation for nominal condition	78 W
Transmission medium	Copper

Potentials: Communications power (U_L)

Supply voltage	7.5 V DC (see safety data)
Current draw	max. 360 mA (see safety data)

Potentials: Main circuit supply (U_M)

Supply voltage	24 V DC (see safety data)
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Potentials: Segment circuit supply (U_S)

Supply voltage	24 V (see safety data)
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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 (I/O) / functional ground	500 V AC, 50 Hz, 1 min

Connection data

Connection technology

Connection name	Inline connector
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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

Environmental and real-life conditions

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Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
Degree of protection	IP20
Air pressure (operation)	80 hPa ... 108 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	66 hPa ... 108 kPa (up to 3000 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)
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Mounting

Mounting type	DIN rail mounting
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Environmental product compliance

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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