

# IBS ST 24 BK RB-LK DIO8/8/3-LK - Bus coupler



2721662

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INTERBUS-ST I/O bus terminal module, FO connection, 8 digital inputs, 8 digital outputs, 500 mA, additionally with fiber-optic remote bus branch, IP20 protection, consisting of: Terminal part with screw connection and module electronics

The figure shows version IBS ST 24  
BK-RB-T DIO 8/8/3-LK

## Product description

INTERBUS ST bus terminal modules with additional interfaces (I/O)

In addition to the actual bus terminal module functions, 8 digital inputs and 8 digital outputs are integrated into the INTERBUS input/output bus terminal modules. On top of this, the modules can be extended by up to four INTERBUS-ST input/output modules. All the bus terminal module functions, such as switching of the input/output modules from the INTERBUS network remain available without restrictions.

This bus terminal module is particularly suitable for use in applications for which very little space is available, or where only a few input/output points are required.

The IBS ST 24 BK DIO 8/8/3-T or -LK modules provide the option of assigning inputs and outputs either by screw terminal blocks in the termination block, or using an FLK system connector. This permits the ELR 319 electronic load relay or VARIOFACE input/output modules to be connected simply using 14-pos. FLK connectors.

The IBS ST 24 BK RB-T or IBS ST 24 BK RB-LK modules have an additional remote bus branch. This remote bus branch has the same restrictions regarding structure as any remote bus. All devices with remote bus interface can be linked in here.

All INTERBUS bus terminal modules make it possible to individually enable/disable the additional bus interfaces. To some extent, they perform the role of two bus terminal modules in the INTERBUS system and are also treated as such in the address lists and configuring software (CMD).

Note: When configuring buses branching off from the bus terminal modules, please observe the topology supported by INTERBUS controller boards.

## Your advantages

- Additional I/Os onboard
- Additional remote/local bus branches
- Copper or fiber optic connection

## Commercial data

Item number	2721662
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	NULL
Product key	DRI311
GTIN	4017918132392
Weight per piece (including packing)	754.9 g
Weight per piece (excluding packing)	733.9 g
Customs tariff number	85389091
Country of origin	DE

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## Technical data

### Product properties

Type	modular
Mounting position	Horizontal DIN rail
No. of channels	16

### Electrical properties

#### Supply: Module electronics

Supply voltage	24 V DC
Supply voltage range	18.5 V DC ... 30.5 V DC (including ripple)
Current consumption	170 mA (without ST module expansions) typ. 470 mA (For maximum number of I/O modules on the ST local bus)
Ripple	3.6 V <sub>pp</sub> within the allowable voltage range

#### Electrical isolation/isolation of the voltage ranges

Test voltage: Incoming remote bus / Outgoing remote bus	500 V AC, 50 Hz, 1 min
Test voltage: Incoming remote bus/local bus	500 V AC, 50 Hz, 1 min

### Input data

#### Digital:

Input name	Digital inputs
Number of inputs	8
Connection method	Screw-cage terminal blocks or FLK connectors
Connection technology	3-conductor
Input voltage	24 V DC
Input voltage range "0" signal	-30 V DC ... 5 V DC
Input voltage range "1" signal	13 V DC ... 30 V DC
Nominal input current at U <sub>IN</sub>	typ. 5 mA (per channel)
Typical response time	≥ 1 ms (typical)
Protective circuit	Overload protection; Fuse in header

### Output data

#### Digital:

Output name	Digital outputs
Connection method	Screw-cage terminal blocks or FLK connectors
Connection technology	3-conductor
Number of outputs	8
Protective circuit	Short-circuit protection; electronic Overload protection; Fuse in header
Maximum output current per group	2 A
Maximum output current per channel	500 mA

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Maximum output current per module / terminal block	4 A
Nominal load, lamp	12 W
Nominal load, ohmic	12 W
Maximum operating frequency with ohmic nominal load	max. 150 Hz (48 Ω)

## Connection data

### Terminal block

Connection method	Screw connection
Conductor cross-section, rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section, flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 12

## Interfaces

### INTERBUS

Connection method	FSMA plugs
Designation connection point	Incoming/Outgoing Remote Bus
Transmission speed	500 kbps
Transmission physics	Polymer fiber

### ST local bus

Connection method	ST local bus connector
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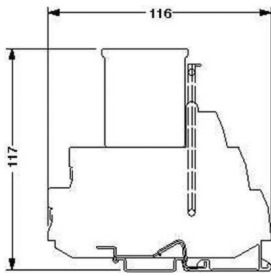
### INTERBUS

Connection method	FSMA plugs
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### Fieldbus: Local bus gateway

Max. number of local bus devices	max. 4
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## Dimensions

Dimensional drawing	
Width	118 mm
Height	117 mm
Depth	116 mm

## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	0 °C ... 55 °C
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Degree of protection	IP20
Air pressure (operation)	80 kPa ... 106 kPa (up to 2000 m above sea level)
Air pressure (storage/transport)	80 kPa ... 106 kPa (up to 2000 m above sea level)
Ambient temperature (storage/transport)	-25 °C ... 70 °C
Permissible humidity (operation)	75 % (on average, 85% infrequently, non-condensing)
Permissible humidity (storage/transport)	75 % (on average, 85% infrequently, non-condensing)

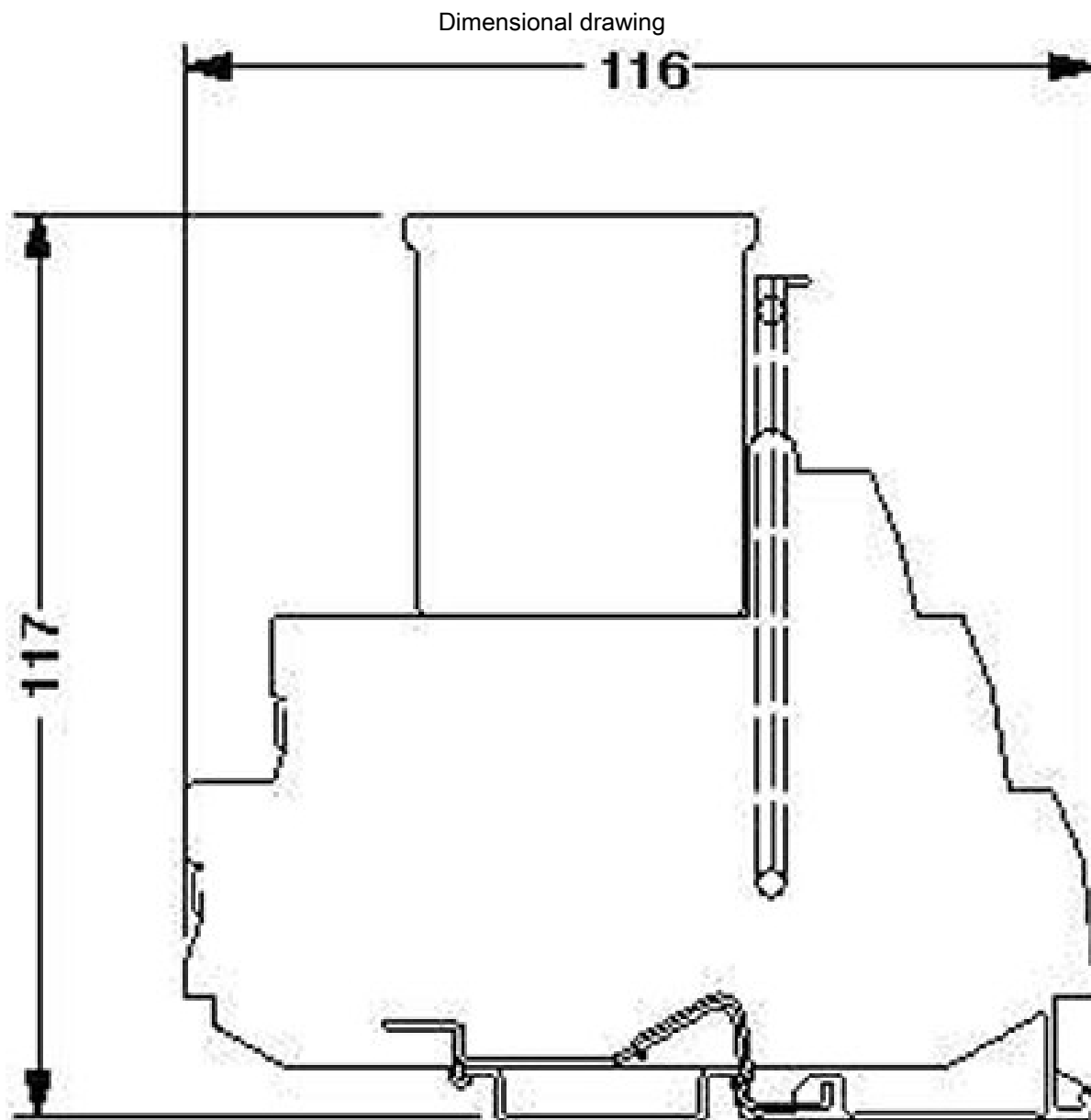
## Standards and regulations

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

Mounting type	DIN rail mounting
Mounting position	Horizontal DIN rail

Drawings



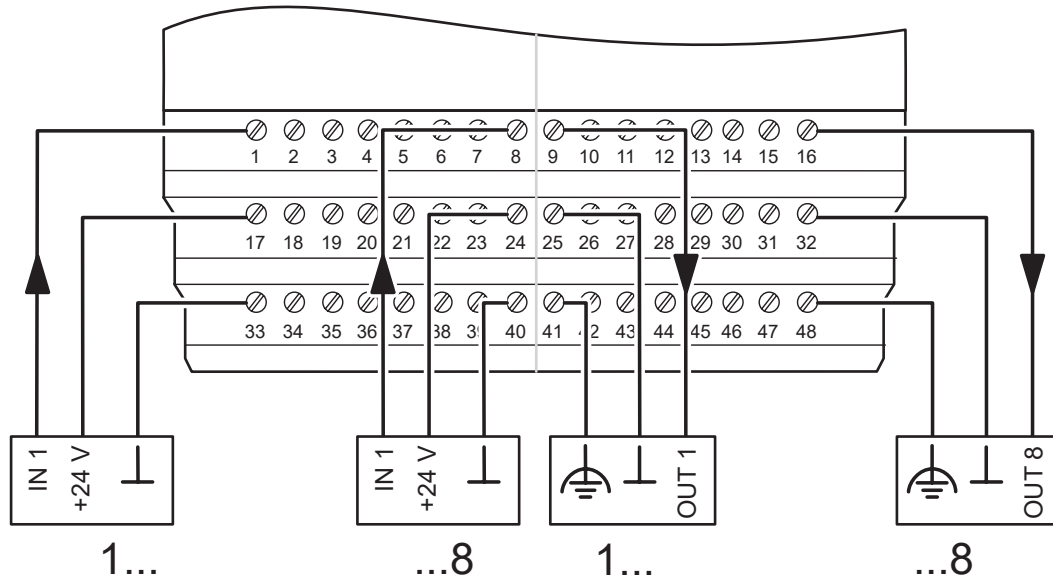
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Connection diagram



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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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