

# IBS ST ZF 24 BK DIO 8/8/3-T - Bus coupler



2750798

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INTERBUS-ST I/O bus terminal module, 8 digital inputs, 8 digital outputs, 500 mA, I/Os additionally available via FLK plug, IP20 protection, consisting of: Terminal part with spring-cage connection and module electronics

The figure shows version IBS ST 24 BK 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

- Remote bus connections using copper technology
- Electrical isolation
- 8 digital inputs
- 8 digital outputs
- Diagnostic and status indicators
- DIN rail mounting

## Commercial data

Item number	2750798
Packing unit	1 pc
Sales key	DR03
Product key	DRI311
GTIN	4017918108410
Weight per piece (including packing)	719.4 g
Weight per piece (excluding packing)	690 g

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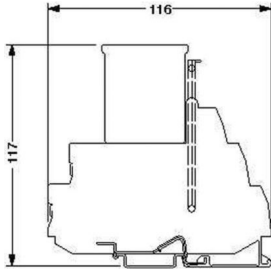
Customs tariff number	85389091
Country of origin	DE

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## Technical data

### Dimensions

Dimensional drawing		
Width		118 mm
Height		117 mm
Depth		116 mm

### Material specifications

Color	green
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### Interfaces

#### INTERBUS

Connection method	9-pos. D-SUB plug/socket
Designation connection point	Incoming/Outgoing Remote Bus
Number of positions	9

#### ST local bus

Connection method	ST local bus connector
Transmission speed	500 kbps

#### Fieldbus: Local bus gateway

Max. number of local bus devices	max. 4
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### Input data

#### Digital:

Input name	Digital inputs
Number of inputs	8
Connection method	Screw-cage connection 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 $U_{IN}$	typ. 5 mA (per channel)
Typical response time	$\geq 1$ ms (typical)
Protective circuit	Overload protection; Fuse in header

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## Output data

Digital:

Output name	Digital outputs
Connection method	Screw-cage connection 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
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)

## Product properties

Product type	I/O component
Product family	Smart Terminal ST
Type	modular INTERBUS Smart Terminal
Mounting position	Horizontal DIN rail
No. of channels	16

## Electrical properties

Maximum power dissipation for nominal condition	3.6 W
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Supply: Module electronics

Supply voltage	24 V DC
Supply voltage range	18.5 V DC ... 30.5 V DC (including ripple)
Current consumption	typ. 150 mA
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 / I/O interface	500 V AC, 50 Hz, 1 min
Test voltage: Incoming remote bus/ST interface	500 V AC, 50 Hz, 1 min

## Connection data

Connection method	Spring-cage connection
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
Stripping length	8 mm

## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	0 °C ... 55 °C
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

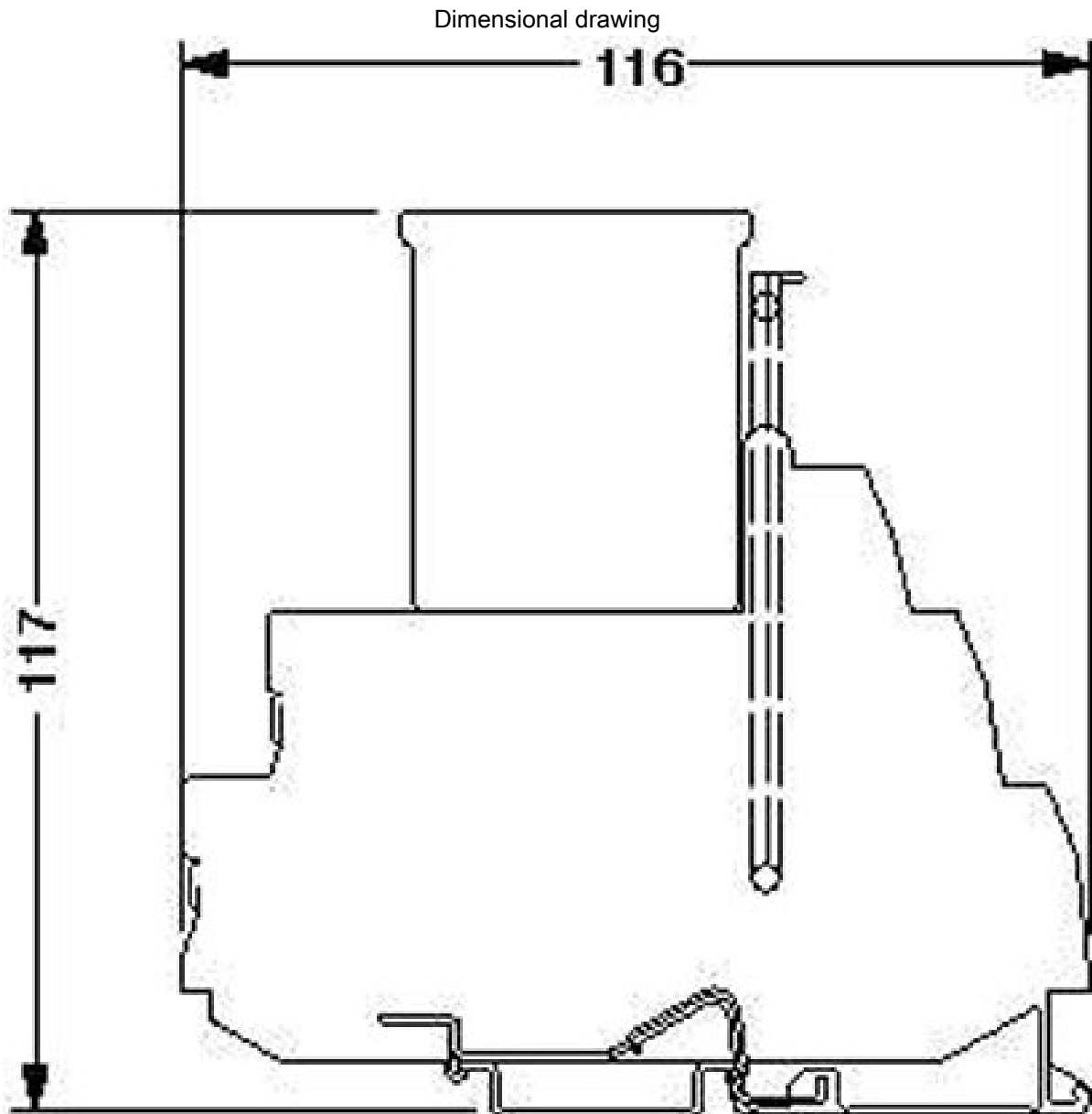
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## Drawings

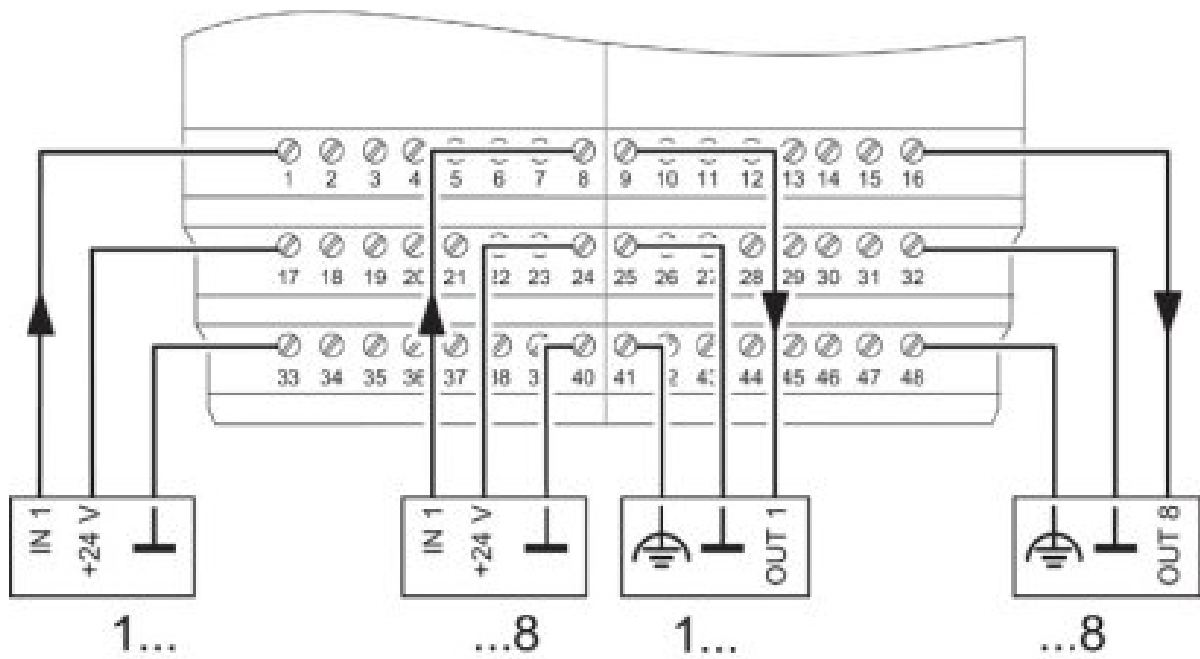


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Connection diagram



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## Approvals

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### **INTERBUS CLUB**

Approval ID: 273/04.07.00

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## Classifications

### ECLASS

ECLASS-13.0	27242608
ECLASS-15.0	27242608

### UNSPSC

UNSPSC 21.0	32151600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(a), 6(a)-I, 6(c), 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)
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