

# IB ST 24 DO16R/S - I/O module



2721112

<https://www.phoenixcontact.com/us/products/2721112>

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INTERBUS-ST digital output module, 16 relay N/O contact outputs, 3-conductor connection technology, IP20 degree of protection, consisting of: terminal part with screw connection and module electronics

## Product description

INTERBUS ST digital output modules for AC voltages

The digital INTERBUS output modules are designed for the connection of digital actuators, such as electromechanical valves, contactors or lamps. In addition to the standard IB ST 24 BDO modules, the range is rounded off by modules with extended functionality.

The scope of functions provided by the standard models covers the majority of applications. On top of this, several modules provide additional electronic functions, such as:

- Output channels in up to four electrically isolated groups
- Separate electronic short-circuit protection for each output channel
- Higher output current

which are needed in individual applications.

All the typical advantages of INTERBUS-ST handling, such as multi-wire connection methods and plug-in electronics are provided by both product lines.

## Your advantages

- 16 relay outputs
- Connection of actuators in 3-conductor technology
- Floating relay contacts
- Diagnostic and status indicators

## Commercial data

Item number	2721112
Packing unit	1 pc
Sales key	DR03
Product key	DRI333
GTIN	4017918132323
Weight per piece (including packing)	685 g
Weight per piece (excluding packing)	685 g
Customs tariff number	85389091
Country of origin	DE

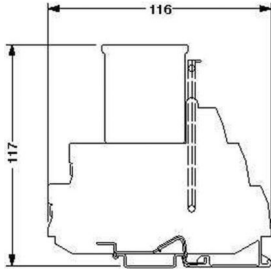
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## Technical data

### Dimensions

Dimensional drawing	
Width	118 mm
Height	117 mm
Depth	116 mm

### Interfaces

#### ST local bus

Connection method	ST local bus connector
Transmission speed	500 kbps

### Output data

#### Digital:

Output name	Relay output
Connection method	Screw connection
Connection technology	3-conductor
Number of outputs	16
Protective circuit	Short-circuit protection; electronic
Maximum output current per channel	3 A
Nominal output voltage	230 V AC
Nominal load, inductive	200 VA
Nominal load, lamp	75 W
Nominal load, ohmic	750 W

### 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

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## Supply: Module electronics

Supply voltage	24 V DC
Supply voltage range	20 V DC ... 30 V DC (including ripple)
Current consumption	100 mA
Ripple	3.6 V <sub>pp</sub> within the allowable voltage range

## Electrical isolation/isolation of the voltage ranges

Test voltage: Main contact / N/O contact (per relay)	750 V AC, 50 Hz, 1 min
Test voltage: Contact / Contact (within a group)	1000 V AC, 50 Hz, 1 min
Test voltage: Group / Group	2000 V AC, 50 Hz, 1 min
Test voltage: Groups / 24 V	2000 V AC, 50 Hz, 1 min
	2000 V AC, 50 Hz, 1 min
Test voltage: 24 V / PE	500 V AC, 50 Hz, 1 min

## Connection data

### Connection technology

Connection name	Terminal block
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### 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
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)	86 kPa ... 108 kPa (1500 m above sea level)
Air pressure (storage/transport)	86 kPa ... 108 kPa (1500 m above sea level)
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Permissible humidity (operation)	75 % (non-condensing)
Permissible humidity (storage/transport)	95 % (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

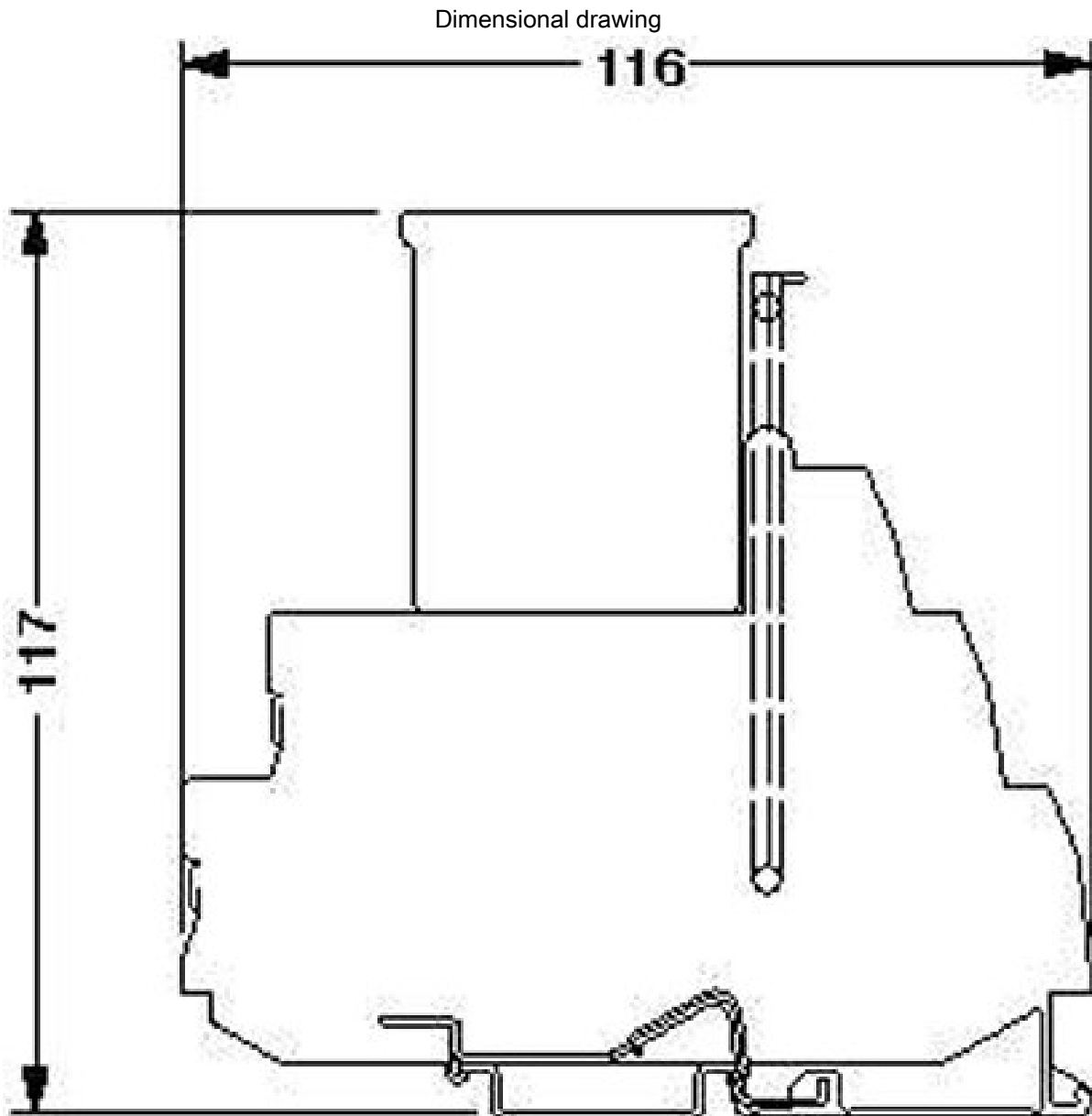
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## Drawings



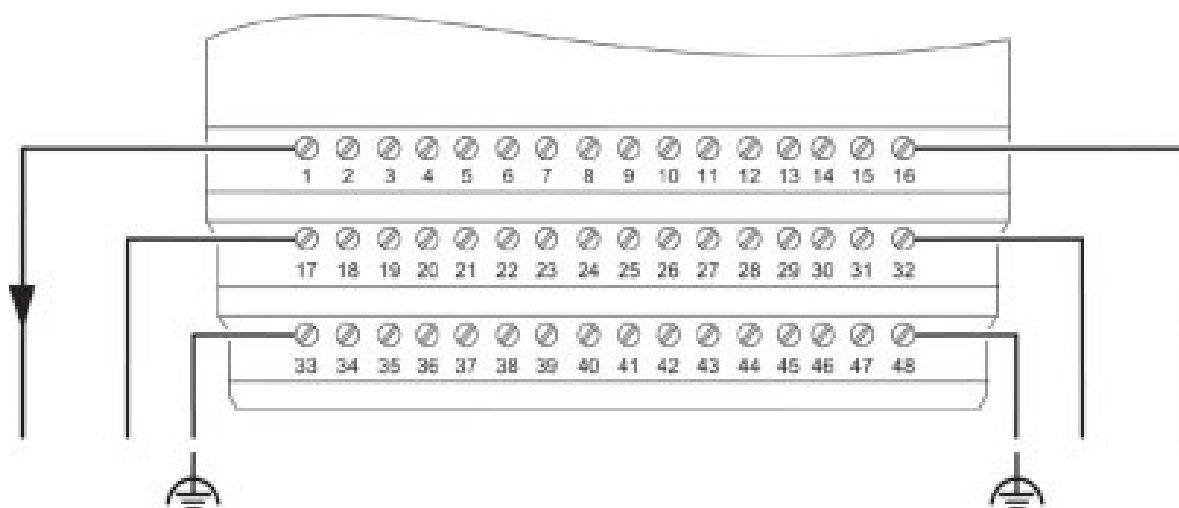
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Connection diagram

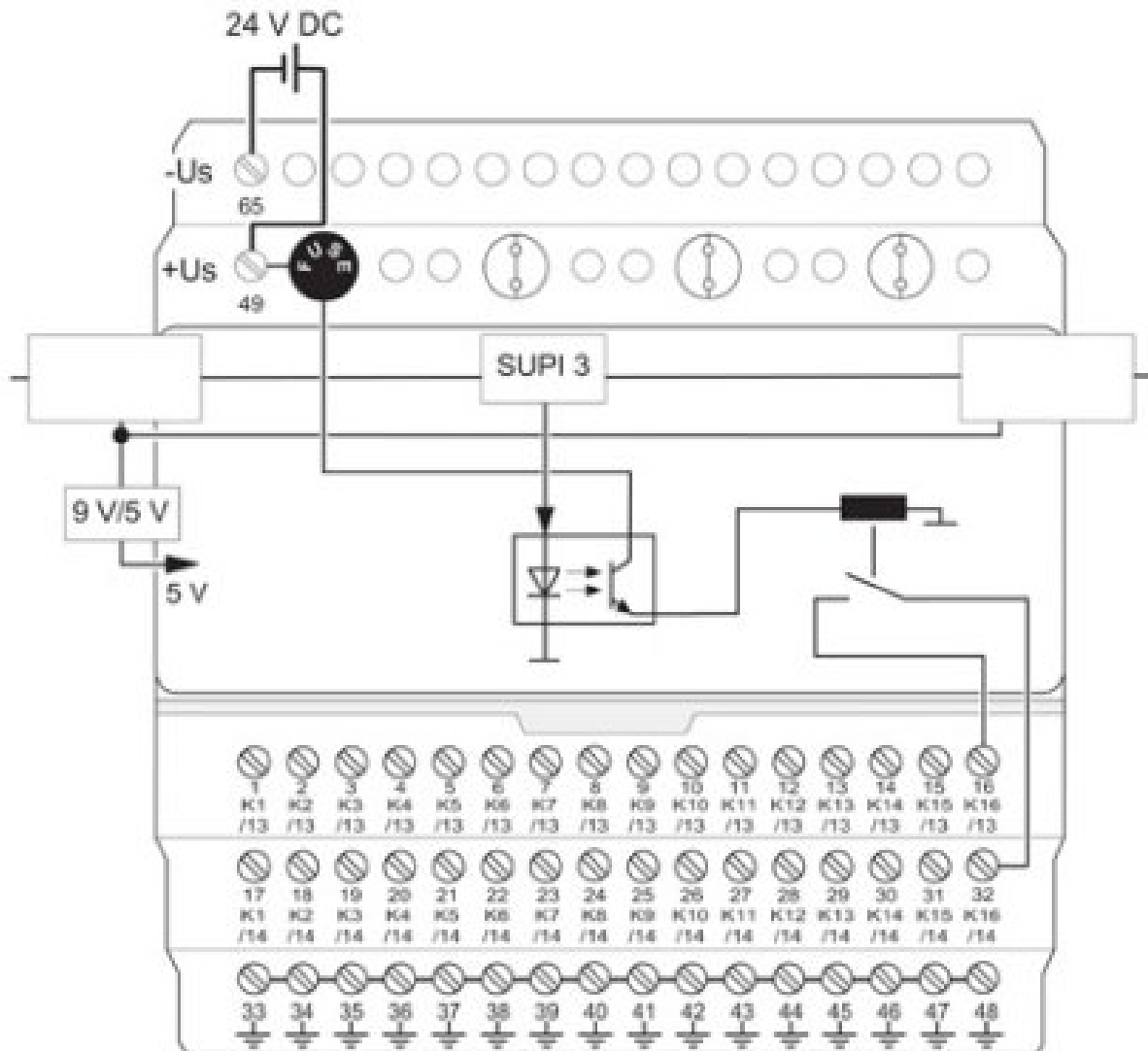


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Block diagram



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## Classifications

### ECLASS

ECLASS-13.0	27242604
ECLASS-15.0	27242604

### 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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