

# IB ST ZF 24 DO16/3 - I/O module

2750646

<https://www.phoenixcontact.com/us/products/2750646>

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The figure shows version IB ST  
24 DO 16/3

INTERBUS-ST digital output module, 16 outputs, 24 V DC, 500 mA, 3-conductor connection technology, IP20 degree of protection, consisting of: terminal part with spring-cage connection and module electronics

## Product description

### INTERBUS ST digital output modules

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

- Spring-cage connection with direct plug-in technology with a release mechanism
- Diagnostic and status indicators
- Total current of the terminal: 8 A
- Nominal current per output: 500 mA
- Connection of actuators in 3-conductor technology
- 16 digital outputs

## Commercial data

Item number	2750646
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	DR03
Product key	DRI332
GTIN	4017918132224
Weight per piece (including packing)	722.5 g
Weight per piece (excluding packing)	700.5 g
Customs tariff number	85389091
Country of origin	DE

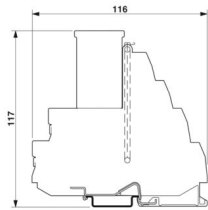
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## Technical data

### 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	Digital outputs
Connection method	Spring-cage connection
Connection technology	3-conductor
Number of outputs	16
Protective circuit	Short-circuit protection; electronic
Maximum output current per group	2 A
Maximum output current per channel	500 mA
Maximum output current per module / terminal block	8 A
Nominal load, inductive	12 VA (1.2 H, 48 $\Omega$ )
Nominal load, lamp	12 W (per output)
Nominal load, ohmic	12 W (per output)
Maximum operating frequency with ohmic nominal load	300 Hz (48 $\Omega$ )

### 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: Module electronics/Channel groups	500 V AC, 50 Hz, 1 min
Test voltage: Ground conductor/channel groups	500 V AC, 50 Hz, 1 min
Test voltage: Between channel groups	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

## 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)	66 kPa ... 108 kPa (3500 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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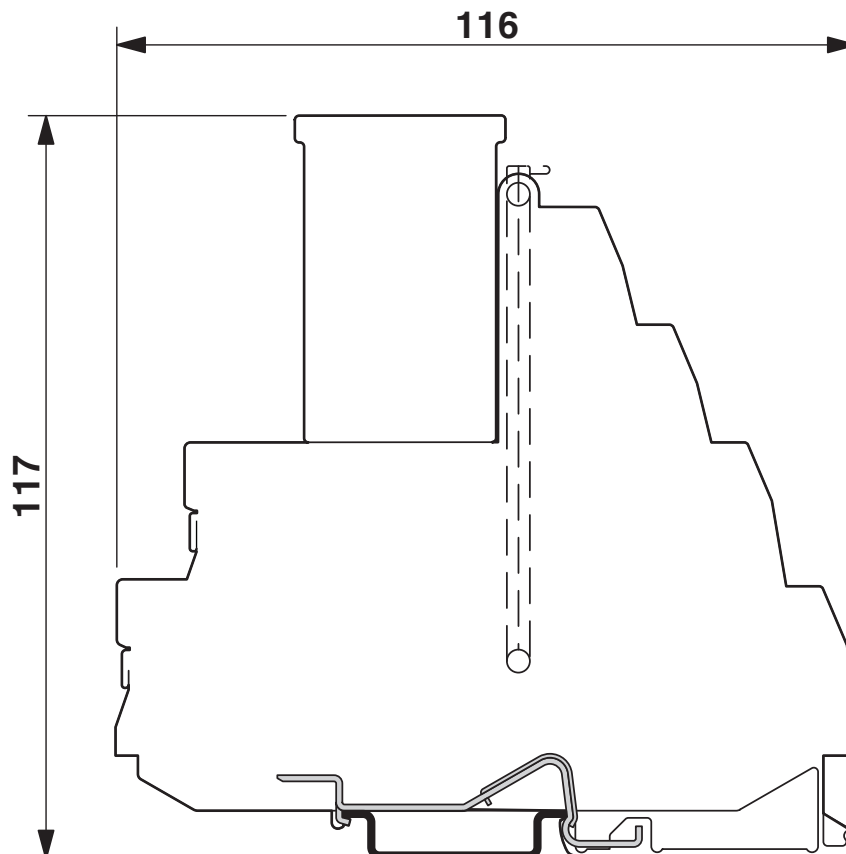
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## Drawings

Dimensional drawing



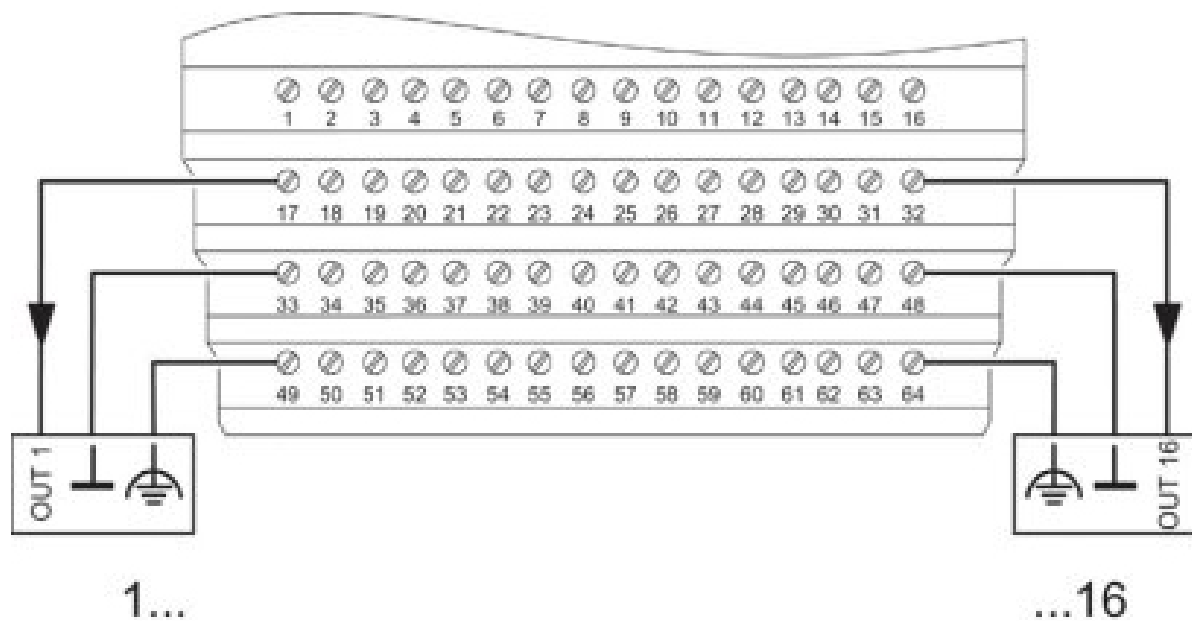
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Connection diagram

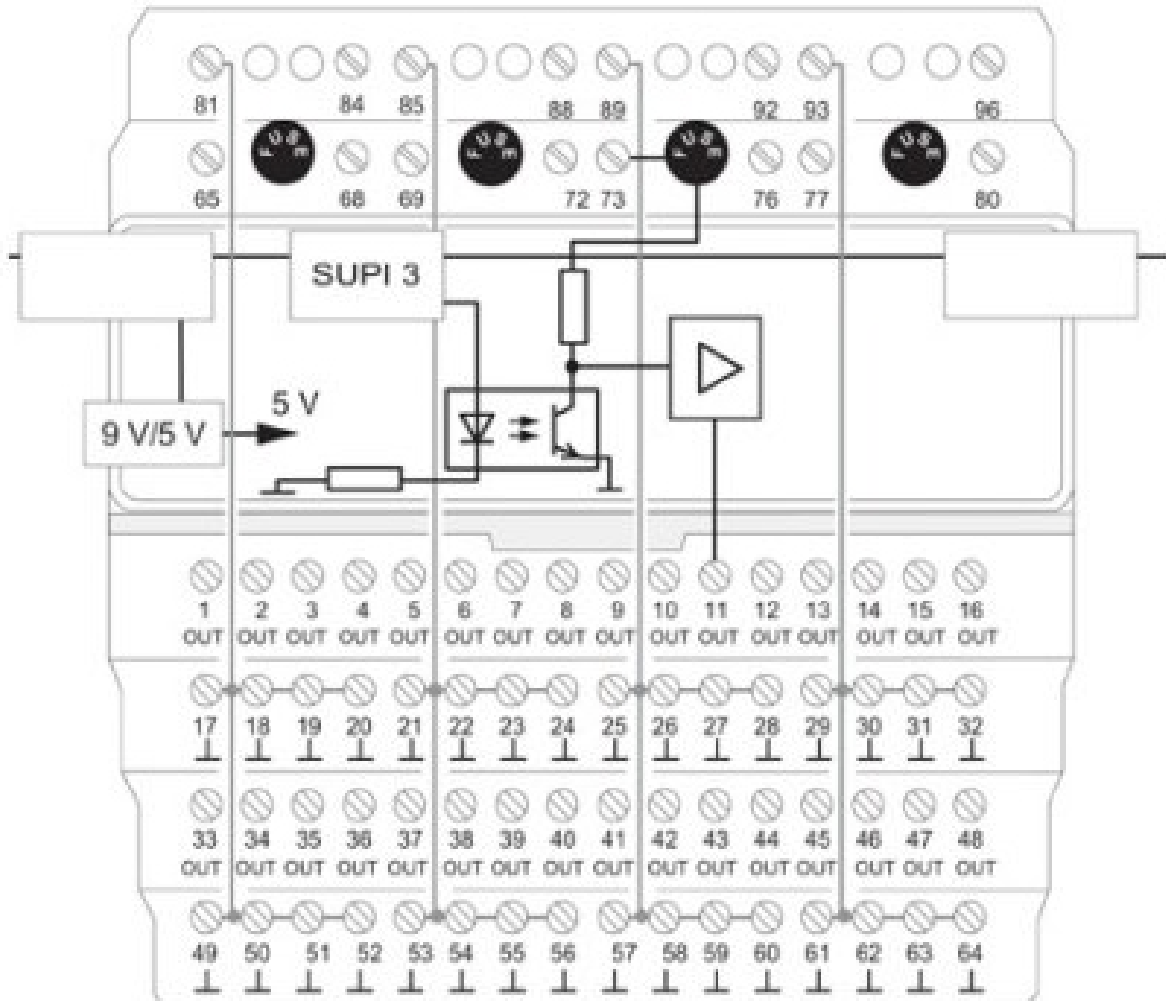


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Block diagram



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## Environmental product compliance

EU REACH SVHC

REACH candidate substance (CAS No.)	
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	No substance above 0.1 wt%
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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)