

# IB ST ZF 24 DI16/4 - I/O module

2750688

<https://www.phoenixcontact.com/us/products/2750688>



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INTERBUS-ST digital input module, 16 inputs, 24 V DC, 4-conductor connection technology, IP20 degree of protection, consisting of: terminal part with spring-cage connection and module electronics

The figure shows version IB ST 24  
BDI 16/4

## Product description

INTERBUS ST digital input modules

The digital INTERBUS input modules are designed for the connection of digital control signals, such as those generated by switches, limit switches, electronic proximity switches, and photoelectric switches.

The scope of functions provided by the standard models covers the majority of applications.

All the typical advantages of INTERBUS ST handling, such as multi-wire connection method and plug-in electronics are available.

## Your advantages

- Connection of sensors in 2-, 3-, and 4-conductor technology
- Short-circuit protection for the sensor supply
- Diagnostic and status indicators
- 16 digital inputs

## Commercial data

Item number	2750688
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	NULL
Product key	DRI331
GTIN	4017918140113
Weight per piece (including packing)	699 g
Weight per piece (excluding packing)	699 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	20 V DC ... 30 V DC (including ripple)
Current consumption	typ. 100 mA
Ripple	3.6 V <sub>pp</sub> within the allowable voltage range

Electrical isolation/isolation of the voltage ranges

Test voltage: Bus logic / I/O	500 V AC, 50 Hz, 1 min
Test voltage: Ground conductor / I/O	500 V AC, 50 Hz, 1 min
Test voltage: Supply voltage logic / I/O	500 V AC, 50 Hz, 1 min

### Input data

Digital:

Input name	Digital inputs
Number of inputs	16
Connection method	Spring-cage connection
Connection technology	4-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. 7 mA (per channel)
Typical response time	3 ms (typical)

### 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

### Interfaces

ST local bus

Connection method	ST local bus connector
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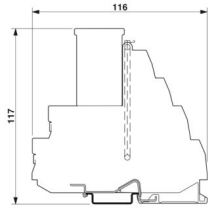
### Dimensions

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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
Degree of protection	IP20
Air pressure (operation)	80 kPa ... 108 kPa (up to 2000 m above sea level)
Air pressure (storage/transport)	80 kPa ... 108 kPa (up to 2000 m above sea level)
Ambient temperature (storage/transport)	-20 °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

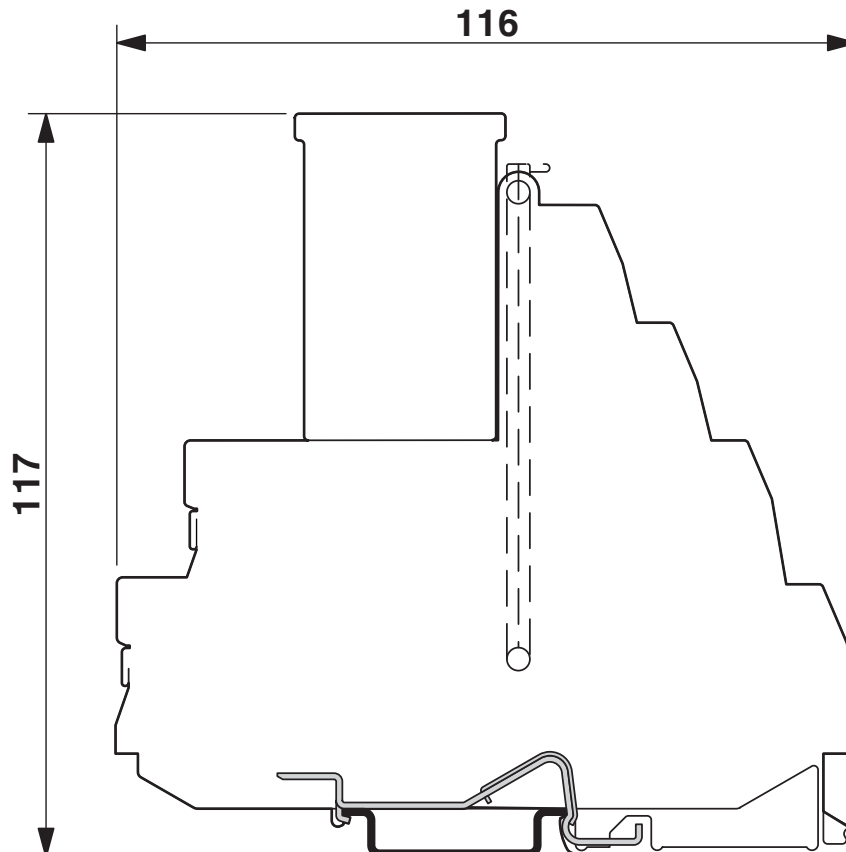
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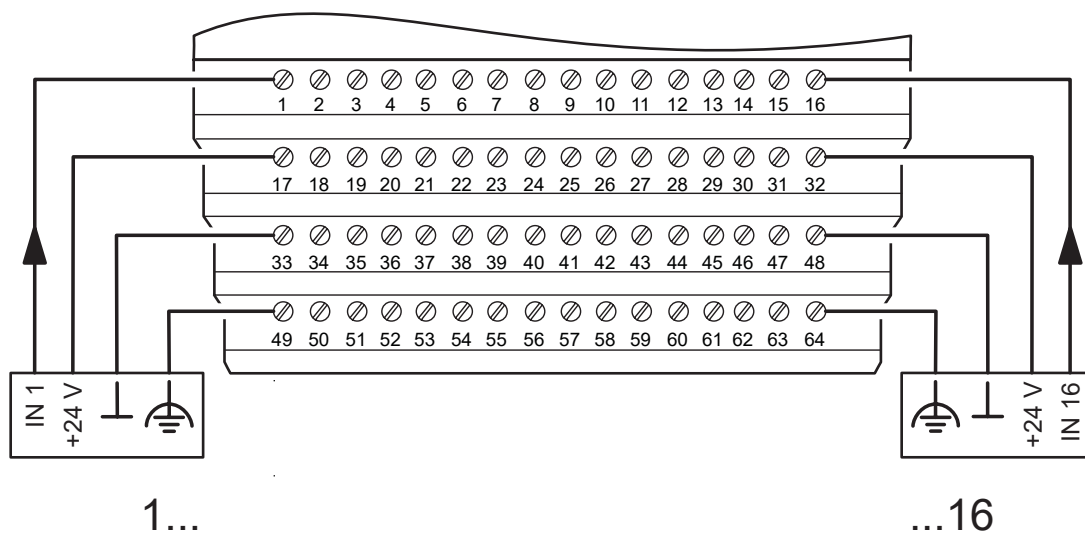
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## Drawings

Dimensional drawing



Connection diagram

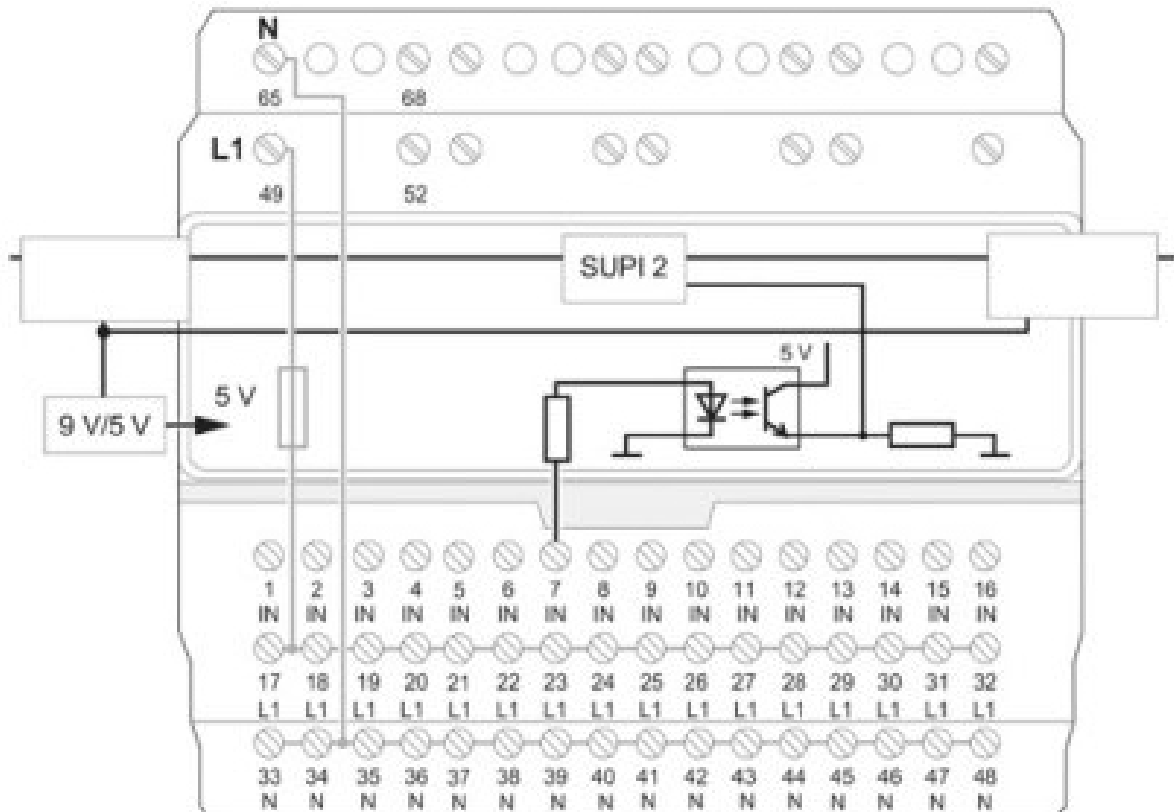


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Block diagram



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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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