

# IB ST 24 BDI16/4 - I/O module

2750170

<https://www.phoenixcontact.com/us/products/2750170>

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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 screw connection and module electronics

## Product description

INTERBUS ST standard 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

- 16 digital inputs
- Connection of sensors in 4-conductor technology

## Commercial data

Item number	2750170
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	DR03
Product key	DRI331
GTIN	4017918108311
Weight per piece (including packing)	710 g
Weight per piece (excluding packing)	698 g
Customs tariff number	85389091
Country of origin	DE

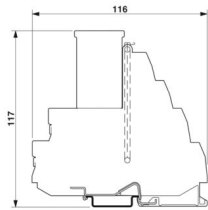
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## Technical data

### Dimensions

Dimensional drawing	
Width	118 mm
Height	117 mm
Depth	116 mm

### Notes

#### Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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### Material specifications

Color	green
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### Interfaces

#### ST local bus

Connection method	ST local bus connector
Transmission speed	500 kbps

### Input data

#### Digital:

Input name	Digital inputs
Number of inputs	16
Connection method	Screw 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	15 V DC ... 30 V DC
Nominal input current at $U_{IN}$	typ. 6 mA (per channel)
Typical response time	50 $\mu$ s

### Product properties

Product type	I/O component
Product family	Smart Terminal ST
Type	modular

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	INTERBUS Smart Terminal
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: Supply voltage logic / I/O	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)	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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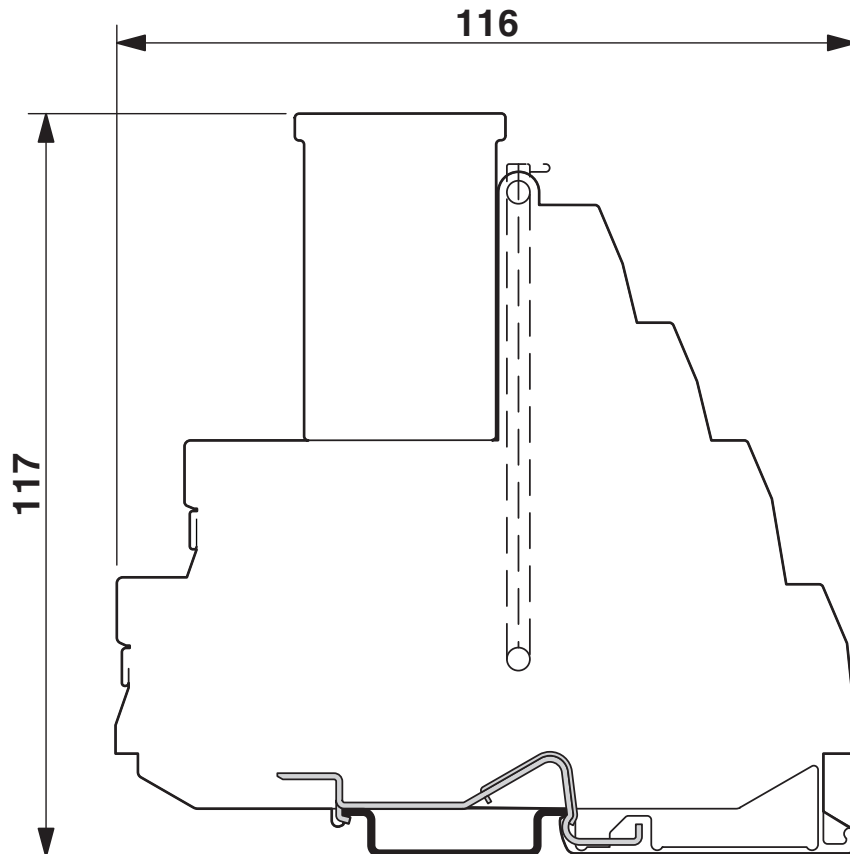


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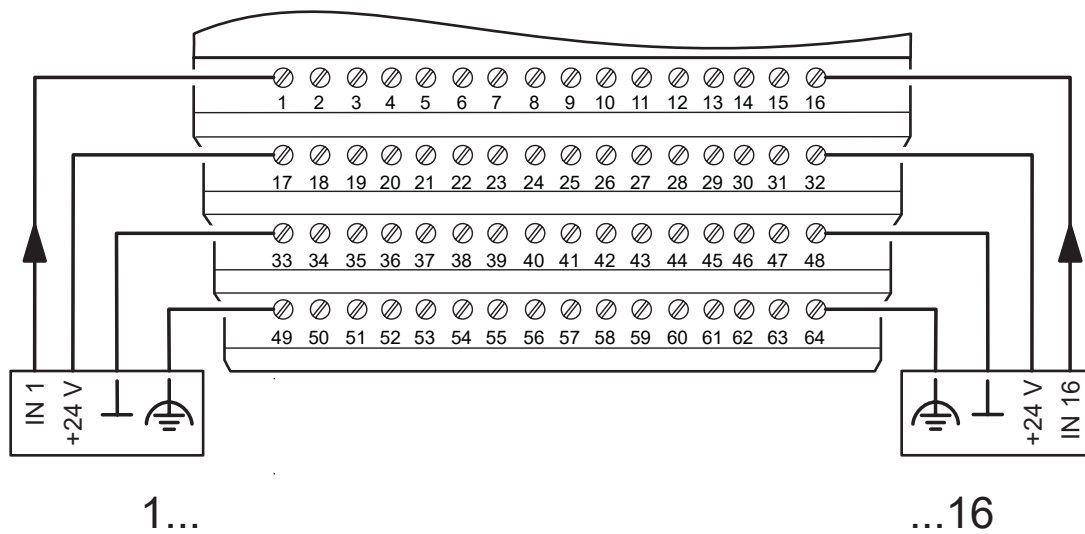
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## Drawings

Dimensional drawing



Connection diagram

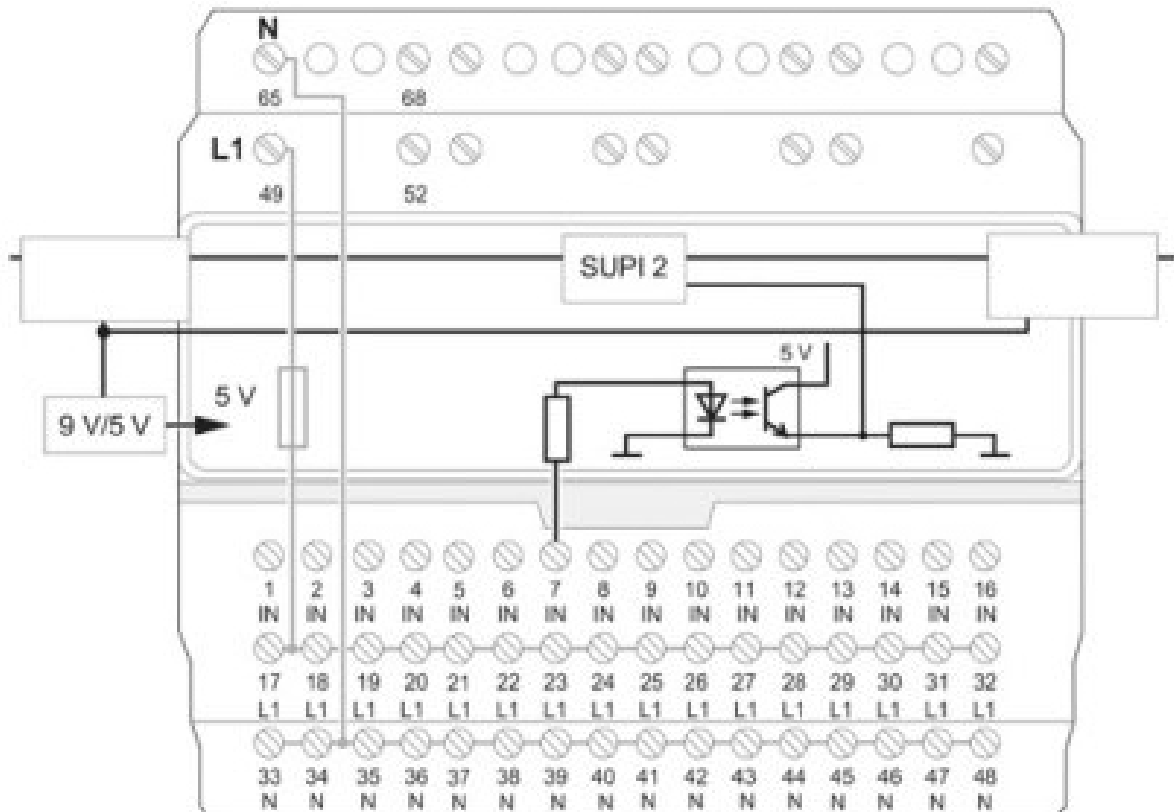


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Block diagram



## Environmental product compliance

### 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.)	No substance above 0.1 wt%
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