

## IB ST 24 AI 4/SF4


Order No.: 2750565

The illustration shows version IB ST 24 AI 4/SF

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INTERBUS-ST analog input module, 4 inputs, 4 - 20 mA, 0 - 10 V,  
IP20 protection, consisting of: Terminal part with screw connection and  
module electronics

### Commercial data

GTIN (EAN)	
sales group	K402
Pack	1 pcs.
Customs tariff	85389091
Catalog page information	Page 238 (AX-2011)

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### Product description

INTERBUS ST analog input modules

The wide range of INTERBUS analog input modules makes it possible to choose the ideal product for a variety of applications.

All commercially available analog standard sensors with voltage or current signals can be detected. Particular features of the INTERBUS analog input modules are:

- High accuracy of measurement
- Extremely rapid acquisition of measurement values
- Very good interference and common mode suppression
- A constant voltage source for the connection of passive sensors

Moreover, a host of measures guarantee a high standard of operational reliability, even under extreme industrial environmental conditions. In addition to integrated safety systems, such as:

- Watchdog monitoring of the processor, or
- Monitoring the supply voltage, in particular, comprehensive EMC measures, for example, a new shielding concept.

There is a separate shield connection option for each input, without extra external wiring necessary. The connection to protective earth ground is created automatically when the module is snapped onto the DIN rail.

## Technical data

### Interfaces

Interface	ST local bus
Connection method	ST local bus connector
Transmission physics	Copper

### Power supply

Communications power $U_L$	9 V DC (from the ST local bus)
Typical current consumption	65 mA (without passive sensors)
Max. current consumption	125 mA (without passive sensors)
I/O voltage	$\pm 24$ V DC 5 % (ripple)
Peripherals voltage range	20 V DC ... 30 V DC
Max. power consumption from the local bus	150 mA (from the ST local bus)
	120 mA (from the ST local bus)

### Electrical isolation

Test section	Bus/Inputs 500 V AC 50 Hz 1 min
	Supply voltage/inputs 500 V AC 50 Hz 1 min
	Supply voltage/Ground conductor 500 V AC 50 Hz 1 min
	I/O voltage/Ground conductor 500 V AC 50 Hz 1 min

### Inputs

No. of channels	4
Note on the number of channels	differential inputs, voltage or current
Connection method	2, 3, 4-wire
Voltage input signal	0 V ... 10 V
Input resistance of voltage input	>
Voltage input quantization	2.44 mV
Basic error limit	0.05 %
Current input signal	4 mA ... 20 mA

Current input quantization	3.91 µA
Wire break diagnostics	Yes, diagnostic bit
Basic error limit	0.06 %
Measuring principle	Successive approximation
Measured value monitoring to the PLC	All channels simultaneously
Measured value representation	16-bit two's complement
Measured value resolution	12 bits
A/D conversion time	10 µs (per channel)
Process data update	0.75 ms (per channel/3 ms all channels)
Limit frequency (3 dB)	29.9 Hz

**General data**

Weight	600 g
Width	118 mm
Height	117 mm
Length	116 mm
Mounting type	DIN rail

**Certificates / Approvals**



Certification CUL, GOST, UL

**Accessories**

Item	Designation	Description
<b>Bridges</b>		
2836269	EB 84 IB ST BU	Insertion bridges, divisible, isolated comb spine, color blue, 84-pos.
2836272	EB 84 IB ST RD	Insertion bridges, divisible, isolated comb spine, color red, 84-pos.
<b>Cable/conductor</b>		
2836492	IB ST LBC	Spare local bus cable, for INTERBUS-ST modules

**Fuse**

2753452	IBS TR5 0,2AT	Replacement fuse, for INTERBUS-ST modules
2753478	IBS TR5 0,4AT	Replacement fuse, for INTERBUS-ST modules

**Replacement clamping part**

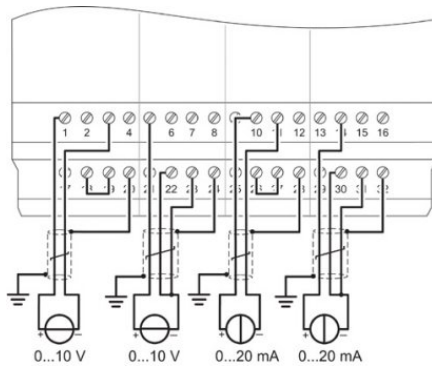
2753067	IB STTB 24 AI 4/SF	Replacement clamping part for IB ST 24 AI 4/SF(4), IB ST 24 AI 4/BP and IB ST 24 BAI 8/U(I)
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**Replacement module electronics**

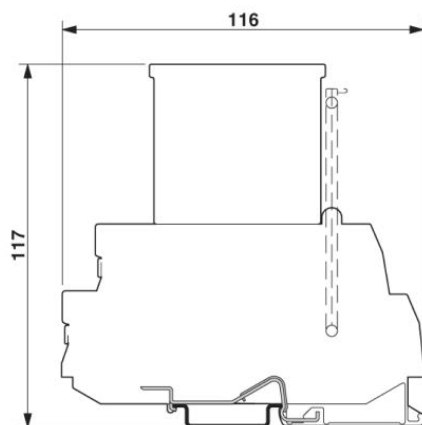
2750060	IB STME 24 AI 4/SF4	Replacement module electronics for IB ST (ZF) 24 AI 4/SF4
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**Diagrams/Drawings**

Connection diagram



Dimensioned drawing



**Address**

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