

I/O module - IB ST 24 AI 4/EF - 2700838

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

Product Description

The module is designed for use within an ST station. It is used to acquire analog voltage and current signals.

Why buy this product

- 4 analog, differential input channels for the connection of either voltage or current signals
- Connection of sensors in 2, 3, and 4-wire technology
- Sensor supply +15 V DC

Key Commercial Data

Packing unit	1 STK
Weight per Piece (excluding packing)	580.000 g
Custom tariff number	85389091
Country of origin	Germany

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	118 mm
Height	116 mm
Depth	117 mm

Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-25 °C ... 70 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)

I/O module - IB ST 24 AI 4/EF - 2700838

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Ambient conditions

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)
Degree of protection	IP20

General

Mounting type	DIN rail mounting
Net weight	585.1 g
Operating mode	Process data mode with 4 words
Diagnostics messages	Failure of the internal I/O supply I/O error message sent to the bus coupler
	F1 fuse failure I/O error message sent to the bus coupler
	I/O supply failure I/O error message sent to the bus coupler

Interfaces

Designation	ST local bus
Connection method	ST local bus connector
Transmission speed	500 kBit/s
Transmission physics	Copper

Power supply for module electronics

Connection method	ST local bus connector
Designation	Communications power
Supply voltage	9 V DC (from the ST local bus)
Current consumption	typ. 54 mA
Power consumption	typ. 0.5 W
Designation	U_s
Voltage	24 V DC
Nominal supply voltage range	19.5 V DC ... 30.2 V DC (including all tolerances, including ripple)

Analog inputs

Input name	Analog inputs
Number of inputs	max. 4 (differential inputs, voltage or current)
Connection method	2, 3, 4-wire (shielded)
A/D conversion time	max. 10 μ s (per channel)
Measuring principle	Successive approximation
Measured value representation	16 bit two's complement
Number of inputs	4 (differential inputs, voltage)
Voltage input signal	0 V ... 10 V (SF and SF4 mode)
	-10 V ... 10 V (Mode BP)
Input resistance of voltage input	200 k Ω

I/O module - IB ST 24 AI 4/EF - 2700838

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Analog inputs

Common mode voltage range signal - ground	-35 V DC ... 35 V DC
Number of inputs	4 (Differential inputs, current)
Current input signal	0 mA ... 20 mA (SF mode)
	4 mA ... 20 mA (BP and SF4 mode)
Input resistance current input	50 Ω

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.

Standards and Regulations

Protection class	III, IEC 61140, EN 61140, VDE 0140-1
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Classifications

eCl@ss

eCl@ss 4.0	27250303
eCl@ss 4.1	27250303
eCl@ss 5.0	27250303
eCl@ss 5.1	27242601
eCl@ss 6.0	27242601
eCl@ss 7.0	27242601
eCl@ss 8.0	27242601
eCl@ss 9.0	27242601

ETIM

ETIM 3.0	EC001596
ETIM 4.0	EC001596
ETIM 5.0	EC001596

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201404
UNSPSC 13.2	43201404

I/O module - IB ST 24 AI 4/EF - 2700838

Accessories

Accessories

Bridge

Jumper - IB ST LBC - 2836492



Spare local bus cable, for INTERBUS-ST modules

Insertion bridge - EB 84 IB ST BU - 2836269



Insertion bridges, divisible, isolated comb spine, color blue, 84-pos.

Insertion bridge - EB 84 IB ST RD - 2836272



Insertion bridges, divisible, isolated comb spine, color red, 84-pos.

Fuse

Fuse - IBS TR5 0,2AT - 2753452



Replacement fuse, for INTERBUS-ST modules

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Accessories

Fuse - IBS TR5 0,4AT - 2753478



Replacement fuse, for INTERBUS-ST modules

Spare parts

Replacement electronics module - IB STME 24 AI 4/EF - 2701955



INTERBUS-ST analog input module, 4 inputs, 0 - 10 V, ± 10 V, 0 - 20 mA, 4 - 20 mA, degree of protection IP20, comprising: Module electronics only
