

IB ST ZF 24 TEMP 4 RTD - I/O module



2701959

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INTERBUS-ST analog input module, 4 inputs, RTD, 2-, 3-, and 4-conductor connection, IP20 degree of protection, consisting of: terminal part with spring-cage connection and module electronics

Image shows IB ST 24 TEMP 4 RTD (2700843) version

Product description

The module is designed for use within an ST station. It is used to acquire signals from resistive temperature sensors.

Your advantages

- 4 analog input channels for connecting resistance temperature detectors (RTDs)
- Connection of sensors in 2-, 3-, and 4-conductor technology

Commercial data

Item number	2701959
Packing unit	1 pc
Sales key	DR03
Product key	DRI343
GTIN	4046356895880
Weight per piece (including packing)	562.8 g
Weight per piece (excluding packing)	562.8 g
Customs tariff number	85389091
Country of origin	DE

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Technical data

Dimensions

Width	118 mm
Height	116 mm
Depth	117 mm

Interfaces

ST local bus

No. of channels	2
Connection method	ST local bus connector
Transmission speed	500 kbps
Transmission physics	Copper

Input data

Analog:

Input name	Analog RTD inputs
Description of the input	Inputs for resistive temperature sensors
Number of inputs	4 (for resistance temperature detectors)
Connection technology	2-, 3-, 4-conductor (shielded)
A/D converter resolution	24 bit
Sensor types (RTD) that can be used	Pt 100, Pt 1000, Ni 100, Ni 1000
Measuring principle	Sigma/Delta process
Measured value representation	16 bit two's complement

Product properties

Product type	I/O component
Type	modular INTERBUS Smart Terminal
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

Electrical properties

Maximum power dissipation for nominal condition	0.5 W
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Supply: 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

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	max. 80 mA
Power consumption	typ. 0.5 W

Supply:

Designation	U_S
Supply voltage	24 V DC
Supply voltage range	19.5 V DC ... 30.2 V DC (including all tolerances, including ripple)
Current consumption	typ. 15 mA

Electrical isolation/isolation of the voltage ranges

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

Connection data

Connection technology

Connection name	Terminal block
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Terminal block

Connection method	Spring-cage connection
Conductor cross-section, rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross-section, flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross-section AWG	24 ... 12
Stripping length	8 mm

Environmental and real-life conditions

Ambient conditions

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

ECLASS

ECLASS-13.0	27242601
ECLASS-15.0	27242601

UNSPSC

UNSPSC 21.0	32151600
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(a), 6(a)-I, 6(c), 7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
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