

## IB ST ZF 24 PT100 4/4

Order No.: 2750950

The illustration shows version IB ST 24 PT 100 4/4



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

### Commercial data

|                |                                                                                                        |
|----------------|--------------------------------------------------------------------------------------------------------|
| GTIN (EAN)     | <br>4 017918 139551 |
| sales group    | K402                                                                                                   |
| Pack           | 1 pcs.                                                                                                 |
| Customs tariff | 85389091                                                                                               |

### Product notes

WEEE/RoHS-compliant since:  
11/20/2007



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### Product description

INTERBUS ST analog input modules for temperature and resistance measurement

These analog input modules are suitable for recording temperature signals.

Commercially available temperature measuring resistors or thermocouples can be connected.

In addition to the various types of sensors, different characteristics can also be programmed. Further features are:

- A new shielding concept for sensors makes it possible to meet more severe EMC requirements. For each input, there is a separate shield connection. External circuit elements are not necessary.
- Diagnostic LEDs provide information on the operating status at any time.
- All modules can be individually labeled on the large pull-out labeling field. The insert cards can be prepared by hand, or by plotter or printer.
- In the event of failure or malfunction, the electronics of the module can be easily replaced. The passive termination block remains mounted on the rail. This means that the replacement process can be carried out in a just a few seconds and without the need for tools.
- The fuses are accessible from outside, so that a fault can be cleared quickly.
- The connection to protective earth ground is made directly via the DIN rail.
- The conventional labeling materials (Zack strip ZB-6, etc.) can be used to label the termination blocks.

#### Technical data

##### Interfaces

|                   |                        |
|-------------------|------------------------|
| Interface         | ST local bus           |
| Connection method | ST local bus connector |

##### Power supply

|                             |                                                     |
|-----------------------------|-----------------------------------------------------|
| Communications power $U_L$  | 9 V DC (from the ST local bus)                      |
| I/O voltage                 | 24 V DC                                             |
| Typical current consumption | 85 mA (from the ST local bus)<br>50 mA (to $U_S$ )  |
| Max. current consumption    | 100 mA (from the ST local bus)<br>85 mA (to $U_S$ ) |

##### 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

|                                     |                                                 |
|-------------------------------------|-------------------------------------------------|
| Number of inputs                    | 4                                               |
| Connection method                   | 2, 3, 4-wire                                    |
| Sensor types (RTD) that can be used | PT: -200 °C ... +850 °C, Ni: -60 °C ... +250 °C |
| Measuring principle                 | Sigma/Delta process                             |
| Measured value representation       | 16-bit two's complement                         |

|                                          |                                                                  |
|------------------------------------------|------------------------------------------------------------------|
| Measured value resolution                | 16 bits                                                          |
| Quantization                             | 0.1 K (for Celsius scale, 0.056 K for Fahrenheit scale)          |
| Process data update                      | 258 ms (per channel/816 ms all channels (for 50 Hz suppression)) |
| Basic error limit of the range of values | 0.003 %                                                          |

#### General data

|                                        |                     |
|----------------------------------------|---------------------|
| Degree of protection                   | IP20                |
| Weight                                 | 540 g               |
| Width                                  | 118 mm              |
| Height                                 | 117 mm              |
| Length                                 | 116 mm              |
| Mounting type                          | DIN rail            |
| Conductor cross section solid min.     | 0.2 mm <sup>2</sup> |
| Conductor cross section solid max.     | 1.5 mm <sup>2</sup> |
| Conductor cross section stranded min.  | 0.2 mm <sup>2</sup> |
| Conductor cross section stranded max.  | 1.5 mm <sup>2</sup> |
| Conductor cross section AWG/kcmil min. | 24                  |
| Conductor cross section AWG/kcmil max  | 16                  |

#### Certificates / Approvals



Certification

GOST

#### Accessories

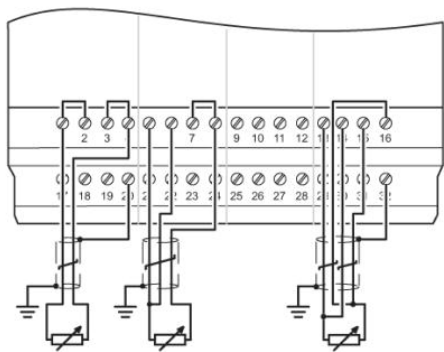
| Item                   | Designation   | Description                                    |
|------------------------|---------------|------------------------------------------------|
| <b>Cable/conductor</b> |               |                                                |
| 2836492                | IB ST LBC     | Spare local bus cable, for INTERBUS-ST modules |
| <b>Fuse</b>            |               |                                                |
| 2753478                | IBS TR5 0,4AT | Replacement fuse, for INTERBUS-ST modules      |

Replacement module electronics

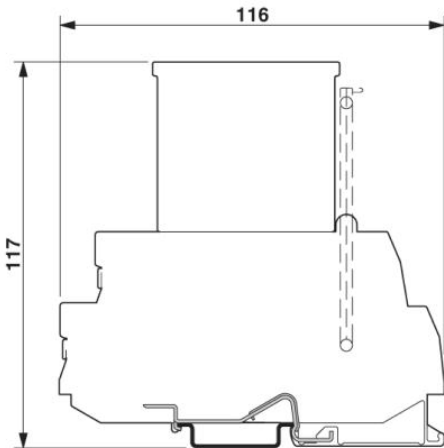
|         |                      |                                                             |
|---------|----------------------|-------------------------------------------------------------|
| 2750138 | IB STME 24 PT100 4/4 | Replacement module electronics for IB ST (ZF) 24 Pt 100 4/4 |
|---------|----------------------|-------------------------------------------------------------|

Diagrams/Drawings

Connection diagram



Dimensioned drawing



**Address**

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