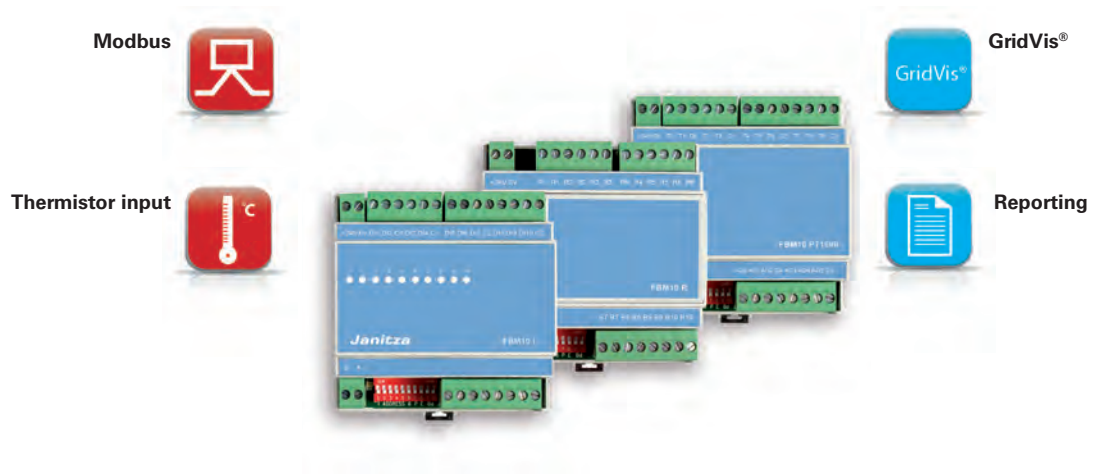


# FIELD BUS MODULES SERIES FBM



## Chapter 03

### Field bus modules series FBM

#### Decentralised I/O field bus module series FBM10

- RS485 interface
- Protocol Modbus RTU
- Can be used as a slave device to the measurement devices from series UMG 604-PRO, UMG 605-PRO, UMG 508, UMG 509-PRO, UMG 511 and UMG 512-PRO
- Also possible to connect over a distance of 1,000 m to the RS485 Modbus Master interface of the device; either via Profibus cable or e.g. a cable of type Li2YCY(TP) 2 x 2 x 0.22
- Modules are available pre-configured and programmed according to the selected measurement device

#### Use of the modules FBM10I and FBM10R

- Consolidation of various input and output signals in order to distribute to the respective participants
- Connection with the respective Modbus master from the device series UMG 604-PRO, UMG 605-PRO, UMG 508, UMG 509-PRO, UMG 511 or UMG 512-PRO is required in order to use the field bus modules.
- All data points are integrated into the Janitza system
- Detection of a wide range of key variables such as process data, states, error messages, threshold values, alarm outputs, etc.
- Archiving and visualisation via the software GridVis®

#### Example of using the inputs

- Tariff conversion
- Synchronising measurement periods
- Error messages
- State measurements

#### Example of using the outputs

- Threshold value outputs for measured values

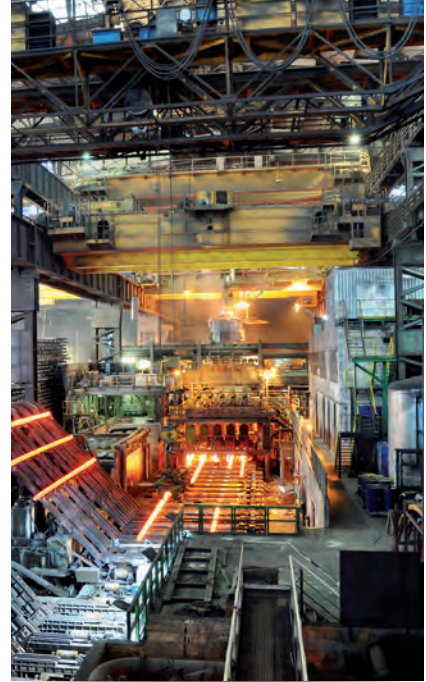


Fig.: Connection of the I/O field bus modules takes place via the RS485 interface of the UMG measurement device

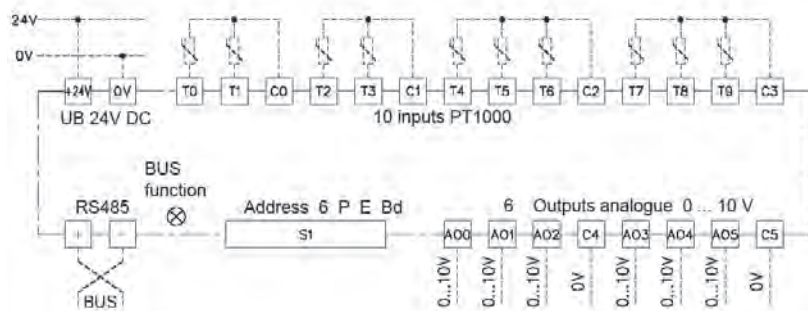


Fig.: Connection diagram FBM10 PT1000/PT100; thermistor input 2-wire

### Use of the FBM10PT1000 module

- Temperature field bus module
- Logging of up to 10 temperature measurements (e.g. via PT100 or PT1000)
- The recording and visualisation of the measured values takes place with the aid of UMG 604-PRO, UMG 605-PRO, UMG 508, UMG 509-PRO, UMG 511 or UMG 512-PRO and the required expansion (see chapter 04 APPs – Expansion with know-how)



Fig.: Following the APP installation it is also possible to save the values.

### Example

- Temperature monitoring
- Temperature logging

Field bus modules series FBM					
Type	Relay outputs	Digital inputs* <sup>1</sup>	Analogue inputs* <sup>2</sup>	Thermistor inputs	Item no.
FBM10I* <sup>3</sup>	–	10	–	–	15.06.076
FBM10PT1000* <sup>3</sup>	–	–	–	10	15.06.077
FBM10R-NC* <sup>3</sup>	10	–	–	–	15.06.078
FBM DI8-AI8* <sup>3</sup>	–	8	8	–	15.06.079

\*<sup>1</sup> Only state message

\*<sup>2</sup> 4 – 20 mA

\*<sup>3</sup> The modules are not suitable for the ProData in gateway operation.

General technical data	
Supply voltage	24 V DC ±20 %
No-load current	20 mA
Interface, protocol	RS485, Modbus-RTU
Transmission rate	4,800 to 38,400 Bit/s
Digital input	24 V DC, 5 mA
Relay outputs	24 V DC 0.5 A / 250 V / 3 A AC1 / 2 A AC3
Ambient temperature	-10 ... +50 °C
Accuracy	<0.1 % for temperature measurement PT1000
EMC	per EN 55011
Terminal	plug-in terminals up to 1 mm <sup>2</sup>
Housing	45 mm installation row system 88 x 90 x 58 mm (W x H x D)
Installation	top-hat rail
Humidity	<95 % rel. humidity non-condensing
Protection class	IP20
Standards	CE conformity