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
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)

Example

• Temperature monitoring
• Temperature logging

<table>
<thead>
<tr>
<th>Field bus modules series FBM</th>
<th>Relay outputs</th>
<th>Digital inputs a1</th>
<th>Analogue inputs a2</th>
<th>Thermistor inputs</th>
<th>Item no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FBM10I*3</td>
<td>–</td>
<td>10</td>
<td>–</td>
<td>–</td>
<td>15.06.076</td>
</tr>
<tr>
<td>FBM10PT1000*3</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>10</td>
<td>15.06.077</td>
</tr>
<tr>
<td>FBM10R-NC*3</td>
<td>10</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>15.06.078</td>
</tr>
<tr>
<td>FBM DII8-AL8*3</td>
<td>–</td>
<td>8</td>
<td>8</td>
<td>–</td>
<td>15.06.079</td>
</tr>
</tbody>
</table>

*1 Only state message
*2 4 – 20 mA
*3 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 mm²
- 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