Function extension unit Ex-barrier, data communication and power supply

APPLICATIONS
• Ex-barrier for data interface and digital outputs
• Interface for the use of a data communication module
• Intrinsically safe power supply for a volume converter

BRIEF INFORMATION
The FE260 is a compact device in which the signals from the data interface and the digital outputs from a volume converter type EK280 installed in a hazardous area can be connected to the corresponding input terminals. The signals at the output terminals are available for use with any kind of peripheral device. In addition to this, it is possible to provide an intrinsically safe power supply for the connected volume converter. All of the electrical data is perfectly compatible with any of the end devices that can be connected.

DATA COMMUNICATION
In order to integrate the volume converter into a remote data transfer system, the FE260 can be fitted with a data communication module. For this purpose, modems for a variety of telecommunication networks are available to meet the necessary requirements. To connect the device to an IP based network an Ethernet module can be equipped alternatively. Should it be necessary to connect modems or devices from other manufacturers, standard interfaces in accordance with RS232 or RS422 are also available.

POWER SUPPLY
The power supply of the FE260 can be either 115/230 V AC or a DC voltage between 10 and 30 V DC. The latter also enables the use of batteries or solar power supply. When this is the case, the voltage in combination with the volume converter can easily be monitored. If the voltage falls below a certain level (either 11 V or 20 V, which can be pre-set), the volume converter sends out an alarm signal.

VERSIONS
The FE260 is designed to be mounted on a wall. The connection cables to the volume converter are available (optional) in a variety of lengths making the installation of the device as easy as possible.

MAIN FEATURES
• Associated apparatus for Ex-Zone 2
• Manufacturer declaration to use in Ex-Zone 2
• Ex-barrier for data communication interface
• Ex-barrier for digital outputs
• Power supply for a volume converter
• Integration in remote data transfer systems
• Modular design
• Monitoring of power supply in combination with solar or battery power supply

OPTIONS
• Modem modules
  - 2G (GPRS)
  - 4G (LTE-M, NB-IoT; „5G-ready“)
• Alternative interfaces
  - RS232 / RS422
  - Ethernet
**FE260: Function extension unit, Ex-barrier, data communication and power supply**

The FE260 function extension unit – a flexible interface between volume converter and control centre

- **Volume conversion**
- **Data logging**
- **Process data**
- **Ex-barrier data interface**
- **Ex-barrier digital outputs**
- **Communication module (2G, Ethernet, serial interface)**
- **Intrinsically safe power supply for EK280**

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>Order number</strong></td>
<td>83480540</td>
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<tr>
<td><strong>Housing</strong></td>
<td>Cast aluminium housing for wall mounting</td>
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<tr>
<td><strong>Dimensions</strong></td>
<td>290 mm x 175 mm x 102 mm (height, width, depth) including cable connections and hinges</td>
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<tr>
<td><strong>Weight</strong></td>
<td>App. 3 kg</td>
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<tr>
<td><strong>Protection class</strong></td>
<td>IP 65 in accordance with EN 60529 (suitable for outdoor installation)</td>
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<tr>
<td><strong>ATEX approval</strong></td>
<td>Associated apparatus for Ex-Zone 1, II (2) G Ex ia IIB</td>
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<tr>
<td><strong>Manufacturer Declaration</strong></td>
<td>to use in Ex-Zone 2, II (3) G Ex nA IIB T4 Gc</td>
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<tr>
<td><strong>Ambient conditions</strong></td>
<td>AC Version: -10°C to +40°C</td>
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<tr>
<td><strong>Power supply</strong></td>
<td>DC Version: -5°C to +60°C (in combination with communication module see manual)</td>
</tr>
<tr>
<td><strong>Voltage monitoring</strong></td>
<td>humidity max. 93%, non-condensing</td>
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<tr>
<td><strong>Power output for converters</strong></td>
<td>11 V or 20 V adjustable for 12 V DC or 24 V DC power supply (only available with the 10 – 30 V DC version)</td>
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<tr>
<td><strong>Display</strong></td>
<td>2 status LED for indication of actual operating mode (Not suitable for the power supply of a built-in communication module in the EK280)</td>
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<td><strong>Digital inputs</strong></td>
<td>4 digital inputs for connection of digital outputs from converters</td>
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<tr>
<td><strong>Digital outputs</strong></td>
<td>4 digital outputs (with adjustable inverting) which forward the signals, connected to the particular digital input of the FE260</td>
</tr>
<tr>
<td><strong>Modems and interface boards (option)</strong></td>
<td>Internal serial TTL-interface for clip on of a desired communication module</td>
</tr>
<tr>
<td><strong>Cables (option)</strong></td>
<td>Connecting cable for data interface, digital outputs and power supply up to 1000 m corresponding to detailed specification possible</td>
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FE260 | EN | V2 | 08/23
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