sensoplex®2 Ex

Terminal modules

- 8-channel input/output modules for cabinet mounting
- Connection of 8 sensors according to EN 50227 (NAMUR) or low power loads (8 VDC, 2.7 mA)
- ABS-plastic housing, degree of protection IP 20
- Protection to EEx ib IIB T4
- Input and output monitoring for short-circuit and wire breakage
- Programming and parameter adjustment via the bus (int. EEPROM) or integrated DIP-switch
- LEDs for status and fault monitoring

The substations ESK80-Ex and ASK80-Ex are classified for protection type EEx ib IIB T4 and can be mounted directly in the hazardous area. The input station ESK80-Ex enables connection of 8 sensors according to EN 50227 (NAMUR) or dry contacts.

The output station ASK80-Ex serves for connection of low power loads (8 VDC, 2.7 mA). The signals are transferred via removable screw-terminals so that the stations can be mounted in a cabinet or integrated in an operator desk.

All sensoplex®2 functions are available, e.g. automatic addressing, error localisation on the bus line and bus operations such as parameterisation, configuration and force-functions via the handheld DEA 80 service unit (see page 5). The input- or output stations are monitored for wire-breakage and short-circuit. Monitoring can be de-activated via the DIP-switch in the station or via the bus by means of the handheld. (Input station ESK 80-Ex: monitoring is required with volt-free contacts, a double resistor circuit is required - see page 15).

The LEDs indicate input or output status, defect stations, missing power supply as well as wire-breakage and short-circuits. DIP-switches for setting of addresses and functions are located under the display.

To provide the full range of the sensoplex®2 features in the hazardous area the substations can only be used in conjunction with the sensoplex®2 Ex junction-box VB14-Ex/CS.
### Specification

<table>
<thead>
<tr>
<th></th>
<th>8-channel NAMUR input station</th>
<th>8-channel output station for low-power loads</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bus</strong></td>
<td>sensoplex®</td>
<td>sensoplex®²</td>
</tr>
<tr>
<td><strong>Operating voltage Uₜ</strong></td>
<td>9.5...30 VDC¹</td>
<td>9.5...30 VDC¹</td>
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<tr>
<td><strong>Current- /total current consumption</strong></td>
<td>via coaxial cable</td>
<td>via coaxial cable</td>
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<td>≤ 36 mA/12 V (all inputs short-circuited)</td>
<td>≤ 40 mA/12 V (rated output current)</td>
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</table>

### Input-/output data (operation values)

- **Switching threshold/output voltage**: 1.55 mA
- **Hysteresis/rated load current**: 0.2 mA
- **Short-circuit/wire-breaking monitoring**: per EN 50227 (NAMUR)
- **Current limitation/short-circuit threshold**: 1.9 mA
- **Wire-breakage threshold**: –
- **Delay-time (from signal 0 to 1 or from 1 to 0)**: –
- **Throughput attenuation**: ≤ 0.2 dB

### Hazardous Area Approval (max. values)

- **BVS. No.** in preparation
- **Type of protection** EEx ib IIB T4
- **Open-circuit voltage** 14.3 V
- **Short-circuit current** 15.6 mA
- **External inductivities/capacitances** 15 mH/2.8 µF
- **Internal inductivities/capacitances** negligible

### Mechanical features/Operating elements

- **Housing material**: ABS-plastic
- **Weight**: 350 g
- **Dimension (w x h x d) [mm]**: 80 x 160 x 60
- **Degree of protection (IEC 60529/EN 60529)**: IP 20
- **Temperature rating**: 0...60 °C
- **Mounting**: 2 through-holes
- **Bus connection**: coaxial connectors
- **Connection of input-output circuits**: 4-pole eurofast®
- **Adjustment of addresses and functions**: 10-pole DIP-switch

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¹) ≤ 15 VDC for hazardous area applications via VB14-Ex/CS