



0,1%  
FS



### Main characteristics

|   |                                  |
|---|----------------------------------|
| Measuring range   | -1 ... 0 bar up to 0 ... 400 bar |
| Turn down   | 5:1                              |
| Long term stability   | ≤ ± 0.1% FS / Year               |
| Accuracy (20 °C)<br><small>(Linearity, hysteresis, repeatability, error of span and zero point)</small> | ≤ ± 0.5% FS, 0.25% FS, 0.1% FS   |
| Performance after Turn-Down   | [Turn-Down] * [Accuracy] FS      |

### Technical specifications

|   |                                  |
|---|----------------------------------|
| Measuring principle   | Piezoresistive silicon sensor    |
| Measuring ranges  | -1 ... 0 bar up to 0 ... 400 bar |
| Type of pressure  | Relative / Absolute              |
| Turn down   | 5:1                              |
| Accuracy (20 °C)<br><small>(Linearity, hysteresis, repeatability, error of span and zero point)</small> | ≤ ± 0.5% FS, 0.25% FS, 0.1% FS   |
| Zero thermal drift  | ≤ ± 0.03% FS/10 K                |
| Span thermal drift  | ≤ ± 0.03% FS/10 K                |
| Long term stability   | ≤ ± 0.1% FS / Year               |
| Response time<br>(10 ... 90%)   | ≤ 5 ms                           |
| Process connections   | See page 3                       |

### Environment

|   |                |
|---|----------------|
| Temperature                                     |                |
| Storage   | -40 ... + 85°C |
| Compensated range                               | -40 ... + 85°C |
| Medium<br><small>(without cooling neck)</small> | -40 ... +125°C |
| Medium<br><small>(with cooling neck)</small>    | -40 ... +200°C |
| Ambient   | -40 ... + 85°C |

### Main features

- Flush membrane
- Fully welded version
- Robust stainless steel housing
- External programming of zero point and span with FlexProgrammer 9701
- High overpressure resistance
- Available with optional ATEX approval

### Applications

- Food
- Beverage
- Water treatment
- Chemical

|                           |  |
|---------------------------|--|
| Protection rating         | IP65 (EN 60529) up to IP67 depending on electrical connection                    |
| Vibration<br>IEC60068-2-6 | 1.5 mm p-p (10 – 57 Hz), 10 g (58 Hz – 2 KHz)<br>10 cycles within 2.5 h per axis |
| Shock<br>IEC60068-2-27    | 50 g/11 ms 100 g/6 ms<br>10 x Imp. per axis and direction                        |
| Bump<br>IEC60068-2-27     | 100 g/2 ms<br>4000 x Imp. per axis and direction                                 |
| Random<br>IEC60068-2-64   | 0.1 g <sup>2</sup> /Hz (20 Hz – 1 KHz)<br>30 min per axis (>10 g RMS)            |

### Electrical specification

|                              |  |
|------------------------------|--|
| Output signal / Power supply | 4 ... 20 mA / 8 ... 30 VDC<br>0...10 V / 13 ... 30 VDC           |
| Load impedance               |  |
| Current output               | $R_{\Omega} = (U_{\text{supply}} - 8 \text{ V}) / 20 \text{ mA}$ |
| Voltage output               | > 5 KΩ   |
| Insulation resistance        | >100 MΩ at 500 VDC   |
| Electrical connections       | See page 3   |

### Material

|                    |                                    |
|--------------------|------------------------------------|
| Process connection | SS 1.4404 AISI 316L or Hastelloy-C |
| Housing            | SS 1.4404 AISI 316L                |
| Diaphragm          | SS 1.4435 AISI 316L or Hastelloy-C |
| Sealing            | NBR, EPDM or FKM (Viton®)          |
| Cable              | PUR                                |

**ATEX**

|   |   |
|---|---|
| ATEX II 1G<br>Ex ia IIC T4/T6 Ga            | All versions without cooling neck,<br>DIN connector and with output<br>signal code A1   |
| ATEX II 1/2G<br>Ex ia IIC T4/T6<br>Ga/Gb    | All versions without cooling neck,<br>with DIN connector and output<br>signal code A1   |
| ATEX II 1G<br>Ex ia IIC T3/T4/T6 Ga         | All versions with cooling neck,<br>output signal code A1 and without<br>DIN connector   |
| ATEX II 1/2G<br>Ex ia IIC T3/T4/T6<br>Ga/Gb | All versions with cooling neck,<br>DIN connector and output signal<br>code A1   |
| ATEX II 1D<br>Ex ia IIIC T107°C<br>IP6X Da  | All versions with output signal<br>code A1  |
| Barrier data                                | $U_i \leq 30 \text{ V}$<br>$I_i \leq 100 \text{ mA}$<br>$P_i \leq 750 \text{ mW}$   |
| Capacity                                    | $C_i \leq 31 \text{ nF}$<br>$C_{\text{Cable}} \leq 0.12 \text{ nF/m}$   |
| Inductivity                                 | $L_i \leq 3 \text{ } \mu\text{H}$<br>$L_{\text{Cable}} \leq 1.1 \text{ } \mu\text{H/m}$   |
| Temperature class<br>(ambient temperature)  | T1 ... T3: $-40 < T_{\text{amb}} < 45/70/75/85 \text{ } ^\circ\text{C}$<br>T1 ... T4: $-40 < T_{\text{amb}} < 85 \text{ } ^\circ\text{C}$<br>T1 ... T6: $-40 < T_{\text{amb}} < 70 \text{ } ^\circ\text{C}$                 |
| Temperature class<br>(medium temperature)   | T1 ... T3: $-40 < T_{\text{med}} < 130/150/160/170/200 \text{ } ^\circ\text{C}$<br>T1 ... T4: $-40 < T_{\text{med}} < 115/130 \text{ } ^\circ\text{C}$<br>T1 ... T6: $-40 < T_{\text{med}} < 75/80 \text{ } ^\circ\text{C}$ |

For the application in Ex zone you have to respect the conditions mentioned in the ATEX Type Examination Certificate (SEV 11 ATEX 0129).

You find the certificates and manuals under <http://www.baumer.com/>

**Approvals**

|               |  |
|---------------|--|
| CE conformity | EMC directive 2004/108/CE in accordance with EN61000-6-2, EN 61000-6-3 |
|---------------|--|

**Measuring ranges and overpressure safety**

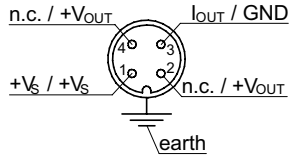
**Pressure in bar**

|                       |                                       |   |  |  |                       |                       |           |                         |
|-----------------------|---------------------------------------|---|--|--|-----------------------|-----------------------|-----------|-------------------------|
| <b>Pressure range</b> | 0 ... 0.1<br>0 ... 0.16<br>0 ... 0.25 | -0.1 ... 0.1<br>-0.2 ... 0.2<br>0 ... 0.4<br>0 ... 0.6<br>0 ... 1<br>-1 ... 0<br>-1 ... 0.6 | 0 ... 1.6<br>0 ... 2<br>0 ... 2.5<br>-1 ... 1.5<br>0 ... 4<br>-1 ... 3<br>-1 ... 5 | 0 ... 6<br>0 ... 10<br>-1 ... 9<br>0 ... 16<br>-1 ... 15<br>0 ... 20 | 0 ... 25<br>-1 ... 24 | 0 ... 40<br>-1 ... 39 | 0 ... 100 | -1 ... 399<br>0 ... 400 |
| <b>Over pressure</b>  | 1                                     | 3   | 15   | 60   | 70                    | 135                   | 400       | 690                     |
| <b>Burst pressure</b> | 2                                     | 6   | 30   | 120  | 140                   | 270                   | 800       | 1350                    |

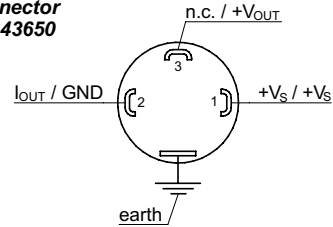
**Electrical connections**

Signal at 4...20 mA / Signal at 0...10V

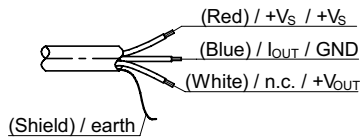
**M12  
4-pins**



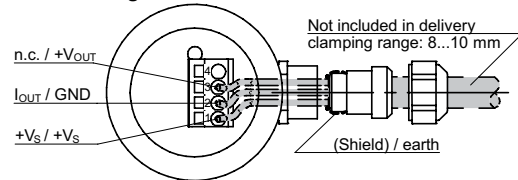
**Connector  
DIN 43650**



**Cable  
output**



**Field housing**



**Dimensions (mm)**

