



Pressure sensors  
Pressure transmitter

PBT-CB010SGESSOAMA0Z



**Model Name** > **PBT-CB010SGESS0AMA0Z**  
**Part No.** > **6042674**



*Illustration may differ*

**At a glance**

- Compound pressure measurement ranges from -1 ... 0 bar up to -1... +24 bar
- A large variety of available process connections
- No moving parts: No mechanical wear, fatigue-proof, maintenance-free
- Circularly welded, hermetically sealed stainless steel membrane
- Output signal 4 ... 20 mA, 0 ... 5 V or 0 ... 10 V
- Electrical connection M12x1, L-connector acc. to DIN 175301-803 A or flying leads

**Your benefits**

- Compact size takes up less space
- Simple and cost-saving installation
- Available in a wide selection of configurations, enabling a perfect match to individual customer requirements
- Robust design enables higher reliability
- Excellent price/performance ratio



**Features**

|                      |   |
|----------------------|---|
| Pressure type:       | Compound pressure                         |
| Measuring range:     | -1 bar ... 9 bar                          |
| Process temperature: | 0 °C ... +80 °C                           |
| Output signal:       | 4 mA ... 20 mA                            |
| Gauge pressure:      | 0 bar ... 1 bar up to bar ... 600 bar     |
| Absolute pressure:   | 0 bar ... 1 bar up to 0 bar ... 25 bar    |
| Compound pressure:   | -1 bar ... 0 bar up to -1 bar ... +24 bar |
| Medium:              | Liquid and gaseous media                  |

**Performance**

|                                     |  |
|-------------------------------------|--|
| Accuracy:                           | ≤ ± 0.5 % of span (with non-linearity 0.25 %), ≤ ± 0,6 % of Span (with non-linearity 0.25 % and with signal output 0 ... 5 V), ≤ ± 1,0 % of Span (with non-linearity 0.5 %), (Including non-linearity, hysteresis, zero point and full scale error (corresponds to error of measurement according to IEC 61298-2)) |
| Non-linearity:                      | ≤ ± 0.5 % ((Best Fit Straight Line, BFSL) according to IEC 61298-2)  |
| Response time:                      | < 4 ms   |
| Long-term drift/one-year stability: | ≤ 0.1 % of span according to IEC 61298-2   |
| Rated temperature range:            | 0 °C ... +80 °C  |
| Service life:                       | Minimum 100 Mio. life cycles   |
| Non-repeatability:                  | ≤ 0.1 % of span  |

|                                     |   |
|-------------------------------------|---|
| Hysteresis:                         | ≤ 0.16 % of span  |
| Signal noise:                       | ≤ 0.3 % of span   |
| Adjustment accuracy of zero signal: | ≤ 0.5 % of span typ., ≤ 0.8 % of span max. (with non-linearity 0.5 %) |

### Mechanics/electronics

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|                              |  |
|------------------------------|--|
| Process connection:          | G ½ B according to EN 837  |
| Wetted parts:                | Pressure connection: stainless steel 316L, Pressure sensor: stainless steel 316L (for measurement ranges from 0 bar ... 10 bar rel stainless steel 13-8 PH)            |
| Seal:                        | Without seal   |
| Pressure port:               | Standard   |
| Housing material:            | Stainless steel 316L   |
| Enclosure rating:            | IP 67  |
| Electrical connection:       | Round connector M12 x 1, 4-pin, IP 67  |
| Power consumption:           | Max. 8 mA for voltage output signal, Signal current (max. 25 mA) for current output  |
| Electrical safety:           | Short-circuit protection: QA towards M, Protection class: III, Overvoltage protection: 32 V DC, 36 V DC with 4 mA ... 20 mA, Reverse polarity protection: L+ towards M |
| Protection class III:        | ✓  |
| Weight sensor:               | Ca. 80 g   |
| Internal transmission fluid: | Silicone oil (only with pressure ranges < 0 bar ... 10 bar and ≤ 0 bar abs ... 25 bar abs)   |
| Isolation voltage:           | 500 V DC   |
| CE-conformity:               | Pressure equipment directive: 97/23/EC, EMC directive: 2004/108/EC, EN 61 326-2-3  |
| Reference conditions:        | Reference conditions: According to IEC 61298-1   |

Electrical circuit in accordance with section 9.3 of UL/EN/IEC 61010-1 or an LPS to UL/EN/IEC 60950-1 or class 2 in accordance with UL1310/UL1585 (NEC or CEC).

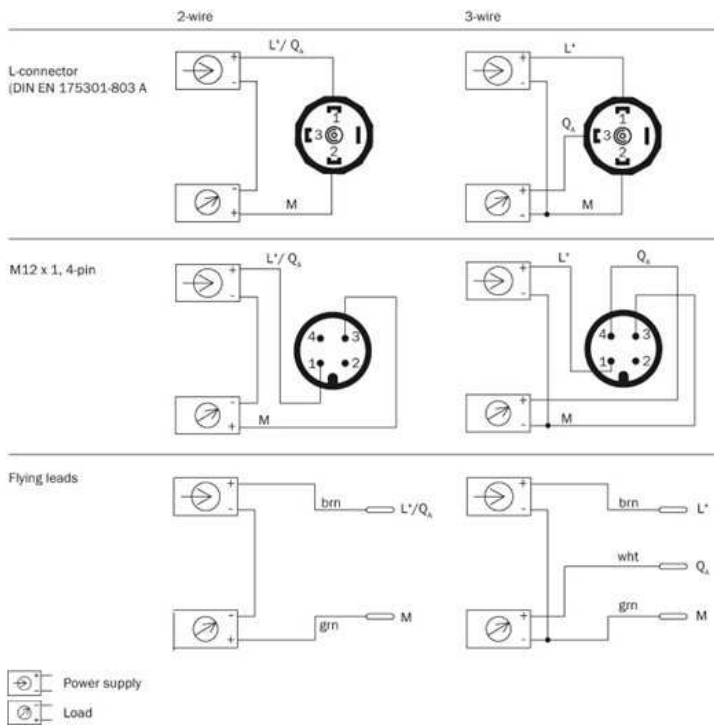
The power supply must be suitable for operation above 2,000 m should the pressure transmitter be used at this altitude.;

### Ambient data

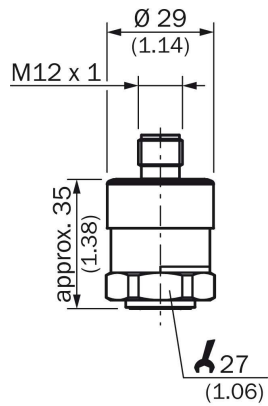
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|                      |  |
|----------------------|--|
| Storage temperature: | -20 °C ... +80 °C  |
| Ambient temperature: | 0 °C ... +80 °C  |
| Shock load:          | 500 g according to IEC 60068-2-27 (mechanical shock)                       |
| Vibration load:      | 10 g according to IEC 60068-2-6 (vibration under resonance), 20 g optional |
| Relative humidity:   | 45 % ... 75 %  |

## Connection type



## Dimensional drawing housing



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