



Pressure sensors  
Pressure transmitter

PBT-RB010SM2SE0ALA0Z



**Model Name** > [PBT-RB010SM2SE0ALA0Z](#)  
**Part No.** > [6043364](#)



*Product may differ from illustration*

**At a glance**

- Gauge pressure measurement ranges from 0 ... 1 bar up to 0 ... 600 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:	Gauge pressure
Measuring range:	0 bar ... 10 bar
Process temperature:	-30 °C ... 100 °C
CE-conformity:	✓
Output signal:	4...20 mA

**Performance**

Accuracy:	≤ +/- 1 % (of span)
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:	10 Mio. max. life cycles
Non-repeatability:	≤ 0.1 % of span
Adjustment accuracy of zero signal:	≤ 0.5 typ., 0.8 % max. % of span
Hysteresis:	± 0.16 % <sup>1)</sup>
Signal noise:	≤ 0.3 % of span

<sup>1)</sup> Of span

## Mechanics/electronics

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Process connection:	M20 x 1.5
Wetted parts:	Pressure Connection: 316L, Pressure sensor: 316L (for measurement ranges from 0 bar ... 10 bar rel: 13-8 PH)
Seal:	Without seal
Pressure port:	Standard
Housing material:	316L
Enclosure rating:	IP 65
Connection type:	L-connector (DIN EN 175301-803 A), IP 65
Supply voltage:	8 V DC ... 30 V DC
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, Reference conditions: According to IEC 61298-1, 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
Isolation voltage:	500 V DC <sup>1)</sup>
CE-conformity:	Pressure equipment directive: 97/23/EC, EMC directive: 2004/108/EEC, EN 61326-2-3

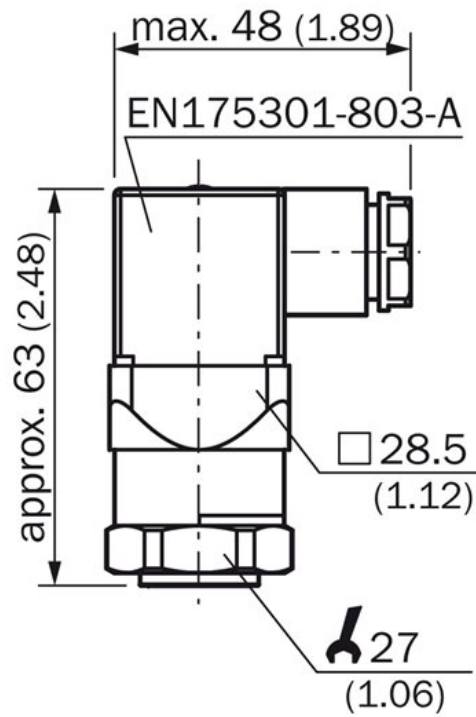
<sup>1)</sup> For power supply use a circuit with energy limitation (EN/UL/IEC 61010-1. section 9.3) with the following maximum values for the current: L+ = 30 V (DC): 5 A. Provide a separate switch for the external power supply. Alternative for North America: The connection may also be made to "Class 2 Circuits" or "Class 2. Power Units" according to CEC (Canadian Electrical Code) or NEC (National Electrical Code)

## Ambient data

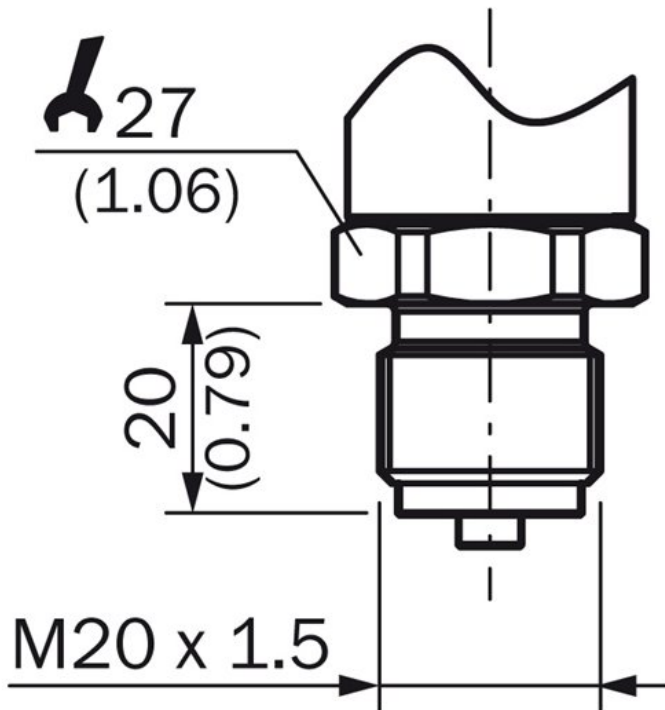
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Storage temperature:	0 °C ... 80 °C
Ambient temperature:	0 °C ... 80 °C
Shock load:	500 g according to IEC 60068-2-27 (mechanical shock)
Vibration load:	10 g according to IEC 60068-2-6 (vibration under resonance), 20 g optional
Relative humidity:	45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

Dimensional drawing housing



Dimensional drawing process connection



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