



Pressure sensors  
Pressure transmitter

PBT-RB250AG1SEFALA0Z



**Model Name** > **PBT-RB250AG1SEFALA0Z**  
**Part No.** > **6042011**



*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 ... 250 bar |
| Process temperature: | -30 °C ... 100 °C |
| CE-conformity:       | ✓                 |
| Output signal:       | 4...20 mA         |

#### Performance

|                                     |                                                                    |
|-------------------------------------|--------------------------------------------------------------------|
| Accuracy:                           | ≤ +/- 1 % (of span)                                                |
| Non-linearity:                      | ± 0.25 % ((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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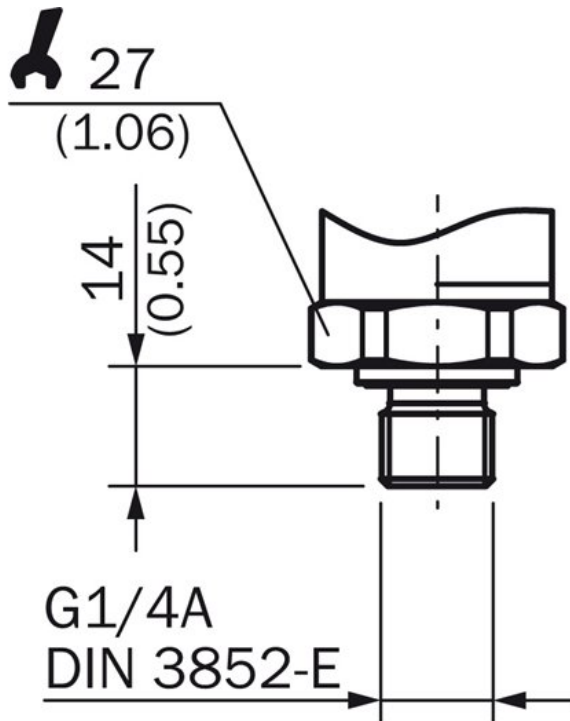
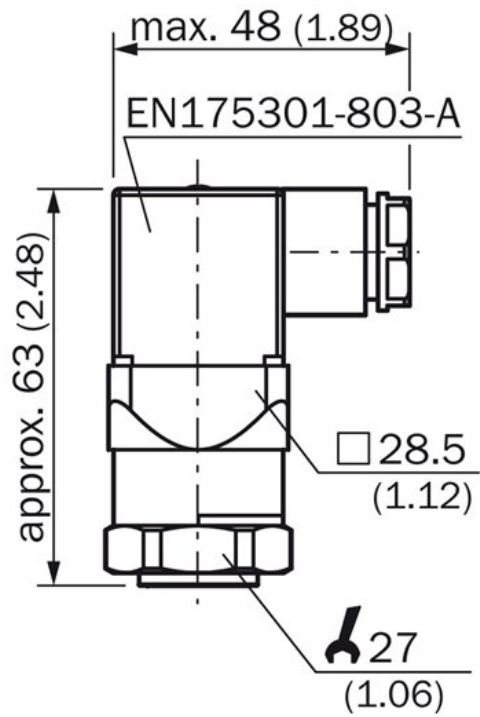
|                       |                                                                                                                                                                                                                        |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Process connection:   | G 1/4 A according to DIN 3852-E                                                                                                                                                                                        |
| Wetted parts:         | Pressure Connection: 316L, Pressure sensor: 316L (for measurement ranges from 0 bar ... 10 bar rel: 13-8 PH)                                                                                                           |
| Seal:                 | FPM/FKM                                                                                                                                                                                                                |
| 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                                                                                                                                      |

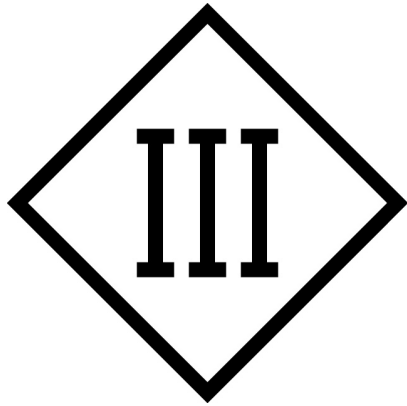
<sup>1)</sup> For power supply use a circuit with energy limitation (EN/UL/IEC 61010-1. section 9.3) with the following maximum values for the current: L+ = 30 V (DC): 5 A. Provide a separate switch for the external power supply. Alternative for North America: The connection may also be made to "Class 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 %                                                              |





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