



Pressure sensors
Pressure transmitter

PBT-RB040SG1SSFALA0Z



Model Name > **PBT-RB040SG1SSFALA0Z**
Part No. > **6042145**



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 ... 40 bar |
| Process temperature: | 0 °C ... 80 °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 % ¹⁾ |
| Signal noise: | ≤ 0.3 % of span |

¹⁾ Of span

Mechanics/electronics

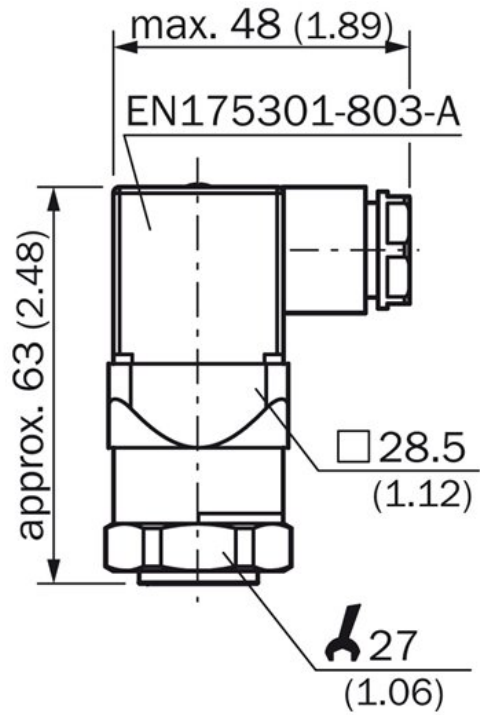
| | |
|-----------------------|--|
| Process connection: | G 1/4 A according to DIN 3852-E |
| Wetted parts: | Pressure Connection: 316L, Pressure sensor: 316L (for measurement ranges from 0 bar ... 10 bar rel: 13-8 PH) |
| Seal: | FPM/FKM |
| Pressure port: | Standard |
| Housing material: | 316L |
| 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 ¹⁾ |
| CE-conformity: | Pressure equipment directive: 97/23/EC, EMC directive: 2004/108/EEC, EN 61326-2-3 |

¹⁾ 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)

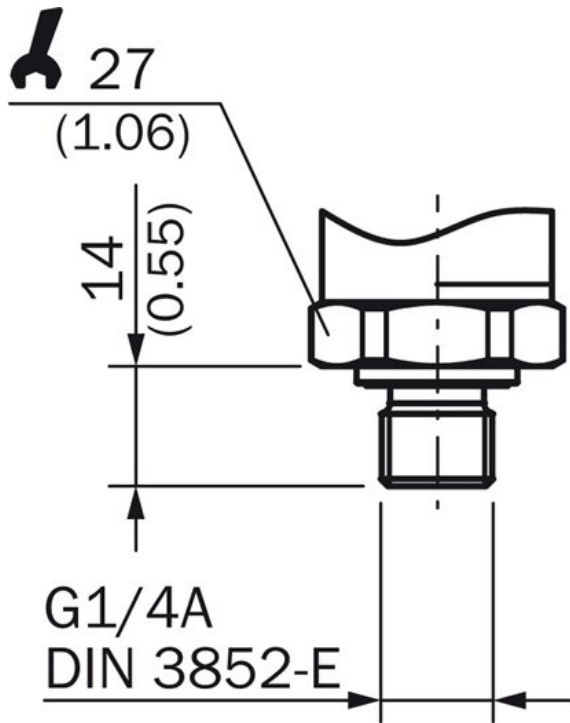
Ambient data

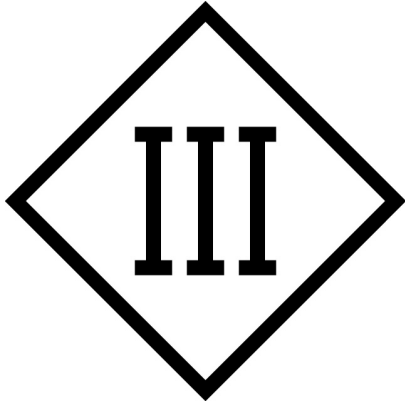
| | |
|----------------------|--|
| Storage temperature: | 0 °C ... 80 °C |
| Ambient temperature: | 0 °C ... 80 °C |
| Shock load: | 500 g according to IEC 60068-2-27 (mechanical shock) |
| Vibration load: | 10 g according to IEC 60068-2-6 (vibration under resonance), 20 g optional |
| Relative humidity: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

Dimensional drawing housing



Dimensional drawing process connection





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