

6038116 20308158

de



**PRESSURE SENSORS** 

## PBT-RB060SG1SSFALA0Z | PBT

PRESSURE SENSORS



Illustration may differ

#### Ordering information

| Туре                 | Part no. |
|----------------------|----------|
| PBT-RB060SG1SSFALA0Z | 6041532  |

Other models and accessories -> www.sick.com/PBT



#### Detailed technical data

#### Features

| Medium                            | Liquid, gaseous  |  |
|-----------------------------------|--|--|
| Pressure type                     | Gauge pressure   |  |
| Pressure unit                     | bar  |  |
| Measuring range                   | 0 bar 60 bar   |  |
| Process temperature               | 0 °C +80 °C  |  |
| Maximum ohmic load R <sub>A</sub> | 4 mA 20 mA, 2-wire ( $R_A \le (L^+ - 8 V) / 0.02 A$ [Ohm])<br>0 V 10 V, 3-wire ( $R_A > 10 kOhm$ )<br>0 V 5 V, 3-wire ( $R_A > 5 kOhm$ )                       |  |
| Output signal                     | 4 mA 20 mA, 2-wire   |  |
| Specialty                         | Without  |  |
| Mechanics/electronics             |  |  |
| Process connection                | G ¼ A according to DIN 3852-E  |  |
| Wetted parts                      | Pressure Connection: stainless steel 316L<br>Pressure sensor: stainless steel 316L (for measurement ranges from 0 bar 10 bar rel stain-<br>less steel 13-8 PH) |  |
| Internal transmission fluid       | Silicone oil (only with pressure ranges < 0 bar 10 bar and $\leq$ 0 bar abs 25 bar abs)  |  |
| Pressure port                     | Standard   |  |
| Housing material                  | Stainless steel  |  |
| Connection type                   | L-connector acc. to DIN 175301-803 A   |  |
| Supply voltage                    | 8 V DC 30 V DC <sup>1)</sup>   |  |
| Power consumption                 | Signal current (max. 25 mA) for current output<br>Max. 8 mA for voltage output signal  |  |
| Electrical safety                 | Overvoltage protection: 32 V DC, 36 V DC with 4 mA 20 mA Short-circuit protection: $Q_{\rm A}$ towards M   |  |
|                                   | Reverse polarity protection: L <sup>+</sup> to M<br>Protection class: III  |  |
| Isolation voltage                 | 500 V DC   |  |

<sup>1)</sup> The pressure transmitter must be supplied with power by a limited energy circuit compliant with 9.3 of UL/EN/IEC 601010-1 or LPS to UL/EN/IEC 60950-1 or Class 2 to UL 1310/UL1585 (NEC or CEC). The power supply must be suitable for operation above 2,000 m if the pressure transmitter is used above this altitude.

<sup>2)</sup> Enclosure rating IP per IEC 60529. The enclosure rating classes specified only apply when connected with female connectors that provide the corresponding enclosure rating.

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| CE-conformity        | Pressure equipment directive: 2014/68/EU<br>EMC directive: 2014/30/EU, EN 61 326-2-3 |
|----------------------|--|
| Weight sensor        | Approx. 80 g   |
| Seal                 | FPM/FKM  |
| Enclosure rating     | IP65 <sup>2)</sup>   |
| Protection class III | $\checkmark$   |
| Reference conditions | Reference conditions: According to IEC 61298-1                                       |
| MTTF                 | 815 years  |

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<sup>2)</sup> Enclosure rating IP per IEC 60529. The enclosure rating classes specified only apply when connected with female connectors that provide the corresponding enclosure rating.

#### Performance

| Non-linearity                      | $\leq$ $\pm$ 0.5 %, (Best Fit Straight Line, BFSL) according to IEC 61298-2        |
|------------------------------------|--|
| Accuracy                           | ≤ ± 1 % of the span  |
| Adjustment accuracy of zero signal | $\leq 0.5~\%$ of span typ., $\leq 0.8~\%$ of span max. (with non-linerarity 0.5 %) |
| Hysteresis                         | $\leq$ 0.16 % of the span  |
| Non-repeatability                  | $\leq$ 0.1 % of the span   |
| Response time                      | < 4 ms   |
| Signal noise                       | $\leq$ 0.3 % of the span   |
| Long-term drift/one-year stability | ≤ 0.1 % of span to IEC 61298-2   |
| Rated temperature range            | 0 °C +80 °C  |
| Service life                       | Minimum 100 Mio. load cycles   |

#### Ambient data

| Ambient temperature | 0 °C +80 °C  |
|---------------------|--|
| Storage temperature | -40 °C +70 °C  |
| Relative humidity   | 45 % 75 %  |
| 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)<br>20 g optional |

#### Classifications

| ECLASS 5.0   | 27200614 |
|--------------|----------|
| ECLASS 5.1.4 | 27200614 |
| ECLASS 6.0   | 27200614 |
| ECLASS 6.2   | 27200614 |
| ECLASS 7.0   | 27200614 |
| ECLASS 8.0   | 27200614 |
| ECLASS 8.1   | 27200614 |
| ECLASS 9.0   | 27200614 |
| ECLASS 10.0  | 27200614 |
| ECLASS 11.0  | 27200614 |
| ECLASS 12.0  | 27200614 |

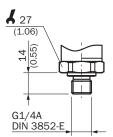
## PBT-RB060SG1SSFALA0Z | PBT

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| ETIM 5.0       | EC011478 |
|----------------|----------|
| ETIM 6.0       | EC011478 |
|                |          |
| ETIM 7.0       | EC011478 |
| ETIM 8.0       | EC011478 |
| UNSPSC 16.0901 | 41112410 |

Dimensional drawing (Dimensions in mm (inch))

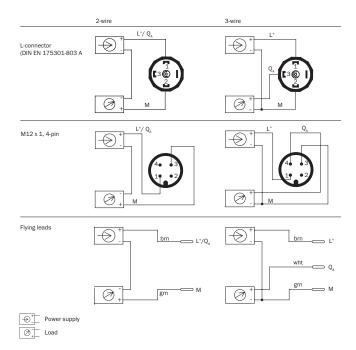
G ¼ A DIN 3852-E



Housing with L-connector (DIN 175301-803 A), IP65



#### Connection type



#### **Recommended accessories**

Other models and accessories -> www.sick.com/PBT

|               | Brief description   | Туре               | Part no. |
|---------------|---|--------------------|----------|
| Mounting brac | kets and plates   |                    |          |
| Fa            | Mounting bracket for simple and stable wall mounting of pressure sensors with 27 mm hexagon, Aluminum | BEF-FL-ALUPBS-HLDR | 5322501  |

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Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

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Online data sheet

