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de



**PRESSURE SENSORS** 

### PBT-RB100SG1SSNVLC0Z | PBT

PRESSURE SENSORS



#### Ordering information

Туре	Part no.
PBT-RB100SG1SSNVLC0Z	6047878

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





Features

Detailed technical data

#### Medium Liquid, gaseous **Pressure type** Gauge pressure **Pressure unit** bar 0 bar ... 100 bar **Measuring range Process temperature** 0 °C ... +80 °C Maximum ohmic load R<sub>A</sub> 4 mA ... 20 mA, 2-wire ( $R_A \le (L^+ - 8 V) / 0.02 A [Ohm]$ ) 0 V ... 10 V, 3-wire (R<sub>A</sub> > 10 kOhm) 0 V ... 5 V, 3-wire (R<sub>A</sub> > 5 kOhm) **Output signal** 0 V ... 10 V, 3-wire Specialty Without Mechanics/electronics G ¼ A according to DIN 3852-E **Process connection** 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) Internal transmission fluid Silicone oil (only with pressure ranges < 0 bar $\dots$ 10 bar and $\leq$ 0 bar abs $\dots$ 25 bar abs) Pressure port Standard Housing material Stainless steel **Connection type** L-connector acc. to DIN 175301-803 A Supply voltage 14 V DC ... 30 V DC <sup>1)</sup> **Power consumption** Signal current (max. 25 mA) for current output 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: QA towards M Reverse polarity protection: L<sup>+</sup> to M 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 EMC directive: 2014/30/EU, EN 61 326-2-3
Weight sensor	Approx. 80 g
Seal	NBR
Enclosure rating	IP65 <sup>2)</sup>
Protection class III	$\checkmark$
Reference conditions	Reference conditions: According to IEC 61298-1
MTTF	1,176 years

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#### Performance

Non-linearity	$\leq$ $\pm$ 0.5 %, (Best Fit Straight Line, BFSL) according to IEC 61298-2
Accuracy	$\leq \pm 1$ % 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	≤ 0.1 % of the span
Response time	< 4 ms
Signal noise	≤ 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) 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

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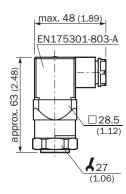
ETIM 5.0	EC011478
ETIM 6.0	EC011478
ETIM 7.0	EC011478
ETIM 8.0	EC011478
UNSPSC 16.0901	41112410

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		
18	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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We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

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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