

# PBT-RB1X0SGTSSNALA0Z

PBT

PRESSURE TRANSMITTER





## Ordering information

Туре	Part no.
PBT-RB1X0SGTSSNALA0Z	6043421

Other models and accessories → www.sick.com/PBT

Illustration may differ



### Detailed technical data

#### **Features**

Medium	Liquid, gaseous
Pressure type	Gauge pressure
Pressure unit	bar
Measuring range	0 bar 1 bar
Process temperature	0 °C +80 °C
Maximum ohmic load R <sub>A</sub>	4 mA 20 mA, 2-wire ( $R_A \le (L^+ - 8 \text{ V}) / 0.02 \text{ A [Ohm]}$ ) 0 V 10 V, 3-wire ( $R_A > 10 \text{ kOhm}$ ) 0 V 5 V, 3-wire ( $R_A > 5 \text{ kOhm}$ )
Output signal	4 mA 20 mA, 2-wire
Specialty	Without

## Mechanics/electronics

Process connection	G 1⁄2 A according to DIN 3852-E
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 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 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: $Q_A$ towards M Reverse polarity protection: $L^+$ 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.

<b>CE-conformity</b>	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	✓
Reference conditions	Reference conditions: According to IEC 61298-1
MTTF	815 years

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

#### Performance

Non-linearity	$\leq \pm~0.5~\%,$ (Best Fit Straight Line, BFSL) according to IEC 61298-2
Accuracy	$\leq$ ± 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	≤ 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

eCl@ss 5.0	27200614
eCl@ss 5.1.4	27200614
eCl@ss 6.0	27200614
eCl@ss 6.2	27200614
eCl@ss 7.0	27200614
eCl@ss 8.0	27200614
eCl@ss 8.1	27200614
eCl@ss 9.0	27200614
eCl@ss 10.0	27200614
eCl@ss 11.0	27200614
eCl@ss 12.0	27200614

sure rating.

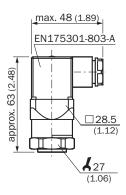
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PRESSURE TRANSMITTER

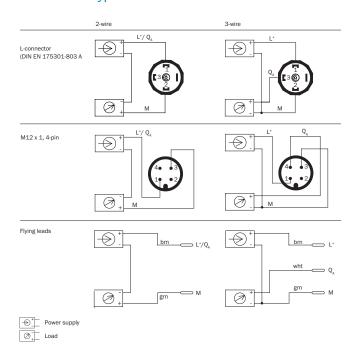
ETIM 5.0	EC011478
ETIM 6.0	EC011478
ETIM 7.0	EC011478
ETIM 8.0	EC011478
UNSPSC 16.0901	41112410

## Dimensional drawing (Dimensions in mm (inch))

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 brad	ckets and plates		
For	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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