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de



PRESSURE SENSORS

PRESSURE SENSORS



Ordering information

Туре	Part no.
PBT-RP2K0AN1SS0VMC0Z	6049139

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





Detailed technical data

Features Medium Liquid, gaseous **Pressure type** Gauge pressure **Pressure unit** psi 0 psi ... 2,000 psi **Measuring range Process temperature** 0 °C ... +80 °C Maximum ohmic load R_A 4 mA ... 20 mA, 2-wire ($R_A \le (L^+ - 8 V) / 0.02 A [Ohm]$) 0 V ... 10 V, 3-wire (R_A > 10 kOhm) 0 V ... 5 V, 3-wire (R_A > 5 kOhm) **Output signal** 0 V ... 10 V, 3-wire Without Specialty Mechanics/electronics 1⁄4" NPT **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 Stainless steel **Housing material Connection type** M12 round connector x 1, 4-pin

Supply voltage	14 V DC 30 V DC ¹⁾
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

¹⁾ 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.

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.

PRESSURE SENSORS

CE-conformity	Pressure equipment directive: 2014/68/EU EMC directive: 2014/30/EU, EN 61 326-2-3
Weight sensor	Approx. 80 g
Seal	Without seal
Enclosure rating	IP67 ²⁾
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 0.25 %, (Best Fit Straight Line, BFSL) according to IEC 61298-2
Accuracy	\leq ± 0.5 % of the span
Adjustment accuracy of zero signal	≤ 0.15 % of span typ., ≤ 0.4 % of span max. (with non-linerarity 0.25 %)
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) 20 g optional

Classifications

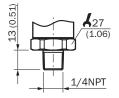
ECLASS 5.0	27200614
ECLASS 5.1.4	27200614
ECLASS 6.0	27200614
ECLASS 6.2	27200614
ECLASS 7.0	27200614
ECLASS 8.0	27200614
ECLASS 8.1	27200614
ECLASS 9.0	27200614
ECLASS 10.0	27200614
ECLASS 11.0	27200614
ECLASS 12.0	27200614

PRESSURE SENSORS

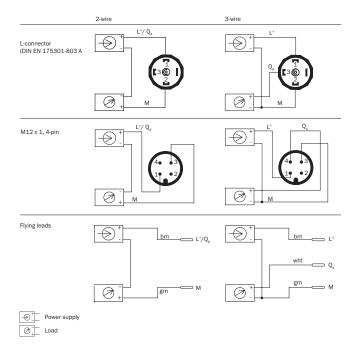
ETIM 5.0	EC011478
ETIM 6.0	EC011478
ETIM 7.0	EC011478
ETIM 8.0	EC011478
UNSPSC 16.0901	41112410

Dimensional drawing (Dimensions in mm (inch))

1⁄4" NPT



Connection type



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Recommended accessories

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	Brief description	Туре	Part no.
Mounting brac	kets and plates		
Fait	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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