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DATA SHEET

PBST-CB1X1SG2SSFQMA0Z

PBST
Pressure sensors

SICK Sensor Intelligence



Illustration may differ

PRESSURE SENSORS

PBST-CB1X1SG2SSFQMA0Z

ORDERING INFORMATION

Type	part no.
PBST-CB1X1SG2SSFQMA0Z	6088770

Further device versions and accessories at www.sick.com/PBST

DETAILED TECHNICAL DATA

FEATURES

Medium	Liquid, gaseous
Pressure type	Compound pressure
Pressure unit	bar (can be switched to psi, MPa, kPa, mmH2O, mmHG, %)
Measuring range	–1 bar ... 1 bar
Process temperature	–25 °C ... +100 °C
Maximum ohmic load R_A	4 mA ... 20 mA (R_A ≤ 0.5 kOhm), 0 V ... 10 V, 3-wire (R_A > 10 kOhm)
Zero point adjustment	Max. + 3 % of span
Output signal	Output 1 (pin 4): PNP/NPN/PP or IO-Link, Output 2 (pin 2): PNP/NPN/PP or analog 4...20 mA, 0...10 V, 1...10 V (each freely scalable up to max. 5:1)
Rotatable housing	Housing with display opposite process connection: 350°
Display	0.96" TFT color display with touch function (160 x 80 pixels)

MECHANICS/ELECTRONICS

Communication interface	IO-Link
Process connection	G ¼ female (EN 837)
Wetted parts	Process connection: 316L stainless steel Measuring chamber: Al2O3 96% (ceramics) Seals: FKM
Pressure port	M5 internal thread for pressure spike restrictor
Housing material	Housing: 1.4301/1.4305 stainless steel, Display: glass, Display seal: PE
Connection type	M12 round connector x 1, 4-pin
Supply voltage	9 V DC ... 30 V DC
Power consumption	< 30 mA
Total current consumption	400 mA (max. 200 mA per output)
Electrical safety	Protection class: III Overvoltage protection: 32 V DC Short-circuit resistance: Yes

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

	Reverse polarity protection: Yes
CE-conformity	EMC Directive: 2014/30 / EU (EN 61326-1:2013; EN 61326-2-3:2013)
Ex-approvals	Hazardous materials (RoHS): 2011/65 / EU (EN 50581:2012)
Weight sensor	Approx. 245 g
Seal	FKM
Enclosure rating	IP65 [1] IP67 [1] IP68 [1]
Protection class III	✓
MTTF	478 years

[1] 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

Accuracy	≤ ± 0.5 %
Response time	< 3 ms
Long-term drift/one-year stability	≤ 0.1 % FS / K
Temperature coefficient in rated temperature range	+/- 1.5% FS (< 100 bar) +/- 2.5% (≥ 100 bar)
Rated temperature range	–25 °C ... +80 °C
Service life	100 million load cycles

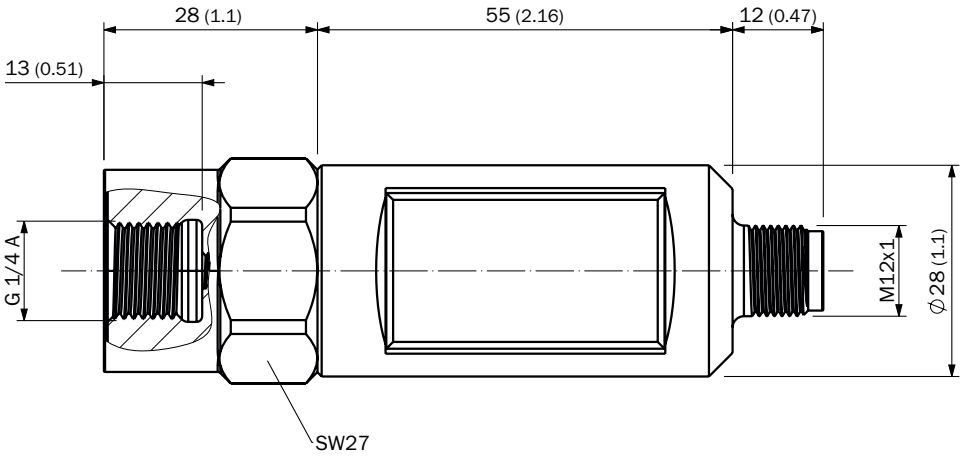
AMBIENT DATA

Ambient temperature, operation	–25 °C ... +80 °C
Storage temperature	–30 °C ... +85 °C
Relative humidity	≤ 90 %
Shock load	50 g, 11 ms, XYZ, according to DIN EN 60068-2-27
Vibration load	20 g, 10 Hz ... 2,000 Hz, XYZ, according to DIN EN 60068-2-6

CERTIFICATES

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓
cULus certificate	✓
IO-Link certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

DIMENSIONAL DRAWING



Dimensions in mm (inch)

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6088770

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SICK AT A GLANCE

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SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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