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Data sheet



PBST-RB100SG2SSFQMA0Z

PBST

PRESSURE SENSORS

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PBST-RB100SG2SSFQMA0Z | PBST

PRESSURE SENSORS



Illustration may differ

Ordering information

Type	part no.
PBST-RB100SG2SSFQMA0Z	6088758

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

Detailed technical data

Features

Medium	Liquid, gaseous
Pressure type	Gauge pressure
Pressure unit	bar (can be switched to psi, MPa, kPa, mmH2O, mmHG, %)
Measuring range	0 bar ... 100 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	-
Process connection	G ¼ female
Wetted parts	Process connection: 1.4404 stainless steel Measuring chamber: Al2O3 96% Seals: FPM/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

[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.

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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 Reverse polarity protection: Yes
Weight sensor	Approx. 245 g
Seal	FPM/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 % FS / K
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

Classifications

ECLASS 5.0	27200620
ECLASS 5.1.4	27200620
ECLASS 6.0	27200620
ECLASS 6.2	27200620
ECLASS 7.0	27200620
ECLASS 8.0	27200620
ECLASS 8.1	27200620
ECLASS 9.0	27200620
ECLASS 10.0	27200620
ECLASS 11.0	27200620
ECLASS 12.0	27200620
ETIM 5.0	EC000243
ETIM 6.0	EC000243

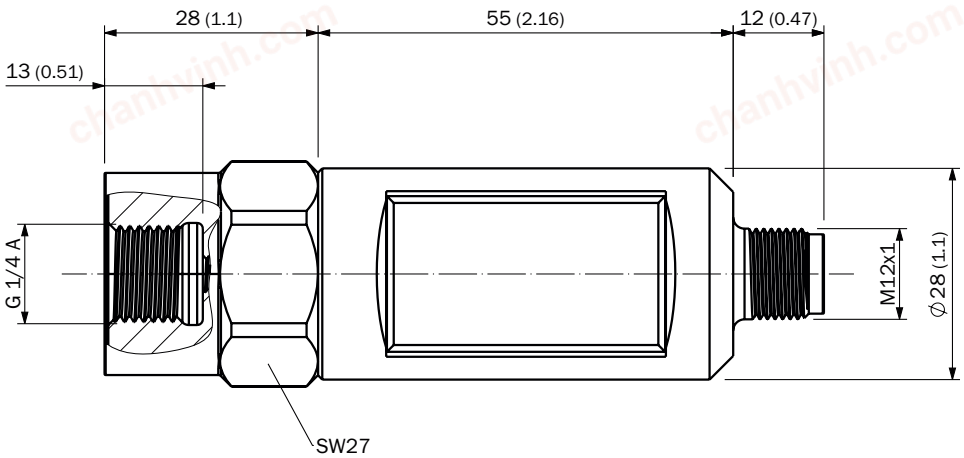
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ETIM 7.0	EC000243
ETIM 8.0	EC000243
UNSPSC 16.0901	41112409

Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China-RoHS	✓
cULus certificate	✓
IO-Link	✓

Dimensional drawing



Dimensions in mm (inch)

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SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

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."

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com