Product data sheet

PBS-CB025SN1SS0CMA0Z

PBS

PRESSURE SENSORS

SICK
Sensor Intelligence.

Illustration may differ

Ordering information

Type	Part no.
PBS-CB025SN1SS0CMA0Z	6044428

Other models and accessories ➜ www.sick.com/PBS

Detailed technical data

Features

Medium	Liquid, gaseous
Pressure type	Compound pressure
Pressure unit	bar
Measuring range	–1 bar ... 24 bar
Process temperature	–20 °C ... +85 °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	1 x PNP + 0 V ... 10 V
Rotatable housing	Display against housing with electrical connection: 330 ° Housing against process connection: 320 °
Display	14-segment-LED, blue, 4-digits, height 9 mm, electronically turnable by 180° Accuracy: ≤ 1 % of span ± 1 digit Update: 1,000, 500, 200, 100 ms (adjustable)

Mechanics/electronics

Process connection	¼" NPT
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 ≤ 0 bar abs ... 25 bar abs)
Pressure port	3.5 mm Standard
Housing material	Lower body: stainless steel 304, Plastic head: PC + ABS, Buttons: TPE-E, Display window: PC
Connection type	M12 round connector x 1, 4-pin
Supply voltage	15 V DC ... 35 V DC
Power consumption	45 mA (for configurations without analog output signal) 70 mA (for configurations with analog output signal)
Total current consumption	Max. 350 mA / 570 mA (incl. switching current)
Electrical safety	Protection class: III

	Overvoltage protection: 40 V DC Short-circuit protection: Q_A, Q_1, Q_2 towards M Reverse polarity protection: L^+ to M
Isolation voltage	500 V DC
CE-conformity	Pressure equipment directive: This instrument is a pressure accessory as defined by the directive 97/23/EC, EMC directive: 2004/108/EC, EN 61326-2-3
Weight sensor	Approx. 200 g
Seal	Without seal
Enclosure rating	IP67
Protection class III	✓
MTTF	333 years

Performance

Non-linearity	≤ ± 0.5 %, of span (Best Fit Straight Line, BFSL) according to IEC 61298-2
Accuracy	≤ ± 1 % of the span
Setting accuracy of switching outputs	≤ ± 0.5 % of span
Response time	3 ms
Long-term drift/one-year stability	≤ 0.2 % of the span according to IEC 61298-2
Temperature coefficient in rated temperature range	Mean TC of zero point: ≤ 0.2% of span / 10 K Mean TC of span ≤ 0.2 % of span / 10 K
Rated temperature range	0 °C ... +80 °C
Service life	Minimum 100 Mio. load cycles

Ambient data

Ambient temperature	–20 °C ... +80 °C
Storage temperature	–20 °C ... +80 °C
Relative humidity	≤ 90 %
Shock load	50 g according to IEC 60068-2-27 (mechanical shock)
Vibration load	10 g according to IEC 60068-2-6 (vibration under resonance)

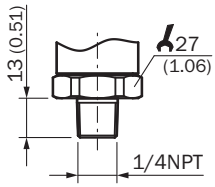
Classifications

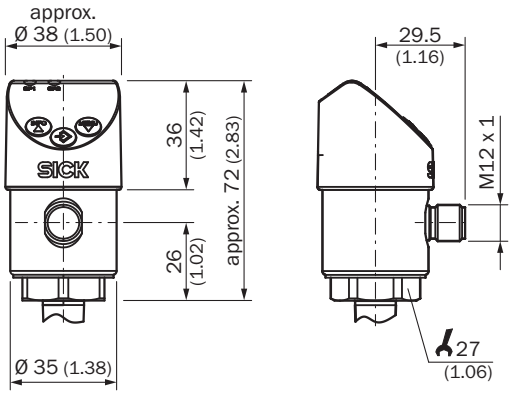
ECLASS 5.0	27200620
ECLASS 5.1.4	27200620
ECLASS 6.0	27200620
ECLASS 6.2	27200620
ECLASS 7.0	27200620
ECLASS 8.0	27200620
ECLASS 8.1	27200620
ECLASS 9.0	27200620
ECLASS 10.0	27200620
ECLASS 11.0	27200620
ECLASS 12.0	27200620
ETIM 5.0	EC000243
ETIM 6.0	EC000243
ETIM 7.0	EC000243

ETIM 8.0	EC000243
UNSPSC 16.0901	41112409

Dimensional drawing (Dimensions in mm (inch))

¼" NPT





Connection type

M12 x 1, 4-pin — 2 switching outputs/ 1 switching output + 1 analog output

$L^+ = 1$, $M = 3$, $Q_1 = 4$, $Q_2 = 2$
$C/Q_1 = 4$, $Q_A = 2$

M12 x 1, 5-pin — 2 switching outputs + 1 analog output

$L^+ = 1$, $M = 3$, $Q_1 = 4$, $Q_2 = 2$, $Q_A = 5$
$C/Q_1 = 4$

Recommended accessories

Other models and accessories ➜ www.sick.com/PBS

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket for simple and stable wall mounting of pressure sensors with 27 mm hexagon, Aluminum	BEF-FL-ALUPBS-HLDR	5322501

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.”

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