

PBS2-RB100SN1SS0NMA0Z PBS plus



PRESSURE SENSORS

PBS2-RB100SN1SS0NMA0Z | PBS plus

PRESSURE SENSORS



Ordering information

Туре	Part no.
PBS2-RB100SN1SS0NMA0Z	6073989

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

Illustration may differ



Detailed technical data

Features

Medium	Liquid, gaseous
Pressure type	Gauge pressure
Pressure unit	bar
Measuring range	0 bar 100 bar 0 psi 1,450 psi
Process temperature	-20 °C +85 °C
Maximum ohmic load R _A	4 mA 20 mA ($R_A \le 0.5 \text{ kOhm}$) 0 V 10 V, 3-wire ($R_A > 10 \text{ kOhm}$)
Zero point adjustment	Max. + 3 % of span
Output signal	IO-Link/PNP/NPN + 4 mA 20 mA / 0 V 10 V
Rotatable housing	Display against housing with electrical connection: 330 $^\circ$ Housing against process connection: 320 $^\circ$
Display	14-Segment LED, red, 4-digit, character height 9 mm, can be rotated electronically by 180° Update: 1,000, 500, 200, 100 ms (adjustable)

Mechanics/electronics

Process connection	1⁄4" NPT
Wetted parts	Pressure connection: stainless steel 316L Pressure sensor: stainless steel 316L (for measurement ranges from 0 bar 10 bar rel stain- less 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	3.5 mm Standard
Housing material	Lower body: stainless steel 304, Plastic head: PC + ABS, Buttons: TPE-E, Display window: PC

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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M12 round connector x 1, 4-pin
15 V DC 35 V DC
45 mA (for configurations without analog output signal) 70 mA (for configurations with analog output signal)
Max. 600 mA (including switching current)
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
500 V DC
EMC Directive: 2014/30 / EU (EN 61326-1:2013; EN 61326-2-3:2013), Pressure equipment directive: 2014/68 / EU, Hazardous materials (RoHS): 2011/65 / EU (EN 50581:2012)
Approx. 220 g
Without seal
IP67 ¹⁾ IP67 ¹⁾
✓
104 years

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Performance

Non-linearity	\leq \pm 0.25 %, of span (Best Fit Straight Line, BFSL) according to IEC 61298-2
Accuracy	\leq ± 0.5 % of the span
Setting accuracy of switching outputs	\leq ± 0.5 % of span
Response time	≤ 5 ms
Long-term drift/one-year stability	\leq \pm 0.1 % of the span according to IEC 61298-2 \leq 0.2 % of the span According to IEC 61298-2 for measuring range \leq 0.6 bar or flush-mounted membrane (0 psi 10 psi)
Temperature coefficient in rated tempera- ture range	Average TC of the zero point: $\le \pm$ 0.16% of the span / 10 K Average TC of the span $\le \pm$ 0.16% of the 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 +70 °C
Relative humidity	≤ 75 %
Shock load	50 g, 6 ms according to IEC 60068-2-27 (mechanical shock)
Vibration load	20 g, 10 Hz 2,000 Hz (IEC 60068-2-6, at resonance)
Classifications	
ECLASS 5.0	27200620
ECLASS 5.1.4	27200620
ECLASS 6.0	27200620
ECLASS 6.2	27200620
ECLASS 7.0	27200620

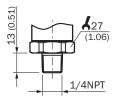
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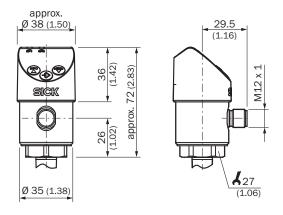
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ECLASS 8.0	27200620
ECLASS 8.1	27200620
ECLASS 9.0	27200620
ECLASS 10.0	27200620
ECLASS 11.0	27200620
ECLASS 12.0	27200620
ETIM 5.0	EC000243
ETIM 6.0	EC000243
ETIM 7.0	EC000243
ETIM 8.0	EC000243
UNSPSC 16.0901	41112409

Dimensional drawing (Dimensions in mm (inch))

1⁄4" NPT





Connection type

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







 $L^{+} = 1$, M = 3, $Q_{1} = 4$, $Q_{2} = 2$, $Q_{A} = 5$ $C/Q_{1} = 4$

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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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