

PBS-RB025SGESSSBMA0Z PBS



PRESSURE SENSORS

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PRESSURE SENSORS



Ordering information

Туре	Part no.
PBS-RB025SGESSSBMA0Z	6041579

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

Illustration may differ



Detailed technical data

Features	
Medium	Liquid, gaseous
Pressure type	Gauge pressure
Pressure unit	bar
Measuring range	0 bar 25 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 + 4 mA 20 mA
Rotatable housing	Display against housing with electrical connection: 330 $^{\circ}$ Housing against process connection: 320 $^{\circ}$
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	G ½ B according to EN 837
	G ½ B according to EN 837 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)
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Process connection 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)
Process connection Wetted parts Internal transmission fluid	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) Silicone oil (only with pressure ranges < 0 bar 10 bar and ≤ 0 bar abs 25 bar abs)
Process connection Wetted parts Internal transmission fluid Pressure port	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) Silicone oil (only with pressure ranges < 0 bar 10 bar and ≤ 0 bar abs 25 bar abs) 3.5 mm Standard
Process connection Wetted parts Internal transmission fluid Pressure port Housing material	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) Silicone oil (only with pressure ranges < 0 bar 10 bar and ≤ 0 bar abs 25 bar abs) 3.5 mm Standard Lower body: stainless steel 304, Plastic head: PC + ABS, Buttons: TPE-E, Display window: PC
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Process connection Wetted parts Internal transmission fluid Pressure port Housing material Connection type Supply voltage	Pressure connection: stainless steel 316L Pressure sensor: stainless steel 316L (for measurement ranges from 0 bar 10 bar rel stainless steel 13-8 PH) Silicone oil (only with pressure ranges < 0 bar 10 bar and ≤ 0 bar abs 25 bar abs) 3.5 mm Standard Lower body: stainless steel 304, Plastic head: PC + ABS, Buttons: TPE-E, Display window: PC M12 round connector x 1, 4-pin 15 ∨ DC 35 ∨ DC 45 mA (for configurations without analog output signal)

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	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	Stainless steel
Enclosure rating	IP67
Protection class III	✓
MTTF	202 years
Performance	
Non-linearity	\leq ± 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	\leq 0.2 % of the span according to IEC 61298-2
Temperature coefficient in rated tempera- ture range	Mean TC of zero point: \leq 0.2% of span / 10 K Mean TC of span \leq 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

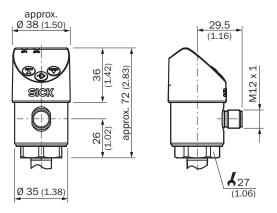
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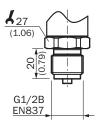
UNSPSC 16.0901

41112409

Dimensional drawing (Dimensions in mm (inch))



G $^{1\!\!/_2}$ B according to EN 837



Connection type









Recommended accessories

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

	Brief description	Туре	Part no.
Heating and cooling devices			
	Cooling element, extension of the process temperature up to 150 °C. Maximum ambient temperature 30 °C. Max. process pressure 200 bar. Not suitable for pressure measurement in steam. Outer thread G 1/2, inner thread G 1/2.	BEF-CE- G12G12-150C	5324393

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	Brief description	Туре	Part no.
Mounting brackets and plates			
Fat	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.

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