

PBS-RB040SGESSCBMA0Z PBS



PRESSURE SENSORS

PBS-RB040SGESSCBMA0Z | PBS

PRESSURE SENSORS



Ordering information

Туре	Part no.
PBS-RB040SGESSCBMA0Z	6038877

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 40 bar
Process temperature	-20 °C +85 °C
Maximum ohmic load R _A	4 mA 20 mA ($R_A \le 0.5$ 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: $\leq 1 \%$ of span ± 1 digit Update: 1,000, 500, 200, 100 ms (adjustable)
Mechanics/electronics	
Process connection	G 1/2 B according to EN 837
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
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

PBS-RB040SGESSCBMA0Z | PBS PRESSURE SENSORS

	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	Copper
Enclosure rating	IP67
Protection class III	\checkmark
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: $\le 0.2\%$ of span / 10 K Mean TC of span $\le 0.2\%$ 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

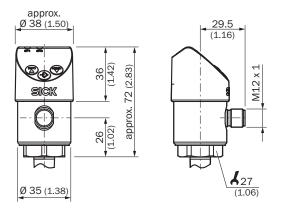
PBS-RB040SGESSCBMA0Z | PBS

PRESSURE SENSORS

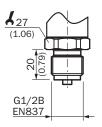
UNSPSC 16.0901

41112409

Dimensional drawing (Dimensions in mm (inch))



G $\frac{1}{2}$ B according to EN 837

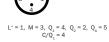


Connection type









Recommended accessories

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	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

PBS-RB040SGESSCBMA0Z | PBS

PRESSURE SENSORS

	Brief description	Туре	Part no.
Mounting brackets and plates			
- Far	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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