



PBSH-RB010SHGEED5A0Z

PBS Hygienic

PRESSURE SWITCH

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
PBSH-RB010SHGEED5A0Z	6051863

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

Detailed technical data

Features

Medium	Liquid, gaseous
Pressure type	Gauge pressure
Pressure unit	bar
Measuring range	0 bar ... 10 bar
Overpressure safety	2-fold
Process temperature	-20 °C ... +125 °C, +150 °C for max. 1 h
Maximum ohmic load R_A	≤ 0.5 kΩ, 4 mA ... 20 mA (R _A ≤ 0.5 kΩhm) 0 V ... 10 V (R _A > 10 kΩhm)
Zero point adjustment	Max. + 3 % of span
Output signal	2 x PNP + 4 mA ... 20 mA
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	G 1 hygienic flush-mounted
Wetted parts	Stainless steel 1.4435 / 316L
Internal transmission fluid	Medical white oil, FDA compliant according to CFR 172.878 and 21 CFR 178.3620(a), compliant to USP, EP, and JP
Housing material	Lower body: stainless steel 304, Plastic head: PC + ABS, Buttons: TPE-E, Display window: PC
Connection type	Round connector M12 x 1, 5-pin
Supply voltage	15 V DC ... 35 V DC
Power consumption	Max. 70 mA
Total current consumption	Max. 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

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.

	Reverse polarity protection: L ⁺ to M
Isolation voltage	500 V DC
CE-conformity	EMC directive: 2004/108/EC, EN 61326-2-3
Seal	Wetted parts: EPDM
Enclosure rating	IP65 ¹⁾ IP67 ¹⁾
Protection class III	✓

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

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	Typical TC of the zero point: in temperature range 0 °C ... 20 °C: 0.7% of the range / 10 K; in temperature range 20 °C ... 80 °C: 0.2% of span / 10 K. Typical TC of span: in temperature range 0 °C ... 80 °C: 0.1% of span / 10 K ¹⁾
Rated temperature range	0 °C ... +80 °C

¹⁾ With Tri-Clamp 1 ½", Tri-Clamp 2", Conical coupling (DIN 11851) DN 40 with union nut, Conical coupling (DIN 11851) DN 50 with union nut, Clamp (DIN 32676) DN 40, Clamp (DIN 32676) DN 50, G 1 hygienic.

Ambient data

Ambient temperature	-20 °C ... +80 °C
Storage temperature	-20 °C ... +80 °C
Relative humidity	45 % ... 75 %
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)

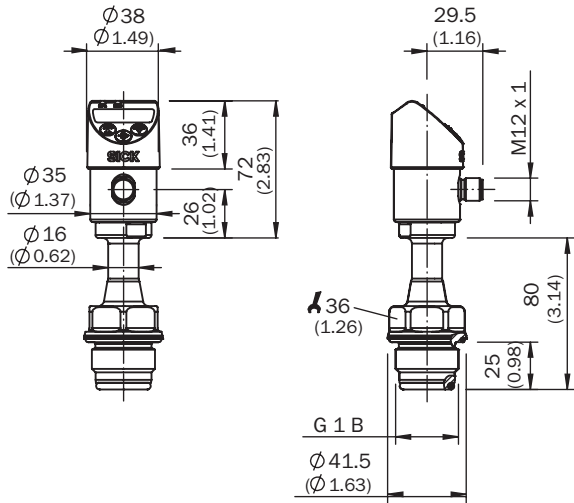
Classifications

eCl@ss 5.0	27200620
eCl@ss 5.1.4	27200620
eCl@ss 6.0	27200620
eCl@ss 6.2	27200620
eCl@ss 7.0	27200620
eCl@ss 8.0	27200620
eCl@ss 8.1	27200620
eCl@ss 9.0	27200620
eCl@ss 10.0	27200620
eCl@ss 11.0	27200620
eCl@ss 12.0	27200620
ETIM 5.0	EC000243
ETIM 6.0	EC000243
ETIM 7.0	EC000243

ETIM 8.0	EC000243
UNSPSC 16.0901	41112409

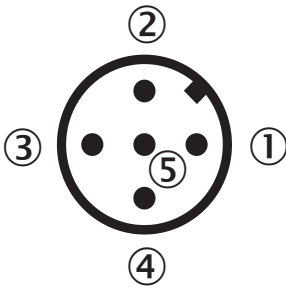
Dimensional drawing (Dimensions in mm (inch))

G 1 hygienic



Connection type


Round connector M12 x 1, 5-pin



- ① L⁺: Positive supply connection
- ② Q₂: Switching output 2
- ③ M: Negative supply connection
- ④ C/Q₁: Switching output 1 (with IO-Link: communication / switching output 1)
- ⑤ Q_A: Analog output

Recommended accessories

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

	Brief description	Type	Part no.
Flanges			
	Weld-in flange/connector for process connection G 1 hygienic flush-mounted, Stainless steel	BEF-FL-316G10-BHYG	5322453

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