



PBS-RM016SG1SSNCMA0Z

PBS

PRESSURE SWITCH





Ordering information

| Туре | Part no. |
|----------------------|----------|
| PBS-RM016SG1SSNCMA0Z | 6051765 |

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

Illustration may differ



Detailed technical data

Features

| Medium | Liquid, gaseous |
|-----------------------------------|--|
| Pressure type | Gauge pressure |
| Pressure unit | MPa |
| Measuring range | 0 MPa 16 MPa |
| 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 | 1 x PNP + 0 V 10 V |
| 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: $\le 1\%$ of span ± 1 digit Update: 1,000, 500, 200, 100 ms (adjustable) |

Mechanics/electronics

| Process connection | G ¼ A according to DIN 3852-E | |
|-----------------------------|--|--|
| 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 \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 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 | NBR |
| Enclosure rating | IP67 |
| Protection class III | ✓ |
| МПТ | 333 years |

Performance

| Non-linearity | \leq \pm 0.5 %, of span (Best Fit Straight Line, BFSL) according to IEC 61298-2 |
|--|---|
| Accuracy | \leq ± 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 temperature 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) |

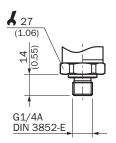
Classifications

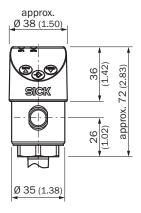
| eCl@ss 5.0 | 27200620 |
|--------------|----------|
| eCl@ss 5.1.4 | 27200620 |
| eCl@ss 6.0 | 27200620 |
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| eCl@ss 7.0 | 27200620 |
| eCl@ss 8.0 | 27200620 |
| eCl@ss 8.1 | 27200620 |
| eCl@ss 9.0 | 27200620 |
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| eCl@ss 11.0 | 27200620 |
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| ETIM 5.0 | EC000243 |
| ETIM 6.0 | EC000243 |
| ETIM 7.0 | EC000243 |

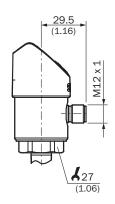
| ETIM 8.0 | EC000243 |
|----------------|----------|
| UNSPSC 16.0901 | 41112409 |

Dimensional drawing (Dimensions in mm (inch))

G 1/4 A DIN 3852-E







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 | Туре | Part no. |
|---------------|---|--------------------|----------|
| Mounting brad | ckets and plates | | |
| · Car | 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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