

PBS2-ABX40SG2SS0NMA0Z PBS plus



PRESSURE SENSORS

PBS2-ABX40SG2SS0NMA0Z | PBS plus

PRESSURE SENSORS



Ordering information

| Туре | Part no. |
|-----------------------|----------|
| PBS2-ABX40SG2SS0NMA0Z | 6074119 |

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

Illustration may differ

Detailed technical data

Features

| Medium | Liquid, gaseous |
|-----------------------------------|---|
| Pressure type | Absolute pressure |
| Pressure unit | bar |
| Measuring range | 0 bar 0.4 bar 0 psi 6 psi |
| 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 | 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 $^\circ$ Update: 1,000, 500, 200, 100 ms (adjustable) |
| | |

Mechanics/electronics

| Process connection | G ¼ female |
|-----------------------------|--|
| 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 |

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.

PBS2-ABX40SG2SS0NMA0Z | PBS plus

PRESSURE SENSORS

| Power consumption | 45 mA (for configurations without analog output signal) 70 mA (for configurations with analog output signal) |
|---------------------------|---|
| Total current consumption | Max. 600 mA (including 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 | 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) |
| Weight sensor | Approx. 220 g |
| Seal | Without seal |
| Enclosure rating | IP67 ¹⁾ IP67 ¹⁾ |
| Protection class III | ✓ |
| MTTF | 104 years |

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.

| 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 |
| ECLASS 8.0 | 27200620 |
| ECLASS 8.1 | 27200620 |
| | |

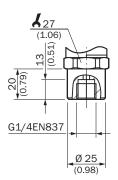
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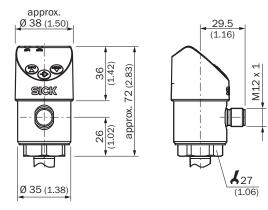
PRESSURE SENSORS

| 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))

G ¼ female EN 837





Connection type

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



M12 x 1, 5-pin 2 switching outputs + 1 analog output



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