



PBT-RB160SG1SSFAMA0Z

PBT

PRESSURE SENSORS





Ordering information

| Туре | Part no. |
|----------------------|----------|
| PBT-RB160SG1SSFAMA0Z | 6042439 |

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

Illustration may differ



Detailed technical data

Features

| Medium | Liquid, gaseous |
|---------------------|-----------------|
| Pressure type | Gauge pressure |
| Measuring range | 0 bar 160 bar |
| Process temperature | 0 °C +80 °C |
| Output signal | 4 mA 20 mA |

Performance

| Non-linearity | \leq \pm 0.5 %, (Best Fit Straight Line, BFSL) according to IEC 61298-2 |
|------------------------------------|--|
| Accuracy | \leq \pm 1 % of the span (with non-linearity 0.25 %) \leq \pm 0,6 % of Span (with non-linearity 0.25 % and with signal output 0 5 V) \leq \pm 1,0 % of Span (with non-linearity 0.5 %) Including non-linearity, hysteresis, zero point and full scale error (corresponds to error of measurement as per IEC 61298-2) |
| Adjustment accuracy of zero signal | $\leq 0.5~\%$ of span typ., $\leq 0.8~\%$ of span max. (with non-linerarity 0.5 %) |
| Hysteresis | ≤ 0.16 % of the span |
| Non-repeatability | $\leq 0.1\%$ of the span |
| Response time | < 4 ms |
| Signal noise | ≤ 0.3 % of the span |
| Long-term drift/one-year stability | $\leq 0.1\%$ of span to IEC 61298-2 |
| Rated temperature range | 0 °C +80 °C |
| Service life | Minimum 100 Mio. life cycles |

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 | Standard |
| Housing material | Stainless steel 316L |

¹⁾ The pressure transmitter must be supplied with power by a limited energy circuit compliant with 9.3 of UL/EN/IEC 601010-1 or LPS to UL/EN/IEC 60950-1 or Class 2 to UL 1310/UL1585 (NEC or CEC). The power supply must be suitable for operation above 2,000 m if the pressure transmitter is used above this altitude.

| Electrical connection | Round connector M12 x 1, 4-pin, IP 67 |
|-----------------------|---|
| Supply voltage | |
| Power consumption | |
| Electrical safety | |
| Insolation voltage | 500 V DC |
| CE-conformity | Pressure equipment directive: 97/23/EC, EMC directive: 2004/108/EC, EN 61 326-2-3 |
| Weight sensor | Approx. 80 g |
| Seal | FPM/FKM |
| Enclosure rating | IP 67 |
| Protection class III | ✓ |
| Reference conditions | Reference conditions: According to IEC 61298-1 |

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Ambient data

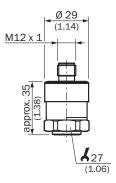
| Ambient temperature | 0 °C +80 °C |
|---------------------|---------------|
| Storage temperature | -20 °C +80 °C |
| Relative humidity | 45 % 75 % |
| Shock load | |
| Vibration load | |

Classifications

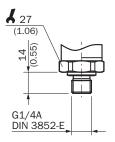
| ECI@ss 5.0 | 27200614 |
|----------------|----------|
| ECI@ss 5.1.4 | 27200614 |
| ECI@ss 6.0 | 27200614 |
| ECI@ss 6.2 | 27200614 |
| ECI@ss 7.0 | 27200614 |
| ECI@ss 8.0 | 27200614 |
| ECI@ss 8.1 | 27200614 |
| ECI@ss 9.0 | 27200614 |
| ETIM 5.0 | EC002476 |
| ETIM 6.0 | EC002476 |
| UNSPSC 16.0901 | 41112410 |

Dimensional drawing (Dimensions in mm (inch))

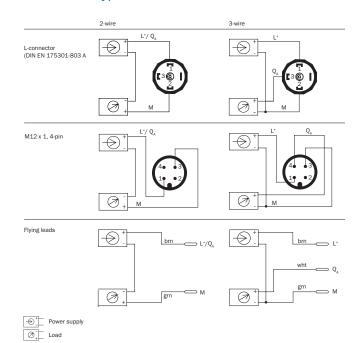
Housing with circular connector M12 x 1, IP 67



G 1/4 A DIN 3852-E



Connection type



Recommended accessories

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

| | Brief description | Туре | Part no. | |
|--------------|---|--------------------|----------|--|
| Mounting bra | ackets and mounting plates | | | |
| Par S | Mounting bracket for simple and stable wall mounting of pressure sensors with 27 mm hexagon, Aluminum | BEF-FL-ALUPBS-HLDR | 5322501 | |
| Plug connect | Plug connectors and cables | | | |
| 1 | Head A: female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m | DOL-1204-G02M | 6009382 | |
| - | Head A: female connector, M12, 4-pin, straight Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 2 m | DOL-1204-G02MC | 6025900 | |
| 1 | Head A: female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 5 m | DOL-1204-G05M | 6009866 | |
| | Head A: female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 10 m | DOL-1204-G10M | 6010543 | |
| *** | Head A: female connector, M12, 4-pin, straight Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 10 m | DOL-1204-G10MC | 6025902 | |
| 100 | Head A: female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 15 m | DOL-1204-G15M | 6010753 | |
| 1 | Head A: female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 20 m | DOL-1204-G20M | 6034401 | |
| 3 | Head A: female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m | DOL-1204-W02M | 6009383 | |
| > | Head A: female connector, M12, 4-pin, angled Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 2 m | DOL-1204-W02MC | 6025903 | |
| | Head A: female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 5 m | DOL-1204-W05M | 6009867 | |
| > | Head A: female connector, M12, 4-pin, angled Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 5 m | DOL-1204-W05MC | 6025904 | |
| 11/2 | Head A: female connector, M12, 4-pin, angled Head B: cable Cable: drag chain use, Welding spark resistant, PUR, halogen-free, unshielded, 5 m | DOL-1204-W05MD | 6020399 | |
| 3 | Head A: female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 10 m | DOL-1204-W10M | 6010541 | |
| 6 | Head A: female connector, M12, 4-pin, angled Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 10 m | DOL-1204-W10MC | 6025905 | |

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| - | Head A: female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 15 m | DOL-1204-W15M | 6036474 |
| | Head A: female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 20 m | DOL-1204-W20M | 6033559 |

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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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