



# PBT-RB6X0AG1SSNAMA0Z

PBT

PRESSURE SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

| Type                 | Part no. |
|----------------------|----------|
| PBT-RB6X0AG1SSNAMA0Z | 6040874  |

Other models and accessories → [www.sick.com/PBT](http://www.sick.com/PBT)

### Detailed technical data

#### Features

|                            |                 |
|----------------------------|-----------------|
| <b>Medium</b>              | Liquid, gaseous |
| <b>Pressure type</b>       | Gauge pressure  |
| <b>Measuring range</b>     | 0 bar ... 6 bar |
| <b>Process temperature</b> | 0 °C ... +80 °C |
| <b>Output signal</b>       | 4 mA ... 20 mA  |

#### Performance

|   |  |
|---|--|
| <b>Non-linearity</b>                      | ≤ ± 0.25 %, (Best Fit Straight Line, BFSL) according to IEC 61298-2  |
| <b>Accuracy</b>                           | ≤ ± 0.5 % of the span (with non-linearity 0.25 %)<br>≤ ± 0,6 % of Span (with non-linearity 0.25 % and with signal output 0 ... 5 V)<br>≤ ± 1,0 % of Span (with non-linearity 0.5 %)<br>Including non-linearity, hysteresis, zero point and full scale error (corresponds to error of measurement as per IEC 61298-2) |
| <b>Adjustment accuracy of zero signal</b> | ≤ 0.15 % of span typ., ≤ 0.4 % of span max. (with non-linearity 0.25 %)  |
| <b>Hysteresis</b>                         | ≤ 0.16 % of the span   |
| <b>Non-repeatability</b>                  | ≤ 0.1 % of the span  |
| <b>Response time</b>                      | < 4 ms   |
| <b>Signal noise</b>                       | ≤ 0.3 % of the span  |
| <b>Long-term drift/one-year stability</b> | ≤ 0.1 % of span to IEC 61298-2   |
| <b>Rated temperature range</b>            | 0 °C ... +80 °C  |
| <b>Service life</b>                       | Minimum 100 Mio. life cycles   |

#### Mechanics/electronics

|                                    |   |
|------------------------------------|---|
| <b>Process connection</b>          | G ¼ A according to DIN 3852-E   |
| <b>Wetted parts</b>                | Pressure Connection: stainless steel 316L<br>Pressure sensor: stainless steel 316L (for measurement ranges from 0 bar ... 10 bar rel stainless steel 13-8 PH) |
| <b>Internal transmission fluid</b> | Silicone oil (only with pressure ranges < 0 bar ... 10 bar and ≤ 0 bar abs ... 25 bar abs)  |
| <b>Pressure port</b>               | Standard  |
| <b>Housing material</b>            | Stainless steel 316L  |

<sup>1)</sup> 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.

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

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.

### Ambient data

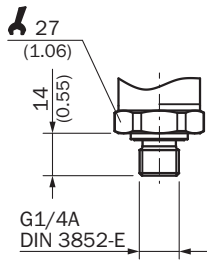
|                            |                   |
|----------------------------|-------------------|
| <b>Ambient temperature</b> | 0 °C ... +80 °C   |
| <b>Storage temperature</b> | -20 °C ... +80 °C |
| <b>Relative humidity</b>   | 45 % ... 75 %     |
| <b>Shock load</b>          |                   |
| <b>Vibration load</b>      |                   |

### Classifications

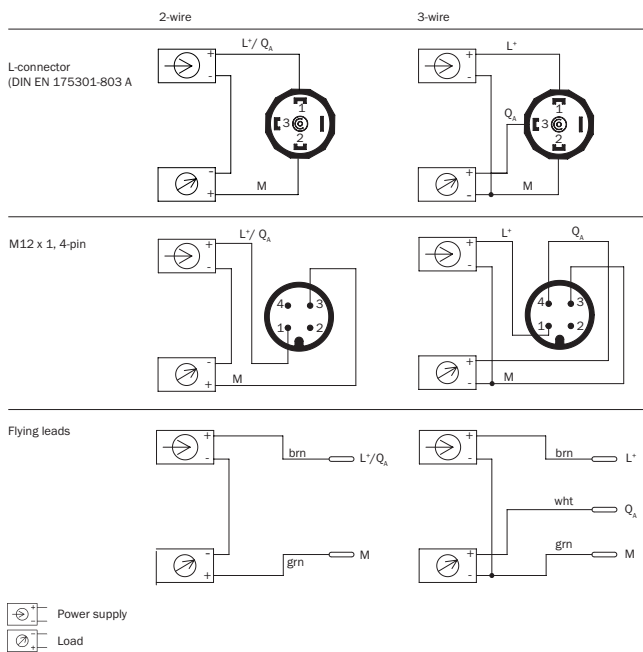
|                       |          |
|-----------------------|----------|
| <b>ECl@ss 5.0</b>     | 27200614 |
| <b>ECl@ss 5.1.4</b>   | 27200614 |
| <b>ECl@ss 6.0</b>     | 27200614 |
| <b>ECl@ss 6.2</b>     | 27200614 |
| <b>ECl@ss 7.0</b>     | 27200614 |
| <b>ECl@ss 8.0</b>     | 27200614 |
| <b>ECl@ss 8.1</b>     | 27200614 |
| <b>ECl@ss 9.0</b>     | 27200614 |
| <b>ETIM 5.0</b>       | EC002476 |
| <b>ETIM 6.0</b>       | EC002476 |
| <b>UNSPSC 16.0901</b> | 41112410 |

### Dimensional drawing (Dimensions in mm (inch))

G ¼ A DIN 3852-E





### Connection type



### Recommended accessories

Other models and accessories → [www.sick.com/PBT](http://www.sick.com/PBT)

|   | Brief description   | Type               | Part no. |
|---|---|--------------------|----------|
| <b>Mounting brackets and mounting plates</b>  |   |                    |          |
|  | Mounting bracket for simple and stable wall mounting of pressure sensors with 27 mm hexagon, Aluminum | BEF-FL-ALUPBS-HLDR | 5322501  |
| <b>Plug connectors and cables</b>   |   |                    |          |
|  | Head A: female connector, M12, 4-pin, straight<br>Head B: cable<br>Cable: PVC, unshielded, 2 m        | DOL-1204-G02M      | 6009382  |

|   | Brief description   | Type           | Part no. |
|---|---|----------------|----------|
|    | Head A: female connector, M12, 4-pin, straight<br>Head B: cable<br>Cable: drag chain use, PUR, halogen-free, unshielded, 2 m                        | DOL-1204-G02MC | 6025900  |
|    | Head A: female connector, M12, 4-pin, straight<br>Head B: cable<br>Cable: PVC, unshielded, 5 m  | DOL-1204-G05M  | 6009866  |
|    | Head A: female connector, M12, 4-pin, straight<br>Head B: cable<br>Cable: PVC, unshielded, 10 m   | DOL-1204-G10M  | 6010543  |
|    | Head A: female connector, M12, 4-pin, straight<br>Head B: cable<br>Cable: drag chain use, PUR, halogen-free, unshielded, 10 m                       | DOL-1204-G10MC | 6025902  |
|    | Head A: female connector, M12, 4-pin, straight<br>Head B: cable<br>Cable: PVC, unshielded, 15 m   | DOL-1204-G15M  | 6010753  |
|    | Head A: female connector, M12, 4-pin, straight<br>Head B: cable<br>Cable: PVC, unshielded, 20 m   | DOL-1204-G20M  | 6034401  |
|    | Head A: female connector, M12, 4-pin, angled<br>Head B: cable<br>Cable: PVC, unshielded, 2 m  | DOL-1204-W02M  | 6009383  |
|    | Head A: female connector, M12, 4-pin, angled<br>Head B: cable<br>Cable: drag chain use, PUR, halogen-free, unshielded, 2 m                          | DOL-1204-W02MC | 6025903  |
|  | Head A: female connector, M12, 4-pin, angled<br>Head B: cable<br>Cable: PVC, unshielded, 5 m  | DOL-1204-W05M  | 6009867  |
|  | Head A: female connector, M12, 4-pin, angled<br>Head B: cable<br>Cable: drag chain use, PUR, halogen-free, unshielded, 5 m                          | DOL-1204-W05MC | 6025904  |
|  | Head A: female connector, M12, 4-pin, angled<br>Head B: cable<br>Cable: drag chain use, Welding spark resistant, PUR, halogen-free, unshielded, 5 m | DOL-1204-W05MD | 6020399  |
|  | Head A: female connector, M12, 4-pin, angled<br>Head B: cable<br>Cable: PVC, unshielded, 10 m   | DOL-1204-W10M  | 6010541  |
|  | Head A: female connector, M12, 4-pin, angled<br>Head B: cable<br>Cable: drag chain use, PUR, halogen-free, unshielded, 10 m                         | DOL-1204-W10MC | 6025905  |
|  | Head A: female connector, M12, 4-pin, angled<br>Head B: cable<br>Cable: PVC, unshielded, 15 m   | DOL-1204-W15M  | 6036474  |
|  | Head A: female connector, M12, 4-pin, angled<br>Head B: cable<br>Cable: PVC, unshielded, 20 m   | DOL-1204-W20M  | 6033559  |

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

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.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)