



## Pressure sensors

PBS-RB6X0SGESSBMA0Z



**Model Name** > **PBS-RB6X0SGESSBMA0Z**  
**Part No.** > **6041726**



*Product may differ from illustration*

### At a glance

- Gauge measurement ranges from 0 ... 1 bar up to 0 ... 600 bar
- No moving parts: No mechanical wear, fatigue-proof, maintenance-free
- Stainless steel membrane
- Various programmable switching functions
- Digital outputs PNP or NPN, Analog output signal 4 ... 20 mA or 0 ... 10 V
- Min/max pressure memory
- Password protection
- Selection of different pressure units for the display
- IO-Link optional

### Your benefits

- Compact size takes up less space
- Dual rotatable housing ensures flexible installation
- Quick and easy setup and operation due to three large buttons and bright display
- Wide range of applications
- Resistant against corrosive media due to circularly welded, hermetically sealed stainless steel membrane
- Available in a wide selection of configurations, enabling a perfect match to individual customer requirements
- IO-Link technology provides time and cost savings by enabling parameter adjustments, for example, upon product changeover to be performed remotely



### Features

|                      |                                                                                                                                                                |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pressure type:       | Gauge pressure                                                                                                                                                 |
| Measuring range:     | 0 bar ... 6 bar                                                                                                                                                |
| Process temperature: | -20 °C ... 85 °C                                                                                                                                               |
| CE-conformity:       | ✓                                                                                                                                                              |
| Display:             | 14-segment-LED, blue, 4-digits, height 9 mm, electronically turnable by 180°, Update: 1000, 500, 200, 100 ms (adjustable), accuracy: ≤ 1.0 % of span ± 1 digit |
| Output signal:       | 1x PNP + 4...20 mA                                                                                                                                             |
| Rotatable housing:   | Display against housing with electrical connection: 330°. Housing against process connection: 320°                                                             |

### Performance

|                |                                                                               |
|----------------|-------------------------------------------------------------------------------|
| Accuracy:      | ≤ +/- 1 % (of span)                                                           |
| Non-linearity: | ≤ +/- 0.5 % (of span (Best Fit Straight Line, BFSL) according to IEC 61298-2) |

|                                                     |                                                                                         |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------|
| Setting accuracy of switching outputs:              | $\leq \pm 0.5 \%$ of span                                                               |
| Response time:                                      | 3 ms                                                                                    |
| Long-term drift/one-year stability:                 | $\leq 0.2 \%$ of span                                                                   |
| Temperature coefficient in rated temperature range: | Mean TC of span: $\leq 0.2 \%$ of span/10 K, Mean TC of zero: $\leq 0.2\%$ of span/10 K |
| Rated temperature range:                            | 0 °C ... 80 °C                                                                          |
| Service life:                                       | 10 Mio. max. life cycles                                                                |

## **Mechanics/electronics**

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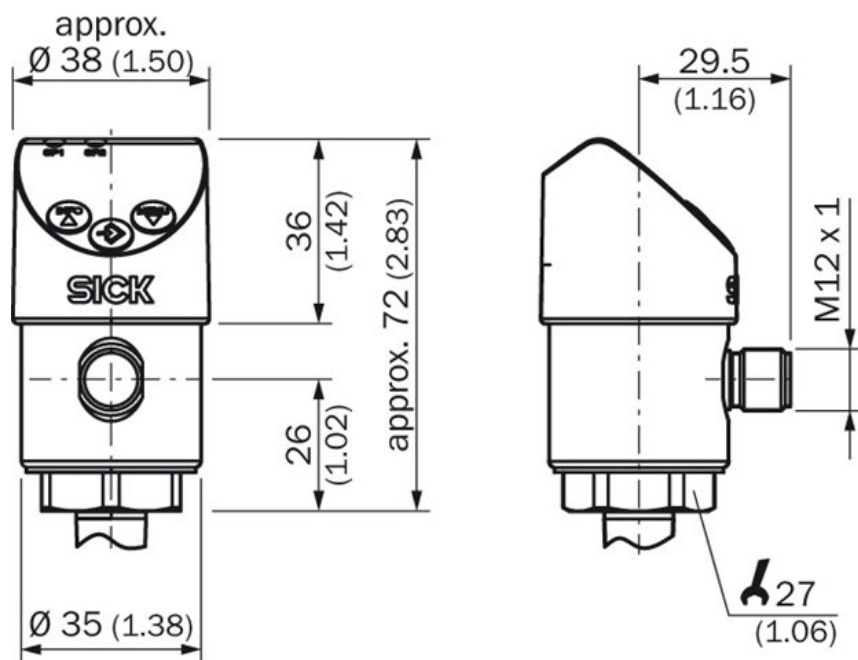
|                            |                                                                                                                                                       |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Process connection:        | G 1/2 B according to EN 837                                                                                                                           |
| Wetted parts:              | Pressure Connection: 316L, Pressure sensor: 316L (for measurement ranges from 0 bar ... 10 bar rel: 13-8 PH)                                          |
| Seal:                      | Stainless steel                                                                                                                                       |
| Housing material:          | Display window: PC, Plastic head: PC + ABS, Buttons: TPE-E, Lower body: 316L                                                                          |
| Enclosure rating:          | IP 67                                                                                                                                                 |
| Connection type:           | Plug M12 x 1, 4-pin, IP 67                                                                                                                            |
| Supply voltage:            | 15 V DC ... 35 V DC                                                                                                                                   |
| Power consumption:         | 100 mA                                                                                                                                                |
| Electrical safety:         | Short-circuit protection: QA, Q1, Q2 towards M, Protection class: III, Overvoltage protection: 40 V DC, Reverse polarity protection: L+ towards M     |
| Protection class III:      | ✓                                                                                                                                                     |
| Weight sensor:             | 200 g                                                                                                                                                 |
| Total current consumption: | Max. 350 mA/600 mA (incl. switching current)                                                                                                          |
| 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/EEC, EN 61326-2-3 |

## **Ambient data**

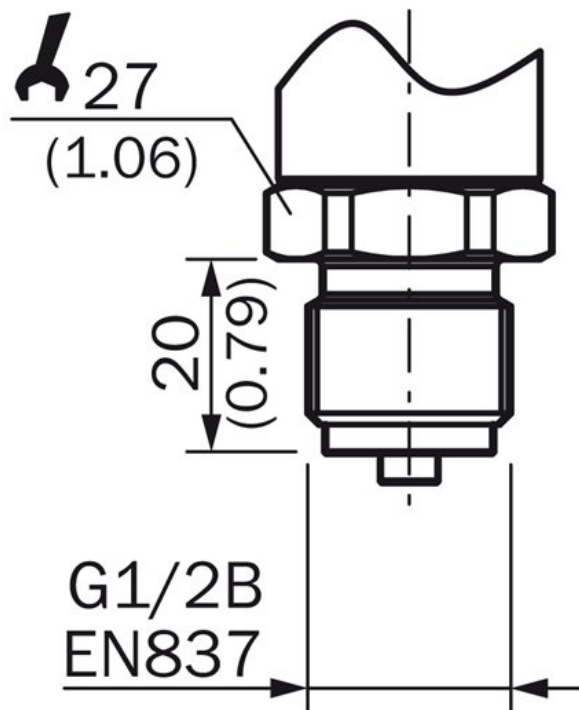
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|                      |                                                             |
|----------------------|-------------------------------------------------------------|
| Storage temperature: | -20 °C ... 80 °C                                            |
| Ambient temperature: | -20 °C ... 80 °C                                            |
| 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) |
| Relative humidity:   | 90 %                                                        |

## Dimensional drawing housing



## Dimensional drawing process connection



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