



Pressure sensors

PBS-RB1X0SG1SSNGMA0Z



Model Name > [PBS-RB1X0SG1SSNGMA0Z](#)

Part No. > [6041672](#)



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 ... 1 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 NPN + 4...20 mA
DIV09:	Measuring ranges
Rotatable housing:	Display against housing with electrical connection: 330°. Housing against process connection: 320°

Performance

Non-linearity:	≤ +/- 0.5 % (of span (Best Fit Straight Line, BFSL) according to IEC 61298-2)
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Accuracy of sensor element:	≤ +/- 1 % of span
Setting accuracy of switching outputs:	≤ ± 0.5 % of span
Response time:	3 ms
Long-term drift/one-year stability:	≤ 0.2 % of span
Temperature error:	≤ 1.0 % of span typ., ≤ 2.5 % of span max.
Temperature coefficient in rated temperature range:	Mean TC of span: ≤ 0.2 % of span/10 K, Mean TC of zero: ≤ 0.2% of span/10 K
Rated temperature range:	0 °C ... 80 °C
Service life:	10 Mio. max. life cycles

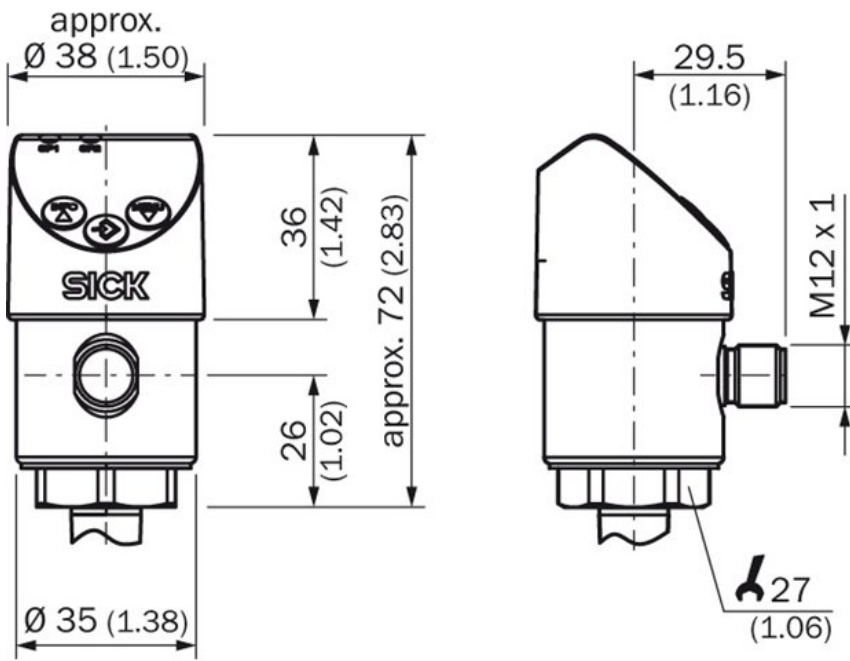
Mechanics/electronics

Process connection:	G 1/4 A according to DIN 3852-E
Wetted parts:	Pressure Connection: 316L, Pressure sensor: 316L (for measurement ranges from 0 bar ... 10 bar rel: 13-8 PH)
Seal:	NBR
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
Internal transmission fluid:	Silicone oil (only with pressure ranges < 0 bar ... 10 bar and ≤ 0 bar abs ... 25 bar abs)
Pressure peak dampening:	Through optional integrated pressure port 0.6 mm or 0.3 mm for process connector G ¼ according to DIN 3852-E (0.3 mm from 10 bar)
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

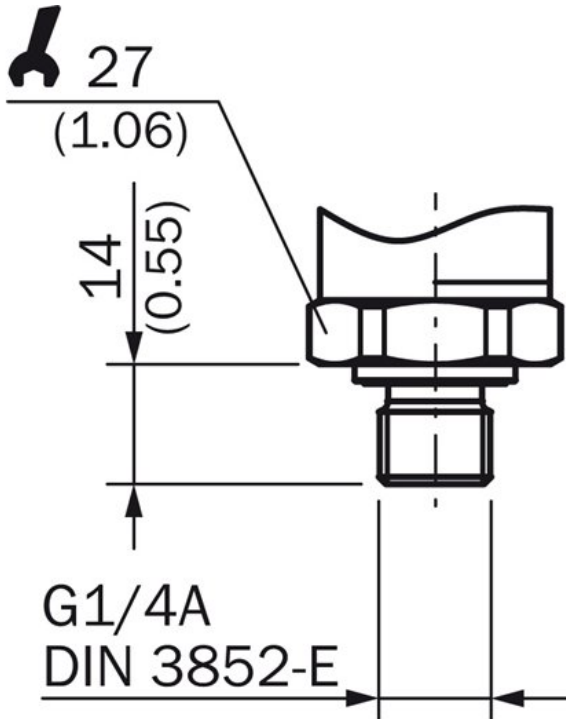
Ambient data

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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