

PBS-RB250SGESSCBMA0Z







Model Name> PBS-RB250SGESSCBMA0ZPart No.> 6038879

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## 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

- Quick and easy setup and operation due to three large pushbuttons and clear display
- · Perfect display readability and optimal cable routing due to rotatable housing
- No compromises: Individual solutions through a variety of configurations
- Universal application due to fully welded, highly durable stainless steel membrane
- Saves space and costs: no adapters required due to broad range of standard process connections
- Highly reliable due to application of proven technologies and high-quality materials, water resistance according to IP 65 and IP 67 as well as excellent overpressure safety
- Ultimate system availability: IO-Link enables fast, reliable parameter setting when changing over products



#### Features

Pressure type:	Gauge pressure
Measuring range:	0 bar 250 bar
Process temperature:	-20 °C +85 °C
Display:	14-segment-LED, blue, 4-digits, height 9 mm, electronically turnable by 180°, Update: 1,000, 500, 200, 100 ms (adjustable), Accuracy: ≤ 1 % of span ± 1 digit
Output signal:	1 x PNP + 4 mA 20 mA
Rotatable housing:	Display against housing with electrical connection: 330 °, Housing against process connection: 320 °
Gauge pressure:	0 bar 1 bar up to bar 600 bar
Absolute pressure:	0 bar 1 bar up to 0 bar 25 bar
Compound pressure:	-1 bar 0 bar up to -1 bar +24 bar
Zero point adjustment:	Max. + 3 % of span

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Illustration may differ

Performance	
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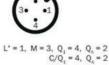
Performance	
Accuracy:	$\leq$ ± 1 % of span, (Including non-linearity, hysteresis, zero point and full scale error (corresponds to error of measurement according to IEC 61298 2))
Non-linearity:	$\leq$ $\pm$ 0.5 % (of span (Best Fit Straight Line, BFSL) according to IEC 61298-2)
Setting accuracy of switching outputs:	≤ ± 0.5 % of span
Response time:	3 ms
Long-term drift/one-year stability:	≤ 0.2 % of span according to IEC 61298-2
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 spar $/$ 10 K
Rated temperature range:	0 °C +80 °C
Service life:	Minimum 100 Mio. life cycles
Mechanics/electronics	
Process connection:	G 1/2 B according to EN 837
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)
Seal:	Copper
Pressure port:	Standard
Housing material:	Display window: PC, Plastic head: PC + ABS, Buttons: TPE-E, Lower body: stainless steel 304
Enclosure rating:	IP 67
Electrical connection:	Round connector M12 x 1, 4-pin, IP 67
Power consumption:	45 mA (for configurations without analog output signal), 70 mA (for configurations with analog output signal)
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:	$\checkmark$
Weight sensor:	Ca. 200 g
Internal transmission fluid:	Silicone oil (only with pressure ranges < 0 bar 10 bar and $\leq$ 0 bar abs 25 bar abs)
Total current consumption:	Max. 350 mA/570 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/EC, EN 61326-2-3
Ambient data	
Storage temperature:	-20 °C +80 °C

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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 %

# **Connection type**

M12 x 1, 4-pin

2 switching outputs/ 1 switching output + 1 analog output

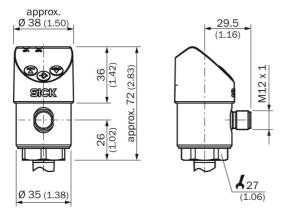


M12 x 1, 5-pin 2 switching outputs + 1 analog output

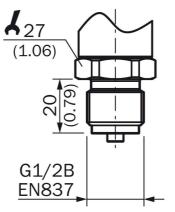


|1| L+: Positive supply connection |2| M: Negative supply connection |3| Q1: Switching output 1 L\* = 1, M = 3,  $Q_1 = 4$ ,  $Q_2 = 2$ ,  $Q_A = 5$   $C/Q_1 = 4$ [4] C/Q1: With IO-Link: Communication/ switching output 1 [5] Q2: Switching output 2 |6| QA: Analog output

### **Dimensional drawing housing**



## **Dimensional drawing process connection**



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