

PBS-RB016SGESS0CMA0Z







Model Name> PBS-RB016SGESS0CMA0ZPart No.> 6043788

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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 16 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 + 0 V 10 V
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

Performanc	е
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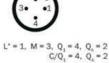
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Accuracy:	$\leq$ ± 1 % of span, (Including non-linearity, hysteresis, zero point and full scale error (corresponds to error of measurement according to IEC 61298 2))
Non-linearity:	$\leq$ ± 0.5 % (of span (Best Fit Straight Line, BFSL) according to 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 span $/$ 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:	Without seal
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

Storage temperature: $-20 \ ^{\circ}C \dots +80 \ ^{\circ}C$ Ambient temperature: $-20 \ ^{\circ}C \dots +80 \ ^{\circ}C$ 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: $\leq 90 \ \%$ 

# **Connection type**

M12 x 1, 4-pin

2 switching outputs/ 1 switching output + 1 analog output

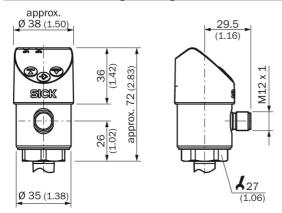


M12 x 1, 5-pin 2 switching outputs + 1 analog output

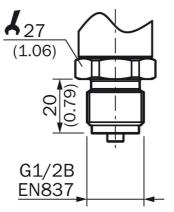


|1| L+: Positive supply connection |2| M: Negative supply connection |3| Q1: Switching output 1 L\* = 1, M = 3,  $Q_1 = 4$ ,  $Q_2 = 2$ ,  $Q_A = 5$   $C/Q_1 = 4$ [4] C/Q1: With IO-Link: Communication/ switching output 1 [5] Q2: Switching output 2 |6| QA: Analog output

### **Dimensional drawing housing**



## **Dimensional drawing process connection**



#### Australia

Phone +61 3 9457 0600 1800 33 48 02 - tollfree E-Mail sales@sick.com.au

Belgium/Luxembourg Phone +32 (0)2 466 55 66 E-Mail info@sick.be

Brasil Phone +55 11 3215-4900 E-Mail marketing@sick.com.br

#### Canada

Phone +1 905 771 14 44 E-Mail information@sick.com

Česká republika Phone +420 2 57 91 18 50 E-Mail sick@sick.cz

#### China

Phone +86 4000 121 000 E-Mail info.china@sick.net.cn Phone +852-2153 6300 E-Mail ghk@sick.com.hk

Danmark Phone +45 45 82 64 00 E-Mail sick@sick.dk

Deutschland Phone +49 211 5301-301 E-Mail info@sick.de

España Phone +34 93 480 31 00 E-Mail info@sick.es

France Phone +33 1 64 62 35 00 E-Mail info@sick.fr

Great Britain Phone +44 (0)1727 831121 E-Mail info@sick.co.uk

India Phone +91-22-4033 8333 E-Mail info@sick-india.com

Israel Phone +972-4-6881000 E-Mail info@sick-sensors.com Italia

Phone +39 02 27 43 41 E-Mail info@sick.it

Japan Phone +81 (0)3 5309 2112 E-Mail support@sick.jp

Magyarország Phone +36 1 371 2680 E-Mail office@sick.hu

Nederland Phone +31 (0)30 229 25 44 E-Mail info@sick.nl E-Mail sick@sick.no Österreich Phone +43 (0)22 36 62 28 8-0 E-Mail office@sick.at Polska Phone +48 22 837 40 50

Phone +47 67 81 50 00

Norge

E-Mail info@sick.pl România

Phone +40 356 171 120 E-Mail office@sick.ro Russia

Phone +7-495-775-05-30 E-Mail info@sick.ru

Schweiz Phone +41 41 619 29 39 E-Mail contact@sick.ch

Singapore Phone +65 6744 3732 E-Mail sales.gsg@sick.com

Slovenija Phone +386 (0)1-47 69 990 E-Mail office@sick.si

South Africa Phone +27 11 472 3733

E-Mail info@sickautomation.co.za
South Korea

Phone +82 2 786 6321/4 E-Mail info@sickkorea.net

Suomi Phone +358-9-25 15 800 E-Mail sick@sick.fi

Sverige Phone +46 10 110 10 00 E-Mail info@sick.se

Taiwan Phone +886 2 2375-6288 E-Mail sales@sick.com.tw

Türkiye Phone +90 (216) 528 50 00 E-Mail info@sick.com.tr

United Arab Emirates Phone +971 (0) 4 88 65 878 E-Mail info@sick.ae

USA/México Phone +1(952) 941-6780 1 (800) 325-7425 - tollfree E-Mail info@sickusa.com

More representatives and agencies at www.sick.com

