ONLINE DATA SHEET
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Pressure sensors
Pressure switch

PBS-AB010SG1SSNQ5A0Z

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Sensor Intelligence.

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Pressure switch

Model Name > PBS-AB010SG1SSNQ5A0Z
Part No. > 6042917

Product may differ from illustration

At a glance

- Measurement ranges from 0 ... 1 bar up to 0 … 25 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

IO-Link

Features

Pressure type:	Absolute pressure
Measuring range:	0 bar ... 10 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:	IO-Link, 2x 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
Medium:	Liquid and gaseous media

Performance

Accuracy:	≤ ± 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:	≤ ± 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 ≤ 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:	Minimum 100 Mio. life cycles

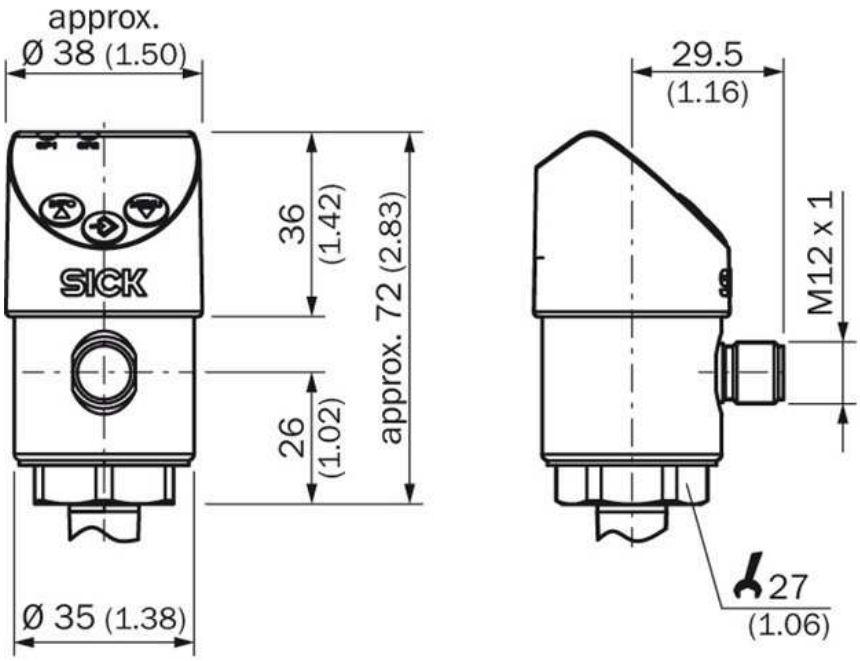
Mechanics/electronics

Process connection:	G ¼ A according to DIN 3852-E
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:	NBR
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, 5-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:	✓
Weight sensor:	Ca. 200 g
Internal transmission fluid:	Silicone oil (only with pressure ranges < 0 bar ... 10 bar and ≤ 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

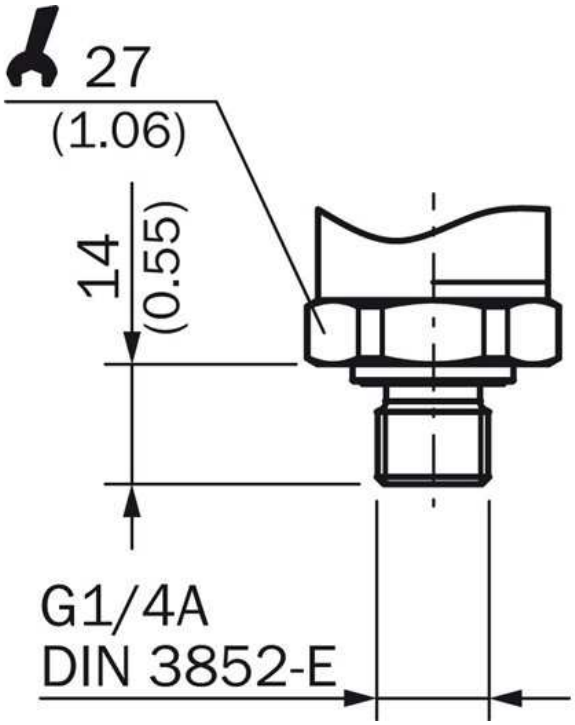
Ambient data

Storage temperature:	-20 °C ... +80 °C
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



A4 4c int43

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

Norge
Phone +47 67 81 50 00
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
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**

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