



Pressure sensors
Pressure transmitter

PBT-RB400SG1SEFALA0V



Model Name > [PBT-RB400SG1SEFALA0V](#)
Part No. > [6042437](#)



At a glance

- Gauge pressure measurement ranges from 0 ... 1 bar up to 0 ... 600 bar
- A large variety of available process connections
- No moving parts: No mechanical wear, fatigue-proof, maintenance-free
- Circularly welded, hermetically sealed stainless steel membrane
- Output signal 4 ... 20 mA, 0 ... 5 V or 0 ... 10 V
- Electrical connection M12x1, L-connector acc. to DIN 175301-803 A or flying leads

Your benefits

- Compact size takes up less space
- Simple and cost-saving installation
- Available in a wide selection of configurations, enabling a perfect match to individual customer requirements
- Robust design enables higher reliability
- Excellent price/performance ratio



Features

| | |
|----------------------|-------------------------------------------|
| Pressure type: | Gauge pressure |
| Measuring range: | 0 bar ... 400 bar |
| Process temperature: | -30 °C ... +100 °C |
| Output signal: | 4 mA ... 20 mA |
| 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 |
| Medium: | Liquid and gaseous media |

Performance

| | |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Accuracy: | $\leq \pm 0,6 \%$ of Span (with non-linearity 0.25 % and with signal output 0 ... 5 V), $\leq \pm 1 \%$ of span (with non-linearity 0.25 %), $\leq \pm 1,0 \%$ of Span (with non-linearity 0.5 %), (Including non-linearity, hysteresis, zero point and full scale error (corresponds to error of measurement according to IEC 61298-2)) |
| Non-linearity: | $\leq \pm 0.5 \%$ ((Best Fit Straight Line, BFSL) according to IEC 61298-2) |
| Response time: | < 4 ms |
| Long-term drift/one-year stability: | $\leq 0.1 \%$ of span according to IEC 61298-2 |
| Rated temperature range: | 0 °C ... +80 °C |
| Service life: | Minimum 100 Mio. life cycles |
| Non-repeatability: | $\leq 0.1 \%$ of span |

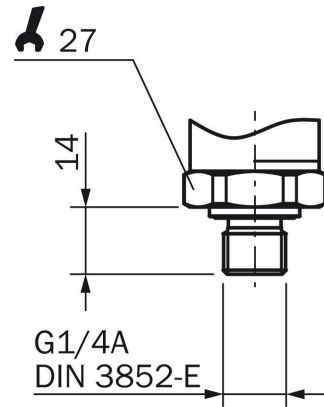
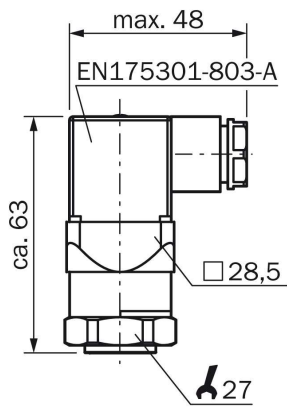
| | |
|-------------------------------------|-----------------------------------------------------------------------|
| Hysteresis: | ≤ 0.16 % of span |
| Signal noise: | ≤ 0.3 % of span |
| Adjustment accuracy of zero signal: | ≤ 0.5 % of span typ., ≤ 0.8 % of span max. (with non-linearity 0.5 %) |

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: | FPM/FKM |
| Pressure port: | Standard |
| Housing material: | Stainless steel 316L |
| Enclosure rating: | IP 65 |
| Electrical connection: | L-connector acc. to DIN 175301-803 A, IP 65 |
| Power consumption: | Max. 8 mA for voltage output signal, Signal current (max. 25 mA) for current output |
| Electrical safety: | Short-circuit protection: QA towards M, Protection class: III, Overvoltage protection: 32 V DC, 36 V DC with 4 mA ... 20 mA, Reverse polarity protection: L+ towards M |
| Protection class III: | ✓ |
| Weight sensor: | Ca. 80 g |
| Internal transmission fluid: | Silicone oil (only with pressure ranges < 0 bar ... 10 bar and ≤ 0 bar abs ... 25 bar abs) |
| Isolation voltage: | 500 V DC |
| CE-conformity: | Pressure equipment directive: 97/23/EC, EMC directive: 2004/108/EC, EN 61 326-2-3 |
| Reference conditions: | Reference conditions: According to IEC 61298-1 |

Ambient data

| | |
|----------------------|----------------------------------------------------------------------------|
| Storage temperature: | -30 °C ... +100 °C |
| Ambient temperature: | 0 °C ... +80 °C |
| Shock load: | 500 g according to IEC 60068-2-27 (mechanical shock) |
| Vibration load: | 10 g according to IEC 60068-2-6 (vibration under resonance), 20 g optional |
| Relative humidity: | 45 % ... 75 % |



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