

ONLINE DATA SHEET
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Pressure sensors
Pressure transmitter

PBT-RB6X0SG1SSNALA0Z



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Pressure sensors
Pressure transmitter

Model Name > PBT-RB6X0SG1SSNALA0Z
Part No. > 6041707





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 ... 6 bar
Process temperature:	0 °C ... +80 °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:	≤ ± 0,6 % of Span (with non-linearity 0.25 % and with signal output 0 ... 5 V), ≤ ± 1 % of span (with non-linearity 0.25 %), ≤ ± 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:	≤ ± 0.5 % ((Best Fit Straight Line, BFSL) according to IEC 61298-2)
Response time:	< 4 ms
Long-term drift/one-year stability:	≤ 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:	≤ 0.1 % of span

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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

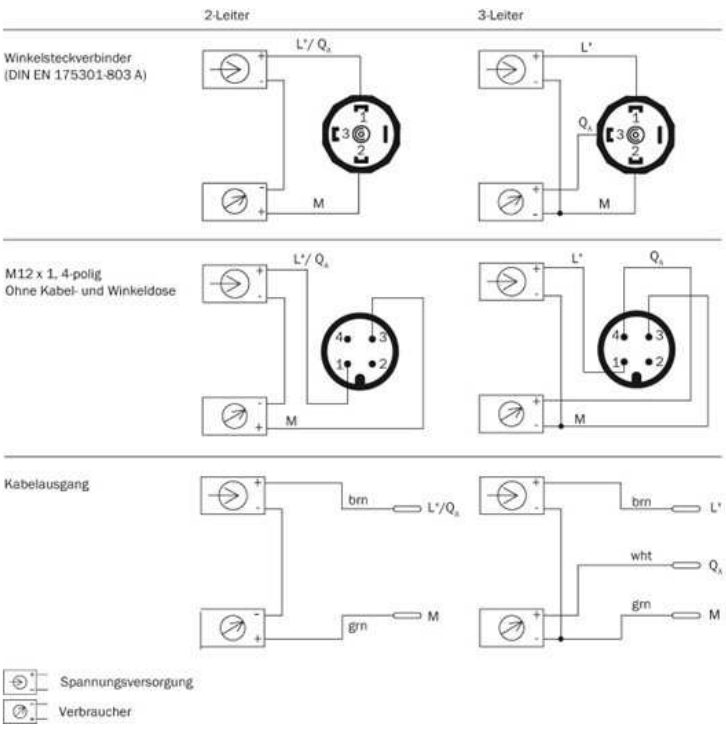
Process connection:	G ¼ A according to DIN 3852-E
Wetted parts:	Pressure connection: stainless steel 316L, Pressure sensor: stainless steel 316L (for measurement ranges from 0 bar ... 10 bar rel stainless steel 13-8 PH)
Seal:	NBR
Pressure port:	Standard
Housing material:	Stainless steel 316L
Enclosure 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

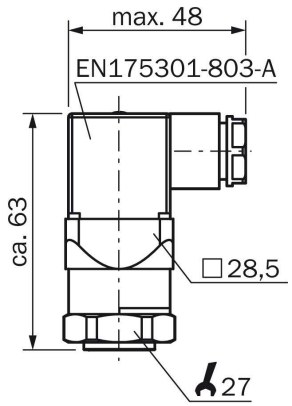
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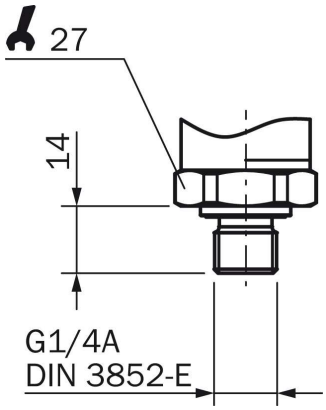
Ambient data

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

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