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DATA SHEET

PET-1RB250G1NMAMA

PET
Pressure sensors

SICK Sensor Intelligence



Illustration may differ

PRESSURE SENSORS

PET-1RB250G1NMAMA

ORDERING INFORMATION

Type	part no.
PET-1RB250G1NMAMA	6068824

Further device versions and accessories at www.sick.com/PET

DETAILED TECHNICAL DATA

FEATURES

Medium	Fluids
Pressure type	Gauge pressure
Pressure unit	bar
Measuring range	0 bar ... 250 bar
Overpressure safety	2-fold (3-fold upon request)
Process temperature	–30 °C ... +100 °C
Maximum ohmic load R_A	= (L+ - 7 V) / 0.02 A [ohm] for current output signal
Output signal	4 mA ... 20 mA, 2-wire
Initialization time	15 ms

MECHANICS/ELECTRONICS

Communication interface	-
Process connection	G ¼ A (ISO 1179-2)
Wetted parts	Process connection: 316L stainless steel Measuring chamber: stainless steel 13-8 PH
Pressure port	0.6 mm pressure port
Housing material	Stainless steel 316L, PBT GF30
Connection type	M12 round connector x 1, 4-pin
Supply voltage	8 V DC ... 30 V DC [1]
Power consumption	25 mA (signal current, maximum 25 mA)
Seal	NBR [2]

[1] The pressure transmitter must be supplied with power by a limited energy circuit compliant with 9.3 of UL/EN/IEC 601010-1 or LPS to UL/EN/IEC 60950-1 or Class 2 to UL 1310/UL1585 (NEC or CEC). The power supply must be suitable for operation above 2,000 m if the pressure transmitter is used above this altitude.

[2] Only for process connection G ¼ A according to DIN 3852-E.

[3] The enclosure rating classes specified only apply while the thermometer is connected with female connectors that provide the corresponding enclosure rating.

[4] Available upon request for process connections G ¼ A according to DIN 3852-E, ¼ " NPT, R ¼ according to ISO 7, and 7/16"-20 UNF.

Enclosure rating	IP67 (IEC 60529) [3]
MTTF	> 100 years
Pressure peak dampening	Through integrated pressure port 0.6 mm or 0.3 mm [4]
Protection class	III
Isolation voltage	750 V DC
Overvoltage protection	36 V DC
Short-circuit protection	Output Q_A towards M
Reverse polarity protection	L^+ towards M

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PERFORMANCE

Non-linearity	≤ ± 0.5 %, of span (best fit straight line, BFSL)
Accuracy	≤ ± 1.2 %, of span (at room temperature)
Adjustment accuracy of zero signal	≤ ± 0.5 % of the span
Response time	< 2 ms
Long-term drift/one-year stability	≤ ± 0.3 % of span (per year)
Rated temperature range	0 °C ... +80 °C
Service life	Minimum 10 Mio. load cycles
Temperature error	≤ ± 1.5 % of the span
Reference conditions	According to IEC 61298-1

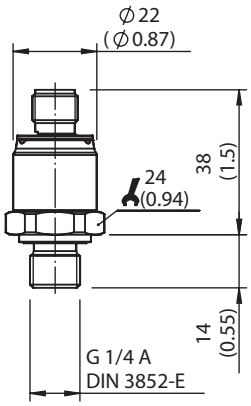
AMBIENT DATA

Ambient temperature, operation	–30 °C ... +100 °C
Storage temperature	–30 °C ... +100 °C
Shock load	40 g (6 ms) according to IEC 60068-2-27 (mechanical shock)
Vibration load	20 g (20 Hz ... 2000 Hz, 120 min) according to IEC 60068-2-6 (vibration at resonance)

CERTIFICATES

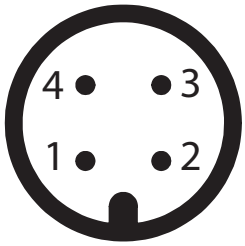
EU declaration of conformity	✓
UK declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) ex-empt	✓

DIMENSIONAL DRAWING PROCESS CONNECTION G ¼ A ACCORDING TO DIN 3852-E WITH ROUND CONNECTOR M12 X 1, 4-PIN



Dimensions in mm (inch)

CONNECTION TYPE M12 ROUND CONNECTOR X 1, 4-PIN



Assignment	L +	M	Q_A
2-wire	1	3	-
3-wire	1	3	4

① L^+: Positive supply connection
② M: Negative supply connection
③ Q_A: Analog output

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6068824

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SICK AT A GLANCE

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SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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