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DATA SHEET

# PET-1RB016G1NSAMA

PET
Pressure sensors

SICK Sensor Intelligence




Illustration may differ

## PRESSURE SENSORS

# PET-1RB016G1NSAMA

### ORDERING INFORMATION

| Type | part no. |
|---|---|
| PET-1RB016G1NSAMA | 6055944 |

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 ... 16 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 |
| Pieces per package | 50 pieces |

### MECHANICS/ELECTRONICS

| | |
|---|---|
| Communication interface | - |
| Process connection | G ¼ A (ISO 1179-2) |
| Wetted parts | Process connection: 316L stainless steel<br>Measuring chamber: stainless steel 13-8 PH |
| Pressure port | Standard |
| 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) |

[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.

| | |
|---|---|
| Seal | NBR [2] |
| 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 |

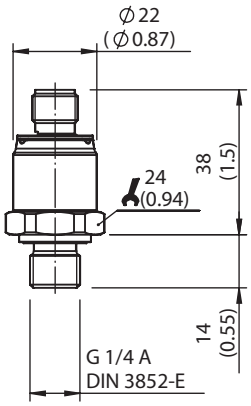
## AMBIENT DATA

| | |
|---|---|
| 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

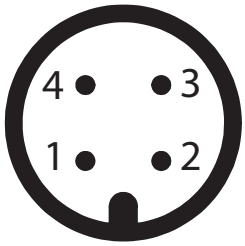
| | |
|---|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| Moroccan declaration of conformity | ✓ |
| China RoHS | ✓ |
| China Compulsory Product Certification (CCC) exempt | ✓ |

**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/6055944

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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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