



PET-1RB010G1NSAMA

PET

PRESSURE SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|-------------------|----------|
| PET-1RB010G1NSAMA | 6049221 |

Other models and accessories → www.sick.com/PET

Detailed technical data

Features

| | |
|----------------------------|------------------------|
| Pressure type | Gauge pressure |
| Measuring range | 0 bar ... 10 bar |
| Process temperature | -30 °C ... +100 °C |
| Output signal | 4 mA ... 20 mA, 2-wire |
| Pieces per package | 50 pieces |

Mechanics/electronics

| | |
|---|--|
| Process connection | G ¼ A according to DIN 3852-E |
| Seal | NBR |
| Wetted parts | Stainless steel, stainless steel 13-8 PH |
| Pressure port | 3.5 mm Standard |
| Housing material | Stainless steel 316L, PBT GF30 |
| Connection type | M12 round connector x 1, 4-pin |
| Enclosure rating | IP67, for round connector (IEC 60529) ¹⁾ |
| Supply voltage | 8 V DC ... 30 V DC ²⁾ |
| Maximum ohmic load R_A | = (L+ - 7 V) / 0.02 A [ohm] for current output signal |
| Maximum power consumption | 25 mA (signal current, maximum 25 mA) |
| Initialization time | 15 ms |
| 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 |
| CE-conformity | 2004/108/EC, EN 61326-1 emission (group 1, class B) and interference immunity (industrial application) and pressure equipment directive 97/23/EC |

¹⁾ The enclosure rating classes specified only apply while the thermometer is connected with female connectors that provide the corresponding enclosure rating.

²⁾ 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.

| | |
|-------------------------|-----------------------------|
| RoHS certificate | ✓ |
| Service life | Minimum 10 Mio. load cycles |
| MTTF | > 100 years |

1) The enclosure rating classes specified only apply while the thermometer is connected with female connectors that provide the corresponding enclosure rating.

2) 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.

Performance

| | |
|---|--|
| Non-linearity | ≤ ± 0.6 % of span (best fit straight line, BFSL) |
| Accuracy | ≤ ± 1.2 % of span (at room temperature) |
| Response time | < 2 ms |
| Measurement deviation of zero signal | ≤ ± 0.7 % of the span |
| Temperature error | ≤ ± 1.5 % of the span |
| Long-term drift/one-year stability | ≤ ± 0.3 % of span (per year) |
| Rated temperature range | 0 °C ... +80 °C |
| Reference conditions | According to IEC 61298-1 |

Ambient data

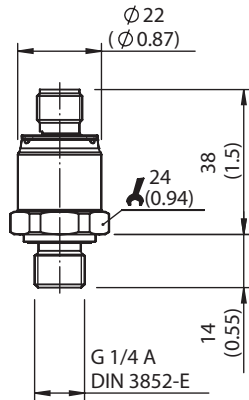
| | |
|---------------------------------------|---|
| Ambient temperature, operation | -30 °C ... +100 °C |
| Storage temperature | -30 °C ... +100 °C |
| Shock load | 40 g (6 ms) according to IEC 60068-2-27 (mechanical shock) |
| Vibration load | 20 g (20 Hz ... 2000 Hz, 120 min) according to IEC 60068-2-6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

Classifications

| | |
|-----------------------|----------|
| ECLASS 5.0 | 27200614 |
| ECLASS 5.1.4 | 27200614 |
| ECLASS 6.0 | 27200614 |
| ECLASS 6.2 | 27200614 |
| ECLASS 7.0 | 27200614 |
| ECLASS 8.0 | 27200614 |
| ECLASS 8.1 | 27200614 |
| ECLASS 9.0 | 27200614 |
| ECLASS 10.0 | 27200614 |
| ECLASS 11.0 | 27200614 |
| ECLASS 12.0 | 27200614 |
| ETIM 5.0 | EC011478 |
| ETIM 6.0 | EC011478 |
| ETIM 7.0 | EC011478 |
| ETIM 8.0 | EC011478 |
| UNSPSC 16.0901 | 41112410 |

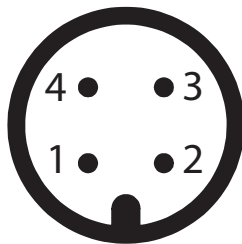
Dimensional drawing (Dimensions in mm (inch))

Process connection G 1/4 A according to DIN 3852-E with round connector M12 x 1, 4-pin



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

Recommended accessories

Other models and accessories → www.sick.com/PET

| | Brief description | Type | Part no. |
|---|---|--------------------|----------|
| Others | | | |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot | YF2A14-020UB3XLEAX | 2095607 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot | YF2A14-050UB3XLEAX | 2095608 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 10 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot | YF2A14-100UB3XLEAX | 2095609 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 15 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot | YF2A14-150UB3XLEAX | 2095610 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 20 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot | YF2A14-200UB3XLEAX | 2095611 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 25 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot | YF2A14-250UB3XLEAX | 2095615 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot | YG2A14-020UB3XLEAX | 2095766 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot | YG2A14-050UB3XLEAX | 2095767 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 10 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot | YG2A14-100UB3XLEAX | 2095768 |

| | Brief description | Type | Part no. |
|---|---|--------------------|----------|
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 15 m, 4-wire, PUR, halogen-free • Description: Sensor/actuator cable, unshielded • Application: Zones with oils and lubricants, Drag chain operation, Robot | YG2A14-150UB3XLEAX | 2095769 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 20 m, 4-wire, PUR, halogen-free • Description: Sensor/actuator cable, unshielded • Application: Zones with oils and lubricants, Drag chain operation, Robot | YG2A14-200UB3XLEAX | 2095770 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 25 m, 4-wire, PUR, halogen-free • Description: Sensor/actuator cable, unshielded • Application: Zones with oils and lubricants, Drag chain operation, Robot | YG2A14-250UB3XLEAX | 2095771 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 2 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YF2A14-020VB3XLEAX | 2096234 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YF2A14-050VB3XLEAX | 2096235 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 10 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YF2A14-100VB3XLEAX | 2096236 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 15 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YF2A14-150VB3XLEAX | 2096237 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 20 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YF2A14-200VB3XLEAX | 2096238 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 2 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YG2A14-020VB3XLEAX | 2095895 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YG2A14-050VB3XLEAX | 2095897 |

| | Brief description | Type | Part no. |
|---|--|--------------------|----------|
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 10 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YG2A14-100VB3XLEAX | 2095898 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 15 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YG2A14-150VB3XLEAX | 2096213 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 20 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YG2A14-200VB3XLEAX | 2096214 |

SICK AT A GLANCE

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