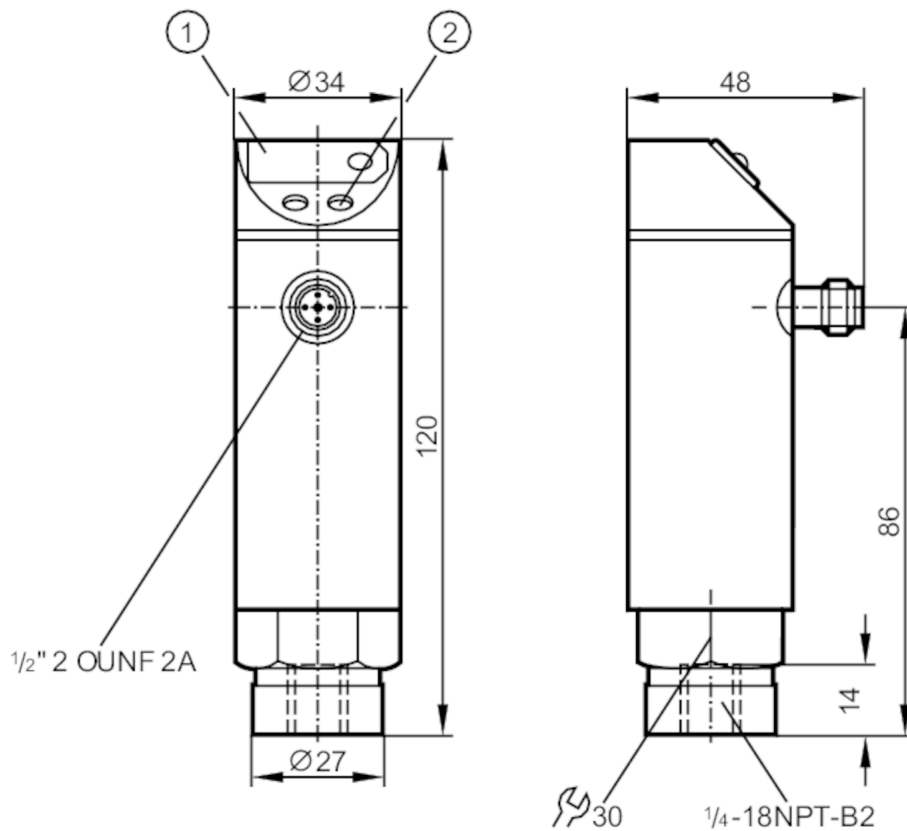


PN4221



Pressure sensor with display

PN-250-SBN14-HFBOW/LS/ IV



- 1 7-segment LED display
- 2 programming button



Product characteristics

| | | | |
|--------------------|---|--------------|------------|
| Output signal | switching signal | | |
| Measuring range | 0...250 bar | 0...3630 psi | 0...25 MPa |
| Process connection | threaded connection 1/4 NPT internal thread | | |

Application

| | | | |
|----------------------------|--|-----------|--------|
| Application | for industrial applications | | |
| Media | liquids and gases | | |
| Conditionally suitable for | use in gases at pressures > 25 bar only on request | | |
| Medium temperature [°C] | -25...80 | | |
| Pressure rating | 400 bar | 5800 psi | 40 MPa |
| Min. bursting pressure | 850 bar | 12300 psi | 85 MPa |
| Type of pressure | relative pressure | | |

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| Electrical data | | | |
|---|------------------------|---|---------------------------------|
| Operating voltage tolerance | [%] | < 10 | |
| Operating voltage | [V] | 85...265 AC | |
| Nominal voltage AC | [V] | < 250 | |
| Current consumption | [mA] | < 10 | |
| Min. insulation resistance | [MΩ] | 100; (500 V DC) | |
| Protection class | | II | |
| Reverse polarity protection | | no | |
| Power-on delay time | [s] | 0.2 | |
| Integrated watchdog | | yes | |
| Inputs / outputs | | | |
| Number of inputs and outputs | | Number of digital outputs: 1 | |
| Outputs | | | |
| Total number of outputs | | 1 | |
| Output signal | | switching signal | |
| Electrical design | | Triac | |
| Number of digital outputs | | 1 | |
| Output function | | normally open / normally closed; (parameterisable) | |
| Max. voltage drop switching output AC | [V] | 2 | |
| Permanent current rating of switching output AC | [mA] | 250; ((...70 °C) 1000 (...60 °C) 1500 (...45 °C) 2500 (...20 °C)) | |
| Switching frequency AC | [Hz] | < 160 | |
| Short-circuit proof | | no | |
| Overload protection | | no | |
| Measuring/setting range | | | |
| Measuring range | | 0...250 bar | 0...3630 psi 0...25 MPa |
| Set point SP | | 2...250 bar | 40...3630 psi 0.2...25 MPa |
| Reset point rP | | 1...249 bar | 20...3610 psi 0.1...24.9 MPa |
| In steps of | | 1 bar | 10 psi 0.1 MPa |
| Accuracy / deviations | | | |
| Switch point accuracy | [% of the span] | < ± 1,0 | |
| Repeatability | [% of the span] | < ± 0,1; (with temperature fluctuations < 10 K) | |
| Linearity deviation | [% of the span] | < ± 0,5 | |
| Hysteresis deviation | [% of the span] | < ± 0,1 | |
| Long-term stability | [% of the span] | < ± 0,1; (per year) | |
| Temperature coefficient zero point | [% of the span / 10 K] | < ± 0,2; (-25...80 °C) | |
| Temperature coefficient span | [% of the span / 10 K] | < ± 0,3; (-25...80 °C) | |

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Pressure sensor with display

PN-250-SBN14-HFBOW/LS/ /V

| Response times | | |
|--------------------------------------|---------------------------|--|
| Delay time programmable dS, dr | [s] | 0, 0,2,...10, 11,...50 |
| Damping for the switching output dAP | [s] | 0...4 |
| Software / programming | | |
| Adjustment of the switch point | | programming button |
| Parameter setting options | | hysteresis / window; normally open / normally closed; switch-on/switch-off delay; Damping; adaptation of displayed values; display can be rotated and switched off; Display unit |
| Operating conditions | | |
| Ambient temperature | [°C] | -25...80 |
| Storage temperature | [°C] | -40...100 |
| Protection | | IP 67 |
| Tests / approvals | | |
| EMC | EN 61000-4-2 ESD | 4 kV CD / 8 kV AD |
| | EN 61000-4-3 HF radiated | 10 V/m |
| | EN 61000-4-4 Burst | 2 kV |
| | EN 61000-4-6 HF conducted | 10 V |
| Shock resistance | DIN IEC 68-2-27 | 50 g (11 ms) |
| Vibration resistance | DIN IEC 68-2-6 | 20 g (10...2000 Hz) |
| MTTF | [years] | 224.58 |
| Pressure Equipment Directive | | Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request |
| Mechanical data | | |
| Weight | [g] | 389.5 |
| Materials | | stainless steel (1.4301 / 304); PC; PBT; PA; FKM |
| Materials (wetted parts) | | stainless steel (1.4305 / 303); ceramics; FKM |
| Min. pressure cycles | | 100 million |
| Process connection | | threaded connection 1/4 NPT internal thread |
| Restrictor element integrated | | no (can be retrofitted) |
| Displays / operating elements | | |
| Display | switching status | LED, red |
| | function display | 7-segment LED display |
| | measured values | 7-segment LED display |
| Electrical connection | | |
| Required protection | | miniature fuse to IEC60127-2 sheet 1; ≤ 5 A; fast acting |
| Remarks | | |
| Remarks | | n.c. = not used |
| Pack quantity | | 1 pcs. |
| Electrical connection | | |
| Connector: 1 x 1/2" | | |

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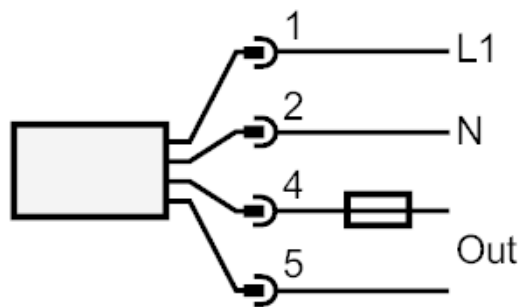


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Connection



Note miniature fuse to IEC60127-2 sheet 1 \leq 5 A fast acting