

PN5001

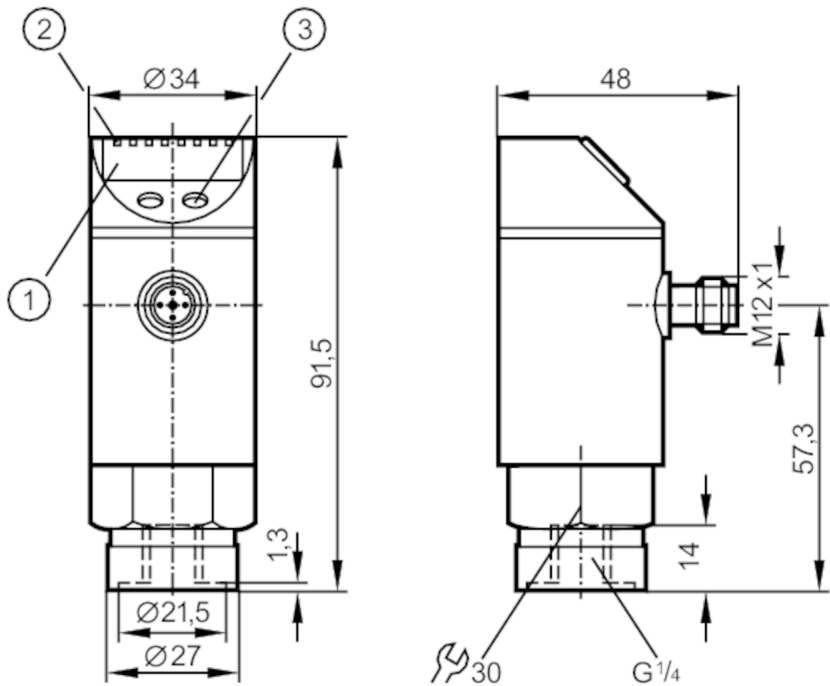


Pressure sensor with display

PN-250-SBR14-HFPKG/US/ IV

Status Archive

PN7071



- 1 alphanumeric display 4-digit
- 2 LEDs Display unit / switching status
- 3 programming button



| Application                     |                                                    |           |        |
|---------------------------------|----------------------------------------------------|-----------|--------|
| 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                                  |           |        |
| Electrical data                 |                                                    |           |        |
| Operating voltage [V]           | 18...36 DC; (according to EN 50178 SELV/PELV)      |           |        |
| Current consumption [mA]        | < 50                                               |           |        |
| Min. insulation resistance [MΩ] | 100; (500 V DC)                                    |           |        |
| Protection class                | III                                                |           |        |
| Reverse polarity protection     | yes                                                |           |        |
| Overvoltage protection          | yes; (< 40 V)                                      |           |        |
| Power-on delay time [s]         | 0.3                                                |           |        |
| Integrated watchdog             | yes                                                |           |        |
| Inputs / outputs                |                                                    |           |        |
| Number of inputs and outputs    | Number of digital outputs: 1                       |           |        |



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| Outputs                                                   |                                                                                                         |               |                |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------|----------------|
| Total number of outputs                                   | 1                                                                                                       |               |                |
| Output signal                                             | switching signal                                                                                        |               |                |
| Electrical design                                         | PNP                                                                                                     |               |                |
| Number of digital outputs                                 | 1                                                                                                       |               |                |
| Output function                                           | normally open / normally closed; (parameterisable)                                                      |               |                |
| Max. voltage drop switching output DC [V]                 | 2                                                                                                       |               |                |
| Permanent current rating of switching output DC [mA]      | 250                                                                                                     |               |                |
| Switching frequency DC [Hz]                               | < 170                                                                                                   |               |                |
| Short-circuit protection                                  | yes                                                                                                     |               |                |
| Type of short-circuit protection                          | pulsed                                                                                                  |               |                |
| Measuring/setting range                                   |                                                                                                         |               |                |
| Measuring range                                           | 0...250 bar                                                                                             | 0...3625 psi  | 0...25 MPa     |
| Set point SP                                              | 2...250 bar                                                                                             | 40...3620 psi | 0.2...25 MPa   |
| Reset point rP                                            | 1...249 bar                                                                                             | 20...3600 psi | 0.1...24.9 MPa |
| In steps of                                               | 1 bar                                                                                                   | 20 psi        | 0.1 MPa        |
| Factory setting                                           |                                                                                                         | SP1 = 63 bar  | rP1 = 58 bar   |
| Accuracy / deviations                                     |                                                                                                         |               |                |
| Switch point accuracy [% of the span]                     | < ± 0,5                                                                                                 |               |                |
| Repeatability [% of the span]                             | < ± 0,1; (with temperature fluctuations < 10 K)                                                         |               |                |
| Characteristics deviation [% of the span]                 | < ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)               |               |                |
| Hysteresis deviation [% of the span]                      | < ± 0,25                                                                                                |               |                |
| Long-term stability [% of the span]                       | < ± 0,05; (per 6 months)                                                                                |               |                |
| Temperature coefficient zero point [% of the span / 10 K] | 0,2; (0...80 °C)                                                                                        |               |                |
| Temperature coefficient span [% of the span / 10 K]       | 0,2; (0...80 °C)                                                                                        |               |                |
| Response times                                            |                                                                                                         |               |                |
| Delay time programmable dS, dr [s]                        | 0; 0,2...50                                                                                             |               |                |
| Software / programming                                    |                                                                                                         |               |                |
| Parameter setting options                                 | hysteresis / window; normally open / normally closed; switch-on/switch-off delay; Damping; Display unit |               |                |
| Operating conditions                                      |                                                                                                         |               |                |
| Ambient temperature [°C]                                  | -20...80                                                                                                |               |                |
| Storage temperature [°C]                                  | -40...100                                                                                               |               |                |
| Protection                                                | IP 67                                                                                                   |               |                |

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| 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 61000-4-5 Surge                                                                 | 0,5/1 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]                                                                            | 231                           |
| Mechanical data                                                                                |                                                                                    |                               |
| Weight                                                                                         | [g]                                                                                | 261.6                         |
| Materials                                                                                      | stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM |                               |
| Materials (wetted parts)                                                                       | stainless steel (1.4305 / 303); ceramics; FKM                                      |                               |
| Min. pressure cycles                                                                           | 100 million                                                                        |                               |
| Process connection                                                                             | threaded connection G 1/4 internal thread                                          |                               |
| Displays / operating elements                                                                  |                                                                                    |                               |
| Display                                                                                        | Display unit                                                                       | 3 x LED, green                |
|                                                                                                | switching status                                                                   | LED, yellow                   |
|                                                                                                | function display                                                                   | alphanumeric display, 4-digit |
|                                                                                                | measured values                                                                    | alphanumeric display, 4-digit |
| Remarks                                                                                        |                                                                                    |                               |
| Notes                                                                                          | discontinued article                                                               |                               |
| Pack quantity                                                                                  | 1 pcs.                                                                             |                               |
| Electrical connection                                                                          |                                                                                    |                               |
| Connector: 1 x M12; Contacts: gold-plated                                                      |                                                                                    |                               |
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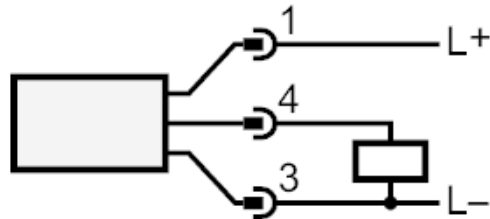
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