

PN5006

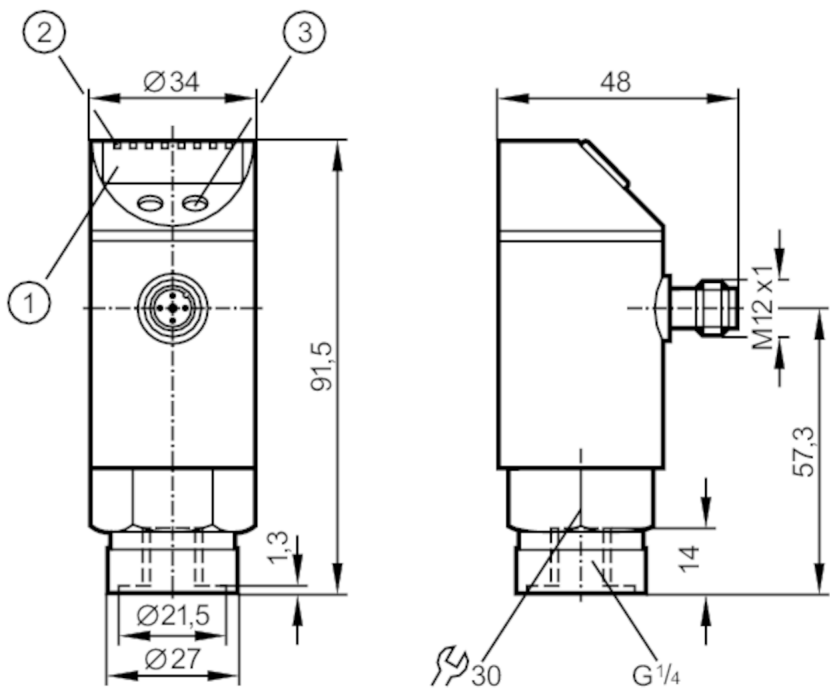


Pressure sensor with display

PN-2,5-RBR14-HFPKG/US/ IV

Status Archive

PN7096



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



| Application                     |                                               |         |          |
|---------------------------------|-----------------------------------------------|---------|----------|
| Media                           | liquids and gases                             |         |          |
| Medium temperature [°C]         | -25...80                                      |         |          |
| Pressure rating                 | 20 bar                                        | 290 psi | 2000 kPa |
| Min. bursting pressure          | 50 bar                                        | 725 psi | 5000 kPa |
| 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...2.5 bar                                                                                             | 0...36.3 psi   | 0...250 kPa    |
| Set point SP                                              | 0.02...2.5 bar                                                                                          | 0.4...36.2 psi | 2...250 kPa    |
| Reset point rP                                            | 0.01...2.49 bar                                                                                         | 0.2...36 psi   | 1...249 kPa    |
| In steps of                                               | 0.01 bar                                                                                                | 0.2 psi        | 1 kPa          |
| Factory setting                                           |                                                                                                         | SP1 = 0.63 bar | rP1 = 0.58 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; (-20...80 °C)                                                                                      |                |                |
| Temperature coefficient span [% of the span / 10 K]       | 0,2; (-20...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 65                                                                                                   |                |                |

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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]               | 258.6                                                                                    |  |
| Materials                | stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM; PTFE |  |
| 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



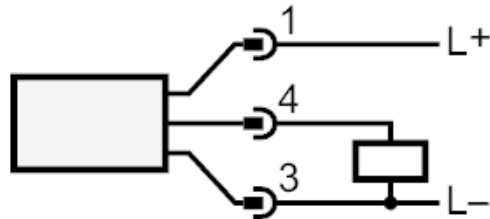
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### Connection



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