



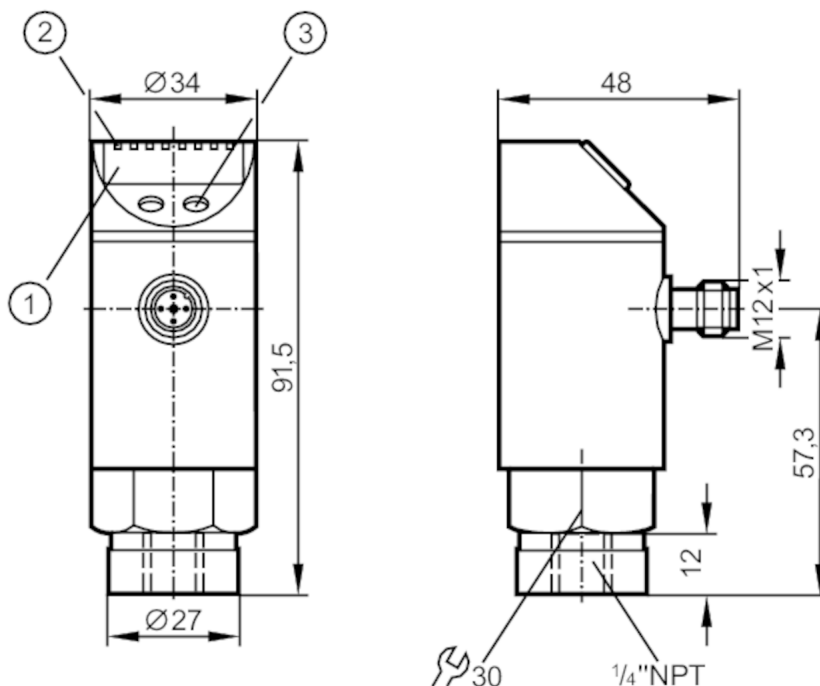
## Pressure sensor with display

PN-2,5-RBN14-QFRKG/US/ IV

phase-out article

Alternative articles: PN7296

When selecting an alternative article and accessories please note that technical data may differ!



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



### Product characteristics

|                              |                                              |               |              |             |
|------------------------------|----------------------------------------------|---------------|--------------|-------------|
| Number of inputs and outputs | Number of digital outputs: 2                 |               |              |             |
| Measuring range              | 0...2.5 bar                                  | 0...2500 mbar | 0...36.3 psi | 0...250 kPa |
| Process connection           | threaded connection 1/4" NPT internal thread |               |              |             |

### Application

|                         |                             |         |          |
|-------------------------|-----------------------------|---------|----------|
| Special feature         | Gold-plated contacts        |         |          |
| Application             | for industrial applications |         |          |
| Media                   | liquids and gases           |         |          |
| Medium temperature [°C] | -25...80                    |         |          |
| Min. bursting pressure  | 50 bar                      | 725 psi | 5000 kPa |
| Pressure rating         | 20 bar                      | 290 psi | 2000 kPa |
| Type of pressure        | relative pressure           |         |          |

### Electrical data

|                                 |                            |
|---------------------------------|----------------------------|
| Operating voltage [V]           | 18...36 DC; (to SELV/PELV) |
| Current consumption [mA]        | < 50                       |
| Min. insulation resistance [MΩ] | 100; (500 V DC)            |
| Protection class                | III                        |



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|                             |               |
|-----------------------------|---------------|
| 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: 2 |
|------------------------------|------------------------------|

### Outputs

|                                                      |                                                    |
|------------------------------------------------------|----------------------------------------------------|
| Total number of outputs                              | 2                                                  |
| Output signal                                        | switching signal; IO-Link; (configurable)          |
| Electrical design                                    | PNP/NPN                                            |
| Number of digital outputs                            | 2                                                  |
| 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...2500 mbar  | 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 = 9.0 psi  | rP1 = 8.4 psi  |             |
|                 |                 | SP2 = 27.2 psi | rP2 = 26.4 psi |             |

### 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 |
|------------------------------------|-------------|



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| Software / programming        |                                                                                                                                               |                               |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Parameter setting options     | hysteresis / window; normally open / normally closed; diagnostic function; switching logic; switch-on/switch-off delay; Damping; Display unit |                               |
| Interfaces                    |                                                                                                                                               |                               |
| Communication interface       | IO-Link                                                                                                                                       |                               |
| Transmission type             | COM2 (38,4 kBaud)                                                                                                                             |                               |
| IO-Link revision              | 1.1                                                                                                                                           |                               |
| Profiles                      | no profile                                                                                                                                    |                               |
| SIO mode                      | yes                                                                                                                                           |                               |
| Required master port type     | A                                                                                                                                             |                               |
| Process data analogue         | 1                                                                                                                                             |                               |
| Process data binary           | 2                                                                                                                                             |                               |
| Min. process cycle time [ms]  | 2.3                                                                                                                                           |                               |
| Supported DeviceIDs           | Type of operation                                                                                                                             | DeviceID                      |
|                               | default                                                                                                                                       | 331                           |
| Operating conditions          |                                                                                                                                               |                               |
| Ambient temperature [°C]      | -20...80                                                                                                                                      |                               |
| Storage temperature [°C]      | -40...100                                                                                                                                     |                               |
| Protection                    | IP 65                                                                                                                                         |                               |
| Tests / approvals             |                                                                                                                                               |                               |
| EMC                           | EN 61000-6-2                                                                                                                                  |                               |
|                               | EN 61000-6-3                                                                                                                                  |                               |
| Shock resistance              | DIN EN 60068-2-27                                                                                                                             | 50 g (11 ms)                  |
| Vibration resistance          | DIN EN 60068-2-6                                                                                                                              | 20 g (10...2000 Hz)           |
| MTTF [years]                  | 219                                                                                                                                           |                               |
| Mechanical data               |                                                                                                                                               |                               |
| Weight [g]                    | 263.8                                                                                                                                         |                               |
| Materials                     | stainless steel (1.4301 / 304); stainless steel (316L/1.4404); PC; PBT; PEI; FKM; PTFE                                                        |                               |
| 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                       | Display unit                                                                                                                                  | 3 x LED, green                |
|                               | switching status                                                                                                                              | 2 x LED, yellow               |
|                               | function display                                                                                                                              | alphanumeric display, 4-digit |
|                               | measured values                                                                                                                               | alphanumeric display, 4-digit |
| Remarks                       |                                                                                                                                               |                               |
| Pack quantity                 | 1 pcs.                                                                                                                                        |                               |

# PN7206

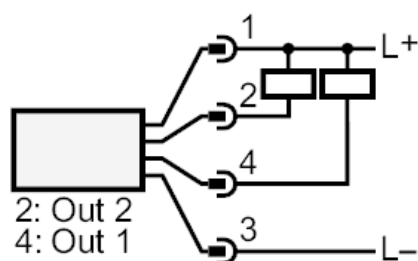
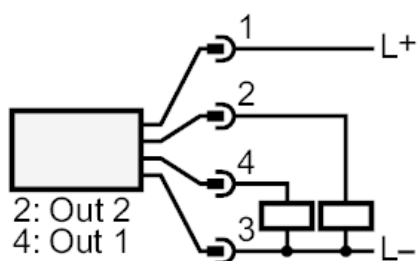


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### Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



|      |                                       |
|------|---------------------------------------|
| OUT1 | switching output<br>IO-Link           |
| OUT2 | switching output<br>Diagnostic output |