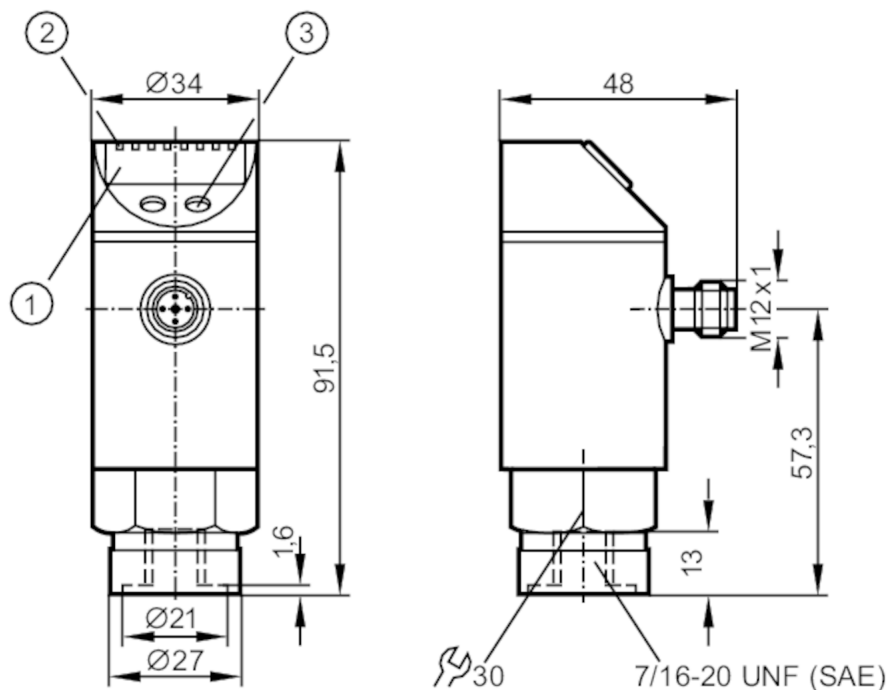




## Pressure sensor with display

PN-010-RBU76-QFRKG/US/ IV

phase-out article



- 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              | -1...10 bar                                        | -14.5...145 psi | -100...1000 kPa | -0.1...1 MPa |
| Process connection           | threaded connection 7/16" - 20 UNF internal thread |                 |                 |              |

### Application

|                         |                             |          |         |
|-------------------------|-----------------------------|----------|---------|
| Special feature         | Gold-plated contacts        |          |         |
| Application             | for industrial applications |          |         |
| Media                   | liquids and gases           |          |         |
| Medium temperature [°C] | -25...80                    |          |         |
| Min. bursting pressure  | 150 bar                     | 2175 psi | 15 MPa  |
| Pressure rating         | 75 bar                      | 1087 psi | 7.5 MPa |
| 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                        |
| Reverse polarity protection     | yes                        |
| Overvoltage protection          | yes; (< 40 V)              |



## Pressure sensor with display

PN-010-RBU76-QFRKG/US/ /V

|                                                 |                        |                                                                                                                                               |
|-------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Power-on delay time                             | [s]                    | 0.3                                                                                                                                           |
| Integrated watchdog                             |                        | yes                                                                                                                                           |
| <b>Inputs / outputs</b>                         |                        |                                                                                                                                               |
| Number of inputs and outputs                    |                        | Number of digital outputs: 2                                                                                                                  |
| <b>Outputs</b>                                  |                        |                                                                                                                                               |
| 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                                                                                                                                        |
| <b>Measuring/setting range</b>                  |                        |                                                                                                                                               |
| Measuring range                                 | -1...10 bar            | -14.5...145 psi    -100...1000 kPa    -0.1...1 MPa                                                                                            |
| Set point SP                                    | -0.9...10 bar          | -12...145 psi    -0.09...1 MPa                                                                                                                |
| Reset point rP                                  | -0.95...9.95 bar       | -13...144 psi    -0.095...0.995 MPa                                                                                                           |
| In steps of                                     | 0.05 bar               | 1 psi    0.005 MPa                                                                                                                            |
| Factory setting                                 |                        | SP1 = 36 psi    rP1 = 33 psi<br>SP2 = 108 psi    rP2 = 105 psi                                                                                |
| <b>Accuracy / deviations</b>                    |                        |                                                                                                                                               |
| 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)                                                                                                                            |
| <b>Response times</b>                           |                        |                                                                                                                                               |
| Delay time programmable dS, dr                  | [s]                    | 0; 0,2...50                                                                                                                                   |
| <b>Software / programming</b>                   |                        |                                                                                                                                               |
| Parameter setting options                       |                        | hysteresis / window; normally open / normally closed; diagnostic function; switching logic; switch-on/switch-off delay; Damping; Display unit |



## Pressure sensor with display

PN-010-RBU76-QFRKG/US/ /V

| 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                                                                              | 330                           |
| 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]                    | 265                                                                                  |                               |
| Materials                     | stainless steel (304/1.4301); stainless steel (316L/1.4404); PC; PBT; PEI; FKM; PTFE |                               |
| Materials (wetted parts)      | stainless steel (303/1.4305); ceramics; FKM                                          |                               |
| Min. pressure cycles          | 100 million                                                                          |                               |
| Process connection            | threaded connection 7/16" - 20 UNF 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.                                                                               |                               |

# PN7304

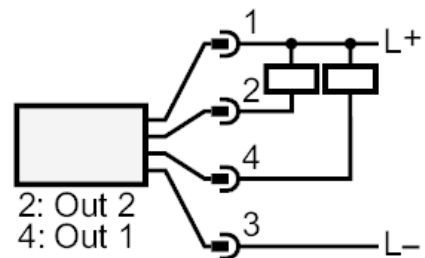
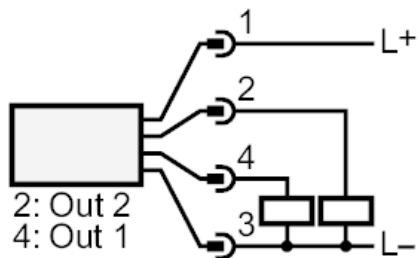


## Pressure sensor with display

PN-010-RBU76-QFRKG/US/ /V

### Electrical connection

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



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