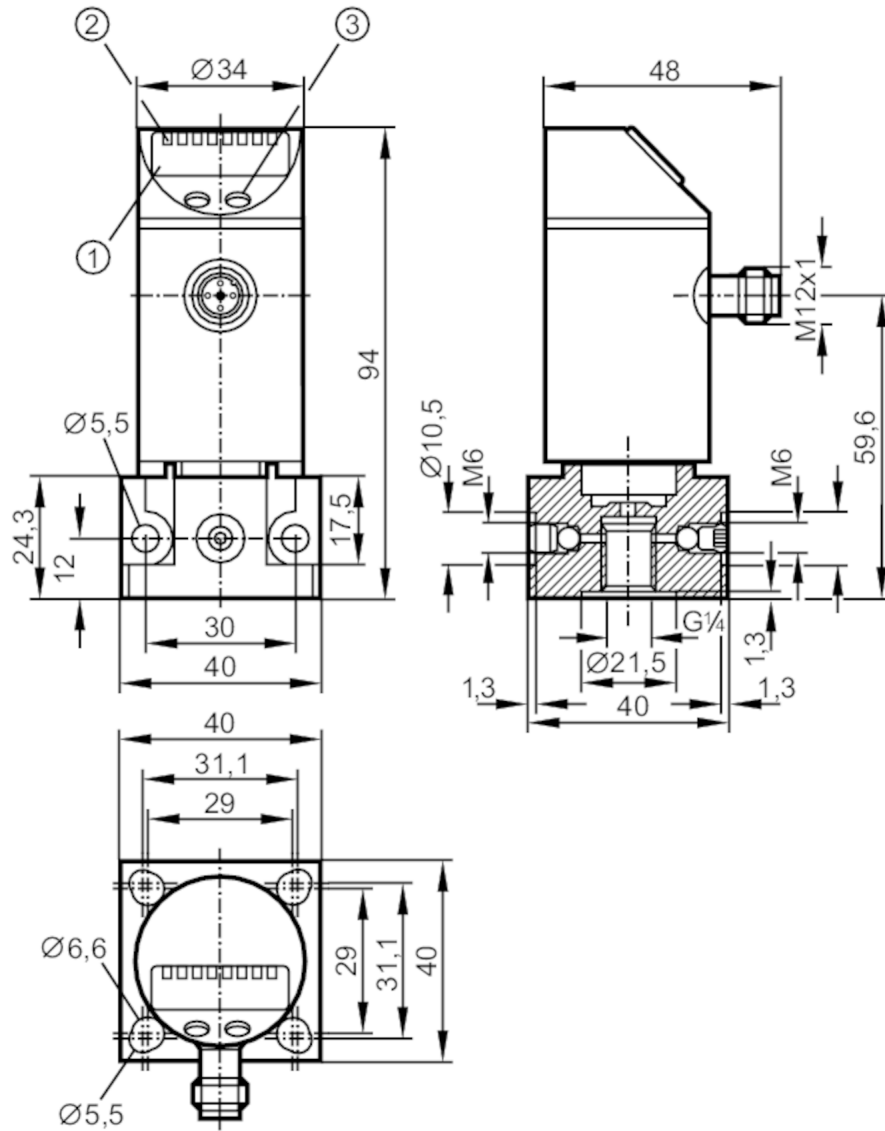


# PY7001



## Pressure sensor with display

PN-250-SGR14-KG /US/ IV



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

CE EAC IO-Link

### Product characteristics

|                    |  |              |            |
|--------------------|--|--------------|------------|
| Output signal      | switching signal; IO-Link; (configurable)        |              |            |
| Measuring range    | 0...250 bar                                      | 0...3625 psi | 0...25 MPa |
| Process connection | flange internal thread:G 1/4; internal thread:M6 |              |            |

# PY7001



## Pressure sensor with display

PN-250-SGR14-KG /US/ IV

| Application  |  |               |                |
|--|--|---------------|----------------|
| Special feature                                      | Gold-plated contacts                               |               |                |
| Design   | with flange adapter                                |               |                |
| 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: 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...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   |
|  |  | SP2 = 188 bar | rP2 = 183 bar  |
| Accuracy / deviations                                |  |               |                |
| Switch point accuracy                                | < ± 0,5  |               |                |

# PY7001



## Pressure sensor with display

PN-250-SGR14-KG /US/ /V

|                                    |                        |   |
|------------------------------------|------------------------|---|
|                                    | [% of the span]        |   |
| Repeatability                      | [% of the span]        | < ± 0,1; (with temperature fluctuations < 10 K)   |
| Characteristics deviation          | [% of the span]        | < ± 0,5; (linearity, incl. hysteresis and repeatability limit value setting to DIN 16086) |
| 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; 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                |
| SDCI standard             | IEC 61131-9 CDV    |
| IO-Link device ID         | 308 d / 00 01 34 h |
| 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           |

### Operating conditions

|                     |      |           |
|---------------------|------|-----------|
| Ambient temperature | [°C] | -20...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 61000-4-5 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]   | 220                 |
| Pressure Equipment Directive | Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request |                     |

# PY7001



## Pressure sensor with display

PN-250-SGR14-KG /US/ IV

### Mechanical data

|                               |     |   |
|-------------------------------|-----|---|
| Weight                        | [g] | 382.5   |
| Materials                     |     | stainless steel (1.4301 / 304); PC; PBT; PEI; FKM |
| Materials (wetted parts)      |     | steel (1.4104 / 430F); ceramics; FKM              |
| Min. pressure cycles          |     | 100 million                                       |
| Process connection            |     | flange internal thread:G 1/4; internal thread:M6  |
| Restrictor element integrated |     | no  |

### Displays / operating elements

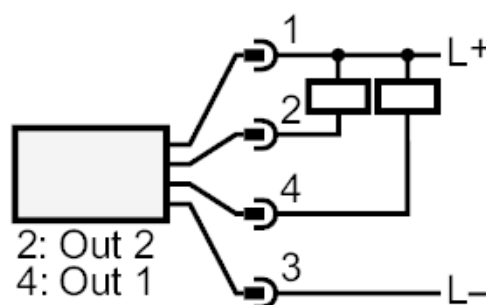
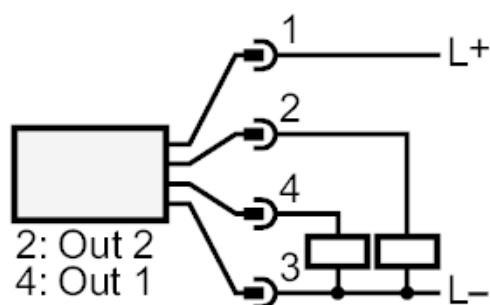
|         |                  |                               |
|---------|------------------|-------------------------------|
| Display | Display unit     | 3 x LED, green                |
|         | switching status | 2 x LED, yellow               |
|         | function display | alphanumeric display, 4-digit |
|         | measured values  | alphanumeric display, 4-digit |

### Remarks

|               |        |
|---------------|--------|
| Pack quantity | 1 pcs. |
|---------------|--------|

### Electrical connection

Connector: 1 x M12; Contacts: gold-plated



- OUT1            switching output
- OUT2            switching output
- Diagnostic output