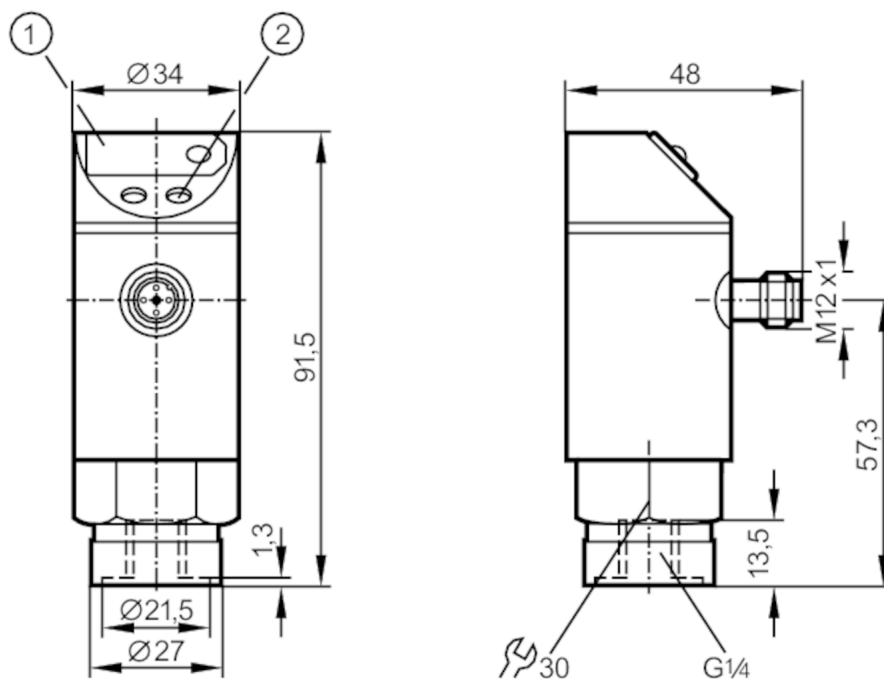


## Pressure sensor with display

PE-250-SBR14-QFPKG/US/ /E

Article no longer available - archive entry



- 1 7-segment LED display  
2 programming button



### Product characteristics

|                              |                                           |
|------------------------------|-------------------------------------------|
| Number of inputs and outputs | Number of digital outputs: 2              |
| Measuring range [bar]        | 0...250                                   |
| Process connection           | threaded connection G 1/4 internal thread |

### Application

|                              |                                                              |
|------------------------------|--------------------------------------------------------------|
| Special feature              | Gold-plated contacts                                         |
| Application                  | for industrial applications                                  |
| Media                        | liquids and gases                                            |
| Conditionally suitable for   | For gaseous media the application is limited to max. 25 bar. |
| Cannot be used for           | oils                                                         |
| Medium temperature [°C]      | -25...80                                                     |
| Min. bursting pressure [bar] | 850                                                          |
| Pressure rating [bar]        | 400                                                          |
| Type of pressure             | relative pressure                                            |

### Electrical data

|                                 |                 |
|---------------------------------|-----------------|
| Operating voltage [V]           | 18...30 DC      |
| Current consumption [mA]        | < 60            |
| Min. insulation resistance [MΩ] | 100; (500 V DC) |
| Protection class                | III             |
| Reverse polarity protection     | yes             |



## Pressure sensor with display

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|                                                                 |                     |                                                                                             |     |    |    |    |    |    |     |     |     |
|-----------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------|-----|----|----|----|----|----|-----|-----|-----|
| Power-on delay time                                             | [s]                 | 0.2                                                                                         |     |    |    |    |    |    |     |     |     |
| 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                                                                            |     |    |    |    |    |    |     |     |     |
| Electrical design                                               |                     | PNP                                                                                         |     |    |    |    |    |    |     |     |     |
| 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                                                                                         |     |    |    |    |    |    |     |     |     |
| Short-circuit protection                                        |                     | yes                                                                                         |     |    |    |    |    |    |     |     |     |
| Type of short-circuit protection                                |                     | pulsed                                                                                      |     |    |    |    |    |    |     |     |     |
| Overload protection                                             |                     | yes                                                                                         |     |    |    |    |    |    |     |     |     |
| Measuring/setting range                                         |                     |                                                                                             |     |    |    |    |    |    |     |     |     |
| Measuring range                                                 | [bar]               | 0...250                                                                                     |     |    |    |    |    |    |     |     |     |
| Set point SP                                                    | [bar]               | 2...250                                                                                     |     |    |    |    |    |    |     |     |     |
| Reset point rP                                                  | [bar]               | 1...248                                                                                     |     |    |    |    |    |    |     |     |     |
| In steps of                                                     | [bar]               | 1                                                                                           |     |    |    |    |    |    |     |     |     |
| Accuracy / deviations                                           |                     |                                                                                             |     |    |    |    |    |    |     |     |     |
| Switch point accuracy                                           | [X16]               | < ± 1,0                                                                                     |     |    |    |    |    |    |     |     |     |
| Repeatability                                                   | [X16]               | < ± 0,25; (with temperature fluctuations < 10 K)                                            |     |    |    |    |    |    |     |     |     |
| Temperature drift per 10 K                                      |                     | < ± 0.3                                                                                     |     |    |    |    |    |    |     |     |     |
| Response times                                                  |                     |                                                                                             |     |    |    |    |    |    |     |     |     |
| Switching frequency for a given set response time of one output | Response time (dAP) | [ms]                                                                                        | 3   | 6  | 10 | 17 | 30 | 60 | 125 | 250 | 500 |
|                                                                 | Switching frequency | [Hz]                                                                                        | 170 | 80 | 50 | 30 | 16 | 8  | 4   | 2   | 1   |
| Response time                                                   | [ms]                | at rectangular pressure characteristic; switch point (SPx) = 70 %; reset point (rPx) = 30 % |     |    |    |    |    |    |     |     |     |
| Delay time programmable dS, dr                                  | [s]                 | 0, 0,2,...10, 11,...50                                                                      |     |    |    |    |    |    |     |     |     |
| Software / programming                                          |                     |                                                                                             |     |    |    |    |    |    |     |     |     |
| Adjustment of the switch point                                  |                     | programming button                                                                          |     |    |    |    |    |    |     |     |     |
| Parameter setting options                                       |                     | hysteresis / window; normally open / normally closed; switch-on/switch-off delay; Damping   |     |    |    |    |    |    |     |     |     |
| Operating conditions                                            |                     |                                                                                             |     |    |    |    |    |    |     |     |     |
| Ambient temperature                                             | [°C]                | -25...80                                                                                    |     |    |    |    |    |    |     |     |     |
| Storage temperature                                             | [°C]                | -40...100                                                                                   |     |    |    |    |    |    |     |     |     |
| Protection                                                      |                     | IP 67                                                                                       |     |    |    |    |    |    |     |     |     |

# PE7021



## Pressure sensor with display

PE-250-SBR14-QFPKG/US/ /E

| 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 61000-4-6 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) |

| Mechanical data          |                                                          |
|--------------------------|----------------------------------------------------------|
| Materials                | EPDM/X; FKM; PA; PBT; PC; stainless steel (1.4301 / 304) |
| Materials (wetted parts) | EPDM/X; ceramics; stainless steel (1.4305 / 303)         |
| Min. pressure cycles     | 100 million                                              |
| Process connection       | threaded connection G 1/4 internal thread                |

| Displays / operating elements |                  |                       |
|-------------------------------|------------------|-----------------------|
| Display                       | switching status | 2 x LED, red          |
|                               | function display | 7-segment LED display |
|                               | measured values  | 7-segment LED display |

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

### Electrical connection

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



### Connection

