

# PE7022



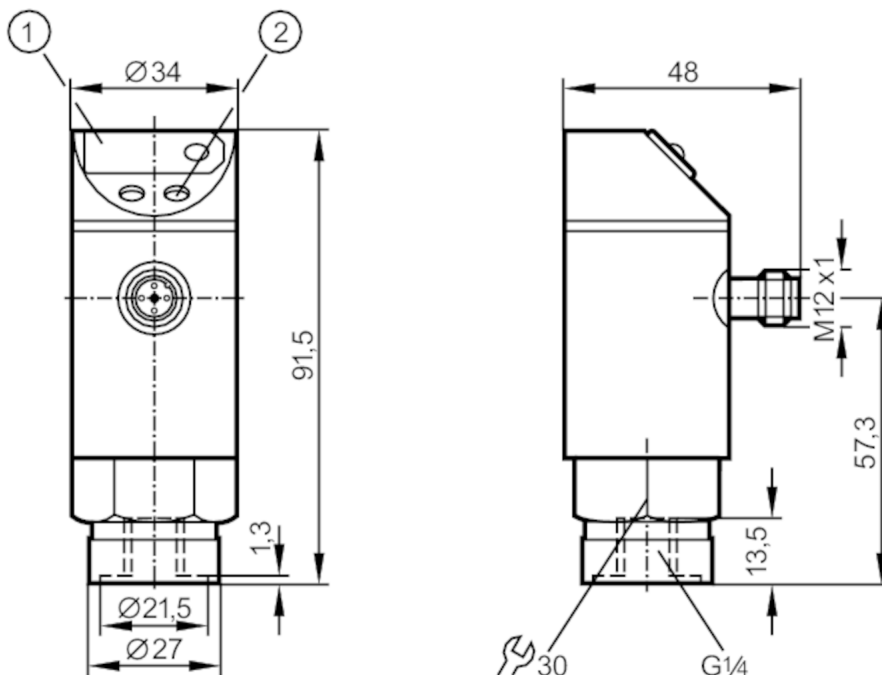
## Pressure sensor with display

PE-100-SBR14-QFPKG/US/ /E

Article no longer available - archive entry

Alternative articles: PE7002

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



- 1 7-segment LED display
- 2 Programming button



### Product characteristics

|                              |                                           |
|------------------------------|-------------------------------------------|
| Number of inputs and outputs | Number of digital outputs: 2              |
| Measuring range [bar]        | 0...100                                   |
| Process connection           | threaded connection G 1/4 Internal thread |

### Application

|                              |                                                              |
|------------------------------|--------------------------------------------------------------|
| System                       | 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] | 650                                                          |
| Pressure rating [bar]        | 300                                                          |
| Type of pressure             | relative pressure                                            |

### Electrical data

|                          |            |
|--------------------------|------------|
| Operating voltage [V]    | 18...30 DC |
| Current consumption [mA] | < 60       |

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|                             |      |                 |
|-----------------------------|------|-----------------|
| Min. insulation resistance  | [MΩ] | 100; (500 V DC) |
| Protection class            |      | III             |
| Reverse polarity protection |      | yes             |
| 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 / closed; (configurable) |
| Max. voltage drop switching output DC           | [V]<br>2                               |
| Permanent current rating of switching output DC | [mA]<br>250                            |
| Short-circuit protection                        | yes                                    |
| Type of short-circuit protection                | yes (non-latching)                     |
| Overload protection                             | yes                                    |

### Measuring/setting range

|                 |       |            |
|-----------------|-------|------------|
| Measuring range | [bar] | 0...100    |
| Set point SP    | [bar] | 1...100    |
| Reset point rP  | [bar] | 0.5...99.5 |
| In steps of     | [bar] | 0.5        |

### Accuracy / deviations

|                            |                        |                                                  |
|----------------------------|------------------------|--------------------------------------------------|
| Switch point accuracy      | [% of the final value] | < ± 1,0                                          |
| Repeatability              | [% of the final value] | < ± 0,25; (with temperature fluctuations < 10 K) |
| Temperature drift per 10 K |                        | < ± 0.3                                          |

### Reaction 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; Set 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 / closed; switch-on/switch-off delay; Damping |

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| Operating conditions                                 |                                                          |                       |
|------------------------------------------------------|----------------------------------------------------------|-----------------------|
| Ambient temperature                                  | [°C]                                                     | -25...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 61000-4-6 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                                      |                                                          |                       |
| Material                                             | 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 |                                                          |                       |
| <div></div>                                          |                                                          |                       |
| Connection                                           |                                                          |                       |
| <div></div>                                          |                                                          |                       |