

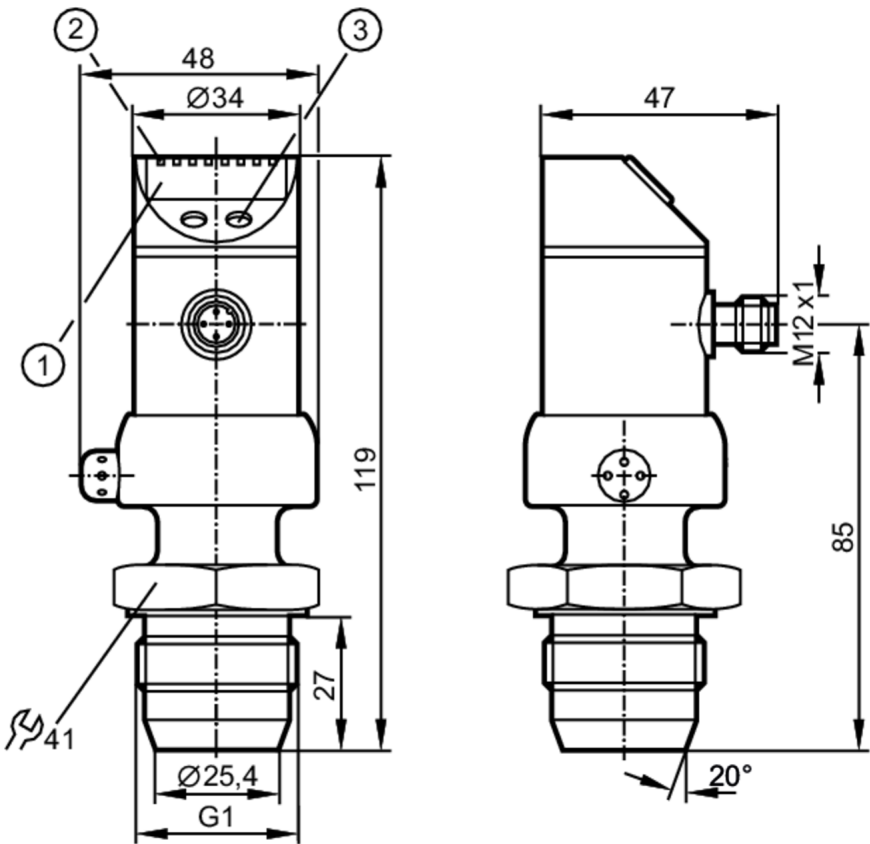


Flush pressure sensor with display

PI-001BREA01-E-ZVG/US/ /P

phase-out article

Alternative articles: PI2897 or PI2797  
When selecting an alternative article and accessories please note that technical data may differ!



- 1 alphanumeric display 4-digit
- 2 status LEDs
- 3 programming button



| Product characteristics       |                                                                       |                 |
|-------------------------------|-----------------------------------------------------------------------|-----------------|
| Number of inputs and outputs  | Number of analogue outputs: 1                                         |                 |
| Measuring range               | -0.05...1 bar                                                         | -50...1000 mbar |
| Process connection            | threaded connection G 1 external thread sealing cone                  |                 |
| Application                   |                                                                       |                 |
| Special feature               | Gold-plated contacts                                                  |                 |
| Application                   | flush mountable for the food and beverage industry                    |                 |
| Installation                  | freely rotatable housing 350°                                         |                 |
| Media                         | viscous media and liquids with suspended particles; liquids and gases |                 |
| Medium temperature [°C]       | -25...125; (145 max. 1h)                                              |                 |
| Min. bursting pressure [mbar] | 30000                                                                 |                 |
| Pressure rating [mbar]        | 10000                                                                 |                 |
| Type of pressure              | relative pressure                                                     |                 |



## Flush pressure sensor with display

PI-001BREA01-E-ZVG/US/ /P

|                                          |                                                                                                                    |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| No dead space                            | yes                                                                                                                |
| <b>Electrical data</b>                   |                                                                                                                    |
| Operating voltage [V]                    | 20...32 DC                                                                                                         |
| Min. insulation resistance [MΩ]          | 100; (500 V DC)                                                                                                    |
| Protection class                         | III                                                                                                                |
| Reverse polarity protection              | yes                                                                                                                |
| Power-on delay time [s]                  | 0.5                                                                                                                |
| Switch-on peak current [mA]              | 6                                                                                                                  |
| Switch-on peak current duration [ms]     | 30                                                                                                                 |
| Integrated watchdog                      | yes                                                                                                                |
| <b>Inputs / outputs</b>                  |                                                                                                                    |
| Number of inputs and outputs             | Number of analogue outputs: 1                                                                                      |
| <b>Outputs</b>                           |                                                                                                                    |
| Total number of outputs                  | 1                                                                                                                  |
| Output signal                            | analogue signal                                                                                                    |
| Number of analogue outputs               | 1                                                                                                                  |
| Analogue current output [mA]             | 4...20, invertible; (scalable 1:4)                                                                                 |
| Max. load [Ω]                            | 300                                                                                                                |
| Overload protection                      | yes                                                                                                                |
| <b>Measuring/setting range</b>           |                                                                                                                    |
| Measuring range                          | -0.05...1 bar      -50...1000 mbar                                                                                 |
| Analogue start point [mbar]              | -50...750                                                                                                          |
| Analogue end point [mbar]                | 200...1000                                                                                                         |
| In steps of [mbar]                       | 1                                                                                                                  |
| Factory setting                          | ASP = 0 mbar      AEP = 1000 mbar                                                                                  |
| <b>Accuracy / deviations</b>             |                                                                                                                    |
| Repeatability [X21]                      | < ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)                                                     |
| Characteristics deviation [X21]          | < ± 0,2; (Turn down 1:1, linearity, incl. hysteresis and repeatability, limit value setting to DIN EN IEC 62828-1) |
| Linearity deviation [X21]                | < ± 0,15; (Turn down 1:1)                                                                                          |
| Hysteresis deviation [X21]               | < ± 0,15; (Turn down 1:1)                                                                                          |
| Long-term stability [X21]                | < ± 0,1; (Turn down 1:1; per year)                                                                                 |
| Temperature coefficient zero point [X22] | < ± 0,05; (0...70 °C)                                                                                              |
| Temperature coefficient span [X22]       | < ± 0,15; (0...70 °C)                                                                                              |
| <b>Response times</b>                    |                                                                                                                    |
| Damping for the analogue output dAA [s]  | 0.1...100                                                                                                          |
| Max. response time analogue output [ms]  | 40                                                                                                                 |
| <b>Software / programming</b>            |                                                                                                                    |
| Parameter setting options                | zero point; span                                                                                                   |
| <b>Operating conditions</b>              |                                                                                                                    |
| Ambient temperature [°C]                 | -25...80                                                                                                           |



## Flush pressure sensor with display

PI-001BREA01-E-ZVG/US/ /P

|                     |      |               |
|---------------------|------|---------------|
| Storage temperature | [°C] | -40...100     |
| Protection          |      | IP 67; IP 69K |

## 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                 | [ANN]                     | 238                 |

## Mechanical data

|                          |     |                                                                                                                                    |
|--------------------------|-----|------------------------------------------------------------------------------------------------------------------------------------|
| Weight                   | [g] | 446                                                                                                                                |
| Materials                |     | stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM; PTFE                                                                           |
| Materials (wetted parts) |     | ceramics (99.9 % Al <sub>2</sub> O <sub>3</sub> ); stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4; PTFE |
| Min. pressure cycles     |     | 100 million                                                                                                                        |
| Process connection       |     | threaded connection G 1 external thread sealing cone                                                                               |

## Displays / operating elements

|              |                  |                                                        |
|--------------|------------------|--------------------------------------------------------|
| Display      | Display unit     | 6 x LED, green                                         |
|              | function display | alphanumeric display, 4-digit                          |
|              | measured values  | alphanumeric display, 4-digit                          |
| Display unit |                  | mbar; kPa; psi; inH <sub>2</sub> O; mWS; % of the span |

## Remarks

|               |                                                                                                   |
|---------------|---------------------------------------------------------------------------------------------------|
| Remarks       | The 3-A qualification is only valid if adapters with 3-A qualification are used for installation. |
| Pack quantity | 1 pcs.                                                                                            |

## Electrical connection

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





## Flush pressure sensor with display

PI-001BREA01-E-ZVG/US/ /P

### Connection



- 1: normal operation  
 2: programming operation (P = communication via EPS / FDT interface)