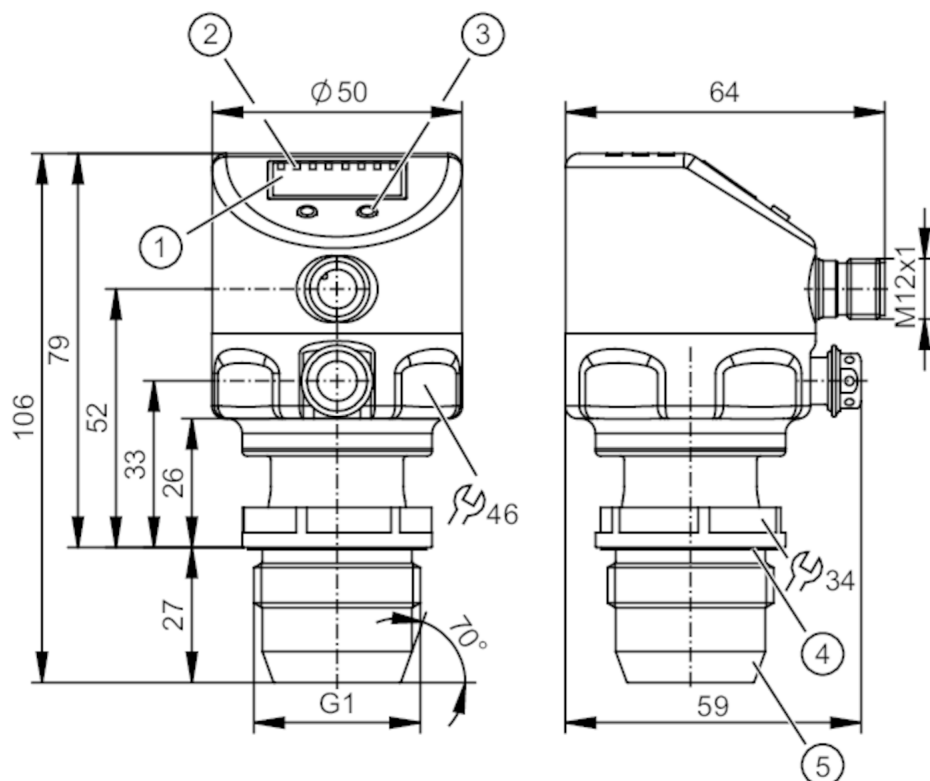


## PI-006-REA01-MERKG/US/ /P

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



- Attention: The unit must only be installed in a process connection for G1 sealing cone. The G1A sealing cone of the unit is only suited for adapters with metal end stop.



|                              |                                                                                                                                                                                                                                 |                |                |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|
| Number of inputs and outputs | Number of digital outputs: 2; Number of analog outputs: 1                                                                                                                                                                       |                |                |
| Measuring range              | -1...6 bar                                                                                                                                                                                                                      | -14.5...87 psi | -100...600 kPa |
| Process connection           | threaded connection G 1 external thread sealing cone Attention: The unit must only be installed in a process connection for G1 sealing cone.; The G1A sealing cone of the unit is only suited for adapters with metal end stop. |                |                |

|                          |                                                                       |          |           |
|--------------------------|-----------------------------------------------------------------------|----------|-----------|
| System                   | gold-plated contacts                                                  |          |           |
| Application              | flush mountable for the food and beverage industry                    |          |           |
| Media                    | viscous media and liquids with suspended particles; liquids and gases |          |           |
| Medium temperature [°C]  | -25...125; (145 max. 1h)                                              |          |           |
| Min. bursting pressure   | 100 bar                                                               | 1450 psi | 10000 kPa |
| Pressure rating          | 30 bar                                                                | 435 psi  | 3000 kPa  |
| Vacuum resistance [mbar] | -1000                                                                 |          |           |
| Type of pressure         | relative pressure; vacuum                                             |          |           |



## Flush pressure sensor with display

PI-006-REA01-MFRKG/US/ /P

|                                                 |       |                                                           |                  |                |
|-------------------------------------------------|-------|-----------------------------------------------------------|------------------|----------------|
| No dead space                                   |       | yes                                                       |                  |                |
| MAWP (for applications according to CRN)        | [bar] | 30                                                        |                  |                |
| Electrical data                                 |       |                                                           |                  |                |
| Min. insulation resistance                      | [MΩ]  | 100; (500 V DC)                                           |                  |                |
| Protection class                                |       | III                                                       |                  |                |
| Reverse polarity protection                     |       | yes                                                       |                  |                |
| Integrated watchdog                             |       | yes                                                       |                  |                |
| 2-wire                                          |       |                                                           |                  |                |
| Operating voltage                               | [V]   | 20...32 DC                                                |                  |                |
| Current consumption                             | [mA]  | 3.6...21                                                  |                  |                |
| Power-on delay time                             | [s]   | 1                                                         |                  |                |
| 3-wire                                          |       |                                                           |                  |                |
| Operating voltage                               | [V]   | 18...32 DC                                                |                  |                |
| Current consumption                             | [mA]  | < 45                                                      |                  |                |
| Power-on delay time                             | [s]   | 0.5                                                       |                  |                |
| Inputs / outputs                                |       |                                                           |                  |                |
| Number of inputs and outputs                    |       | Number of digital outputs: 2; Number of analog outputs: 1 |                  |                |
| Outputs                                         |       |                                                           |                  |                |
| Total number of outputs                         |       | 2                                                         |                  |                |
| Output signal                                   |       | switching signal; analog signal; IO-Link; (configurable)  |                  |                |
| Electrical design                               |       | PNP/NPN                                                   |                  |                |
| Number of digital outputs                       |       | 2                                                         |                  |                |
| Output function                                 |       | normally open / closed; (configurable)                    |                  |                |
| Number of analog outputs                        |       | 1                                                         |                  |                |
| Analog current output                           | [mA]  | 4...20, invertible; (scalable)                            |                  |                |
| Short-circuit protection                        |       | yes                                                       |                  |                |
| Type of short-circuit protection                |       | yes (non-latching)                                        |                  |                |
| Overload protection                             |       | yes                                                       |                  |                |
| 2-wire                                          |       |                                                           |                  |                |
| Max. load                                       | [Ω]   | 300                                                       |                  |                |
| 3-wire                                          |       |                                                           |                  |                |
| Max. voltage drop switching output DC           | [V]   | 2                                                         |                  |                |
| Permanent current rating of switching output DC | [mA]  | 250                                                       |                  |                |
| Switching frequency DC                          | [Hz]  | 125                                                       |                  |                |
| Max. load                                       | [Ω]   | (Ub - 10 V) / 20 mA                                       |                  |                |
| Measuring/setting range                         |       |                                                           |                  |                |
| Measuring range                                 |       | -1...6 bar                                                | -14.5...87 psi   | -100...600 kPa |
| Set point SP                                    |       | -0.99...6 bar                                             | -14.4...87 psi   | -99...600 kPa  |
| Reset point rP                                  |       | -1...5.99 bar                                             | -14.5...86.9 psi | -100...599 kPa |
| Analog start point                              |       | -1...4.5 bar                                              | -14.5...65.3 psi | -100...450 kPa |
| Analog end point                                |       | 0.5...6 bar                                               | 7.3...87 psi     | 50...600 kPa   |



## Flush pressure sensor with display

PI-006-REA01-MFRKG/US/ /P

|                 |           |               |                 |
|-----------------|-----------|---------------|-----------------|
| In steps of     | 0.005 bar | 0.1 psi       | 0.5 kPa         |
| Factory setting |           | SP1 = 1.5 bar | rP1 = 1.38 bar  |
|                 |           | SP2 = 4.5 bar | rP2 = 4.380 bar |
|                 |           | ASP = 0.0 bar | AEP = 6.0 bar   |

## Accuracy / deviations

|                                                              |                                                                                                                    |
|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Switch point accuracy<br>[% of the span]                     | < ± 0,2; (Turn down 1:1)                                                                                           |
| Repeatability<br>[% of the span]                             | < ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)                                                     |
| Characteristics deviation<br>[% of the span]                 | < ± 0,2; (Turn down 1:1, linearity, incl. hysteresis and repeatability, limit value setting to DIN EN IEC 62828-1) |
| Linearity deviation<br>[% of the span]                       | < ± 0,15; (Turn down 1:1)                                                                                          |
| Hysteresis deviation<br>[% of the span]                      | < ± 0,15; (Turn down 1:1)                                                                                          |
| Long-term stability<br>[% of the span]                       | < ± 0,1; (Turn down 1:1; per year)                                                                                 |
| Temperature coefficient zero point<br>[% of the span / 10 K] | < ± 0,05; (0...70 °C)                                                                                              |
| Temperature coefficient span<br>[% of the span / 10 K]       | < ± 0,15; (0...70 °C)                                                                                              |

## Reaction times

|                                                   |              |
|---------------------------------------------------|--------------|
| Damping process value dAP [s]                     | 0...30       |
| Damping for the analog output dAA [s]             | 0.01...99.99 |
| 2-wire                                            |              |
| Step response time analog output [ms]             | 45           |
| 3-wire                                            |              |
| Min. response time of switching output (dAP) [ms] | 3            |
| Step response time analog output [ms]             | 7            |

## Interfaces

|                              |                                     |
|------------------------------|-------------------------------------|
| Communication interface      | IO-Link                             |
| Transmission type            | COM2 (38,4 kBaud)                   |
| IO-Link revision             | 1.0                                 |
| Profiles                     | no profile                          |
| SIO mode                     | yes                                 |
| Required master port class   | A                                   |
| Process data analog          | 1                                   |
| Process data binary          | 2                                   |
| Min. process cycle time [ms] | 2.3                                 |
| Supported DeviceIDs          | <b>Type of operation</b><br>default |
|                              | <b>DeviceID</b><br>728              |

## Operating conditions

|                          |          |
|--------------------------|----------|
| Ambient temperature [°C] | -25...80 |
|--------------------------|----------|



## Flush pressure sensor with display

PI-006-REA01-MFRKG/US/ /P

|                     |      |                      |
|---------------------|------|----------------------|
| Storage temperature | [°C] | -40...100            |
| Protection          |      | IP 67; IP 68; 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                 | [years]                   | 154                 |

### Mechanical data

|                          |     |                                                                                                                                                                                                                                 |
|--------------------------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight                   | [g] | 377                                                                                                                                                                                                                             |
| Material                 |     | stainless steel (1.4404 / 316L); FKM; PTFE; PBT; PEI; PFA                                                                                                                                                                       |
| 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 Attention: The unit must only be installed in a process connection for G1 sealing cone.; The G1A sealing cone of the unit is only suited for adapters with metal end stop. |

### Displays / operating elements

|              |                  |                               |
|--------------|------------------|-------------------------------|
| Display      | Display unit     | LED, green                    |
|              | Switching status | LED, yellow                   |
|              | Function display | alphanumeric display, 4-digit |
|              | Measured values  | alphanumeric display, 4-digit |
| Display unit |                  | bar; kPa; psi; % of the span  |

### Remarks

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

### Electrical connection

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

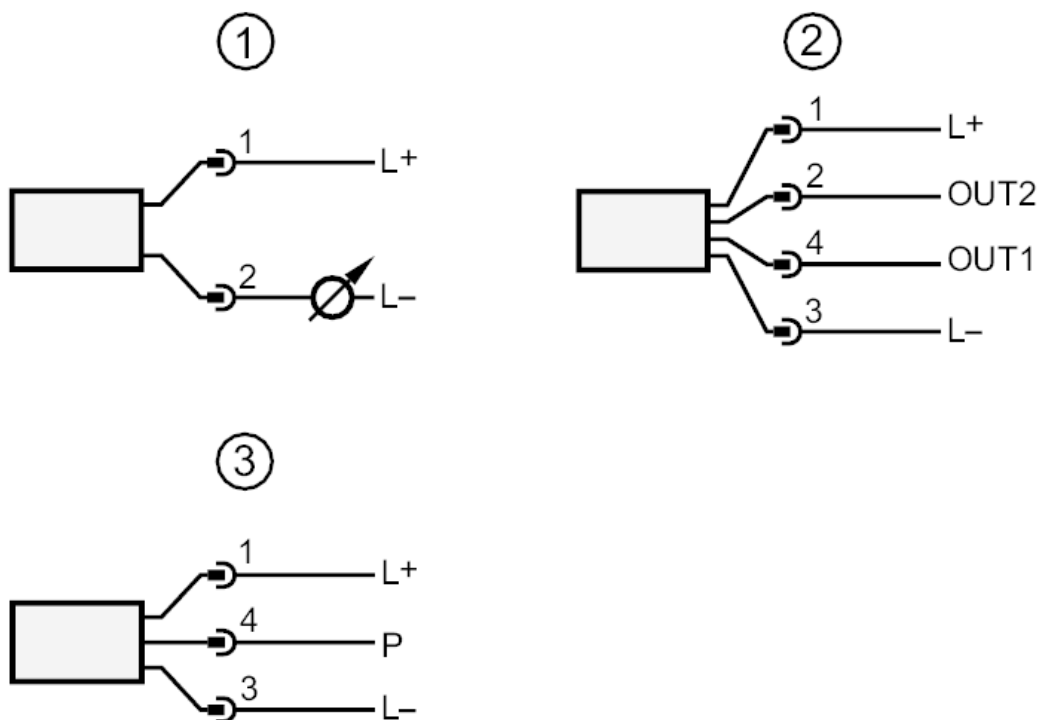




## Flush pressure sensor with display

PI-006-REA01-MFRKG/US/ IP

### Connection



- 1 connection for 2-wire operation
- 2 connection for 3-wire operation :
- OUT1 Switching output
- OUT2 Switching output
- analog output
- 3 connection for IO-Link parameter setting (P = communication via IO-Link)