



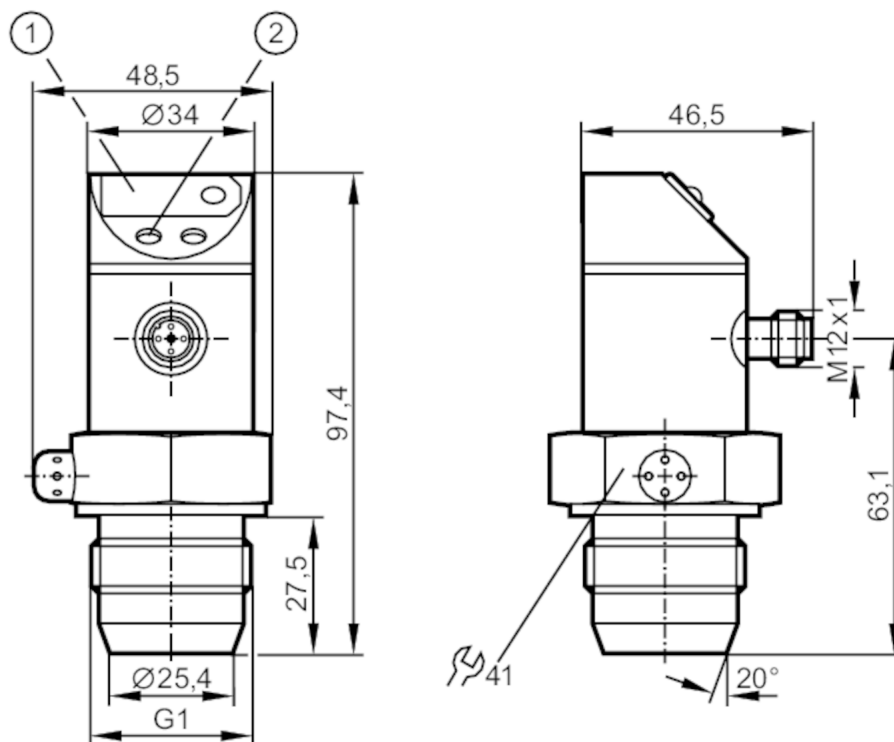
## Flush pressure sensor

PF-,25-REA01-MFRKG/US/3D /P

Article no longer available - archive entry

Alternative articles: PI008A

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



- 1 7-segment LED display
- 2 programming button



EHEDG Certified



### Product characteristics

|                              |                                                             |                             |               |
|------------------------------|-------------------------------------------------------------|-----------------------------|---------------|
| Number of inputs and outputs | Number of digital outputs: 2; Number of analogue outputs: 1 |                             |               |
| Measuring range              | -13...250 mbar                                              | -5...100 inH <sub>2</sub> O | -1.3...25 kPa |
| Process connection           | threaded connection G 1 external thread                     |                             |               |

### 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] | -20...60                                                              |                          |          |
| Min. bursting pressure  | 30000 mbar                                                            | 12000 inH <sub>2</sub> O | 3000 kPa |
| Pressure rating         | 10000 mbar                                                            | 4000 inH <sub>2</sub> O  | 1000 kPa |
| Type of pressure        | relative pressure                                                     |                          |          |
| No dead space           | yes                                                                   |                          |          |

### Electrical data

|                       |            |
|-----------------------|------------|
| Operating voltage [V] | 20...30 DC |
|-----------------------|------------|



## Flush pressure sensor

PF-,25-REA01-MFRKG/US/3D /P

|                             |      |                 |
|-----------------------------|------|-----------------|
| Current consumption         | [mA] | < 60            |
| 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; Number of analogue outputs: 1 |
|------------------------------|-------------------------------------------------------------|

### Outputs

|                                                 |      |                                                    |
|-------------------------------------------------|------|----------------------------------------------------|
| Total number of outputs                         |      | 2                                                  |
| Output signal                                   |      | switching signal; analogue signal; (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                                              |
| Number of analogue outputs                      |      | 1                                                  |
| Analogue current output                         | [mA] | 4...20; (scalable 1:4)                             |
| Max. load                                       | [Ω]  | (U <sub>b</sub> - 10 V) / 20 mA                    |
| Analogue voltage output                         | [V]  | 0...10; (scalable 1:4)                             |
| Min. load resistance                            | [Ω]  | 2000                                               |
| Short-circuit protection                        |      | yes                                                |
| Type of short-circuit protection                |      | pulsed                                             |
| Overload protection                             |      | yes                                                |

### Measuring/setting range

|                      |                |                                |                 |
|----------------------|----------------|--------------------------------|-----------------|
| Measuring range      | -13...250 mbar | -5...100 inH <sub>2</sub> O    | -1.3...25 kPa   |
| Set point SP         | -11...250 mbar | -4.4...100 inH <sub>2</sub> O  | -1.1...25 kPa   |
| Reset point rP       | -12...249 mbar | -4.8...99.6 inH <sub>2</sub> O | -1.2...24.9 kPa |
| Analogue start point | -13...188 mbar | -5...74.9 inH <sub>2</sub> O   | -1.3...18.8 kPa |
| Analogue end point   | 50...250 mbar  | 20.1...100 inH <sub>2</sub> O  | 5...25 kPa      |
| In steps of          | 1 mbar         | 0.1 inH <sub>2</sub> O         | 0.1 kPa         |

### Accuracy / deviations

|                                    |       |                                                                                                                    |
|------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------|
| Repeatability                      | [X21] | < ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)                                                     |
| Characteristics deviation          | [X21] | < ± 0,6; (Turn down 1:1, linearity, incl. hysteresis and repeatability, limit value setting to DIN EN IEC 62828-1) |
| Linearity deviation                | [X21] | < ± 0,5; (Turn down 1:1)                                                                                           |
| Hysteresis deviation               | [X21] | < ± 0,1; (Turn down 1:1)                                                                                           |
| Long-term stability                | [X21] | < ± 0,1; (Turn down 1:1; per year)                                                                                 |
| Temperature coefficient zero point | [X22] | < ± 0,1; (0...60 °C)                                                                                               |
| Temperature coefficient span       | [X22] | < ± 0,4; (0...60 °C)                                                                                               |

# PF008A



## Flush pressure sensor

PF-,25-REA01-MFRKG/US/3D /P

| Response times                               |      |                   |
|----------------------------------------------|------|-------------------|
| Response time                                | [ms] | < 3               |
| Damping process value dAP                    | [s]  | 0...4             |
| Damping for the analogue output dAA in steps | [s]  | 0 - 0,1 - 0,5 - 2 |
| Max. response time analogue output           | [ms] | 3                 |

| Software / programming    |                                                                                                                                                                                                                 |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Parameter setting options | hysteresis / window; normally open / normally closed; switching logic; current/voltage output; Damping; adaptation of displayed values; display can be rotated and switched off; Display unit; zero point; span |

| Operating conditions |                |
|----------------------|----------------|
| Ambient temperature  | [°C] -20...60  |
| Storage temperature  | [°C] -40...100 |
| Protection           | IP 67          |

| Tests / approvals    |                           |                     |
|----------------------|---------------------------|---------------------|
| ATEX marking         | Ⓔ II 3D IP 67 T 80 °C X   |                     |
| 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                | stainless steel (1.4404 / 316L); PBT; PC; PEI; EPDM/X; FKM                               |
| Materials (wetted parts) | stainless steel (1.4404 / 316L); ceramics (99.9 % Al <sub>2</sub> O <sub>3</sub> ); PTFE |
| Min. pressure cycles     | 100 million                                                                              |
| Process connection       | threaded connection G 1 external thread                                                  |

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

| 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



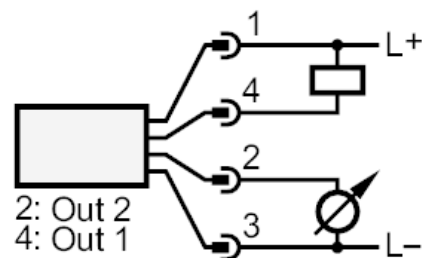
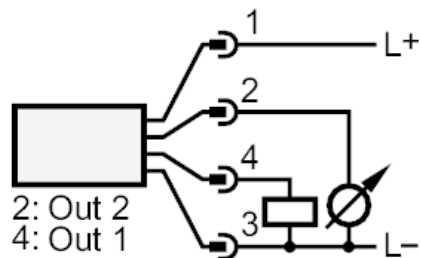
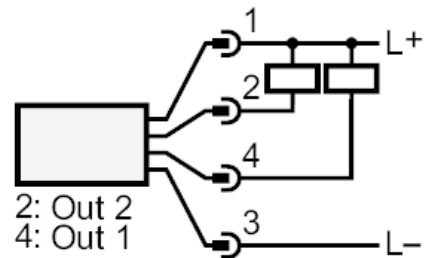
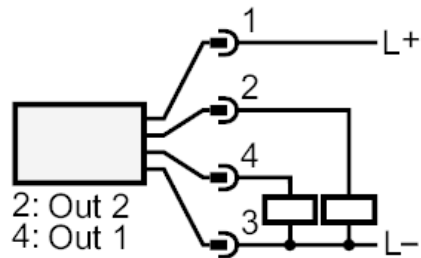
# PF008A



## Flush pressure sensor

PF-,25-REA01-MFRKG/US/3D /P

### Connection



OUT1  
OUT2

switching output  
switching output  
analogue output