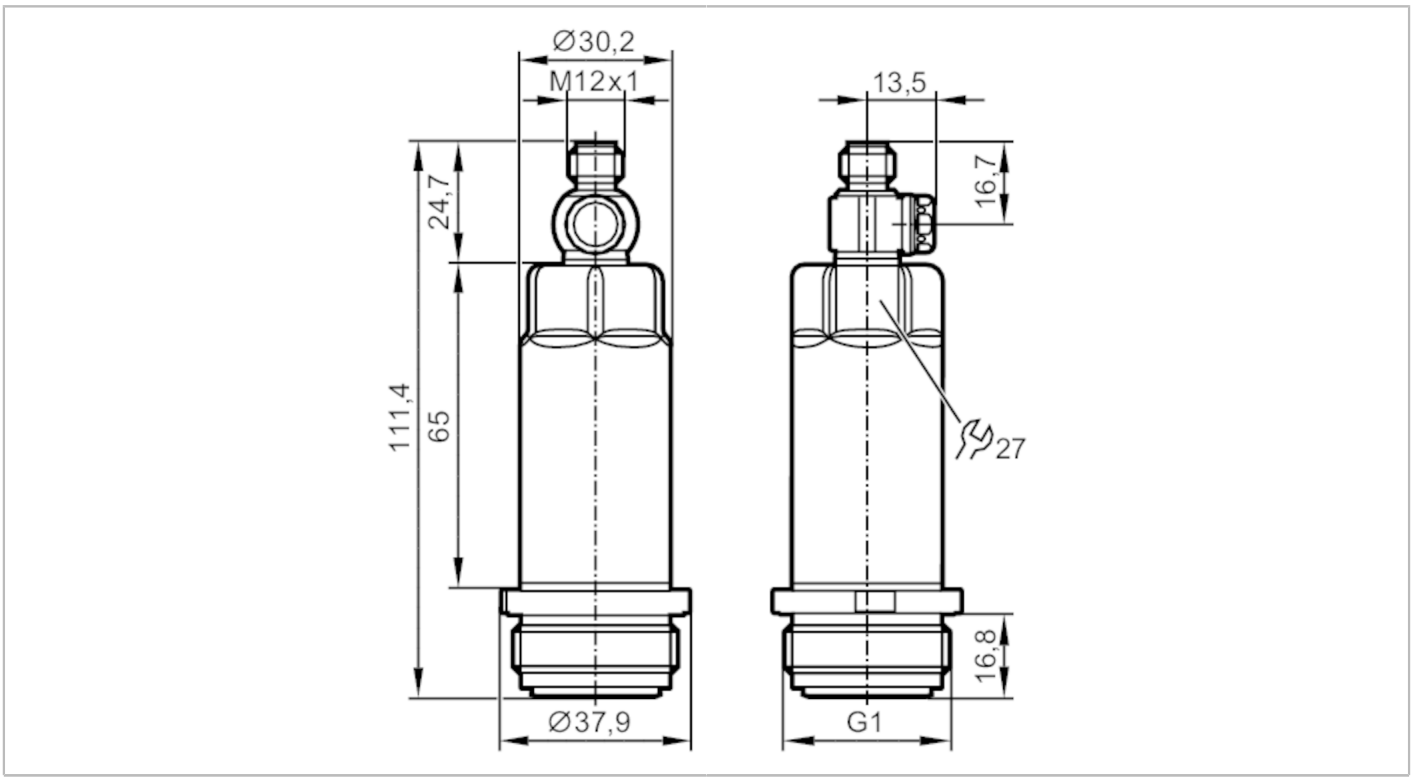
# PM1706

## Flush pressure transmitter

PM-2,5-REA01-E-ZVG/US




ACS CE CRN cULus LISTED EC 1935/2004 EHEDG Certified FCM FDA IO-Link Reg31 UKCA

| | | | | |
|---|---|---|---|---|
| **Product characteristics** | | | | |
| Number of inputs and outputs | Number of analogue outputs: 1 | | | |
| Measuring range | -0.125...2.5 bar | -125...2500 mbar | -1.82...36.26 psi | -12.5...250 kPa |
| Process connection | threaded connection G 1 external thread Aseptoflex Vario | | | |
| **Application** | | | | |
| Special feature | Gold-plated contacts | | | |
| Measuring element | ceramic-capacitive pressure measuring cell | | | |
| Temperature monitoring | no | | | |
| 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; (150 max. 1h) | | | |
| Min. bursting pressure | 50000 mbar | 725 psi | 5000 kPa | |
| Pressure rating | 20000 mbar | 290 psi | 2000 kPa | |
| Vacuum resistance [mbar] | -1000 | | | |
| Type of pressure | relative pressure | | | |
| No dead space | yes | | | |
| MAWP (for applications according to CRN) [bar] | 20 | | | |
| **Electrical data** | | | | |
| Operating voltage [V] | 18...30 DC | | | |
| Min. insulation resistance [MΩ] | 100; (500 V DC) | | | |
| Protection class | III | | | |
| Reverse polarity protection | yes | | | |

# PM1706

## Flush pressure transmitter

PM-2,5-REA01-E-ZVG/US

| | | | | | |
|---|---|---|---|---|---|
| Integrated watchdog | | yes | | | |
| 2-wire | | | | | |
| Current consumption | [mA] | 3.5...21.5 | | | |
| Power-on delay time | [s] | 1 | | | |
| 3-wire | | | | | |
| Current consumption | [mA] | < 45 | | | |
| Power-on delay time | [s] | 0.5 | | | |
| **Inputs / outputs** | | | | | |
| Number of inputs and outputs | | Number of analogue outputs: 1 | | | |
| **Outputs** | | | | | |
| Total number of outputs | | 2 | | | |
| Output signal | | analogue signal; IO-Link; (configurable) | | | |
| Number of analogue outputs | | 1 | | | |
| Analogue current output | [mA] | 4...20; (scalable) | | | |
| Max. load | [Ω] | 700; (Ub = 24 V; (Ub - 9 V) / 21.5 mA) | | | |
| Short-circuit proof | | yes | | | |
| Overload protection | | yes | | | |
| **Measuring/setting range** | | | | | |
| Measuring range | | -0.125...2.5 bar | -125...2500 mbar | -1.82...36.26 psi | -12.5...250 kPa |
| Analogue start point | | -125...2000 mbar | -1.82...29 psi | -12.5...200 kPa | |
| Analogue end point | | 375...2500 mbar | 5.44...36.26 psi | -37.5...250 kPa | |
| In steps of | | 1 mbar | 0.02 psi | 0.1 kPa | |
| Factory setting | | ASP = 0.0 mbar | AEP = 2500 mbar | | |
| **Accuracy / deviations** | | | | | |
| Repeatability | [% of the span] | < ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1) | | | |
| Characteristics deviation | [% of the span] | < ± 0,2; (linearity incl. hysteresis and repeatability, limit value setting to DIN EN IEC 62828-1) | | | |
| Linearity deviation | [% of the span] | < ± 0,15; (Turn down 1:1) | | | |
| Hysteresis deviation | [% of the span] | < ± 0,15; (Turn down 1:1) | | | |
| Long-term stability | [% of the span] | < ± 0,1; (Turn down 1:1; per year) | | | |
| Temperature coefficient zero point | [% of the span / 10 K] | < ± 0,05; (0...70 °C) | | | |
| Temperature coefficient span | [% of the span / 10 K] | < ± 0,15; (0...70 °C) | | | |
| **Response times** | | | | | |
| Damping for the analogue output dAA | [s] | 0...4 | | | |
| 2-wire | | | | | |
| Step response time analogue output | [ms] | 30 | | | |

# PM1706

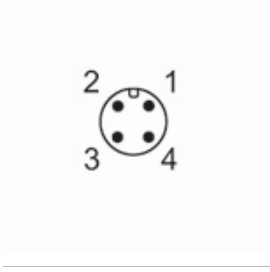
## Flush pressure transmitter

PM-2,5-REA01-E-ZVG/US

| | | | |
|---|---|---|---|
| 3-wire | | | |
| Step response time analogue output | [ms] | 7 | |
| **Interfaces** | | | |
| Communication interface | | IO-Link | |
| Transmission type | | COM2 (38,4 kBaud) | |
| IO-Link revision | | 1.1 | |
| Profiles | | Digital Measuring Sensor (0x000A), Identification and Diagnosis (0x4000) | |
| SIO mode | | no | |
| Required master port type | | A | |
| Process data analogue | | 3 | |
| Min. process cycle time | [ms] | 3.2 | |
| Supported DeviceIDs | | **Type of operation** | **DeviceID** |
| | | default | 665 |
| **Operating conditions** | | | |
| Ambient temperature | [°C] | -25...80 | |
| Storage temperature | [°C] | -40...100 | |
| Protection | | IP 67; IP 68; IP 69K | |
| **Tests / approvals** | | | |
| EMC | | DIN EN 61000-6-2 | |
| | | DIN EN 61000-6-3 | |
| Shock resistance | | DIN EN 60068-2-27 | 50 g (11 ms) |
| Vibration resistance | | DIN EN 60068-2-6 | 20 g (10...2000 Hz) |
| MTTF | [years] | 323 | |
| Note on approval | | factory certificate available as download at www.factory-certificate.ifm | |
| UL approval | | UL Approval no. | J021 |
| **Mechanical data** | | | |
| Weight | [g] | 307.4 | |
| Materials | | stainless steel (1.4404 / 316L); PBT | |
| Materials (wetted parts) | | ceramics (99.9 % Al2O3); stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4; PTFE | |
| Min. pressure cycles | | 100 million | |
| Tightening torque | [Nm] | 35 | |
| Process connection | | threaded connection G 1 external thread Aseptoflex Vario | |
| **Remarks** | | | |
| Pack quantity | | 1 pcs. | |

**Electrical connection**

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

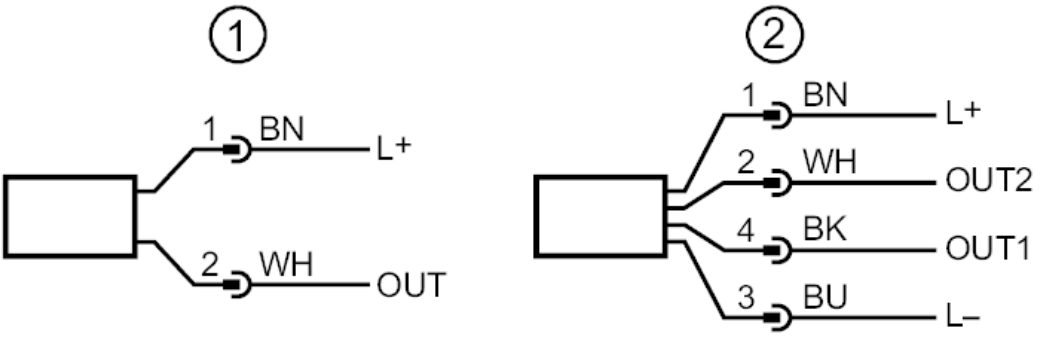


# PM1706

## Flush pressure transmitter

PM-2,5-REA01-E-ZVG/US

### Connection




| | |
|---|---|
| 1 | connection for 2-wire operation ( analogue ) |
| 2 | connection for 3-wire operation ( analogue / IO-Link )<br>OUT1 : IO-Link<br>OUT2 : analogue output |