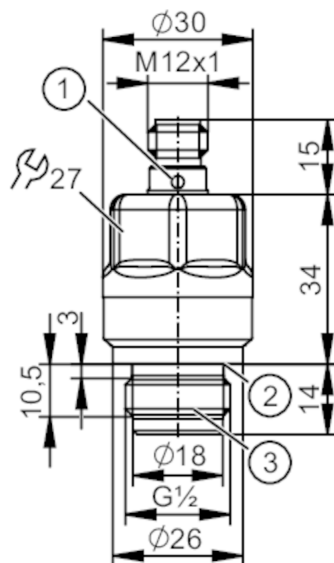




## Flush pressure transmitter

PL-006-REG12-A-DKG/US/ I



- 1 LED
- 2 Gasket DIN EN ISO 1179-2
- 3 threaded pin based on DIN EN ISO 1179-2



### Product characteristics

|                              |                                                             |                |                |
|------------------------------|-------------------------------------------------------------|----------------|----------------|
| Number of inputs and outputs | Number of digital outputs: 1; Number of analogue outputs: 1 |                |                |
| Measuring range              | -1...6 bar                                                  | -14.5...87 psi | -100...600 kPa |
| Process connection           | threaded connection G 1/2 external thread - 14 mm           |                |                |

### Application

|                          |                                                                                                           |          |           |
|--------------------------|-----------------------------------------------------------------------------------------------------------|----------|-----------|
| Special feature          | Gold-plated contacts                                                                                      |          |           |
| Measuring element        | ceramic-capacitive pressure measuring cell                                                                |          |           |
| Temperature monitoring   | yes                                                                                                       |          |           |
| Application              | flush mountable for industrial applications; for industrial applications                                  |          |           |
| Media                    | viscous media and liquids with suspended particles; Liquids; other media on request                       |          |           |
| Medium temperature [°C]  | -15...110; (max. -25...110°C; for permissible temperatures of other sealing materials, see "Accessories") |          |           |
| Min. burst pressure      | 120 bar                                                                                                   | 1740 psi | 12000 kPa |
| Pressure rating          | 50 bar                                                                                                    | 725 psi  | 5000 kPa  |
| Vacuum resistance [mbar] | -1000                                                                                                     |          |           |
| Type of pressure         | relative pressure; vacuum                                                                                 |          |           |
| No dead space            | yes                                                                                                       |          |           |

### Electrical data

|                                 |                 |  |  |
|---------------------------------|-----------------|--|--|
| Operating voltage [V]           | 9.6...30 DC     |  |  |
| Min. insulation resistance [MΩ] | 100; (500 V DC) |  |  |
| Protection class                | III             |  |  |
| Reverse polarity protection     | yes             |  |  |
| Integrated watchdog             | yes             |  |  |

### 2-wire

|                          |            |  |  |
|--------------------------|------------|--|--|
| Current consumption [mA] | 3.5...21.5 |  |  |
|--------------------------|------------|--|--|



## Flush pressure transmitter

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|                                    |                                                             |                                                                                                    |                |  |
|------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------|--|
| Power-on delay time                | [s]                                                         | < 1                                                                                                |                |  |
| 3-wire                             |                                                             |                                                                                                    |                |  |
| Current consumption                | [mA]                                                        | < 30                                                                                               |                |  |
| Power-on delay time                | [s]                                                         | < 0.5                                                                                              |                |  |
| Inputs / outputs                   |                                                             |                                                                                                    |                |  |
| Number of inputs and outputs       | Number of digital outputs: 1; Number of analogue outputs: 1 |                                                                                                    |                |  |
| Outputs                            |                                                             |                                                                                                    |                |  |
| Total number of outputs            | 2                                                           |                                                                                                    |                |  |
| Output signal                      | analogue signal; IO-Link                                    |                                                                                                    |                |  |
| Number of digital outputs          | 1; (IO-Link)                                                |                                                                                                    |                |  |
| Number of analogue outputs         | 1                                                           |                                                                                                    |                |  |
| Analogue current output            | [mA]                                                        | 4...20; (scalable; 1:10)                                                                           |                |  |
| Max. load                          | [Ω]                                                         | (Ub - 9,6 V) / 21,5 mA; 670 Ω (Ub = 24 V)                                                          |                |  |
| Short-circuit proof                | yes                                                         |                                                                                                    |                |  |
| Overload protection                | yes                                                         |                                                                                                    |                |  |
| Measuring/setting range            |                                                             |                                                                                                    |                |  |
| Measuring range                    | -1...6 bar                                                  | -14.5...87 psi                                                                                     | -100...600 kPa |  |
| Analogue start point               | -1...4.8 bar                                                | -14.5...69.6 psi                                                                                   | -100...480 kPa |  |
| Analogue end point                 | 1...6 bar                                                   | 14.5...87 psi                                                                                      | 20...600 kPa   |  |
| In steps of                        | 0.002 bar                                                   | 0.1 psi                                                                                            | 0.2 kPa        |  |
| Factory setting                    | ASP = 0.0 bar                                               | AEP = 6.0 bar                                                                                      |                |  |
|                                    | ASP = 0.0 kPa                                               | AEP = 600kPa                                                                                       |                |  |
|                                    | ASP = 0.0 psi                                               | APE = 87 psi                                                                                       |                |  |
| Temperature monitoring             |                                                             |                                                                                                    |                |  |
| Measuring range                    | -25...110 °C                                                |                                                                                                    | -13...230 °F   |  |
| Accuracy / deviations              |                                                             |                                                                                                    |                |  |
| Repeatability                      | [% of the span]                                             | < ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)                                     |                |  |
| Characteristics deviation          | [% of the span]                                             | < ± 0,5; (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)                                                                          |                |  |
| Zero-point stabilisation           | [% of the span]                                             | 0,15; (IO-Link; analogue output; (see operating instructions zero-point behaviour))                |                |  |
| 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]                                      | < ± 0,1 (-25...85 °C)<br>< ± 0,3 (85...110 °C)                                                     |                |  |
| Temperature coefficient span       | [% of the span / 10 K]                                      | < ± 0,1 (-25...85 °C)<br>< ± 0,3 (85...110 °C)                                                     |                |  |
| Temperature monitoring             |                                                             |                                                                                                    |                |  |
| Accuracy                           | [K]                                                         | ± 2.5 K + (0.045 x (ambient temperature - medium temperature))                                     |                |  |



## Flush pressure transmitter

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| Response times                                 |                                                |                                             |
|------------------------------------------------|------------------------------------------------|---------------------------------------------|
| Damping process value dAP                      | [s]                                            | 0...99.99                                   |
| Damping for the analogue output dAA            | [s]                                            | 0...99.99                                   |
| 2-wire                                         |                                                |                                             |
| Step response time analogue output             | [ms]                                           | 12                                          |
| 3-wire                                         |                                                |                                             |
| Step response time analogue output             | [ms]                                           | 3                                           |
| Temperature monitoring                         |                                                |                                             |
| Dynamic response T05 / T09                     | [s]                                            | < 10 / <45; (DIN EN 60751 water; > 0,9 m/s) |
| Interfaces                                     |                                                |                                             |
| Communication interface                        | IO-Link                                        |                                             |
| Transmission type                              | COM2 (38,4 kBaud)                              |                                             |
| IO-Link revision                               | 1.1                                            |                                             |
| SDCI standard                                  | IEC 61131-9                                    |                                             |
| Profiles                                       | Common - I&D                                   | Identification and Diagnosis                |
|                                                | Function                                       | Measurement data, standard resolution       |
| SIO mode                                       | no                                             |                                             |
| Required master port type                      | A; (when pin 2 not connected: B)               |                                             |
| Min. process cycle time                        | [ms]                                           | 3.5                                         |
| IO-Link resolution pressure                    | [bar]                                          | 0.002                                       |
| IO-Link resolution temperature                 | [K]                                            | 0.2                                         |
| IO-Link process data (cyclical)                | function                                       | bit length                                  |
|                                                | pressure                                       | 16                                          |
|                                                | temperature                                    | 16                                          |
|                                                | device status                                  | 4                                           |
| IO-Link functions (acyclical)                  | application specific tag; internal temperature |                                             |
| Supported DeviceIDs                            | Type of operation                              | DeviceID                                    |
|                                                | default                                        | 1434                                        |
| Operating conditions                           |                                                |                                             |
| Ambient temperature                            | [°C]                                           | -25...90                                    |
| Storage temperature                            | [°C]                                           | -40...100                                   |
| Protection                                     | IP 67; IP 68; IP 69                            |                                             |
| Tests / approvals                              |                                                |                                             |
| EMC                                            | DIN EN 61326-1                                 |                                             |
| 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]                                        | 407                                         |
| Embedded software included                     | yes                                            |                                             |
| UL approval                                    | UL approval no.                                | J050                                        |
|                                                | File number UL                                 | E174189                                     |
| Embedded software developed in accordance with | ISO 13849-1 : 2015 (clause 4.6.2)              |                                             |

PL1315



Flush pressure transmitter

PL-006-REG12-A-DKG/US/ /

| Mechanical data          |      |                                                                                                                                                                                   |
|--------------------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight                   | [g]  | 139.4                                                                                                                                                                             |
| Housing                  |      | cylindrical                                                                                                                                                                       |
| Dimensions               | [mm] | Ø 30 / L = 63                                                                                                                                                                     |
| Materials                |      | stainless steel (316L/1.4435); stainless steel (316L/1.4404); PA; PTFE; FKM                                                                                                       |
| Materials (wetted parts) |      | stainless steel (316L/1.4435); Al2O3 (ceramics) surface characteristics: Ra < 0,4 µm / Rz = 4 µm; PTFE; (FKM for sealing with seal DIN EN ISO 1179-2, see operating instructions) |
| Min. pressure cycles     |      | 100 million                                                                                                                                                                       |
| Tightening torque        | [Nm] | 25                                                                                                                                                                                |
| Process connection       |      | threaded connection G 1/2 external thread - 14 mm                                                                                                                                 |

| Displays / operating elements |                  |              |
|-------------------------------|------------------|--------------|
| Display                       | operating status | 2 LED, green |

| Accessories            |  |                                                           |
|------------------------|--|-----------------------------------------------------------|
| Items supplied         |  | Gasket: G1/2, FKM DIN EN ISO1179-2 (-15...110°C), E30492  |
| Accessories (optional) |  | Gasket: G1/2, EPDM DIN EN ISO1179-2 (-25...110°C), E30451 |
|                        |  | Gasket: G1/2, FFKM DIN EN ISO1179-2 (-5...110°C), E30513  |

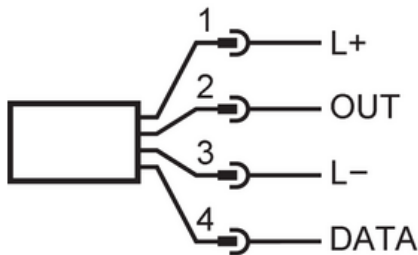
| Remarks       |        |
|---------------|--------|
| Pack quantity | 1 pcs. |

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



Connection



2-wire

|   |     |    |
|---|-----|----|
| 1 | L+  |    |
| 2 | OUT | AO |

3-wire

|   |      |         |
|---|------|---------|
| 1 | L+   |         |
| 2 | OUT  | AO      |
| 3 | L-   |         |
| 4 | DATA | IO-Link |

AO: analogue output; DATA: data interface