



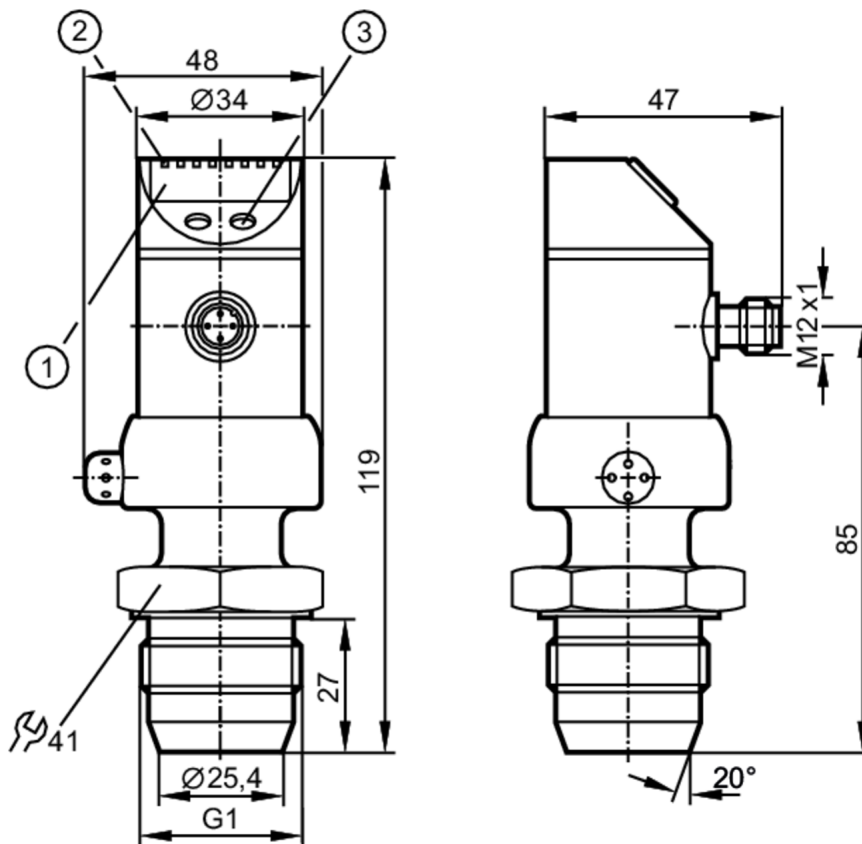
## Flush pressure sensor with display

PI-2,5-REA01-QFRKG/US/ /P

Article no longer available - archive entry

Alternative articles: PI2896 or PI2796

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



EHEDG Certified



### Product characteristics

|                              |                                                      |                  |
|------------------------------|------------------------------------------------------|------------------|
| Number of inputs and outputs | Number of digital outputs: 2                         |                  |
| Measuring range              | -0.124...2.5 bar                                     | -124...2500 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 [bar] | 50                                                                    |  |
| Pressure rating [bar]        | 20                                                                    |  |
| Type of pressure             | relative pressure                                                     |  |



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|                                                 |                 |                                                                                                                      |                  |
|-------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------|------------------|
| No dead space                                   | yes             |                                                                                                                      |                  |
| Electrical data                                 |                 |                                                                                                                      |                  |
| Operating voltage                               | [V]             | 18...32 DC                                                                                                           |                  |
| Current consumption                             | [mA]            | < 50                                                                                                                 |                  |
| Min. insulation resistance                      | [MΩ]            | 100; (500 V DC)                                                                                                      |                  |
| Protection class                                |                 | III                                                                                                                  |                  |
| Reverse polarity protection                     |                 | yes                                                                                                                  |                  |
| Power-on delay time                             | [s]             | 0.5                                                                                                                  |                  |
| Integrated watchdog                             |                 | yes                                                                                                                  |                  |
| Inputs / outputs                                |                 |                                                                                                                      |                  |
| Number of inputs and outputs                    |                 | Number of digital outputs: 2                                                                                         |                  |
| Outputs                                         |                 |                                                                                                                      |                  |
| Total number of outputs                         |                 | 2                                                                                                                    |                  |
| Output signal                                   |                 | switching signal                                                                                                     |                  |
| 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]            | 85                                                                                                                   |                  |
| Short-circuit protection                        |                 | yes                                                                                                                  |                  |
| Type of short-circuit protection                |                 | pulsed                                                                                                               |                  |
| Overload protection                             |                 | yes                                                                                                                  |                  |
| Measuring/setting range                         |                 |                                                                                                                      |                  |
| Measuring range                                 |                 | -0.124...2.5 bar                                                                                                     | -124...2500 mbar |
| Set point SP                                    | [bar]           | -0.12...2.5                                                                                                          |                  |
| Reset point rP                                  | [bar]           | -0.124...2.496                                                                                                       |                  |
| In steps of                                     | [bar]           | 0.002                                                                                                                |                  |
| Factory setting                                 |                 | SP1 = 0.624 bar                                                                                                      | rP1 = 0.574 bar  |
|                                                 |                 | SP2 = 1.874 bar                                                                                                      | rP2 = 1.824 bar  |
| Accuracy / deviations                           |                 |                                                                                                                      |                  |
| Switch point accuracy                           |                 | < ± 0,2; (Turn down 1:1)                                                                                             |                  |
|                                                 | [% of the span] |                                                                                                                      |                  |
| Repeatability                                   | [% of the span] | < ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)                                                       |                  |
| Characteristics deviation                       |                 | < ± 0,2; (Turn down 1:1 , linearity, incl. hysteresis and repeatability , limit value setting to DIN EN IEC 62828-1) |                  |
|                                                 | [% of the span] |                                                                                                                      |                  |
| Linearity deviation                             |                 | < ± 0,15; (Turn down 1:1)                                                                                            |                  |
|                                                 | [% of the span] |                                                                                                                      |                  |
| Hysteresis deviation                            |                 | < ± 0,15; (Turn down 1:1)                                                                                            |                  |
|                                                 | [% of the span] |                                                                                                                      |                  |
| Long-term stability                             |                 | < ± 0,1; (Turn down 1:1; per year)                                                                                   |                  |
|                                                 | [% of the span] |                                                                                                                      |                  |



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|                                                              |                                                                                                                                                                                                                 |                               |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| 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)                                                                                                                                                                                           |                               |
| Response times                                               |                                                                                                                                                                                                                 |                               |
| Response time [ms]                                           | < 6                                                                                                                                                                                                             |                               |
| Damping process value dAP [s]                                | 0...100                                                                                                                                                                                                         |                               |
| 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]                                     | -25...80                                                                                                                                                                                                        |                               |
| 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)           |
| Mechanical data                                              |                                                                                                                                                                                                                 |                               |
| Weight [g]                                                   | 442                                                                                                                                                                                                             |                               |
| Materials                                                    | stainless steel (316L/1.4404); PC; PBT; PEI; FKM; PTFE                                                                                                                                                          |                               |
| Materials (wetted parts)                                     | ceramics (99.9 % Al2O3); stainless steel (316L/1.4435); 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                |
|                                                              | switching status                                                                                                                                                                                                | 2 x LED, yellow               |
|                                                              | measured values                                                                                                                                                                                                 | alphanumeric display, 4-digit |
|                                                              | parameter setting                                                                                                                                                                                               | alphanumeric display, 4-digit |
| Display unit                                                 | bar; kPa; psi; inH2O; 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.                                                                                                                                                                                                          |                               |

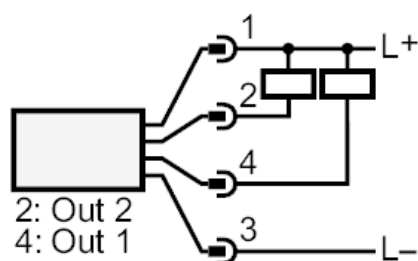
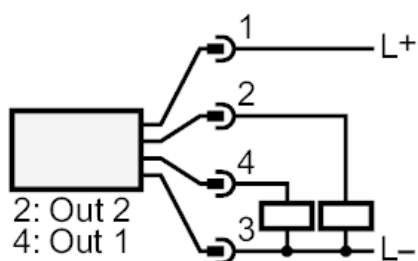


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### Electrical connection

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



|      |                                       |
|------|---------------------------------------|
| OUT1 | switching output<br>Diagnostic output |
| OUT2 | switching output                      |