

Alternative article: PI2896 or PI2796

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

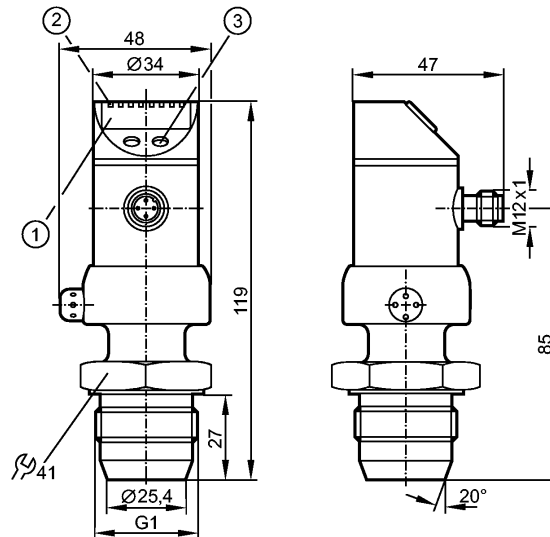
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PI1696

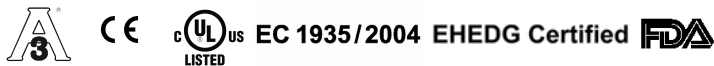


PI-2.5-REA01-E-ZVG/US/ IP

Pressure sensors



- 1: 4-digit alphanumeric display
- 2: status LEDs
- 3: Programming button



Product characteristics

Programmable pressure transmitter

Quick disconnect

no dead space

Freely rotatable housing 350°

2-wire connection technology

Zero and span adjustable

Sealing cone G 1 male

Process connection: Sealing cone G 1 male

Analog output

4-digit alphanumeric display

Measuring range: -0.124...2.500 bar

Application

Application

Type of pressure: relative pressure
Hygienic systems, viscous media and liquids with suspended particles
Liquids and gases

Pressure rating [bar]

Bursting pressure min. [bar]

Medium temperature [°C]

20

50

-25...125 (145 max. 1h)

Electrical data

Electrical design

Operating voltage [V]

Switch-on peak current [mA]

Insulation resistance [MΩ]

DC

20...32 DC

60 (30 ms)

> 100 (500 V DC)

Protection class

Reverse polarity protection

III

yes

Outputs

Output

Output function

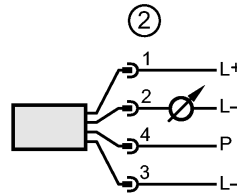
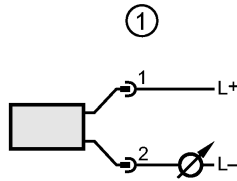
Analog output

4...20 (20...4) mA analog (scaleable 1:4)

PI1696 - Programmable pressure transmitter - eclass: 27201302 / 27-20-13-02

| | |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overload protection | yes |
| Analog output | I: 4...20 mA (Ineg: 20...4 mA) |
| Max. load [Ω] | max. 300 |
| Measuring / setting range | |
| Display unit | bar, kPa, psi, inH2O, mWS, % der Spanne |
| Measuring range [bar] | -0.124...2.500 |
| Setting range | |
| Analog start point, ASP [bar] | -0.124...1.880 |
| Analog end point, AEP [bar] | 0.500...2.500 |
| in steps of [bar] | 0.002 |
| Factory setting | ASP = 0.000 bar; AEP = 2.500 bar |
| Accuracy / deviations | |
| Accuracy / deviations (in % of the span) Turn down 1:1 | |
| Characteristics deviation *) | < ± 0.2 |
| Linearity | < ± 0.15 |
| Hysteresis | < ± 0.15 |
| Repeatability **) | < ± 0.1 |
| Long-term stability ***) | < ± 0.1 |
| Temperature coefficients (TEMPCO) in the temperature range 0...70° C (in % of the span per 10 K) | |
| Greatest TEMPCO of the zero point | < ± 0.05 |
| Greatest TEMPCO of the span | < ± 0.15 |
| Reaction times | |
| Power-on delay time [s] | 0.5 |
| Damping for the analog output (dAA)[s] | 0.1...100.0 |
| Response time analog output [ms] | 40 |
| Integrated watchdog | yes |
| Environment | |
| 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) |
| MTTF [Years] | 238 |
| Mechanical data | |
| Process connection | Sealing cone G 1 male |
| Materials (wetted parts) | ceramics (99.9 % Al2 O3); PTFE; stainless steel 316L / 1.4435; surface characteristics: Ra < 0.4 / Rz 4 |
| Housing materials | stainless steel 316L / 1.4404; PC (Makrolon); PBT (Pocan); PEI; FPM (Viton); PTFE |
| Min. pressure cycles | 100 million |
| Weight [kg] | 0.436 |
| Displays / operating elements | |
| Display | Display unit 6 x LED green Function display 4-digit alphanumeric display Measured values 4-digit alphanumeric display |
| Electrical connection | |
| Connection | M12 connector; gold-plated contacts |
| Wiring | |

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1: Normal operation
 2: Programming operation (P = communication via EPS / FDT interface)

Remarks
 Remarks

*) linearity, incl. hysteresis and repeatability;
 (limit value setting to DIN 16086)
 **) with temperature fluctuations < 10 K
 ***) in % of the span per year
 The 3-A qualification is only valid if adapters with 3-A qualification are used for installation.

Pack quantity [piece]

1

ifm efector, inc. • 1100 Atwater Drive • Malvern • PA 19355 — We reserve the right to make technical alterations without prior notice. — US — PI1696 — 28.05.2014
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