

Alternative article: PI2899 or PI2799

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

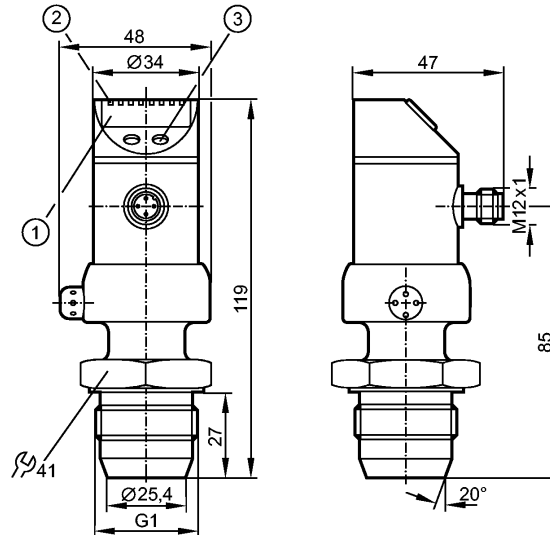
efectorsoo

PI1699



PI-1-1BREA01-E-ZVG/US/ /P

Pressure sensors



1: 4-digit alphanumeric display

2: status LEDs

3: Programming button



EC 1935/2004 EHEDG Certified



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: -1000...1000 mbar

Application

Application

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

Pressure rating [mbar]

10000

Bursting pressure min. [mbar]

30000

Medium temperature [°C]

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

Electrical data

Electrical design

DC

Operating voltage [V]

20...32 DC

Switch-on peak current [mA]

60 (30 ms)

Insulation resistance [MΩ]

> 100 (500 V DC)

Protection class

III

Reverse polarity protection

yes

Outputs

Output

Analog output

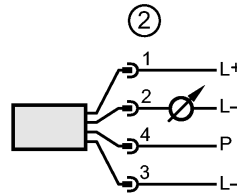
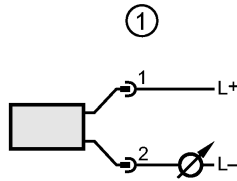
Output function

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

PI1699 - 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	mbar, kPa, psi, inH2O, mWS, % der Spanne
Measuring range [mbar]	-1000...1000
Setting range	
Analog start point, ASP [mbar]	-1000...500
Analog end point, AEP [mbar]	-500...1000
in steps of [mbar]	1
Factory setting	ASP = -1000 mbar; AEP = 1000 mbar
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]	0.442
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	

PI1699 - Programmable pressure transmitter - eclass: 27201302 / 27-20-13-02



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

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