

PI1699

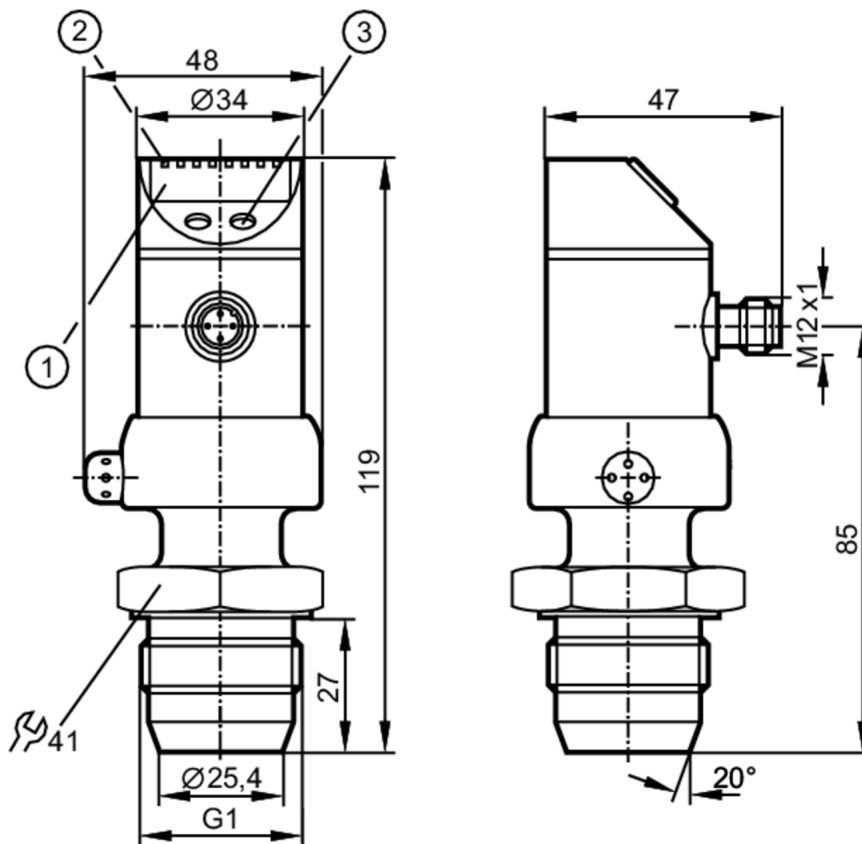


Flush pressure sensor with display

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

Discontinued article

Alternative article: PI2899 or PI2799 When selecting an alternative article and accessories please note that technical data may differ! – When selecting an alternative article and accessories please note that technical data may differ! – Discontinuation date: 31.03.2018



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



Product characteristics

Output signal	analog signal	
Measuring range	-1...1 bar	-1000...1000 mbar
Process connection	threaded connection G 1 external thread sealing cone	



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Application	
System	gold-plated contacts
Application	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 [mbar]	30000
Pressure rating [mbar]	10000
Type of pressure	relative pressure
No dead space	yes
Electrical data	
Operating voltage [V]	20...32 DC
Min. insulation resistance [MΩ]	100; (500 V DC)
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	0.5
Switch-on peak current [mA]	6
Switch-on peak current duration [ms]	30
Integrated watchdog	yes
Inputs / outputs	
Number of inputs and outputs	Number of analog outputs: 1
Outputs	
Total number of outputs	1
Output signal	analog signal
Number of analog outputs	1
Analog current output [mA]	4...20, invertible; (scalable 1:4)
Max. load [Ω]	300
Overload protection	yes
Measuring/setting range	
Measuring range	-1...1 bar -1000...1000 mbar
Analog start point [mbar]	-1000...500
Analog end point [mbar]	-500...1000
In steps of [mbar]	1
Factory setting	ASP = -1000 mbar AEP = 1000 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; (Turn down 1:1 linearity, incl. hysteresis and repeatability limit value setting to DIN 16086)
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	< ± 0,1; (Turn down 1:1; per year)

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	[% of the span]	
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)

Reaction times

Damping for the analog output dAA	[s]	0.1...100
Max. response time analog output	[ms]	40

Software / programming

Parameter setting options	Zero point; span
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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)
MTTF	[years]	238

Mechanical data

Weight	[g]	444
Material		stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM; PTFE
Materials (wetted parts)		ceramics (99.9 % Al ₂ O ₃); stainless steel (1.4435 / 316L); 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
	Function display	alphanumeric display, 4-digit
	Measured values	alphanumeric display, 4-digit
Display unit		mbar; kPa; psi; inH ₂ O; mWS; % of the span

Remarks

Remarks	The 3-A qualification is only valid if adapters with 3-A qualification are used for installation.
Notes	Discontinued article
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; Contacts: gold-plated

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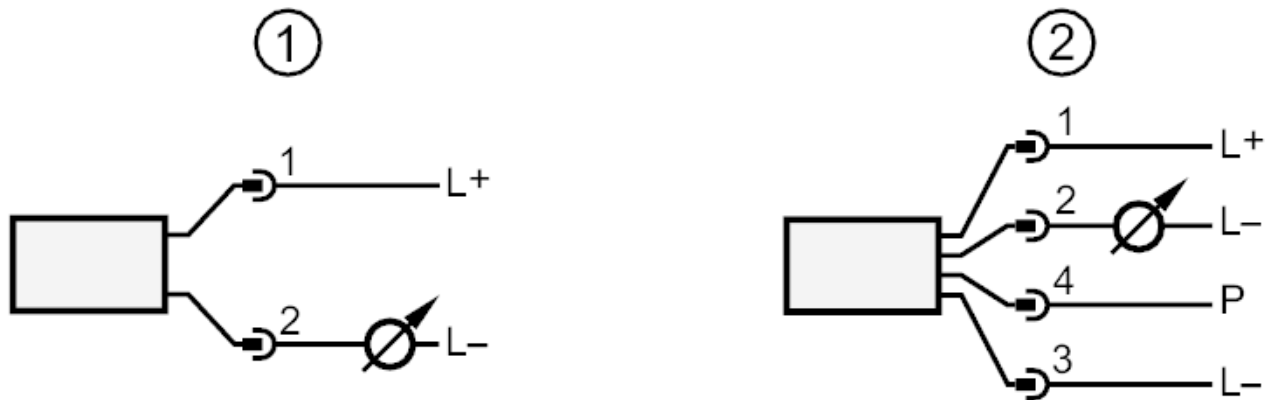


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Connection



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

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