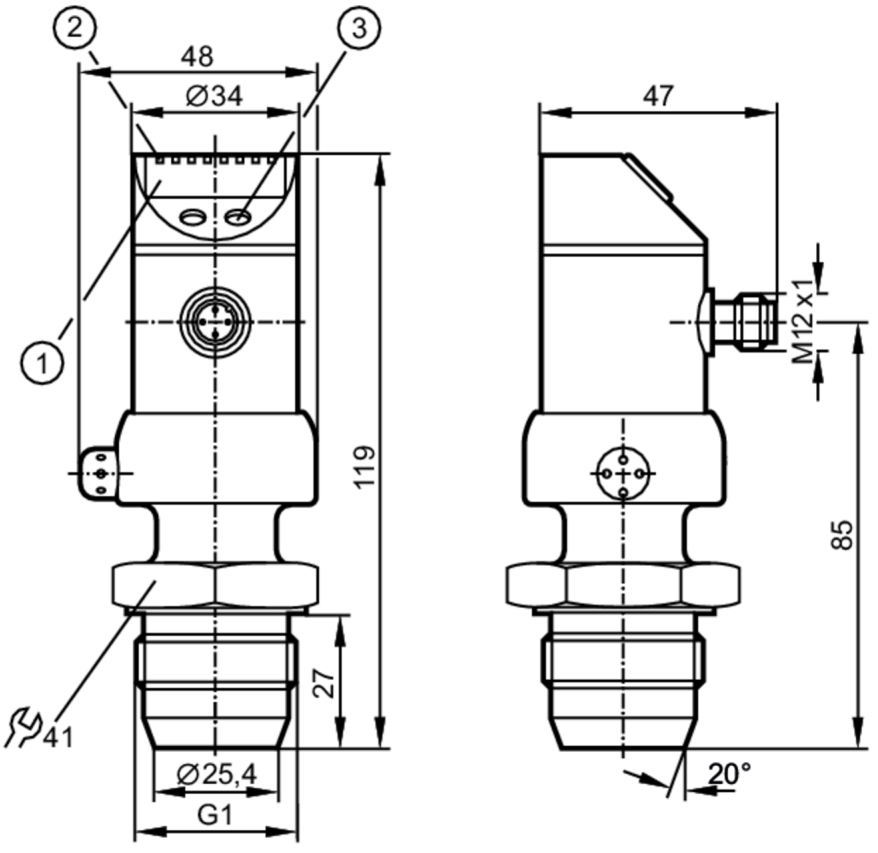
PI1699

Flush pressure sensor with display

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

phase-out article

Alternative articles: PI2899 or PI2799
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

EC 1935/2004 EHEDG Tested

Product characteristics			
Number of inputs and outputs		Number of analogue outputs: 1	
Measuring range		-1...1 bar	-1000...1000 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	[mbar]	30000
Pressure rating	[mbar]	10000
Type of pressure		relative pressure

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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 analogue outputs: 1	
Outputs			
Total number of outputs		1	
Output signal		analogue signal	
Number of analogue outputs		1	
Analogue 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
Analogue start point	[mbar]	-1000...500	
Analogue 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 EN IEC 62828-1)	
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	[% of the span]	< ± 0,1; (Turn down 1:1; per year)	
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)	
Response times			
Damping for the analogue output dAA	[s]	0.1...100	
Max. response time analogue output	[ms]	40	

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Software / programming			
Parameter setting options		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)
MTTF	[years]	238	
Mechanical data			
Weight	[g]	444	
Materials		stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM; PTFE	
Materials (wetted parts)		ceramics (99.9 % Al2O3); 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; 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.	

Electrical connection

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

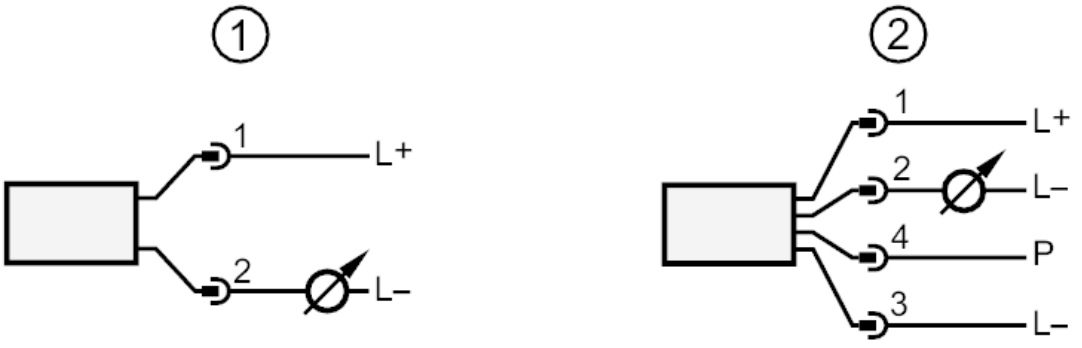


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Connection



1: normal operation
2: programming operation (P = communication via EPS / FDT interface)