

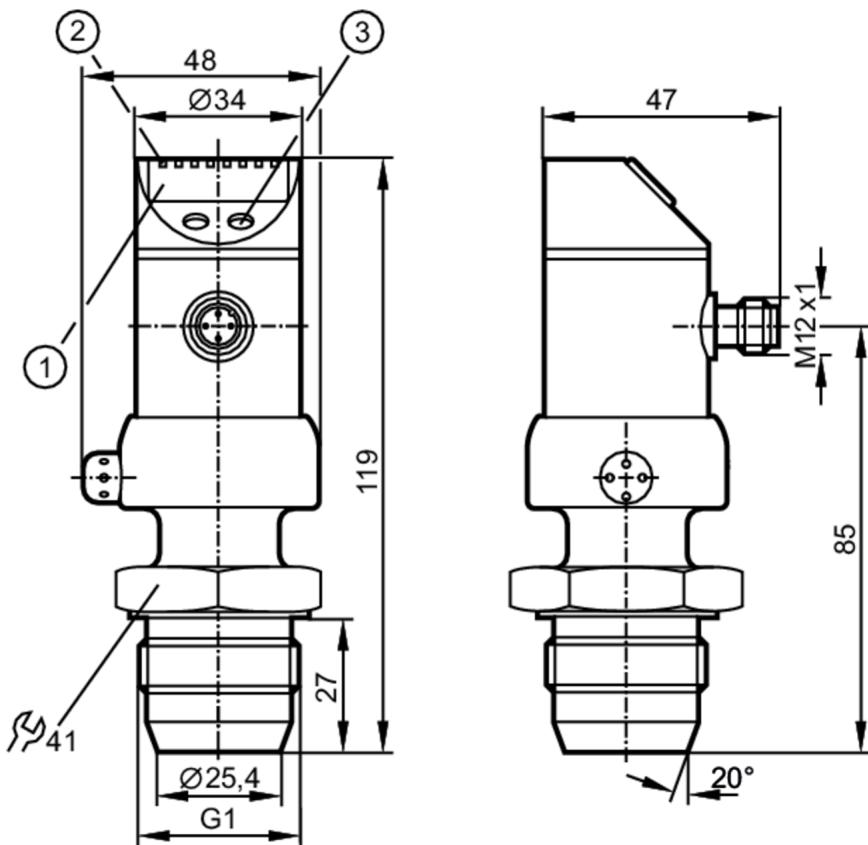
## Flush pressure sensor with display

PI-10BREA01-E-ZVG/US/ IP

phase-out article

Alternative articles: PI2889 or PI2789

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	-0.005...0.1 bar	-5...100 mbar
Process connection	threaded connection G 1 external thread sealing cone	
<b>Application</b>		
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]	4000	
Type of pressure	relative pressure	

# PI1689



## Flush pressure sensor with display

PI-10BREA01-E-ZVG/US/ /P

No dead space		yes
<b>Electrical data</b>		
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
<b>Inputs / outputs</b>		
Number of inputs and outputs		Number of analogue outputs: 1
<b>Outputs</b>		
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
<b>Measuring/setting range</b>		
Measuring range		-0.005...0.1 bar      -5...100 mbar
Analogue start point	[mbar]	-5...75
Analogue end point	[mbar]	20...100
In steps of	[mbar]	0.1
Factory setting		ASP = 0.0 mbar      AEP = 100.0 mbar
<b>Accuracy / deviations</b>		
Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)
Characteristics deviation	[% of the span]	< ± 0,5; (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]	< ± 0,1; (0...70 °C)
Temperature coefficient span	[% of the span / 10 K]	< ± 0,2; (0...70 °C)
<b>Response times</b>		
Damping for the analogue output dAA	[s]	0.1...100
Max. response time analogue output	[ms]	40

# PI1689



## Flush pressure sensor with display

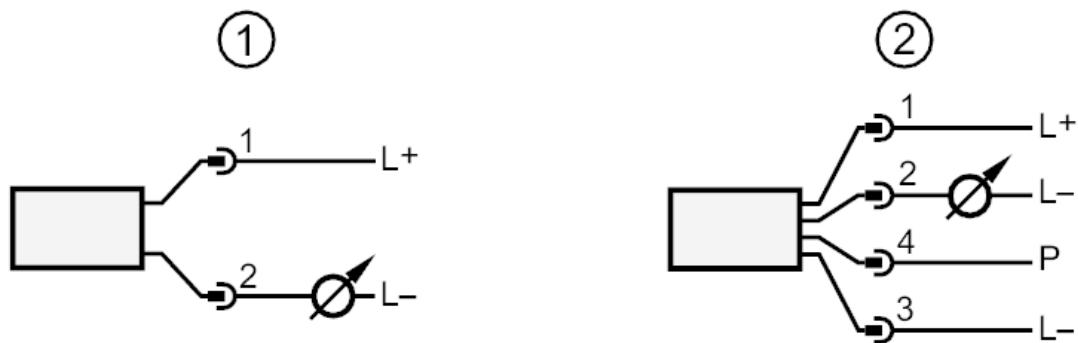
PI-10BREA01-E-ZVG/US/ /P

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 EN 61000-4-3 HF radiated EN 61000-4-4 Burst EN 61000-4-5 Surge EN 61000-4-6 HF conducted
Shock resistance		DIN IEC 68-2-27
Vibration resistance		DIN IEC 68-2-6
MTTF	[years]	259
Mechanical data		
Weight	[g]	443.5
Materials		stainless steel (316L/1.4404); PC; PBT; PEI; FKM; PTFE
Materials (wetted parts)		ceramics (99.9 % Al <sub>2</sub> O <sub>3</sub> ); 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 function display measured values
Display unit		mbar; kPa; inH <sub>2</sub> O; mmWS; % 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		
		

## Flush pressure sensor with display

PI-10BREA01-E-ZVG/US/ /P

### Connection



1: normal operation

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