



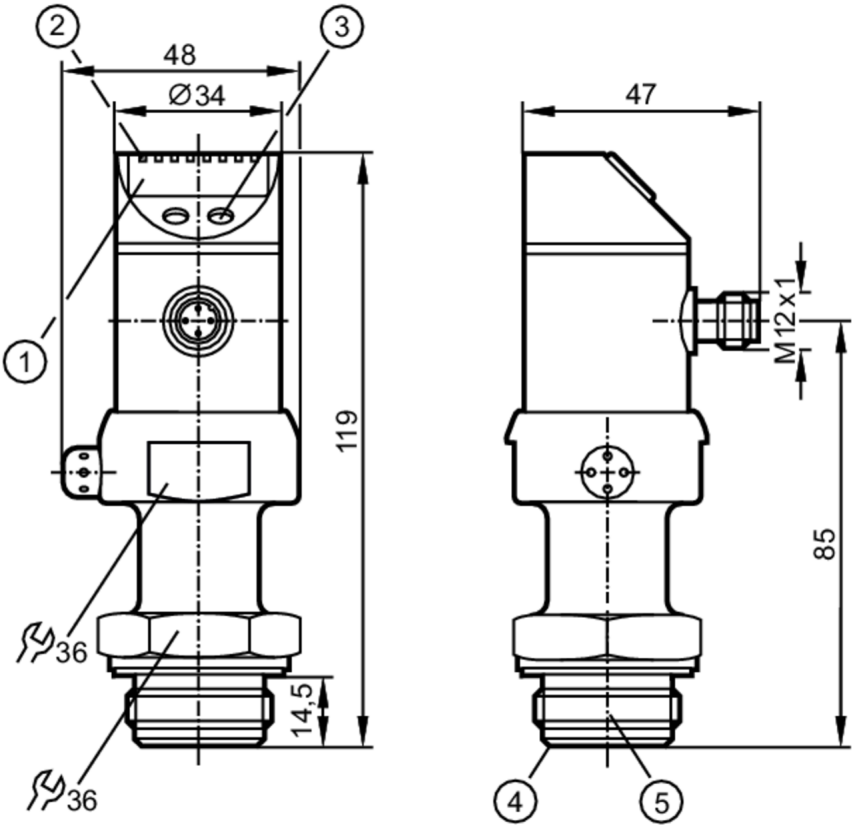
Flush pressure sensor with display

PI-1-1BRES30-E-ZVG/US/ IP

phase-out article
Discontinuation date: 03/31/2024

Alternative articles: PI1009 or PI1709
When selecting an alternative article and accessories please note that technical data may differ!

Please do not use for new projects.
no more adapters available as accessories



- 1 alphanumeric display 4-digit
- 2 status LEDs
- 3 programming button
- 4 Aseptoflex sealing edge
- 5 Aseptoflex thread



Product characteristics		
Number of inputs and outputs	Number of analogue outputs: 1	
Measuring range	-1...1 bar	-1000...1000 mbar
Process connection	threaded connection Aseptoflex external thread Aseptoflex	
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	



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Medium temperature	[°C]	-25...125; (145 max. 1h)
Min. bursting pressure	[mbar]	30000
Min. bursting pressure	[MPa]	3
Pressure rating	[mbar]	10000
Pressure rating	[MPa]	1
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 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)



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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	
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]	403	
Housing	cylindrical	
Dimensions [mm]	Ø 34 / L = 119	
Materials	stainless steel (316L/1.4404); PC; PBT; PEI; FKM; PTFE	
Materials (wetted parts)	ceramics (99.9 % Al2O3); stainless steel (316L/1.4435); surface characteristics: Ra < 0,4 / Rz 4; PTFE	
Min. pressure cycles	100 million	
Process connection	threaded connection Aseptoflex external thread Aseptoflex	
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.	
Notes	Please do not use for new projects.; no more adapters available as accessories	
Pack quantity	1 pcs.	

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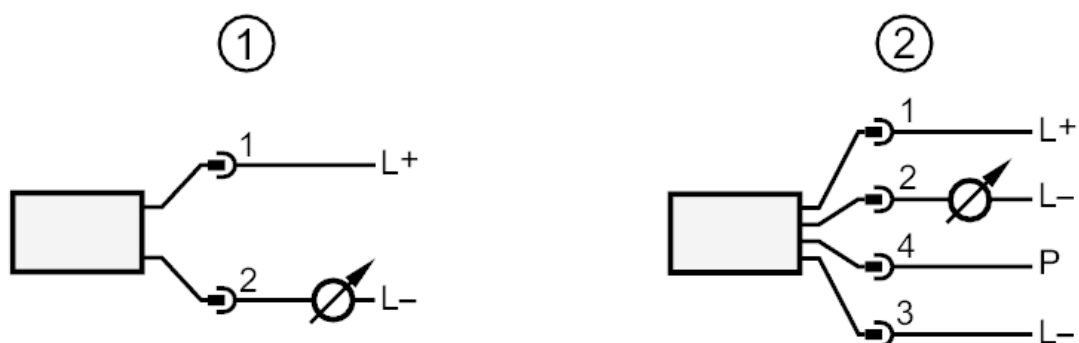
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Electrical connection

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



Connection



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