

PI1094



Flush pressure sensor with display

PI-010-RES30-E-ZVG/US/ /

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

Alternative articles: PI1004 or PI1704
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...10 bar	-14.5...145 psi	-100...1000 kPa	-0.1...1 MPa
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		150 bar	2175 psi	15 MPa
Pressure rating		50 bar	725 psi	5 MPa
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...10 bar	-14.5...145 psi	-100...1000 kPa -0.1...1 MPa
Analogue start point		-1...7.25 bar	-14.5...105.1 psi	-0.1...0.725 MPa
Analogue end point		1.75...10 bar	25.4...145 psi	0.175...1 MPa
In steps of		0.01 bar	0.1 psi	0.001 MPa
Factory setting			ASP = 0.00 bar	AEP = 10.00 bar
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)		



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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]	403.5
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 % Al ₂ O ₃); 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	4 x LED, green
	function display	alphanumeric display, 4-digit
	measured values	alphanumeric display, 4-digit
Display unit		bar; psi; MPa; % 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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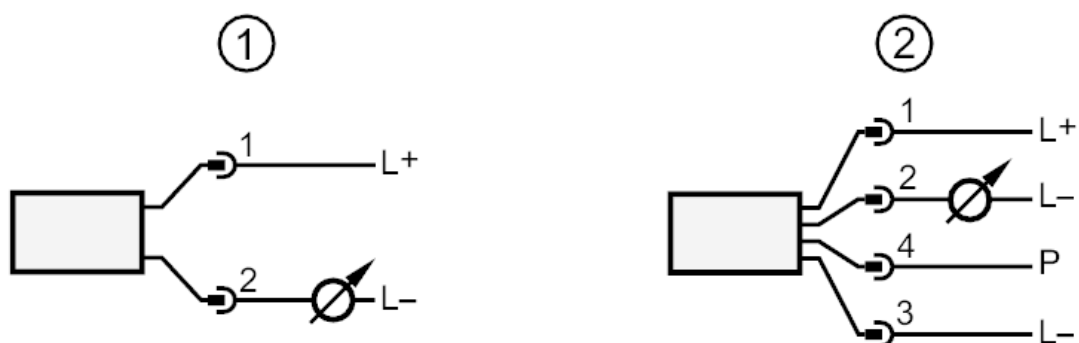
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Electrical connection

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



Connection



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