



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



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 (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 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)