

PM1118



Flush pressure sensor

PM-,40BREZ01-E-ZVG/US



- 1 clamp DN25...DN40 (1...1.5") DIN 32676 (ISO 2852)
the seal for the Triclamp process connection must have an inner diameter of at least 22 mm



Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1			
Measuring range	-0.05...0.4 bar	-50...400 mbar	-0.725...5.8 psi	-5...40 kPa
Process connection	Clamp DN25...DN40 (1...1.5") DIN 32676 (ISO 2852)			

Application

System	gold-plated contacts		
Measuring element	ceramic-capacitive pressure measuring cell		
Temperature monitoring	no		
Application	flush mountable for the food and beverage industry		
Media	viscous media and liquids with suspended particles; liquids and gases		
Medium temperature [°C]	-25...150		
Min. bursting pressure	30000 mbar	435 psi	3000 kPa
Pressure rating	8000 mbar	116 psi	800 kPa
Note on pressure rating	take into account the pressure resistance of the bracket and the seal used for clamp connection		
Vacuum resistance	-1000 mbar	-0.1 MPa	
Type of pressure	relative pressure		
No dead space	yes		

Electrical data

Operating voltage [V]	18...30 DC
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Min. insulation resistance	[MΩ]	100; (500 V DC)
Protection class		III
Reverse polarity protection		yes
Measuring principle		hydrostatic
Integrated watchdog		yes

2-wire		
Current consumption	[mA]	3.5...21.5
Power-on delay time	[s]	1

3-wire		
Current consumption	[mA]	< 45
Power-on delay time	[s]	0.5

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1	
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Outputs

Total number of outputs	2	
Output signal	analog signal; IO-Link; (configurable)	
Number of digital outputs	1; (IO-Link)	
Number of analog outputs	1	
Analog current output	[mA]	4...20; (scalable)
Max. load	[Ω]	700; (U _b = 24 V; (U _b - 9 V) / 21.5 mA)
Short-circuit proof	yes	
Overload protection	yes	

Measuring/setting range

Measuring range	-0.05...0.4 bar	-50...400 mbar	-0.725...5.8 psi	-5...40 kPa
Analog start point	-50...320 mbar	-0.725...4.641 psi	-5...32 kPa	
Analog end point	30...400 mbar	0.435...5.802 psi	3...40 kPa	
In steps of	0.1 mbar	0.001 psi	0.01 kPa	
Factory setting	ASP = 0.0 mbar	AEP = 400 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 (DIN EN 61298-2); (incl. zero point and span error, non-linearity, hysteresis; Turn down 1:1)	
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)	
Total deviation over temperature range		Temperature range	total deviation
		-25...15 °C	Characteristics deviation ± 0,1 % of the span / 10 K
		15...80 °C	Characteristics deviation
		80...150 °C	Characteristics deviation ± 0,15 % of the span / 10 K
Notes on the accuracy / deviation		for further details see section Diagrams and graphs	

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Reaction times		
Damping for the analog output dAA	[s]	0...4
2-wire		
Step response time analog output	[ms]	30
3-wire		
Step response time analog output	[ms]	7
Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
Profiles	Digital Measuring Sensor (0x000A), Identification and Diagnosis (0x4000)	
SIO mode	no	
Required master port class	A	
Process data analog	3	
Min. process cycle time	[ms]	3.2
Supported DeviceIDs	Type of operation	DeviceID
	default	1410
Operating conditions		
Ambient temperature	[°C]	-25...80
Storage temperature	[°C]	-40...100
Protection	IP 67; IP 68; IP 69K	
Tests / approvals		
EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-3	
Shock resistance	DIN EN 60068-2-27	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	20 g (10...2000 Hz)
MTTF	[years]	323
Note on approval	Factory certificate available as download at www.factory-certificate.ifm	
UL approval	UL approval number	J055
	File number UL	E174189
Mechanical data		
Weight	[g]	392.4
Housing	tubular	
Dimensions	[mm]	Ø 30.2 / L = 111.4
Material	stainless steel (1.4404 / 316L); PBT	
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	
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Displays / operating elements		
Display unit	mbar; psi; kPa; mmWS; inH2O	

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Remarks

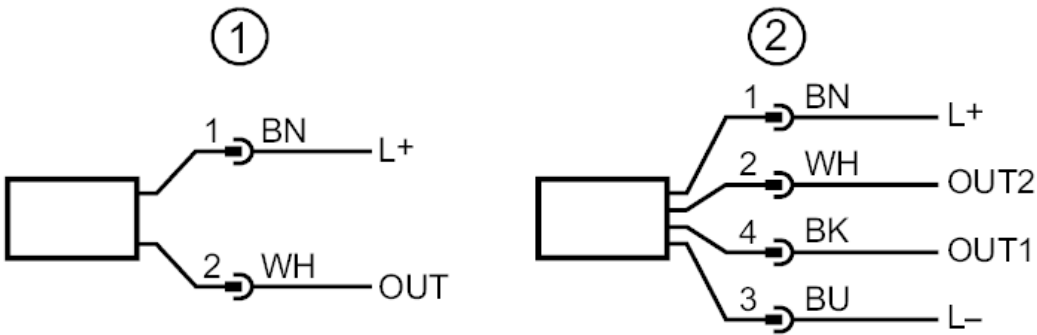
Pack quantity 1 pcs.

Electrical connection

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



Connection



- 1 connection for 2-wire operation (analog)
 - 2 connection for 3-wire operation (analog / IO-Link)
- OUT1 : IO-Link
OUT2 : analog output



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Diagrams and graphs

ambient temperature influence on the accuracy



X temperature
Y total deviation