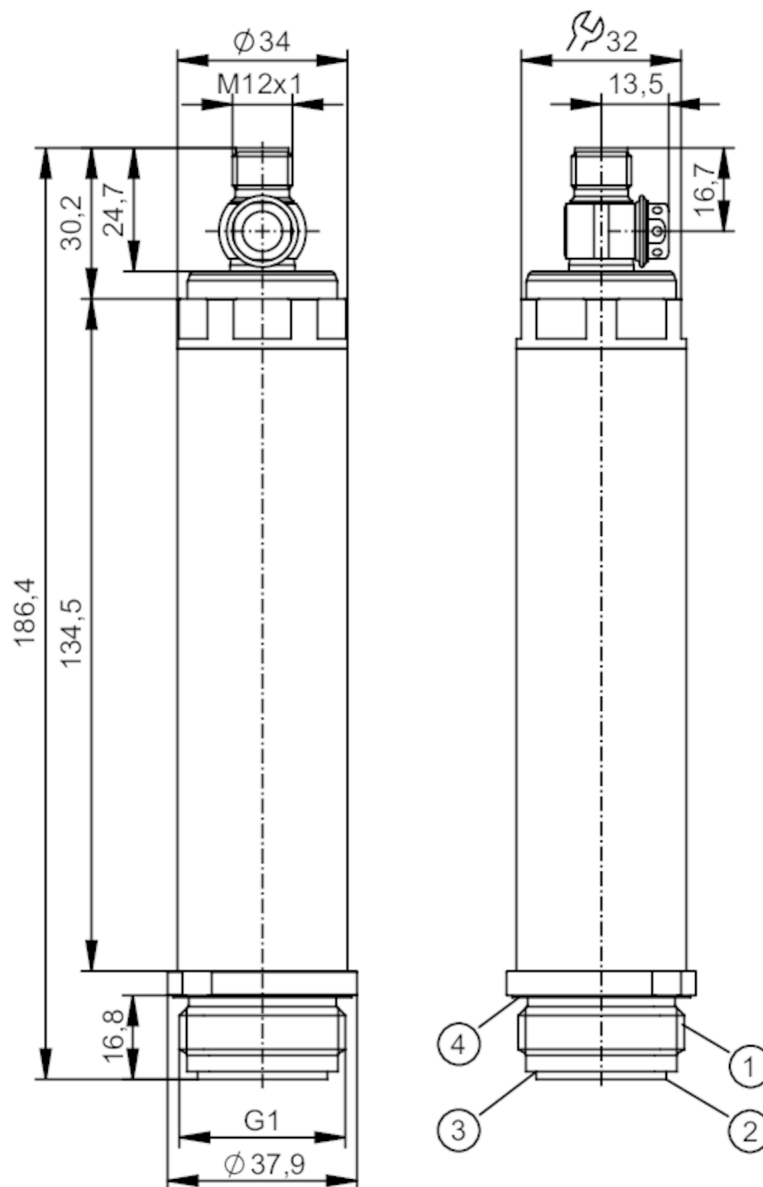


Flush pressure sensor

PM-001BREA01 -E-ZVG/US



- 1 external thread G1 (Aseptoflex Vario)
- 2 area for metal sealing (Aseptoflex Vario)
- 3 groove for sealing ring (Aseptoflex Vario)
- 4 groove for sealing ring (DIN EN ISO 1179-2)



EC 1935/2004

FCM



Product characteristics

Number of inputs and outputs	Number of analogue outputs: 1		
Measuring range	-50...1000 mbar	-0.73...14.5 psi	-5...100 kPa
Process connection	threaded connection G 1 external thread mit Dichtkontur Aseptoflex Vario		
Note	G1 Gewinde nach ISO 228. Alternativ dichtend über rückwärtige Dichtkontur mit Dichtung in Anlehnung an DIN EN ISO 1179-2.		

Application

Special feature	Gold-plated contacts
Measuring element	ceramic-capacitive pressure measuring cell
Application	flush mountable for the food and beverage industry



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Media	viscous media and liquids with suspended particles; liquids and gases		
Medium temperature [°C]	-25...85; (125: < 1 h)		
Min. burst pressure	30000 mbar	435 psi	3000 kPa
Pressure rating	10000 mbar	145 psi	1000 kPa
Vacuum resistance [mbar]	-1000		
Type of pressure	relative pressure		
No dead space	yes		
MAWP for applications according to CRN [bar]	10		

Electrical data

Operating voltage [V]	18...30 DC		
Min. insulation resistance [MΩ]	100; (500 V DC)		
Protection class	III		
Reverse polarity protection	yes		
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 analogue outputs: 1		
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Outputs

Total number of outputs	1		
Output signal	analogue signal; (configurable)		
Number of analogue outputs	1		
Analogue 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	-50...1000 mbar	-0.73...14.5 psi	-5...100 kPa
Analogue start point	-50...800 mbar	-0.73...11.6 psi	-5...80 kPa
Analogue end point	150...1000 mbar	2.18...14.5 psi	15...100 kPa
In steps of	0.5 mbar	0.01 psi	0.05 kPa
Factory setting	ASP = 0.0 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; (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	< ± 0,15; (Turn down 1:1)		



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	[% of the span]		
Long-term stability		< ± 0,1; (Turn down 1:1; per year)	
	[% of the span]		
Total deviation over temperature range			
			Temperature range
		-25...15 °C	Characteristics deviation ± 0,05 % of the span / 10 K
		15...80 °C	Characteristics deviation
		80...125 °C	Characteristics deviation ± 0,1 % of the span / 10 K
Notes on the accuracy / deviation		for further details see section Diagrams and graphs	
Response times			
Damping for the analogue output dAA	[s]	0...4	
2-wire			
Step response time analogue output	[ms]	30	
3-wire			
Step response time analogue output	[ms]	7	
Interfaces			
Communication interface		IO-Link	
Transmission type		COM2 (38,4 kBaud)	
IO-Link revision		1.1	
Profiles		Smart Sensor - SSP 3.1	Measuring Sensor
		Common - I&D	Identification and Diagnosis
SIO mode		no	
Required master port type		A	
Process data analogue		3	
Min. process cycle time	[ms]	3.2	
Supported DeviceIDs		Type of operation	DeviceID
		default	1112
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]	364	
UL approval		UL approval no.	J025
Mechanical data			
Weight	[g]	555.8	
Housing		cylindrical	
Dimensions	[mm]	Ø 34 / L = 186.4	



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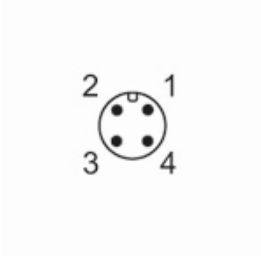
Materials	stainless steel (316L/1.4404); stainless steel (304/1.4301); PBT
Materials (wetted parts)	ceramics (99.9 % Al2O3); stainless steel (316L/1.4435) surface characteristics: Ra 0,4 µm / Rz = 4 µm; PTFE
Min. pressure cycles	100 million
Tightening torque [Nm]	35
Process connection	threaded connection G 1 external thread mit Dichtkontur Aseptoflex Vario

Remarks

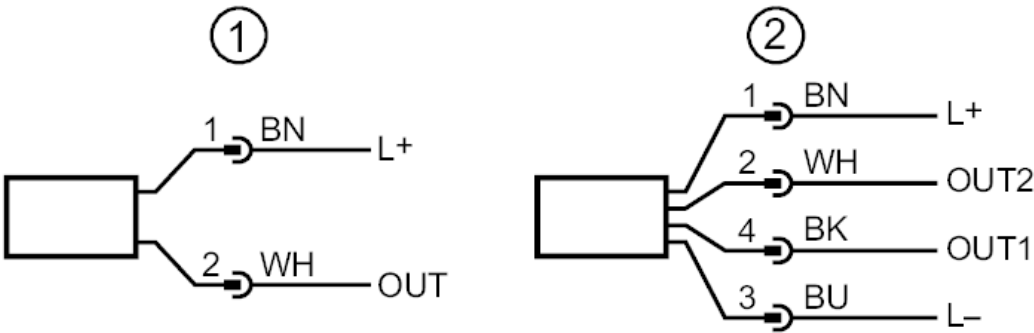
Pack quantity	1 pcs.
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Electrical connection

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



Connection



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

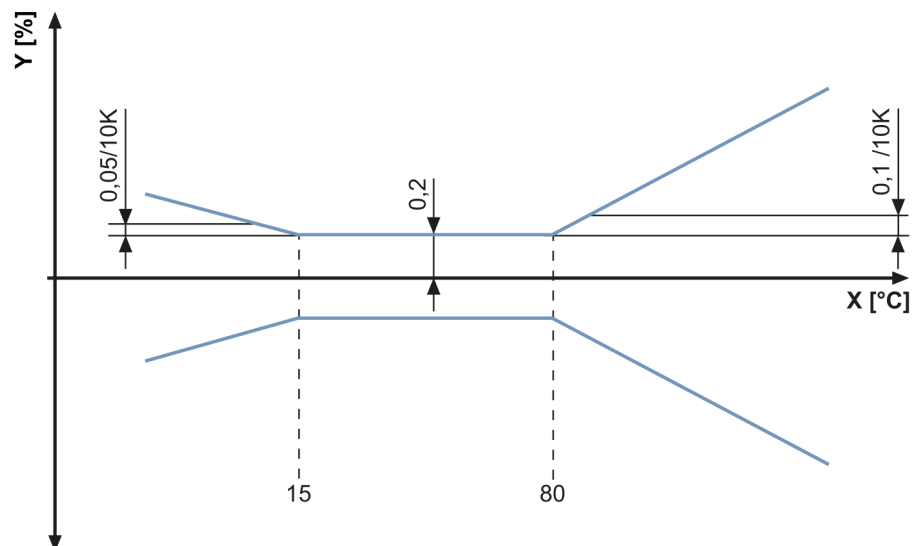


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Diagrams and graphs

ambient temperature influence on the accuracy



X temperature
Y total deviation