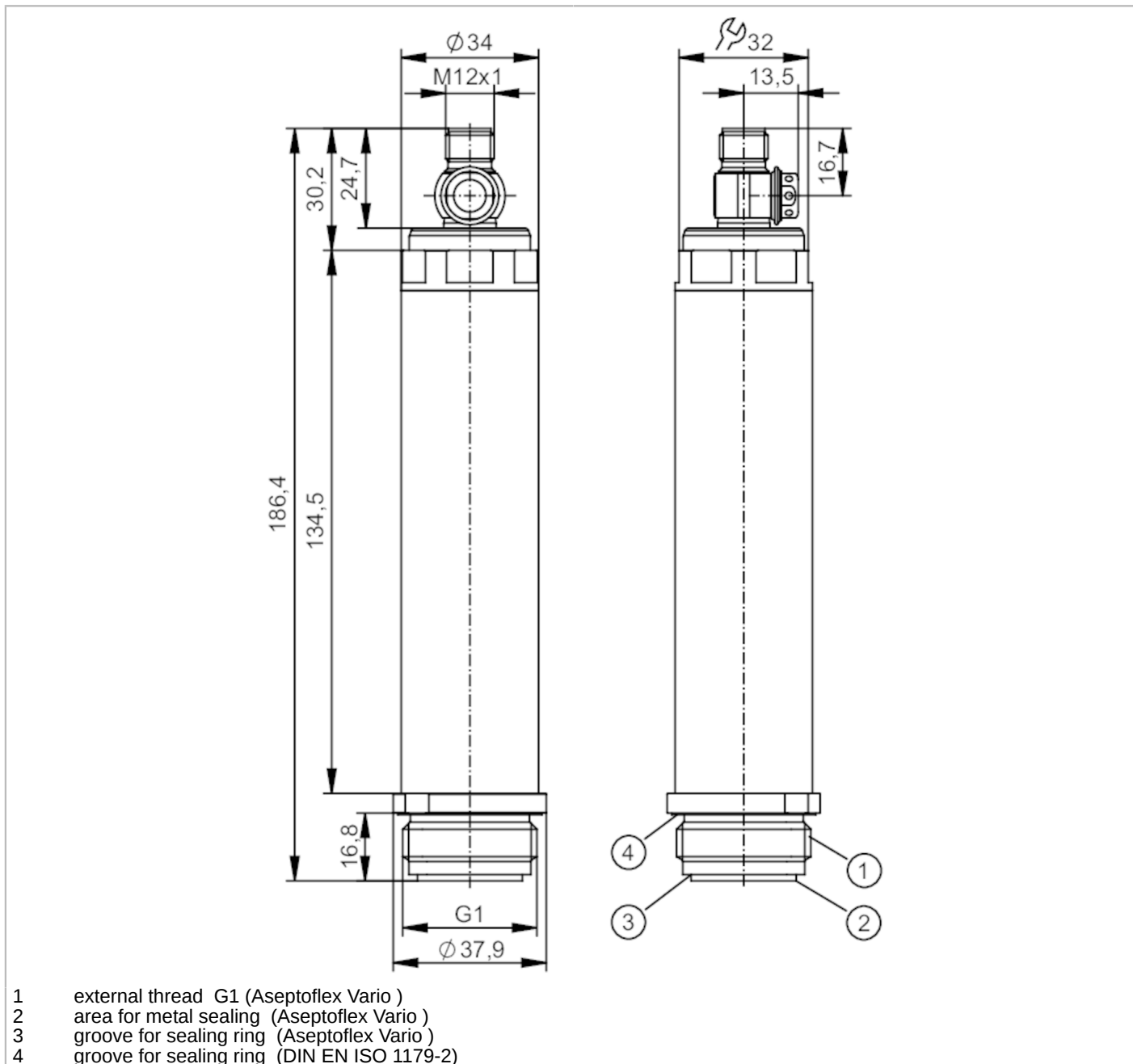


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Flush pressure sensor

PM-001BREA01 -E-ZVG/US



Product characteristics	
Number of inputs and outputs	Number of analog outputs: 1
Measuring range	-50...1000 mbar -0.73...14.5 psi -5...100 kPa
Process connection	threaded connection G 1 external thread Aseptoflex Vario
Application	
System	gold-plated contacts
Measuring element	ceramic-capacitive pressure measuring cell
Application	flush mountable for the food and beverage industry
Media	viscous media and liquids with suspended particles; liquids and gases
Medium temperature [°C]	-25...85; (125: < 1 h)

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PM-001BREA01 -E-ZVG/US

Min. bursting 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		
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 analog outputs: 1		
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Outputs

Total number of outputs	1		
Output signal	analog signal; (configurable)		
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	-50...1000 mbar	-0.73...14.5 psi	-5...100 kPa
Analog start point	-50...800 mbar	-0.73...11.6 psi	-5...80 kPa
Analog 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 [% of the span]	< ± 0,15; (Turn down 1:1)		
Long-term stability	< ± 0,1; (Turn down 1:1; per year)		

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Flush pressure sensor

PM-001BREA01 -E-ZVG/US

[% of the span]		
Total deviation over temperature range	Temperature range	total deviation
	-25...15 °C	Characteristics deviation $\pm 0,05$ % of the span / 10 K
	15...80 °C	Characteristics deviation
	80...125 °C	Characteristics deviation $\pm 0,1$ % of the span / 10 K
Notes on the accuracy / deviation	for further details see section Diagrams and graphs	
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
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 number	J025
Mechanical data		
Weight	[g]	555.8
Material	stainless steel (1.4404 / 316L); stainless steel (1.4301 / 304); PBT	
Materials (wetted parts)	ceramics (99.9 % Al ₂ O ₃); stainless steel (1.4435 / 316L); surface characteristics: Ra 0,4 / Rz 4; PTFE	
Min. pressure cycles	100 million	
Tightening torque	[Nm]	35
Process connection	threaded connection G 1 external thread Aseptoflex Vario	

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Flush pressure sensor

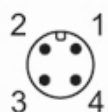
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Remarks

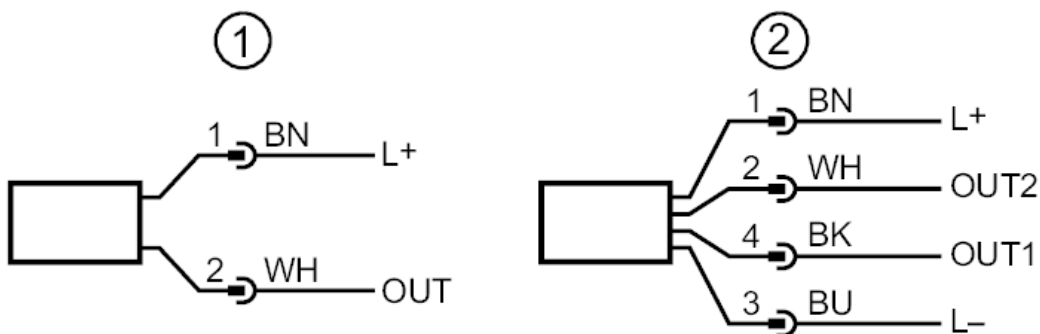
Pack quantity: 1 pcs.

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

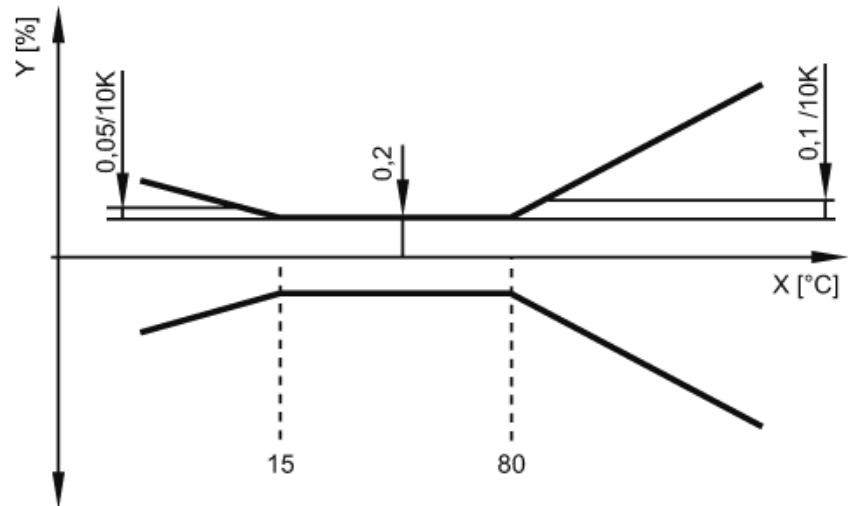


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Diagrams and graphs

ambient temperature influence on the accuracy



X temperature
Y total deviation