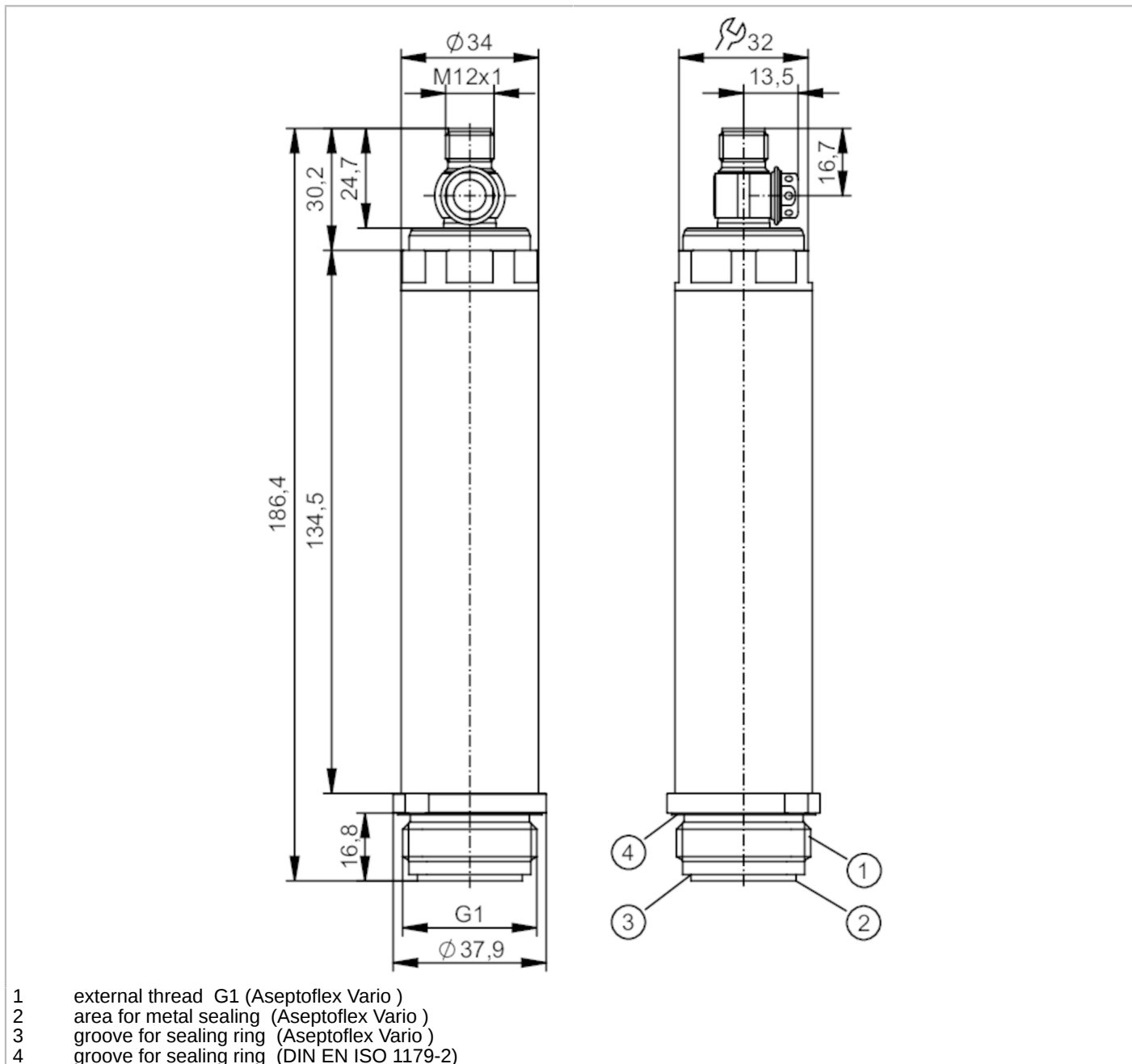


# PY2007



## Flush pressure sensor

PM-001BREA01 -E-ZVG/US



### 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 Aseptoflex Vario		

### Application

Special feature	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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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 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 <sub>b</sub> = 24 V; (U <sub>b</sub> - 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 [% of the span]	< ± 0,15; (Turn down 1:1)		
Long-term stability	< ± 0,1; (Turn down 1:1; per year)		



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	[% of the span]	
Total deviation over temperature range		<b>Temperature range</b>
		-25...15 °C
		15...80 °C
		<b>total deviation</b>
		Characteristics deviation ± 0,05 % of the span / 10 K
		Characteristics deviation
		Characteristics deviation ± 0,1 % of the span / 10 K
Notes on the accuracy / deviation		for further details see section Diagrams and graphs
<b>Response times</b>		
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
<b>Interfaces</b>		
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 type		A
Process data analogue		3
Min. process cycle time	[ms]	3.2
<b>Operating conditions</b>		
Ambient temperature	[°C]	-25...80
Storage temperature	[°C]	-40...100
Protection		IP 67; IP 68; IP 69K
<b>Tests / approvals</b>		
EMC		DIN EN 61000-6-2
		DIN EN 61000-6-3
Shock resistance		DIN EN 60068-2-27
Vibration resistance		DIN EN 60068-2-6
MTTF	[years]	364
UL approval		UL Approval no. J025
<b>Mechanical data</b>		
Weight	[g]	555.8
Housing		cylindrical
Dimensions	[mm]	Ø 34 / L = 186.4
Materials		stainless steel (316L/1.4404); stainless steel (304/1.4301); PBT
Materials (wetted parts)		ceramics (99.9 % Al <sub>2</sub> O <sub>3</sub> ); stainless steel (316L/1.4435); surface characteristics: Ra 0,4 / Rz 4; PTFE
Min. pressure cycles		100 million

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Tightening torque	[Nm]	35
Process connection	threaded connection G 1 external thread Aseptoflex Vario	

### Remarks

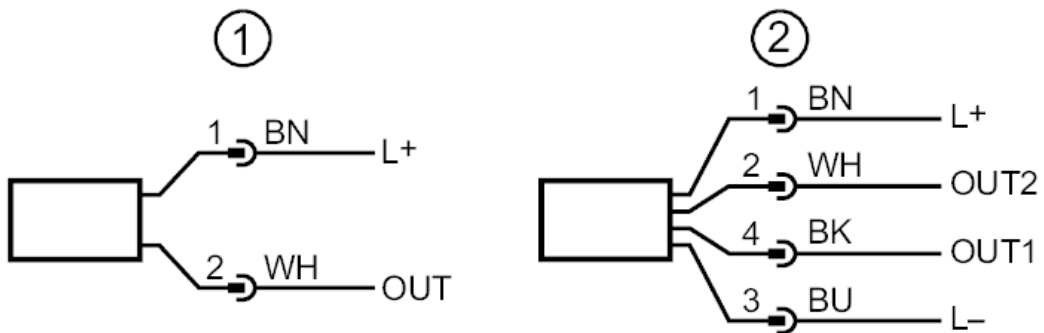
Pack quantity	1 pcs.
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### Electrical connection

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



### Connection



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

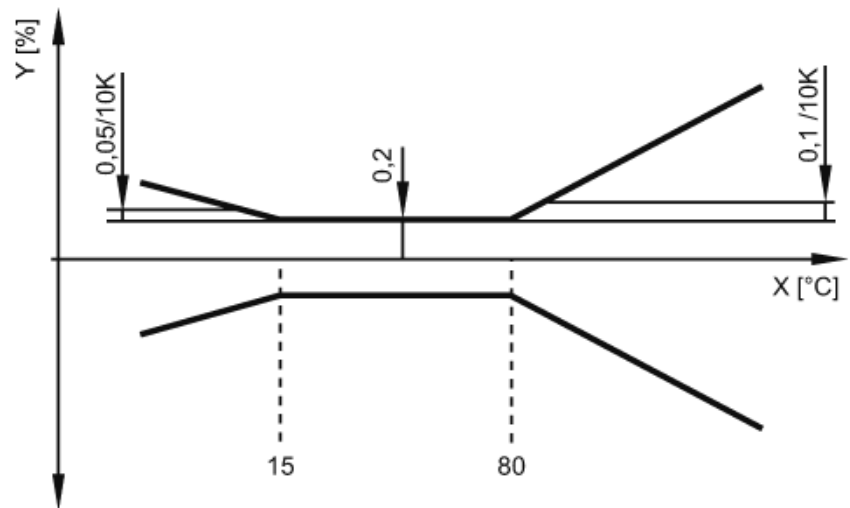


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### Diagrams and graphs

ambient temperature influence on the accuracy



X temperature  
Y total deviation