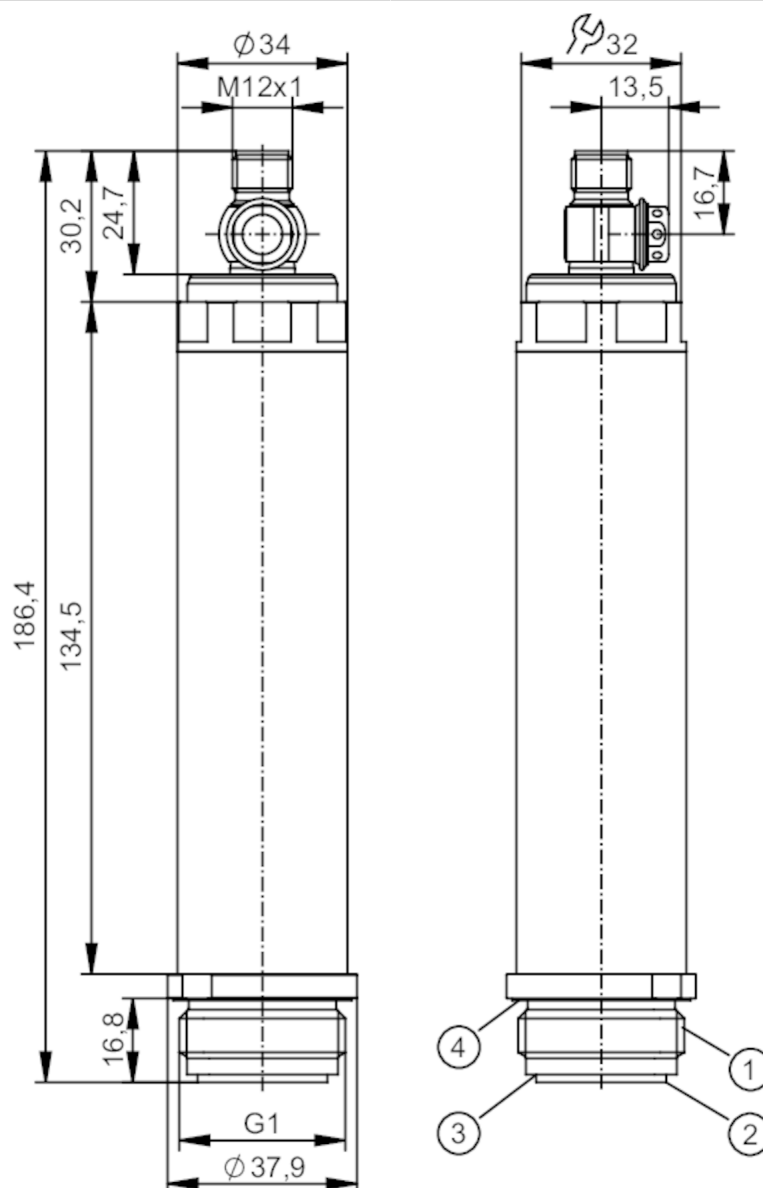




Electronic pressure sensor

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



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)



Electronic pressure sensor

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		
------------------------------	-----------------------------	--	--

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)		



Electronic pressure sensor

PM-001BREA01 -E-ZVG/US

[% of the span]		
Total deviation over temperature range	Temperature range	total deviation
	-25...15 °C	Characteristics deviation $\pm 0,05$ % der Spanne / 10 K
	15...80 °C	Characteristics deviation
	80...125 °C	Characteristics deviation $\pm 0,1$ % der Spanne / 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	

PY2007



Electronic pressure sensor

PM-001BREA01 -E-ZVG/US

Remarks

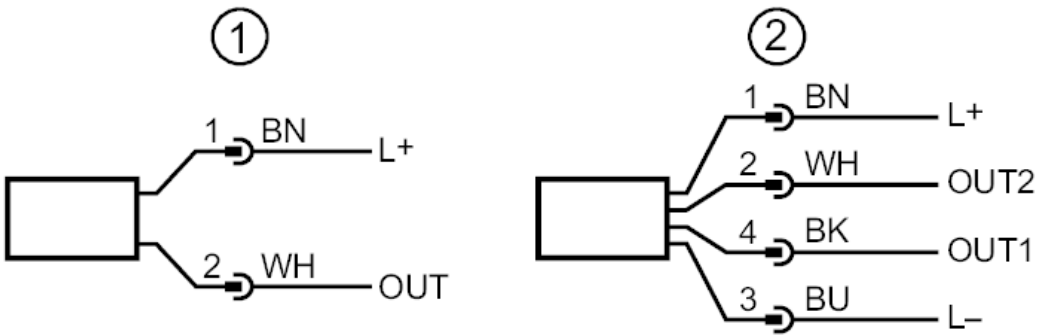
Pack quantity 1 pcs.

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

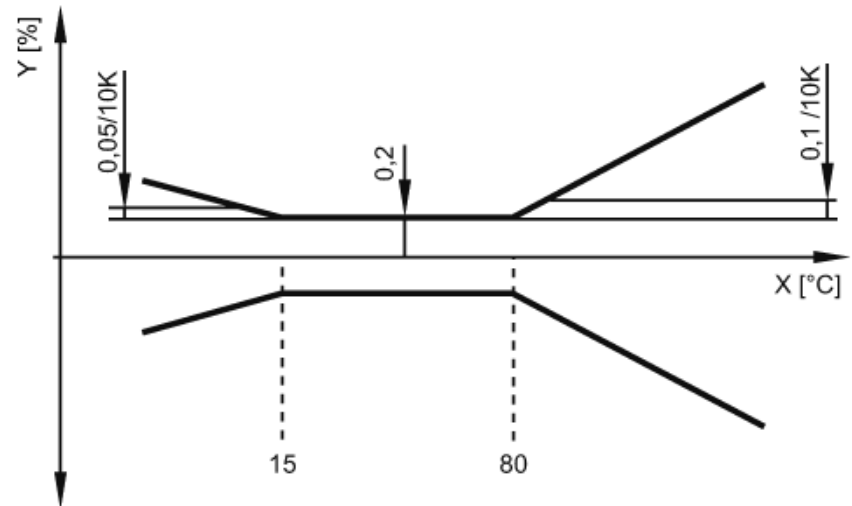


Electronic pressure sensor

PM-001BREA01 -E-ZVG/US

Diagrams and graphs

ambient temperature influence on the accuracy



X temperature
Y total deviation