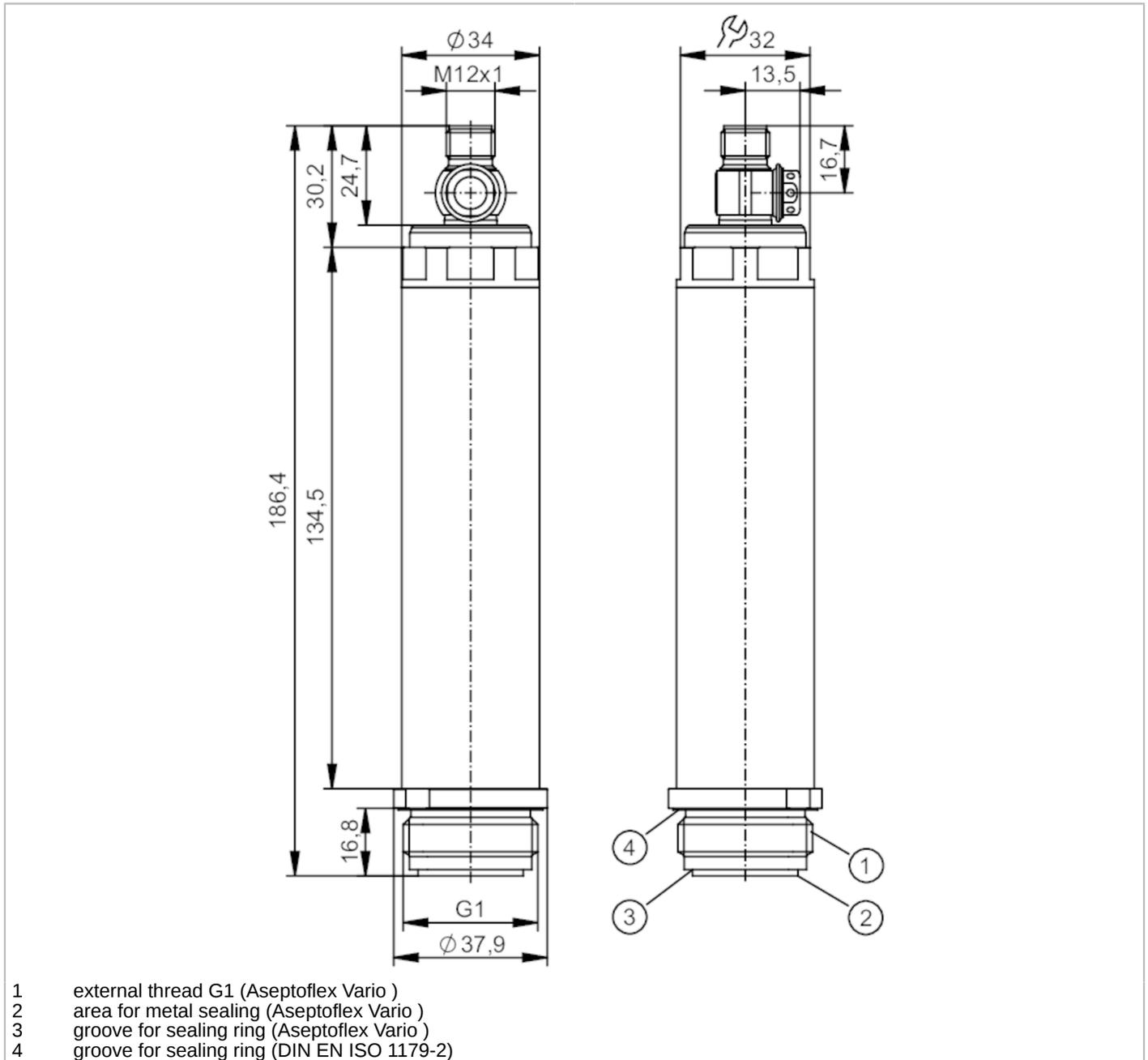


# PY2006



## Flush pressure sensor

PM-2,5-REA01-E-ZVG/US



EC 1935/2004

FCM



### Product characteristics

Number of inputs and outputs	Number of analog outputs: 1		
Measuring range	-125...2500 mbar	-1.82...36.26 psi	-12.5...250 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

System	gold-plated contacts
Measuring element	ceramic-capacitive pressure measuring cell
Application	flush mountable for the food and beverage industry

# PY2006



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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	50000 mbar	725 psi	5000 kPa
Pressure rating	20000 mbar	290 psi	2000 kPa
Vacuum resistance [mbar]	-1000		
Type of pressure	relative pressure		
No dead space	yes		
MAWP (for applications according to CRN) [bar]	20		

### 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 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 <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	-125...2500 mbar	-1.82...36.26 psi	-12.5...250 kPa
Analog start point	-125...2000 mbar	-1.82...29 psi	-12.5...200 kPa
Analog end point	375...2500 mbar	5.44...36.26 psi	-37.5...250 kPa
In steps of	1 mbar	0.02 psi	0.1 kPa
Factory setting	ASP = 0.0 mbar	AEP = 2500 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)		

# PY2006



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	[% of the span]		
Long-term stability	[% of the span]	< ± 0,1; (Turn down 1:1; per year)	
Total deviation over temperature range		<b>Temperature range</b>	
		<b>total deviation</b>	
		-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	
<b>Reaction times</b>			
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	
<b>Interfaces</b>			
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 class		A	
Process data analog		3	
Min. process cycle time	[ms]	3.2	
Supported DeviceIDs		<b>Type of operation</b>	<b>DeviceID</b>
		default	1111
<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	50 g (11 ms)
Vibration resistance		DIN EN 60068-2-6	20 g (10...2000 Hz)
MTTF	[years]	323	
UL approval		UL approval number	J025
<b>Mechanical data</b>			
Weight	[g]	554.7	
Housing		tubular	
Dimensions	[mm]	Ø 34 / L = 186.4	

# PY2006



## Flush pressure sensor

PM-2,5-REA01-E-ZVG/US

Material	stainless steel (1.4404 / 316L); stainless steel (1.4301 / 304); PBT
Materials (wetted parts)	ceramics (99.9 % Al <sub>2</sub> O <sub>3</sub> ); stainless steel (1.4435 / 316L) 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

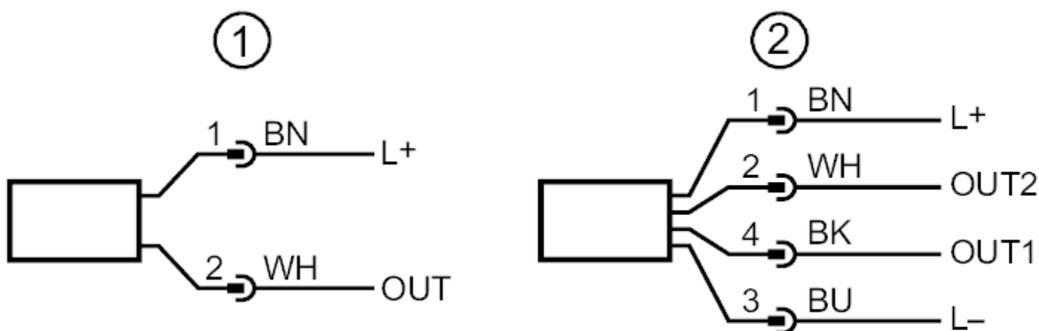
Pack quantity	1 pcs.
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### Electrical connection

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



### Connection



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

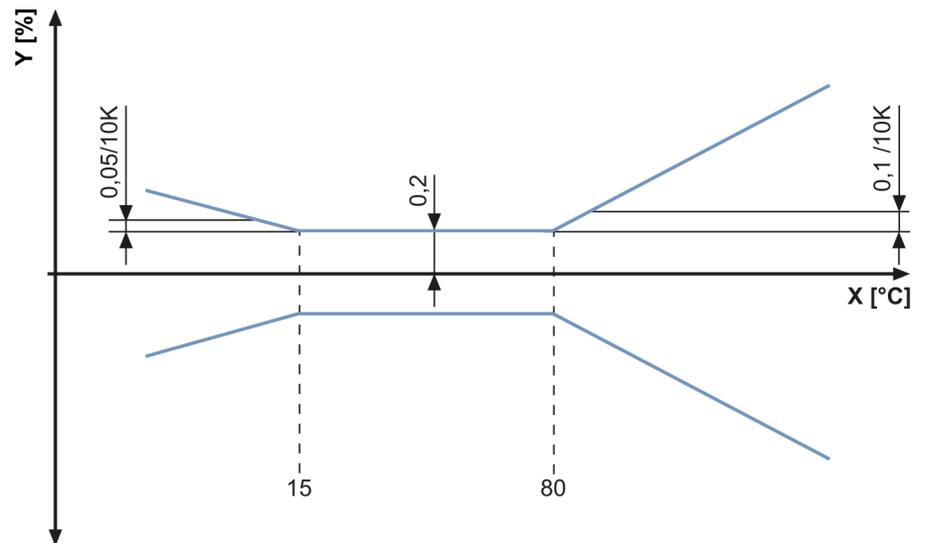


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### Diagrams and graphs

ambient temperature influence on the accuracy



X temperature  
Y total deviation