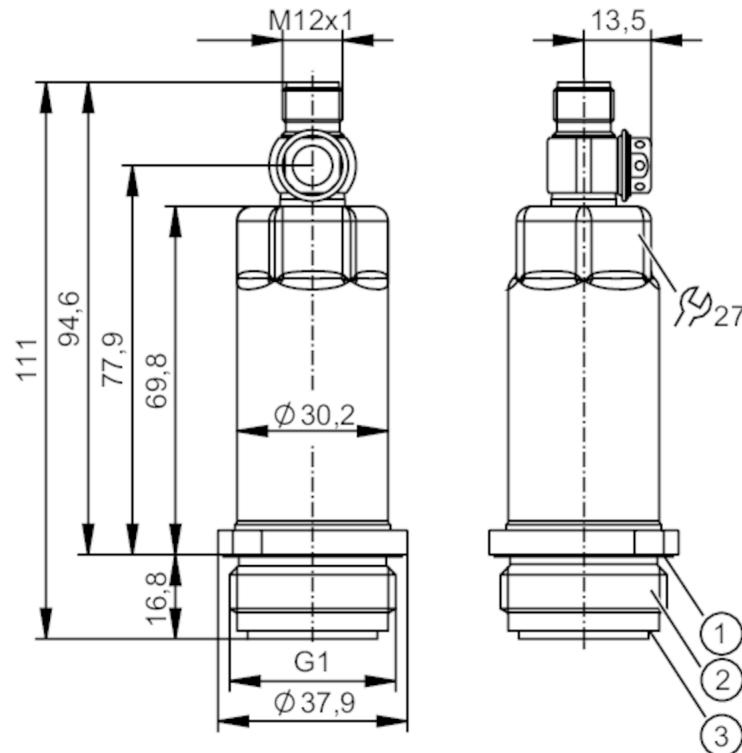


## Flush pressure sensor

PM-001BREA01-E-ZVG/US



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

ACS CRN EC 1935/2004 EHEDG Certified FCM Reg31 UK

## Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1			
Measuring range	-0.05...1 bar	-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		
Temperature monitoring	no		
Application	flush mountable for the food and beverage industry		
Media	viscous media and liquids with suspended particles; liquids and gases		
Medium temperature [°C]	-25...150		
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
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# PM1707



## Flush pressure sensor

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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		
<b>Inputs / outputs</b>				
Number of inputs and outputs		Number of digital outputs: 1; Number of analog outputs: 1		
<b>Outputs</b>				
Total number of outputs		2		
Output signal		analog signal; IO-Link; (configurable)		
Number of digital outputs		1; (IO-Link)		
Number of analog outputs		1		
Analog current output	[mA]	4...20; (scalable)		
Max. load	[Ω]	700; (Ub = 24 V; (Ub - 9 V) / 21.5 mA)		
Short-circuit proof		yes		
Overload protection		yes		
<b>Measuring/setting range</b>				
Measuring range	-0.05...1 bar	-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		
<b>Accuracy / deviations</b>				
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	[% 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...150 °C	Characteristics deviation ± 0,1 % of the span / 10 K	
Notes on the accuracy / deviation		for further details see section Diagrams and graphs		

# PM1707



## Flush pressure sensor

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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
SDCI standard		IEC 61131-9
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
IO-Link resolution pressure	[mbar]	0.2
IO-Link process data (cyclical)	Function	bit length
	pressure	16
	device status	4
IO-Link functions (acyclical)		application specific tag; internal temperature
Supported DeviceIDs	Type of operation	DeviceID
	default	668
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
Vibration resistance		DIN EN 60068-2-6
MTTF	[years]	323
Note on approval		Factory certificate available as download at <a href="http://www.factory-certificate.ifm.com">www.factory-certificate.ifm.com</a>
UL approval		UL approval number J021
Mechanical data		
Weight	[g]	314
Material		stainless steel (1.4404 / 316L); PBT
Materials (wetted parts)		ceramics (99.9 % Al2O3); 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

## Flush pressure sensor

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### Remarks

Pack quantity

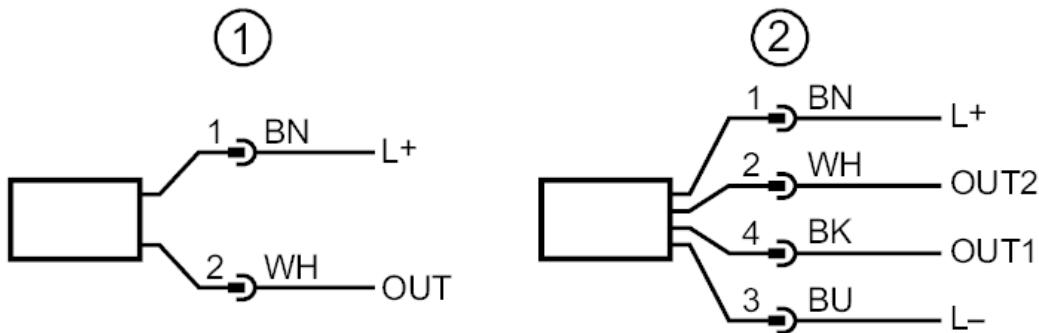
1 pcs.

### 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

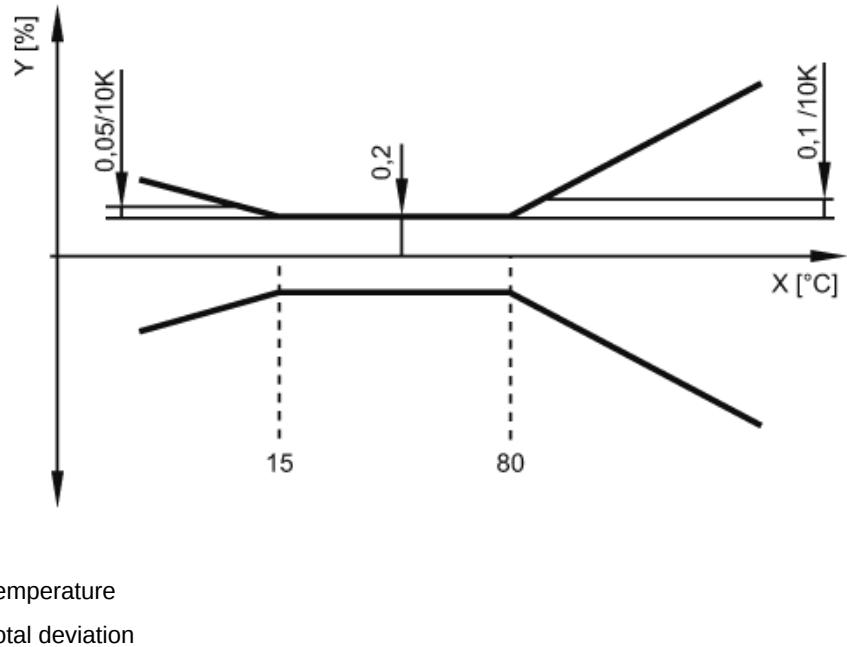
OUT2 : analog output

## Flush pressure sensor

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### Diagrams and graphs

ambient temperature influence on  
the accuracy



X temperature

Y total deviation