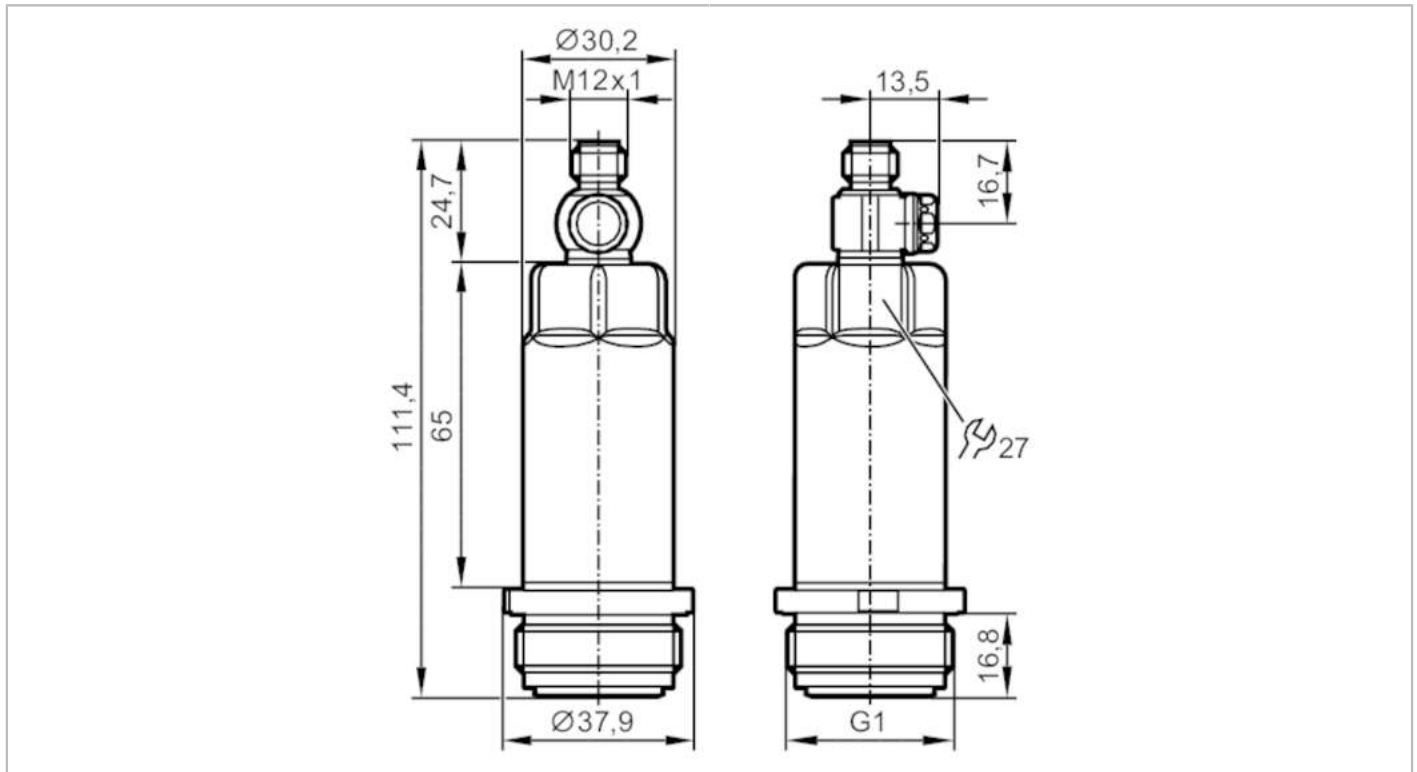


PM1707



Flush pressure transmitter

PM-001BREA01-E-ZVG/US



ACS



CRN



EC 1935/2004

EHEDG Certified

FCM



IO-Link

Reg31



UK CA

Product characteristics

Number of inputs and outputs	Number of analogue 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

Special feature	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...125; (150 max. 1h)		
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		

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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			
Outputs				
Total number of outputs	2			
Output signal	analogue signal; IO-Link; (configurable)			
Number of analogue outputs	1			
Analogue current output [mA]	4...20; (scalable)			
Max. load [Ω]	700; ($U_b = 24\text{ V}$; ($U_b - 9\text{ V}$) / 21.5 mA)			
Short-circuit proof	yes			
Overload protection	yes			
Measuring/setting range				
Measuring range	-0.05...1 bar	-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]	< $\pm 0,1$; (with temperature fluctuations < 10 K; Turn down 1:1)			
Characteristics deviation [% of the span]	< $\pm 0,2$; (linearity incl. hysteresis and repeatability, limit value setting to DIN EN IEC 62828-1)			
Linearity deviation [% of the span]	< $\pm 0,15$; (Turn down 1:1)			
Hysteresis deviation [% of the span]	< $\pm 0,15$; (Turn down 1:1)			
Long-term stability [% of the span]	< $\pm 0,1$; (Turn down 1:1; per year)			
Temperature coefficient zero point [% of the span / 10 K]	< $\pm 0,05$; (0...70 °C)			
Temperature coefficient span [% of the span / 10 K]	< $\pm 0,15$; (0...70 °C)			
Response times				
Damping for the analogue output dAA [s]	0...4			
2-wire				
Step response time analogue output [ms]	30			

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3-wire		
Step response time analogue 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 type	A	
Process data analogue	3	
Min. process cycle time [ms]	3.2	
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	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	20 g (10...2000 Hz)
MTTF [years]	323	
Note on approval	factory certificate available as download at www.factory-certificate.ifm	
UL approval	UL Approval no.	J021
Mechanical data		
Weight [g]	314	
Materials	stainless steel (1.4404 / 316L); 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	
Remarks		
Pack quantity	1 pcs.	
Electrical connection		
Connector: 1 x M12; coding: A; Contacts: gold-plated		

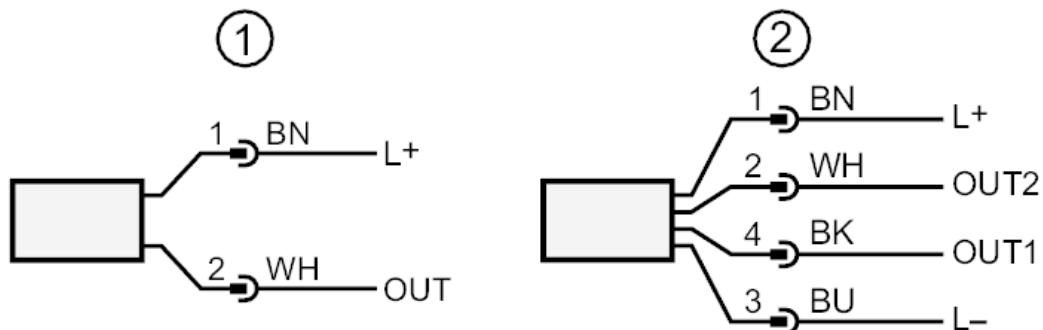
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Connection



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