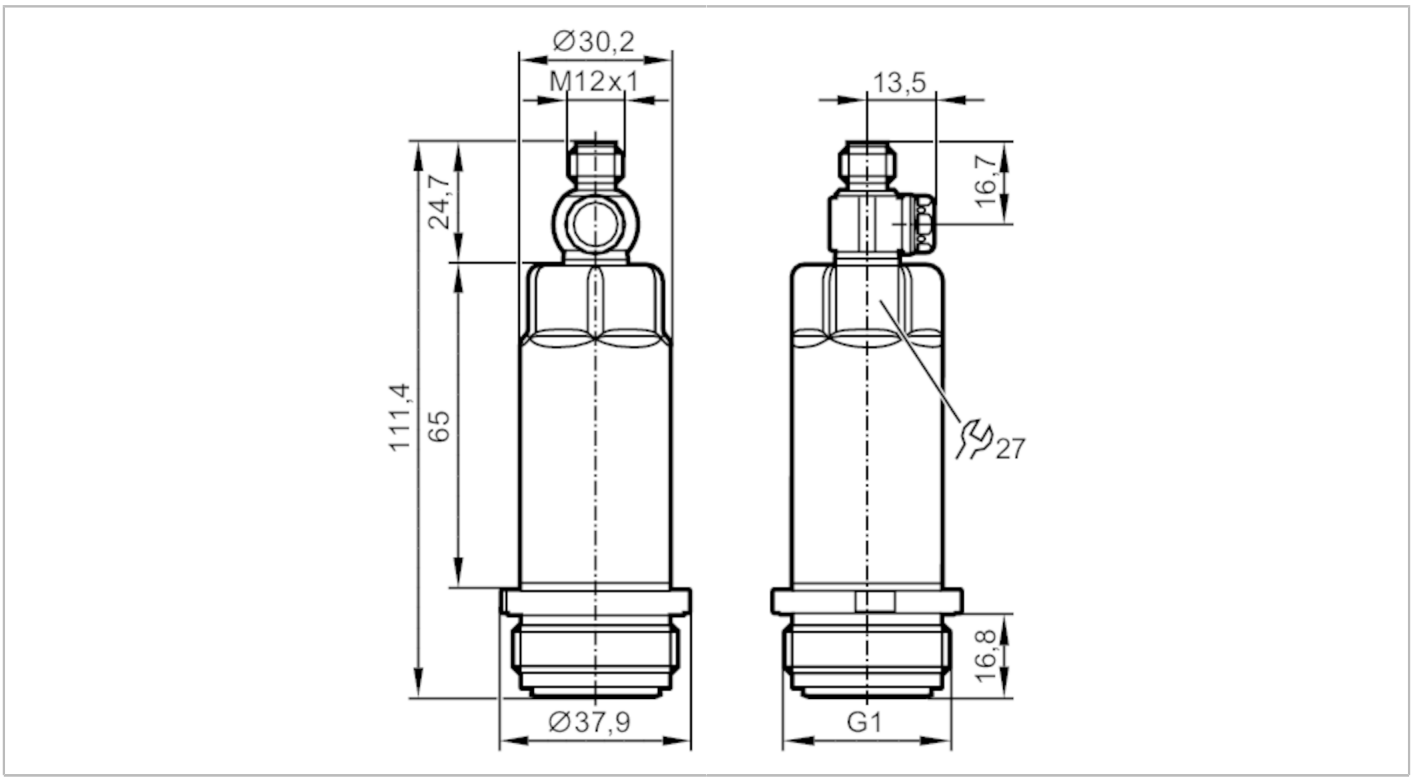
PM1704

Flush pressure transmitter

PM-010-REA01-E-ZVG/US



ACS CE CRN cULus LISTED EAC EC 1935/2004 EHEDG Certified FCM FDA IO-Link Reg31 UKCA

Product characteristics					
Number of inputs and outputs		Number of analog outputs: 1			
Measuring range		-1...10 bar	-14.5...145 psi	-100...1000 kPa	-0.1...1 MPa
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...125; (150 max. 1h)			
Min. bursting pressure		150 bar	2175 psi	15 MPa	
Pressure rating		50 bar	725 psi	5 Mpa	
Vacuum resistance	[mbar]	-1000			
Type of pressure		relative pressure; vacuum			
No dead space		yes			
MAWP (for applications according to CRN)	[bar]	50			

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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			
Outputs					
Total number of outputs		2			
Output signal		analog signal; IO-Link; (configurable)			
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			
Measuring/setting range					
Measuring range		-1...10 bar	-14.5...145 psi	-100...1000 kPa	-0.1...1 MPa
Analog start point		-1...8 bar	-14.5...116 psi		-0.1...0.8 MPa
Analog end point		1...10 bar	14.5...145 psi		0.1...1 MPa
In steps of		0.005 bar	0.1 psi		0.0005 MPa
Factory setting		ASP = 0.0 bar	AEP = 10.0 bar		
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	[% of the span]	< ± 0,1; (Turn down 1:1; per year)			
Temperature coefficient zero point	[% of the span / 10 K]	< ± 0,05; (0...70 °C)			
Temperature coefficient span	[% of the span / 10 K]	< ± 0,15; (0...70 °C)			

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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	
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	
Supported DeviceIDs		Type of operation	DeviceID
		default	662
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 number	J021
Mechanical data			
Weight	[g]	307.75	
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	
Remarks			
Pack quantity		1 pcs.	
Electrical connection			

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

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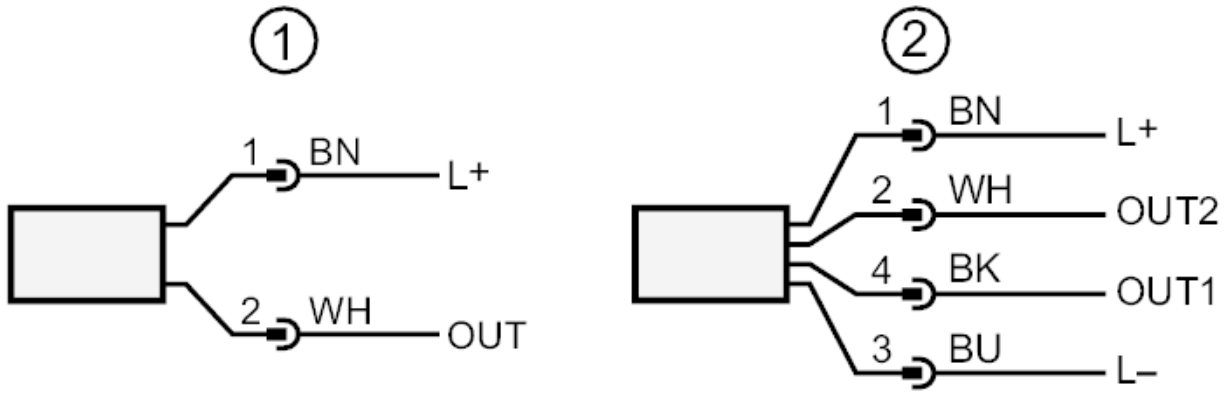
Connection



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