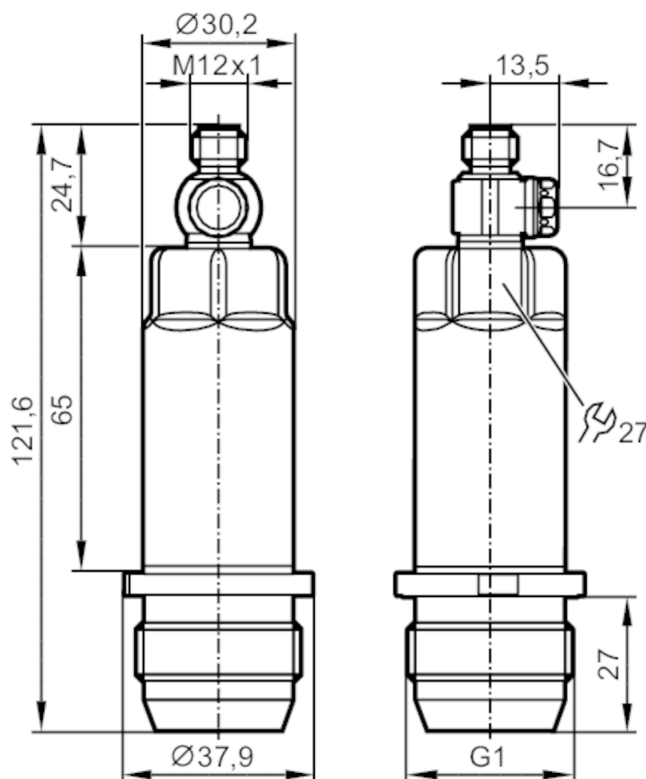


PM1689



Flush pressure transmitter

PM-,10BREA01-E-ZVG/US



ACS



CRN



EC 1935/2004

EHEDG

Tested

FCM

FDA



IO-Link

Reg31

UK

CA

Product characteristics

Number of inputs and outputs	Number of analogue outputs: 1			
Measuring range	-0.005...0.1 bar	-5...100 mbar	-0.073...1.45 psi	-0.5...10 kPa
Process connection	threaded connection G 1 external thread sealing cone			

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	4000 mbar	58 psi	400 kPa
Vacuum resistance [mbar]	-1000		
Type of pressure	relative pressure		
No dead space	yes		
MAWP (for applications according to CRN) [bar]	4		

Electrical data

Operating voltage [V]	18...30 DC
Min. insulation resistance [MΩ]	100; (500 V DC)



Flush pressure transmitter

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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 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; (Ub = 24 V; (Ub - 9 V) / 21.5 mA)			
Short-circuit proof	yes			
Overload protection	yes			
Measuring/setting range				
Measuring range	-0.005...0.1 bar	-5...100 mbar	-0.073...1.45 psi	-0.5...10 kPa
Analogue start point	-5...80 mbar	-0.073...1.16 psi	-0.5...8 kPa	
Analogue end point	15...100 mbar	0.218...1.45 psi	1.5...10 kPa	
In steps of	0.05 mbar	0.001 psi	0.005 kPa	
Factory setting	ASP = 0.0 mbar	AEP = 100 mbar		
Accuracy / deviations				
Repeatability [% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)			
Characteristics deviation [% of the span]	< ± 0,5; (linearity incl. hysteresis and repeatability, limit value setting to DIN EN IEC 62828-1)			
Linearity deviation [% of the span]	< ± 0,25; (Turn down 1:1)			
Hysteresis deviation [% of the span]	< ± 0,2; (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]	< ± 0,1; (0...70 °C)			
Temperature coefficient span [% of the span / 10 K]	< ± 0,2; (0...70 °C)			
Response times				
Damping for the analogue output dAA [s]	0...4			



Flush pressure transmitter

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2-wire		
Step response time analogue output	[ms]	30
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	670
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.	J022
Mechanical data		
Weight	[g]	337.4
Materials	stainless steel (316L/1.4404); PBT	
Materials (wetted parts)	ceramics (99.9 % Al2O3); stainless steel (316L/1.4435); surface characteristics: Ra < 0,4 / Rz 4; PTFE	
Min. pressure cycles	100 million	
Tightening torque	[Nm]	20
Process connection	threaded connection G 1 external thread sealing cone	
Remarks		
Pack quantity	1 pcs.	

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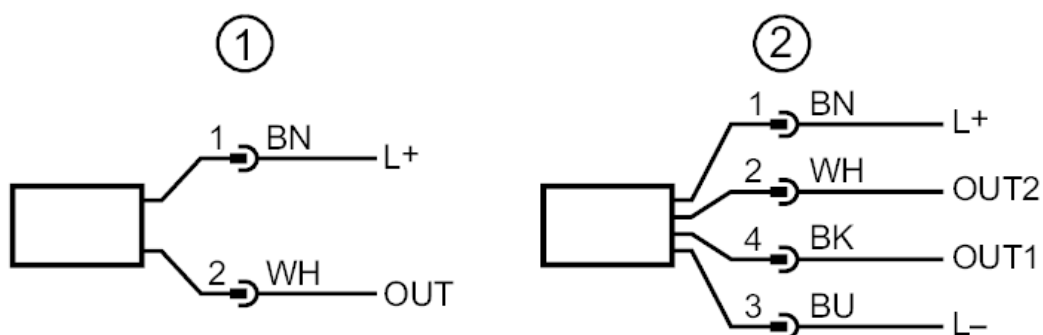
PM-,10BREA01-E-ZVG/US

Electrical connection

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



Connection



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