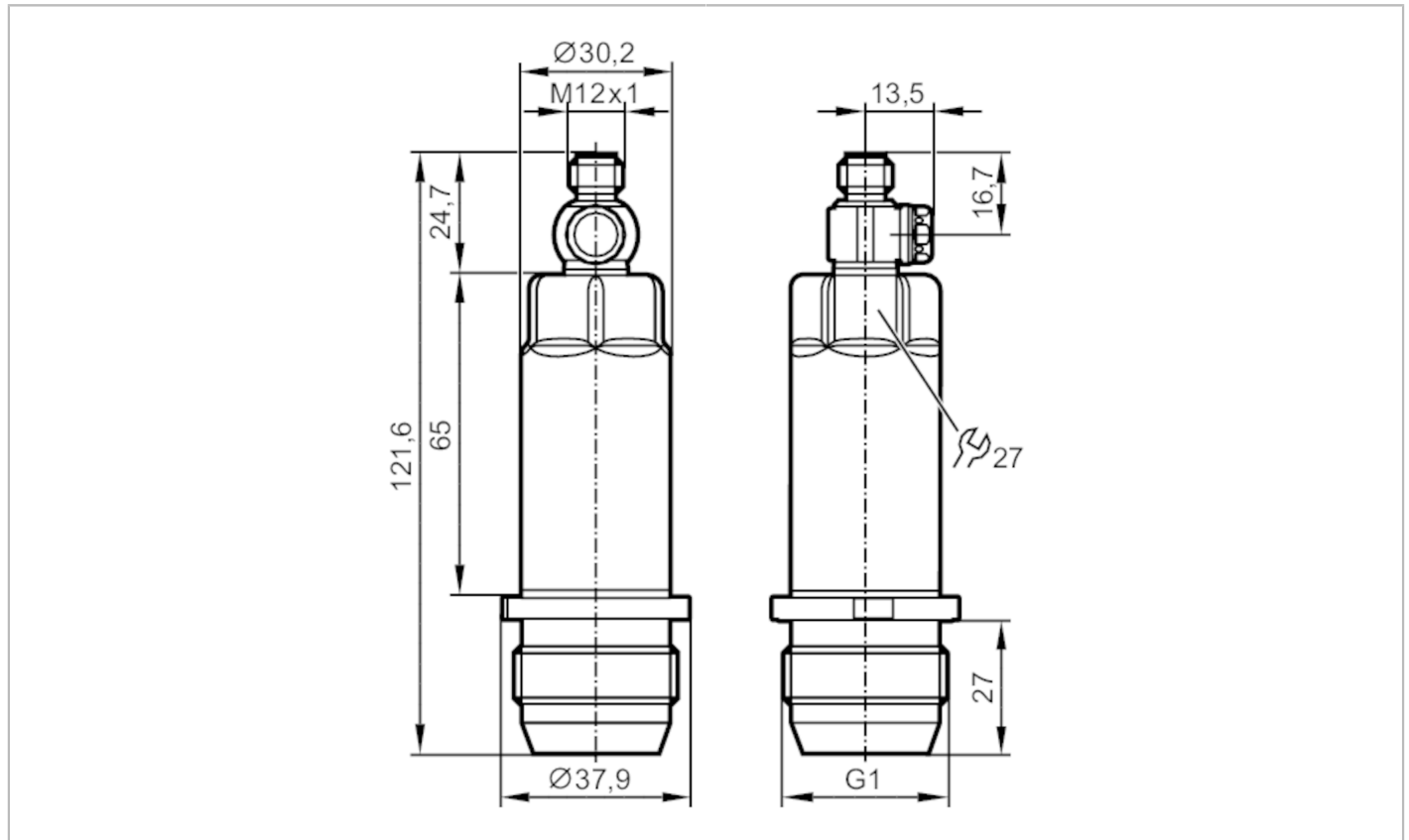


PM1617



Electronic pressure sensor

PM-1,6-REA01-E-ZVG/US



ACS



CRN



EHEDG Tested

FCM



IO-Link



Reg31

Product characteristics

Output signal	analogue signal; (configurable)			
Measuring range	-0.1...1.6 bar	-100...1600 mbar	-1.45...23.21 psi	-10...160 kPa
Process connection	threaded connection G 1 external thread sealing cone			

Application

Special feature	Gold-plated contacts		
Measuring element	ceramic-capacitive pressure measuring cell		
Application	food and beverage industry		
Media	viscous media and liquids with suspended particles; liquids and gases		
Medium temperature [°C]	-25...125; (150 max. 1h)		
Pressure rating	15000 mbar	215 psi	1500 kPa
Min. bursting pressure	40000 mbar	580 psi	4000 kPa
Vacuum resistance [mbar]	-1000		
Type of pressure	relative pressure		
No dead space	yes		
MAWP (for applications according to CRN) [bar]	15		

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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 analogue outputs: 1			
Outputs					
Total number of outputs		1			
Output signal		analogue signal; (configurable)			
Number of analogue outputs		1			
Analogue current output	[mA]	4...20; (scalable)			
Max. load	[Ω]	700; (U _b = 24 V; (U _b - 9 V) / 21.5 mA)			
Short-circuit proof		yes			
Overload protection		yes			
Measuring/setting range					
Measuring range		-0.1...1.6 bar	-100...1600 mbar	-1.45...23.21 psi	-10...160 kPa
Analogue start point		-100...1280 mbar		-1.45...18.56 psi	-10...128 kPa
Analogue end point		220...1600 mbar		3.19...23.21 psi	22...160 kPa
In steps of		1 mbar		0.01 psi	0.1 kPa
Factory setting		ASP = 0.0 mbar		AEP = 1600 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 (DIN EN 61298-2); (incl. zero point and span error, non-linearity, hysteresis ; Turn down 1:1)			
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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Response times			
Damping for the analogue output dAA	[s]	0...4	
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	
IO-Link device ID		666 d / 00 02 9a h	
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	
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]	304.9	
Materials		stainless steel (1.4404 / 316L); PBT	
Materials (wetted parts)		ceramics (99.9 % Al ₂ O ₃); PTFE; stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4	
Min. pressure cycles		100 million	
Tightening torque	[Nm]	20	
Process connection		threaded connection G 1 external thread sealing cone	
Displays / operating elements			
Display unit		mbar; psi; kPa; mWS; inH ₂ O	
Remarks			
Pack quantity		1 pcs.	
Electrical connection			

Connector: 1 x M12; Contacts: gold-plated

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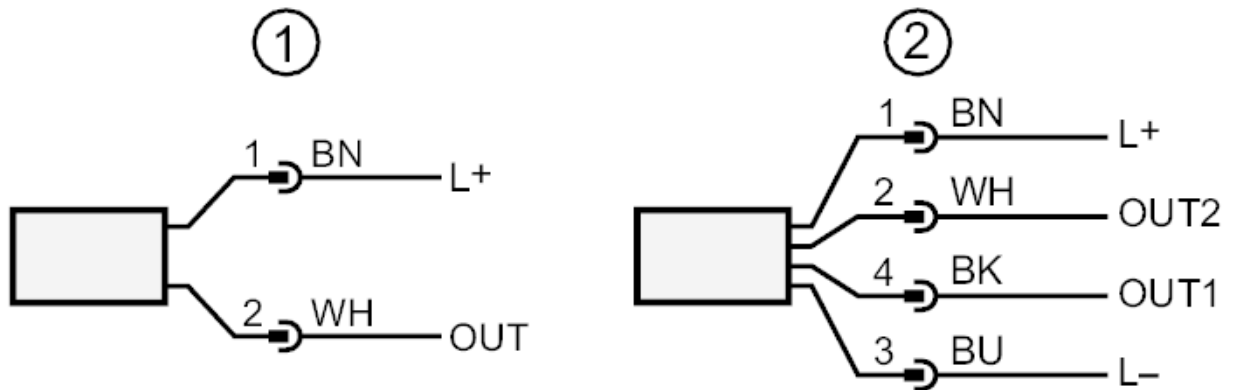


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Connection



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