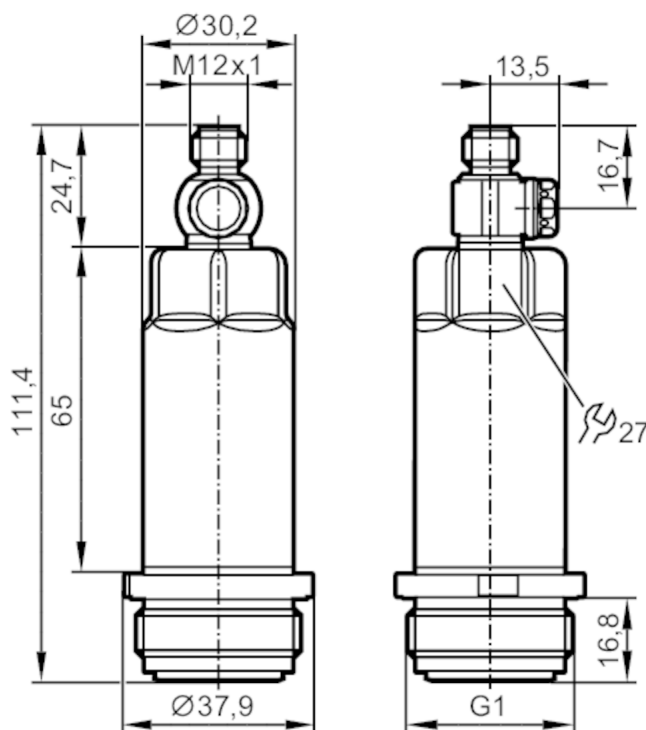


PM1706



Electronic pressure sensor

PM-2,5-REA01-E-ZVG/US



ACS



CRN



EHEDG

Certified

FCM



Reg31

Product characteristics

Output signal	analogue signal; (configurable)			
Measuring range	-0.125...2.5 bar	-125...2500 mbar	-1.82...36.26 psi	-12.5...250 kPa
Process connection	threaded connection G 1 external thread Aseptoflex Vario			

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	20000 mbar	290 psi	2000 kPa
Min. bursting pressure	50000 mbar	725 psi	5000 kPa
Vacuum resistance [mbar]	-1000		
Type of pressure	relative pressure		
No dead space	yes		
MAWP (for applications according to CRN) [bar]	20		

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



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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; (Ub = 24 V; (Ub - 9 V) / 21.5 mA)	
Short-circuit proof		yes		
Overload protection		yes		
Measuring/setting range				
Measuring range		-0.125...2.5 bar	-125...2500 mbar	-1.82...36.26 psi -12.5...250 kPa
Analogue start point		-125...2000 mbar	-1.82...29 psi	-12.5...200 kPa
Analogue end point		375...2500 mbar	5.44...36.26 psi	-37.5...250 kPa
In steps of		1 mbar	0.02 psi	0.1 kPa
Factory setting		ASP = 0.0 mbar	AEP = 2500 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)	
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	

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Interfaces	
Communication interface	IO-Link
Transmission type	COM2 (38,4 kBaud)
IO-Link revision	1.1
IO-Link device ID	665 d / 00 02 99 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.	J021

Mechanical data	
Weight [g]	281.5
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]	35
Process connection	threaded connection G 1 external thread Aseptoflex Vario

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

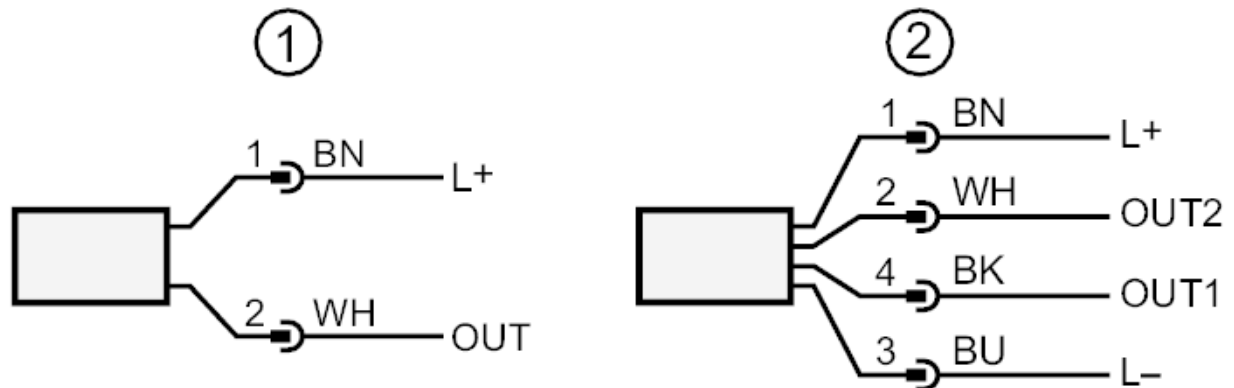




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Connection



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