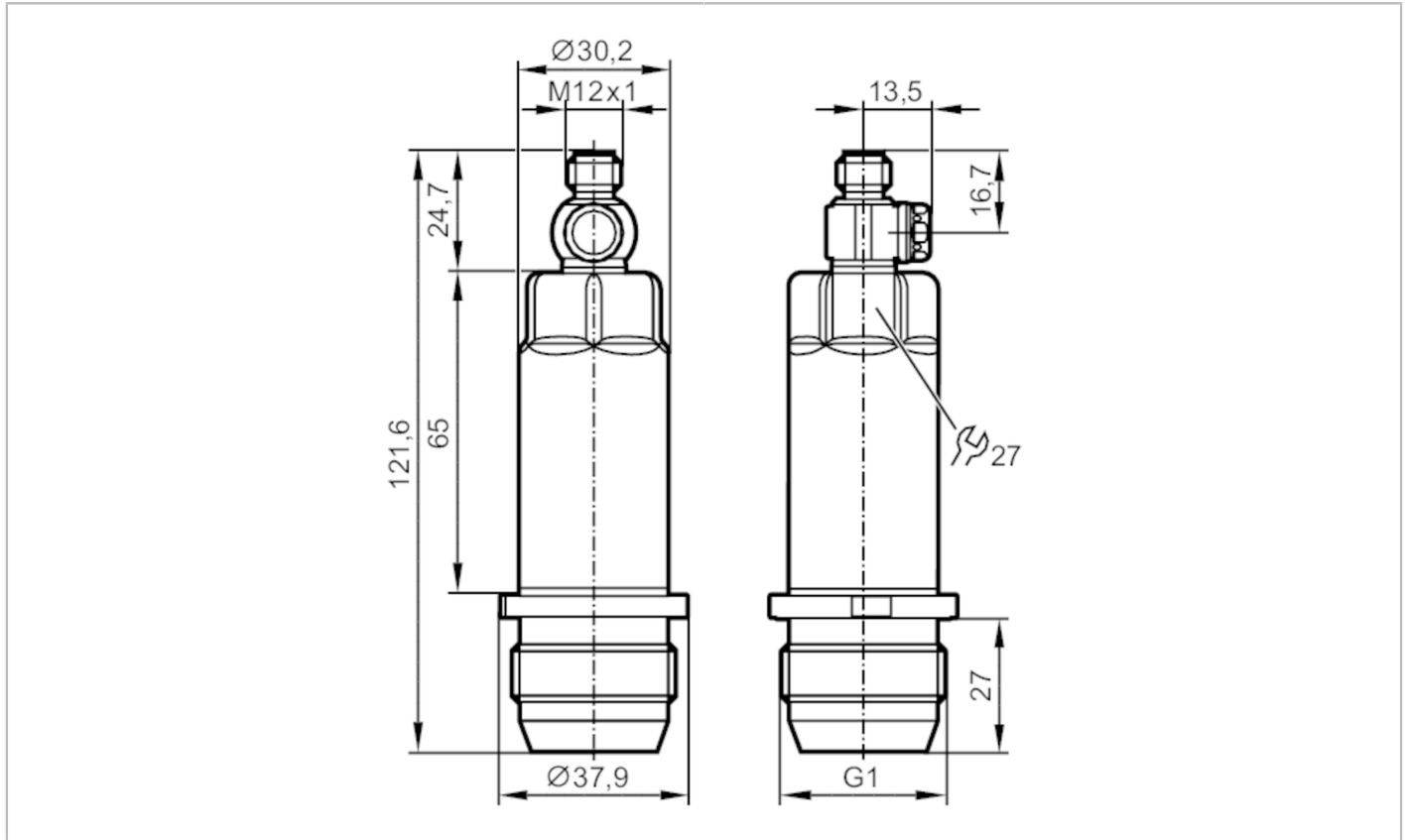


PM1606



Electronic pressure sensor

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



ACS



CRN



EHEDG Tested

FCM



IO-Link



Reg31

Application

Measuring element	ceramic-capacitive pressure measuring cell		
Application	hygienic systems		
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		
2-wire			
Current consumption [mA]	3.5...21.5		
Power-on delay time [s]	1		

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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			
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	-0.125...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...36.25 psi		37.5...250 kPa
In steps of	1 mbar	0.02 psi		0.1 kPa
Factory setting	ASP = 0.0 bar	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 (nach DIN EN 61298-2); (incl. drift when overtightened, 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
UL approval	UL Approval no.	J022

Mechanical data	
Weight [g]	303
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; (recommended tightening torque depends on lubrication, seal and pressure rating)
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

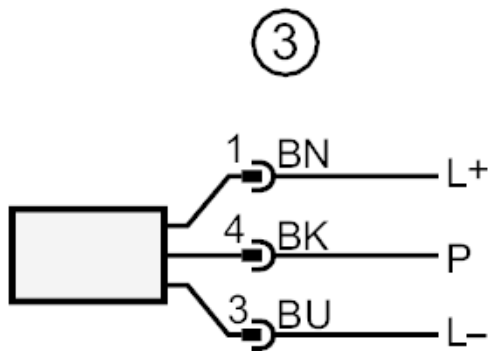
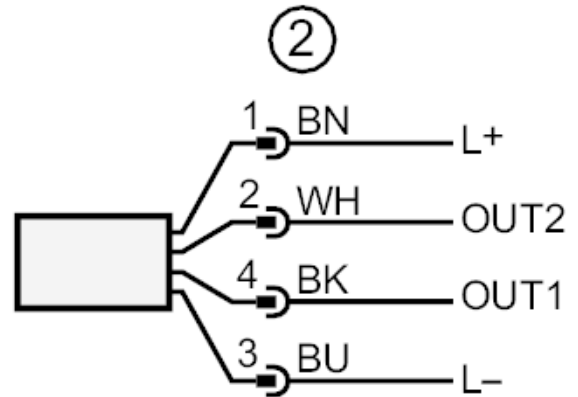
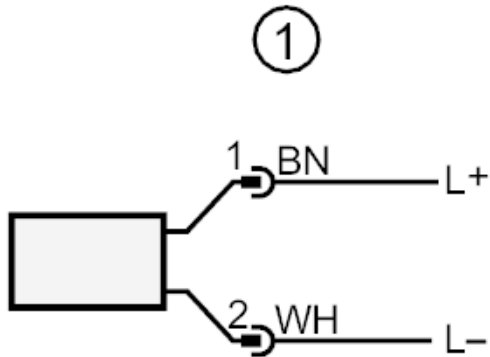




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Connection



colours to DIN EN 60947-5-2

- 1 connection for 2-wire operation
- 2 connection for 3-wire operation
- 3 connection for IO-Link parameter setting (P = communication via IO-Link)

Core colours :

BK =	black
BN =	brown
BU =	blue
WH =	white