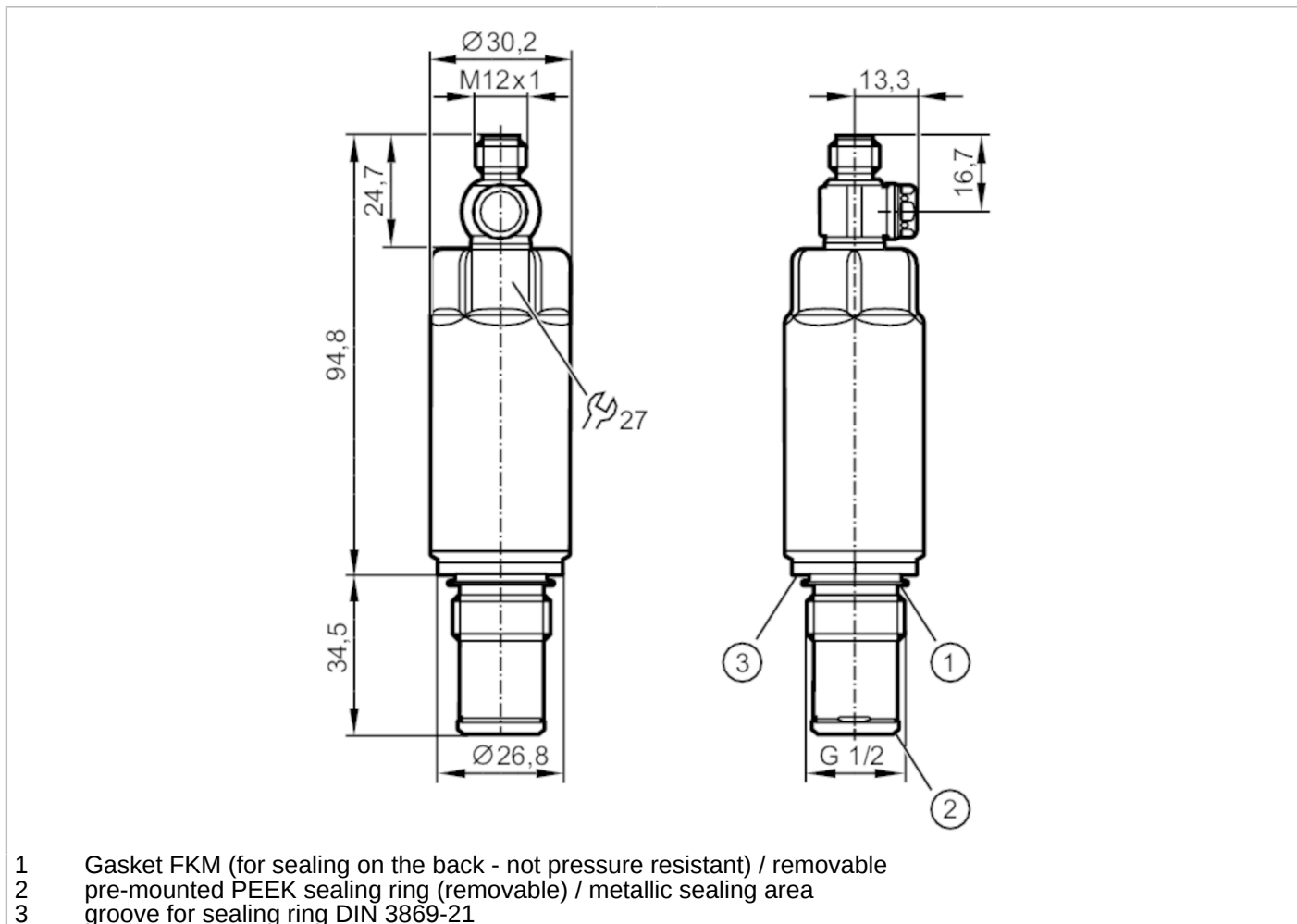


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Electronic pressure sensor

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- 1 Gasket FKM (for sealing on the back - not pressure resistant) / removable
- 2 pre-mounted PEEK sealing ring (removable) / metallic sealing area
- 3 groove for sealing ring DIN 3869-21



Product characteristics			
Measuring range	-1...25 bar	-14.6...362.6 psi	-0.1...2.5 MPa
Process connection	threaded connection G 1/2 external thread sealing cone		
Application			
Special feature	Gold-plated contacts		
Measuring element	ceramic-capacitive pressure measuring cell		
Temperature monitoring	yes		
Application	flush mountable for the food and beverage industry		
Media	viscous media and liquids with suspended particles; liquids and gases		
Conditionally suitable for	use in gases at pressures > 25 bar only on request		
Medium temperature [°C]	-25...125; (150 max. 1h)		
Min. bursting pressure	280 bar	3600 psi	28 MPa
Pressure rating	160 bar	2300 psi	16 Mpa
Vacuum resistance [mbar]	-1000		
Type of pressure	relative pressure; vacuum		
No dead space	yes		

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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		
Outputs				
Total number of outputs		2		
Output signal		analogue signal; IO-Link		
Analogue current output	[mA]	4...20; (scalable; 1:5)		
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		-1...25 bar	-14.6...362.6 psi	-0.1...2.5 MPa
Analogue start point		-1...20 bar	-14.6...290 psi	-0.1...2 MPa
Analogue end point		4...25 bar	58...362.6 psi	0.4...2.5 MPa
In steps of		0.01 bar	0.2 psi	0.001 MPa
Factory setting		ASP = 0.0 bar	AEP = 25.0 bar	
Temperature monitoring				
Measuring range	[°C]	-25...150		
Measuring range	[°F]	-13...302		
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]	< ± 0,15; (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]	< ± 0,1 (-25...85 °C); < ± 0,3 (85...150 °C)		
Temperature coefficient span	[% of the span / 10 K]	< ± 0,1 (-25...85 °C); < ± 0,3 (85...150 °C)		

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Temperature monitoring		
Accuracy	[K]	$\pm 2.5 \text{ K} + (0.045 \times (\text{ambient temperature} - \text{medium temperature}))$
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
Temperature monitoring		
Dynamic response T05 / T09	[s]	< 10 / < 25; (DIN EN 60751 water; > 0,9 m/s)
Interfaces		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
Profiles		Smart Sensor ED2: Identification and Diagnosis (0x4000), Measurement Data Channel (0x800A)
SIO mode		no
Required master port type		A; (when pin 2 not connected: B)
Min. process cycle time	[ms]	4.5
IO-Link resolution pressure	[bar]	0.005
IO-Link resolution temperature	[K]	0.2
IO-Link process data (cyclical)	function	bit length
	pressure	16
	temperature	16
	device status	4
IO-Link functions (acyclical)	application specific tag; internal temperature	
Supported DeviceIDs	Type of operation	DeviceID
	Default	1019
Operating conditions		
Ambient temperature	[°C]	-25...80
Storage temperature	[°C]	-40...100
Protection		IP 67; IP 68; IP 69K
Tests / approvals		
EMC		DIN EN 61326-1
Shock resistance		DIN EN 60068-2-27
Vibration resistance		DIN EN 60068-2-6
MTTF	[years]	322
Note on approval		factory certificate available as download at www.factory-certificate.ifm
UL approval	UL Approval no.	J024
	File number UL	E174189

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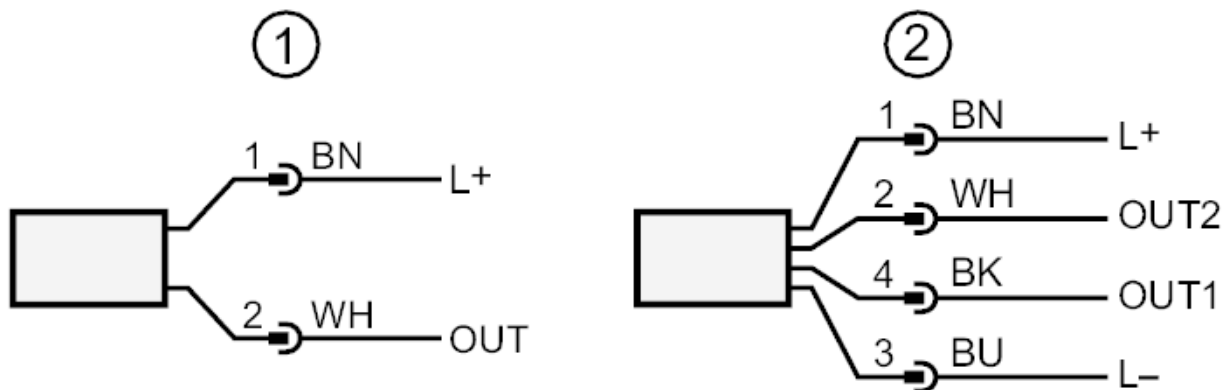
Mechanical data	
Weight [g]	318
Materials	stainless steel (1.4404 / 316L); PTFE; FKM
Materials (wetted parts)	ceramics (99.9 % Al ₂ O ₃); stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4; PEEK; PTFE
Min. pressure cycles	100 million
Tightening torque [Nm]	20
Process connection	threaded connection G 1/2 external thread sealing cone
Remarks	
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; 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