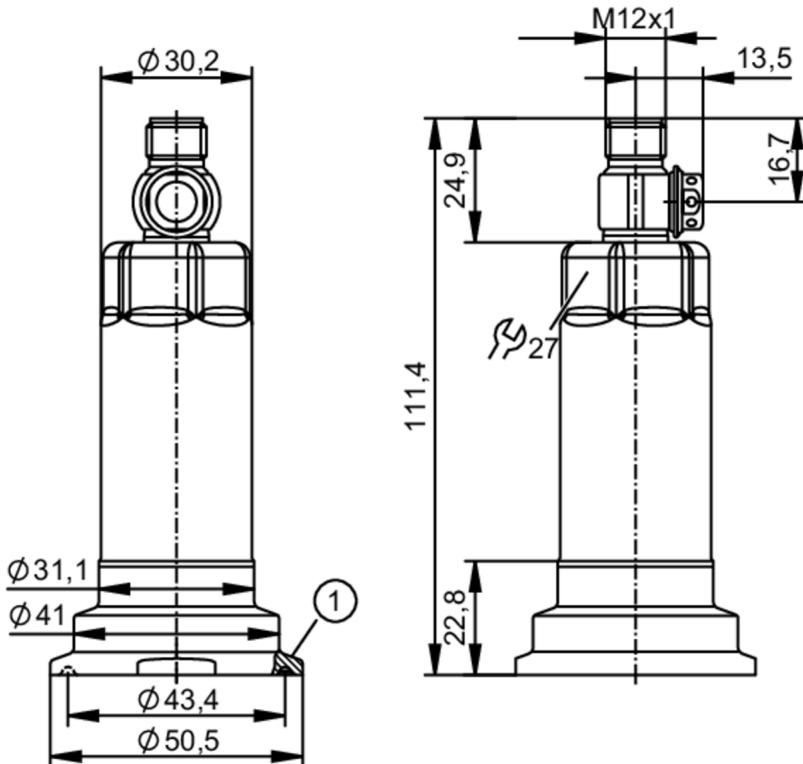


Flush pressure sensor

PM-025-REZ01-E-ZVG/US



- 1 clamp DN25...DN40 (1...1.5") DIN 32676 (ISO 2852)
the seal for the Triclamp process connection must have an inner diameter of at least 22 mm

EC 1935/2004 EHEDG Certified Reg31

Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1		
Measuring range	-1...25 bar	-14.6...362.6 psi	-0.1...2.5 MPa
Process connection	Clamp DN25...DN40 (1...1.5") DIN 32676 (ISO 2852)		

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...150		
Min. bursting pressure	150 bar	2175 psi	15 MPa
Pressure rating	100 bar	1450 psi	10 MPa
Note on pressure rating	take into account the pressure resistance of the bracket and the seal used for clamp connection		
Vacuum resistance [mbar]	-1000		
Type of pressure	relative pressure; vacuum		
No dead space	yes		
MAWP (for applications according to CRN) [bar]	60		

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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 digital outputs: 1; Number of analogue outputs: 1	
Outputs			
Total number of outputs		2	
Output signal		analogue signal; IO-Link; (configurable)	
Number of digital outputs		1; (IO-Link)	
Number of analogue outputs		1	
Analogue current output	[mA]	4...20; (scalable)	
Max. load	[Ω]	700; ($U_b = 24 \text{ V}; (U_b - 9 \text{ V}) / 21.5 \text{ mA}$)	
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	
Accuracy / deviations			
Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)	
Characteristics deviation	[% of the span]	< ± 0,2; (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)	
Total deviation over temperature range		Temperature range	total deviation
		-25...15 °C	Characteristics deviation ± 0,05 % of the span / 10 K
		15...80 °C	Characteristics deviation
		80...150 °C	Characteristics deviation ± 0,1 % of the span / 10 K

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Notes on the accuracy / deviation

for further details see section Diagrams and graphs

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						
SDCI standard	IEC 61131-9						
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						
IO-Link resolution pressure [bar]	0.005						
IO-Link process data (cyclical)	<table border="1"> <thead> <tr> <th>function</th> <th>bit length</th> </tr> </thead> <tbody> <tr> <td>pressure</td> <td>16</td> </tr> <tr> <td>device status</td> <td>4</td> </tr> </tbody> </table>	function	bit length	pressure	16	device status	4
function	bit length						
pressure	16						
device status	4						
IO-Link functions (acyclical)	application specific tag; internal temperature						
Supported DeviceIDs	<table border="1"> <thead> <tr> <th>Type of operation</th> <th>DeviceID</th> </tr> </thead> <tbody> <tr> <td>default</td> <td>660</td> </tr> </tbody> </table>	Type of operation	DeviceID	default	660		
Type of operation	DeviceID						
default	660						

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
Vibration resistance	DIN EN 60068-2-6
MTTF [years]	323
Note on approval	factory certificate available as download at www.factory-certificate.ifm
UL approval	UL Approval no. J054
	File number UL E174189

Mechanical data

Weight	[g]	369.57
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

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Min. pressure cycles	100 million
Process connection	Clamp DN25...DN40 (1...1,5") DIN 32676 (ISO 2852)

Remarks

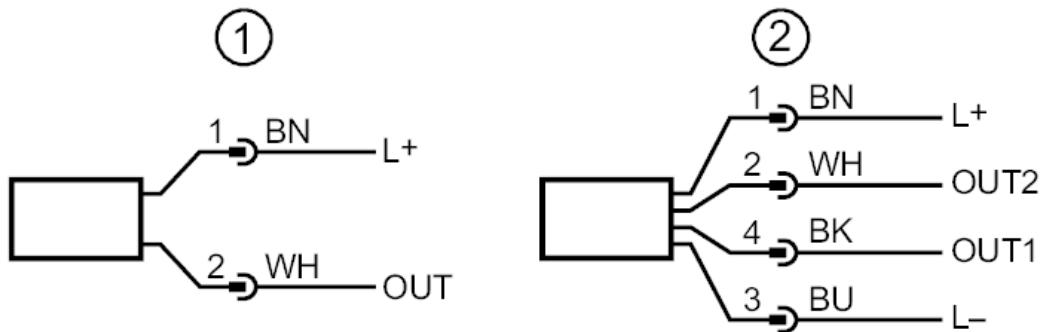
Pack quantity	1 pcs.
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Electrical connection

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

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Diagrams and graphs

ambient temperature influence on
the accuracy

