

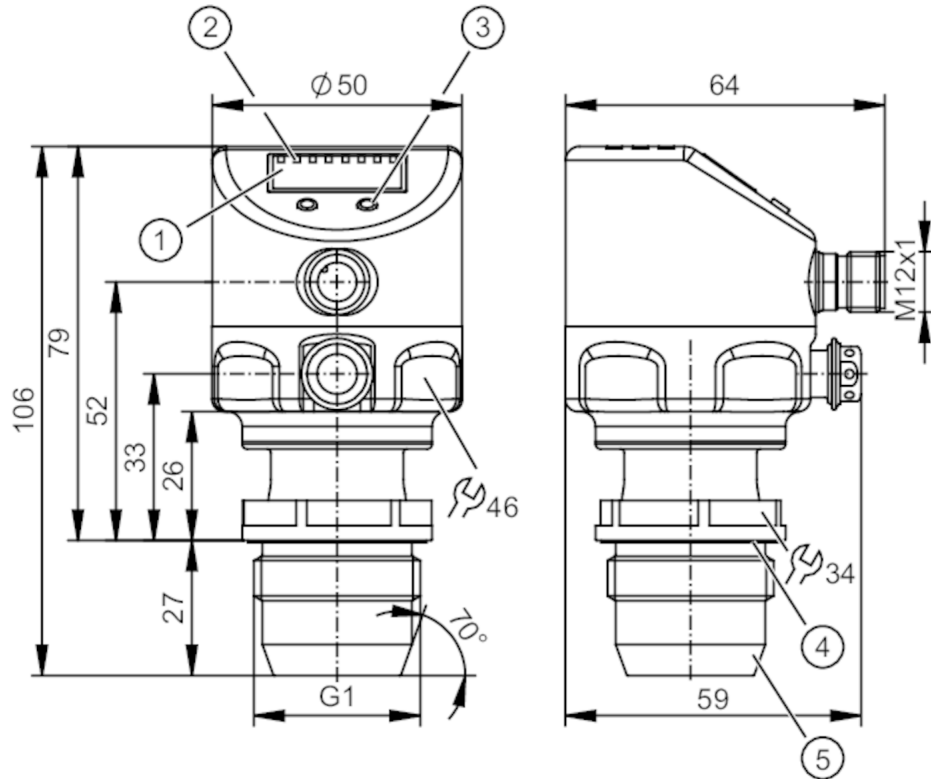


Flush pressure sensor with display

PI-025-REA01-MFRKG/US/ /P

Alternative articles: P11803

When selecting an alternative article and accessories please note that technical data may differ!



- 1 alphanumeric display 4-digit
2 status LEDs
3 programming button
4 groove with sealing ring
5 ущільнювальний контур ex

ущільнювальний контур external thread G1

Attention: The unit must only be installed in a process connection for G1 sealing cone. The G1A sealing cone of the unit is only suited for adapters with metal end stop.



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1		
Measuring range	-1...25 bar	-14.4...362.7 psi	-0.1...2.5 MPa
Process connection	threaded connection G 1 external thread sealing cone Attention: The unit must only be installed in a process connection for G1 sealing cone.; The G1A sealing cone of the unit is only suited for adapters with metal end stop.		

Application

Special feature	Gold-plated contacts		
Application	flush mountable for the food and beverage industry		
Media	viscous media and liquids with suspended particles; liquids and gases		
Medium temperature [°C]	-25...125; (145 max. 1h)		
Min. bursting pressure	350 bar	5075 psi	35 MPa
Pressure rating	100 bar	1450 psi	10 MPa
Vacuum resistance [mbar]	-1000		
Type of pressure	relative pressure; vacuum		



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MAWP (for applications according to CRN)	[bar]	60
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Electrical data

Min. insulation resistance	[MΩ]	100; (500 V DC)
Protection class		III
Reverse polarity protection		yes
Integrated watchdog		yes

2-wire

Operating voltage	[V]	20...32 DC
Current consumption	[mA]	3.6...21
Power-on delay time	[s]	1

3-wire

Operating voltage	[V]	18...32 DC
Current consumption	[mA]	< 45
Power-on delay time	[s]	0.5

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1	
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Outputs

Total number of outputs	2	
Output signal	switching signal; analogue signal; IO-Link; (configurable)	
Electrical design	PNP/NPN	
Number of digital outputs	2	
Output function	normally open / normally closed; (parameterisable)	
Number of analogue outputs	1	
Analogue current output	[mA]	4...20, invertible; (scalable)
Short-circuit protection	yes	
Type of short-circuit protection	pulsed	
Overload protection	yes	

2-wire

Max. load	[Ω]	300
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3-wire

Max. voltage drop switching output DC	[V]	2
Permanent current rating of switching output DC	[mA]	250
Switching frequency DC	[Hz]	125
Max. load	[Ω]	(U _b - 10 V) / 20 mA

Measuring/setting range

Measuring range	-1...25 bar	-14.4...362.7 psi	-0.1...2.5 MPa
Set point SP	-0.96...25 bar	-13.8...362.7 psi	-0.096...2.5 MPa
Reset point rP	-1...24.96 bar	-14.4...362.1 psi	-0.1...2.496 MPa
Analogue start point	-1...18.74 bar	-14.4...271.8 psi	-0.1...1.874 MPa
Analogue end point	5.24...25 bar	76.2...362.7 psi	0.524...2.5 MPa
In steps of	0.02 bar	0.3 psi	0.002 MPa



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Factory setting		SP1 = 6.24 bar	rP1 = 5.74 bar
		SP2 = 18.74 bar	rP2 = 18.24 bar
		ASP = 0.00 bar	AEP = 25.00 bar
Accuracy / deviations			
Switch point accuracy	[X21]	< ± 0,2; (Turn down 1:1)	
Repeatability	[X21]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)	
Characteristics deviation	[X21]	< ± 0,2; (Turn down 1:1 , linearity, incl. hysteresis and repeatability , limit value setting to DIN EN IEC 62828-1)	
Linearity deviation	[X21]	< ± 0,15; (Turn down 1:1)	
Hysteresis deviation	[X21]	< ± 0,15; (Turn down 1:1)	
Long-term stability	[X21]	< ± 0,1; (Turn down 1:1; per year)	
Temperature coefficient zero point	[X22]	< ± 0,05; (0...70 °C)	
Temperature coefficient span	[X22]	< ± 0,15; (0...70 °C)	
Response times			
Damping process value dAP	[s]	0...30	
Damping for the analogue output dAA	[s]	0.01...99.99	
2-wire			
Step response time analogue output	[ms]	45	
3-wire			
Min. response time of switching output (dAP)	[ms]	3	
Step response time analogue output	[ms]	7	
Interfaces			
Communication interface		IO-Link	
Transmission type		COM2 (38,4 kBaud)	
IO-Link revision		1.0	
Profiles		no profile	
SIO mode		yes	
Required master port type		A	
Process data analogue		1	
Process data binary		2	
Min. process cycle time	[ms]	2.3	
Supported DeviceIDs		Type of operation	DeviceID
		default	156
Operating conditions			
Ambient temperature	[°C]	-25...80	
Storage temperature	[°C]	-40...100	
Protection		IP 67; IP 68; IP 69K	



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Tests / approvals		
EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	10 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-5 Surge	0,5/1 kV
	EN 61000-4-6 HF conducted	10 V
Shock resistance	DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6	20 g (10...2000 Hz)
MTTF	[ANN]	148.85

Mechanical data		
Weight	[g]	378
Materials	stainless steel (316L/1.4404); FKM; PTFE; PBT; PEI; PFA	
Materials (wetted parts)	ceramics (99.9 % Al ₂ O ₃); stainless steel (316L/1.4435); surface characteristics: Ra < 0,4 / Rz 4; PTFE	
Min. pressure cycles	100 million	
Process connection	threaded connection G 1 external thread sealing cone Attention: The unit must only be installed in a process connection for G1 sealing cone.; The G1A sealing cone of the unit is only suited for adapters with metal end stop.	

Displays / operating elements		
Display	Display unit	LED, green
	switching status	LED, yellow
	function display	alphanumeric display, 4-digit
	measured values	alphanumeric display, 4-digit
Display unit	bar; psi; MPa; % of the span	

Remarks	
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated





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Connection



- 1 connection for 2-wire operation
- 2 connection for 3-wire operation :
- OUT1 switching output
- OUT2 switching output
- analogue output
- 3 connection for IO-Link parameter setting (P = communication via IO-Link)