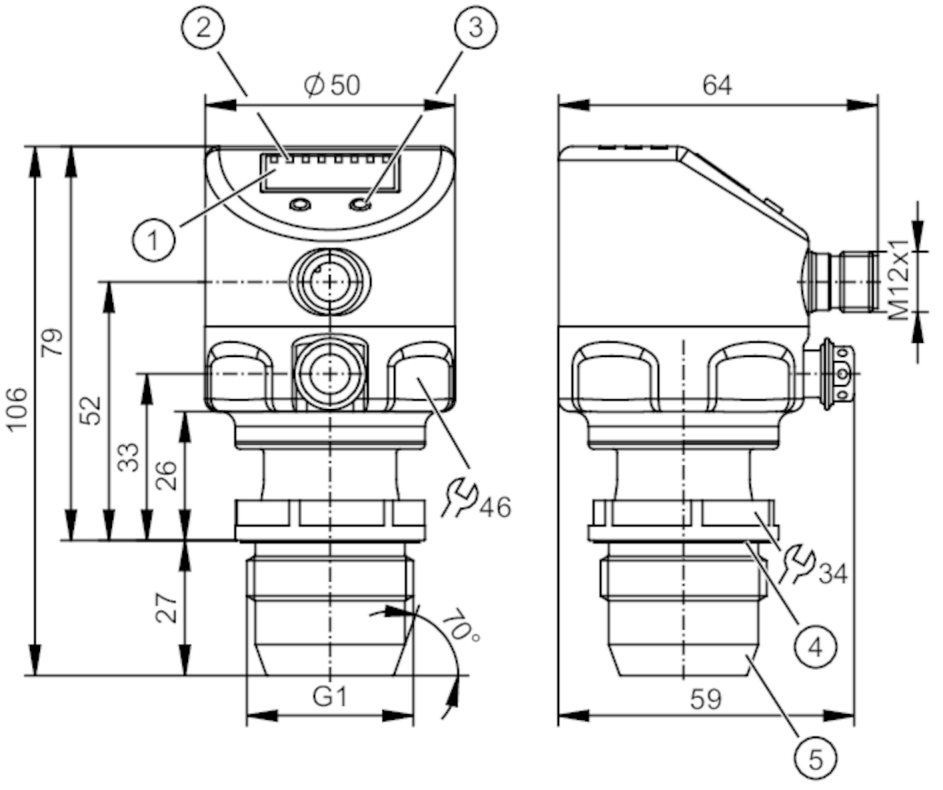
PI2893

Flush pressure sensor with display

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

Alternative articles: PI1803

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 sealing contour 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		
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		
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		
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]	(Ub - 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 [% of the span]		< ± 0,2; (Turn down 1:1)
Repeatability [% of the span]		< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)
Characteristics deviation [% of the span]		< ± 0,2; (Turn down 1:1 , 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]		< ± 0,05; (0...70 °C)
Temperature coefficient span [% of the span / 10 K]		< ± 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

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Protection		IP 67; IP 68; IP 69K	
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	[years]	148.85	
Mechanical data			
Weight	[g]	378	
Materials		stainless steel (316L/1.4404); FKM; PTFE; PBT; PEI; PFA	
Materials (wetted parts)		ceramics (99.9 % Al2O3); 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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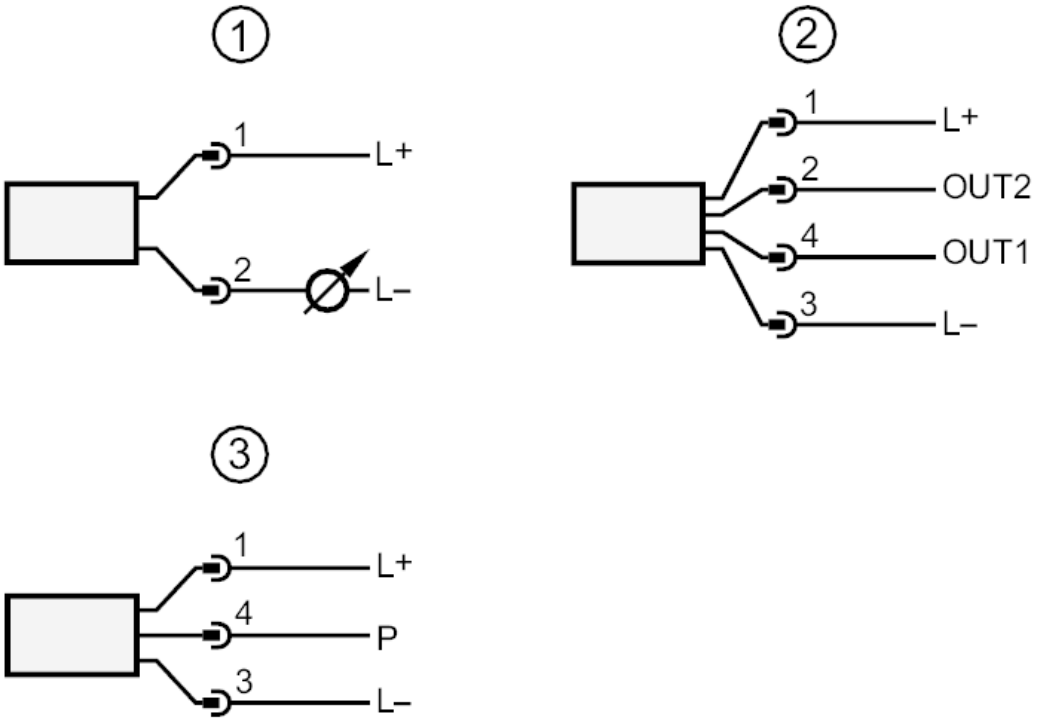
Connection



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)