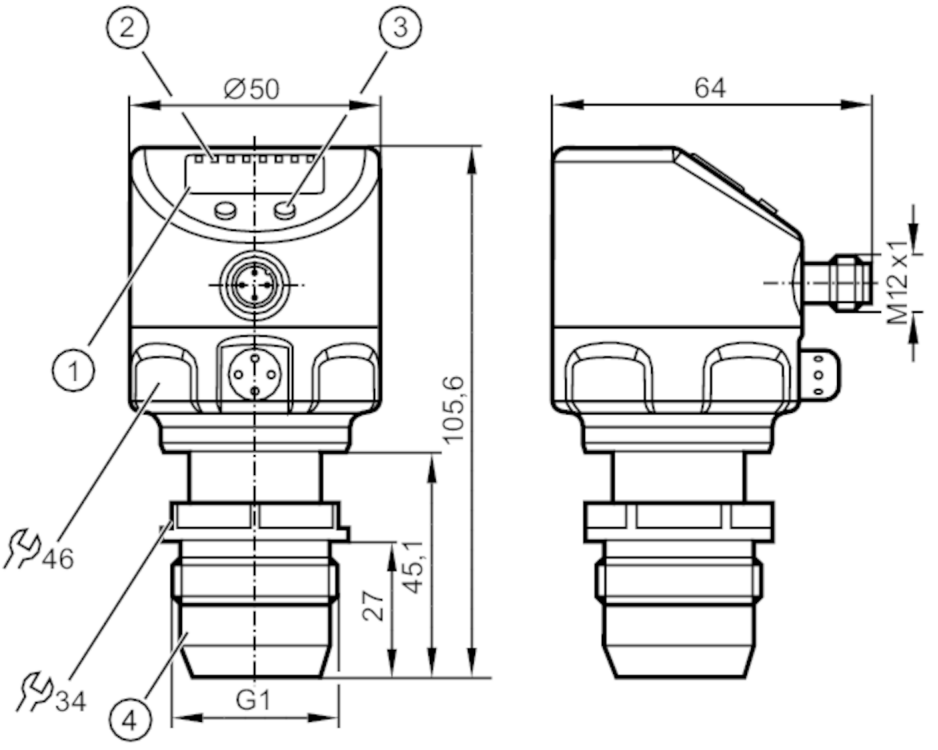
PI2893

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 G 1 sealing cone external thread
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.

ACS CE CRN cULus LISTED EC 1935/2004 EHEDG Tested FCM FDA IO-Link UKCA

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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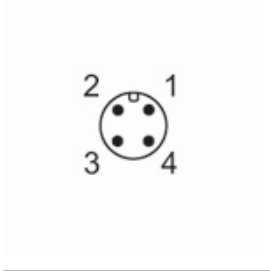
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Protection	IP 67; IP 68; IP 69K	
Tests / approvals		
EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	10 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-5 Surge	0,5/1 kV
	EN 61000-4-6 HF conducted	10 V
Shock resistance	DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6	20 g (10...2000 Hz)
MTTF [years]	148.85	
Note on approval	factory certificate available as download at www.factory-certificate.ifm	
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

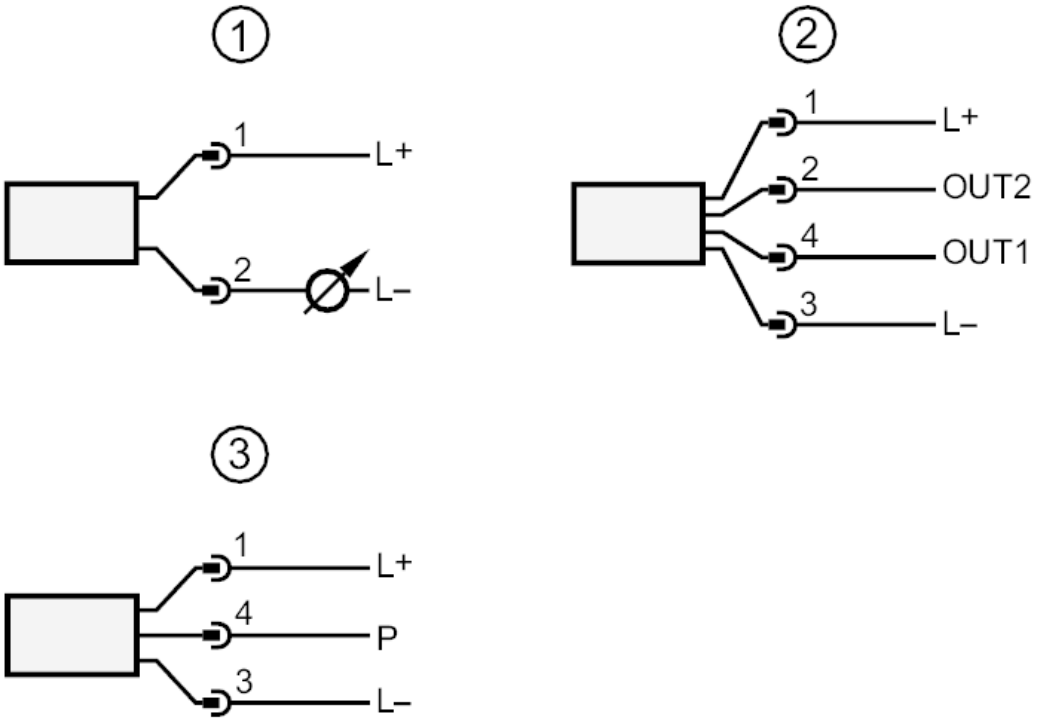


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Connection



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)