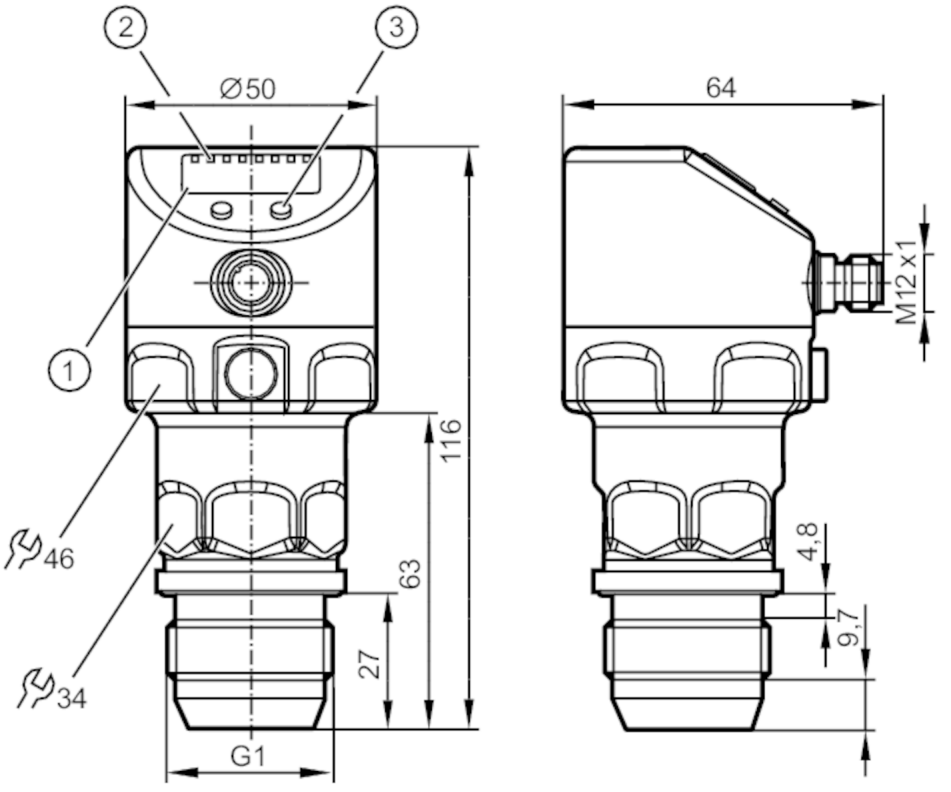
PI2602

Flush pressure sensor with display

PI-100-REA01-MFRKG/US/ /P

Alternative articles: PI1602

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

EC 1935/2004 FCM CN FCM JP Hygienic Cleanable IO-Link Reg31

Product characteristics			
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1		
Measuring range	-1...100 bar	-15...1450 psi	-0.1...10 MPa
Process connection	threaded connection G 1 external thread sealing cone - 27 mm		

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		
Conditionally suitable for	use in gases at pressures > 25 bar only on request		
Medium temperature [°C]	-25...125; (145 max. 1h)		
Min. burst pressure	650 bar	9425 psi	65 MPa
Pressure rating	200 bar	2900 psi	20 MPa
Vacuum resistance	-1000 mbar	-0.1 MPa	
Type of pressure	relative pressure; vacuum		
No dead space	yes		

PI2602

Flush pressure sensor with display

PI-100-REA01-MFRKG/US/ /P

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...100 bar	-15...1450 psi	-0.1...10 MPa
Set point SP		-0.8...100 bar	-12...1450 psi	-0.08...10 MPa
Reset point rP		-1...99.8 bar	-15...1448 psi	-0.1...9.98 MPa
Analogue start point		-1...75 bar	-15...1088 psi	-0.1...7.5 MPa
Analogue end point		24...100 bar	348...1450 psi	2.4...10 MPa
In steps of		0.1 bar	1 psi	0.01 MPa

PI2602

Flush pressure sensor with display

PI-100-REA01-MFRKG/US/ /P

Factory setting		SP1 = 25.0 bar	rP1 = 23 bar
		SP2 = 75.0 bar	rP2 = 73 bar
		ASP = 0.0 bar	AEP = 100.0 bar
		dAP = 0.06 s	dAA = 0.03 s
Accuracy / deviations			
Switch point accuracy [% of the span]		< ± 0,5; (Turn down 1:1)	
Repeatability [% of the span]		< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)	
Characteristics deviation [% of the span]		< ± 0,5; (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]		< ± 0,2; (0...70 °C)	
Temperature coefficient span [% of the span / 10 K]		< ± 0,2; (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	
IO-Link revision		1.0	
SIO mode		yes	
Required master port type		A	
Process data analogue		1	
Process data binary		2	
Supported DeviceIDs	**Type of operation**	**DeviceID**	
	default	731	
Operating conditions			
Ambient temperature [°C]		-25...80	
Storage temperature [°C]		-40...100	
Protection		IP 67; IP 68; IP 69K	

PI2602

Flush pressure sensor with display

PI-100-REA01-MFRKG/US/ /P

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]	154	
Note on approval		factory certificate available as download at www.factory-certificate.ifm	
UL approval		UL approval no.	J017
		File number UL	E174189

Mechanical data		
Weight	[g]	374
Housing		cylindrical
Dimensions	[mm]	Ø 50 / L = 116
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 µm / Rz = 4 µm; PTFE
Min. pressure cycles		100 million
Process connection		threaded connection G 1 external thread sealing cone - 27 mm

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; MPa; psi; % of the span	

Remarks	
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated

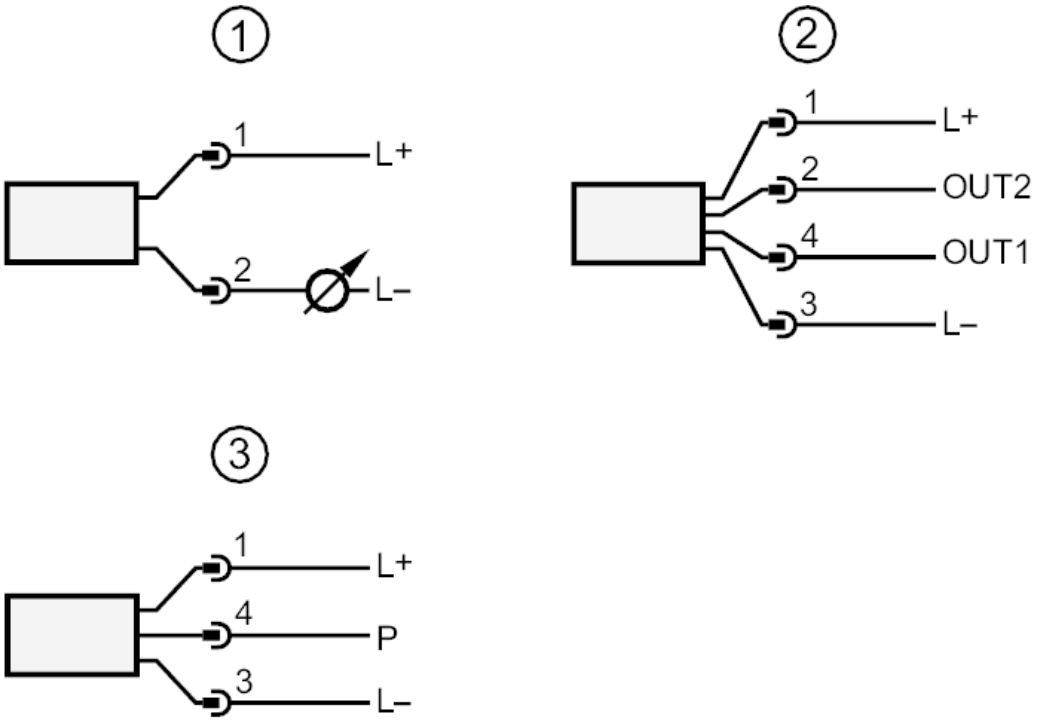


PI2602

Flush pressure sensor with display

PI-100-REA01-MFRKG/US/ /P

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)