

PI2714

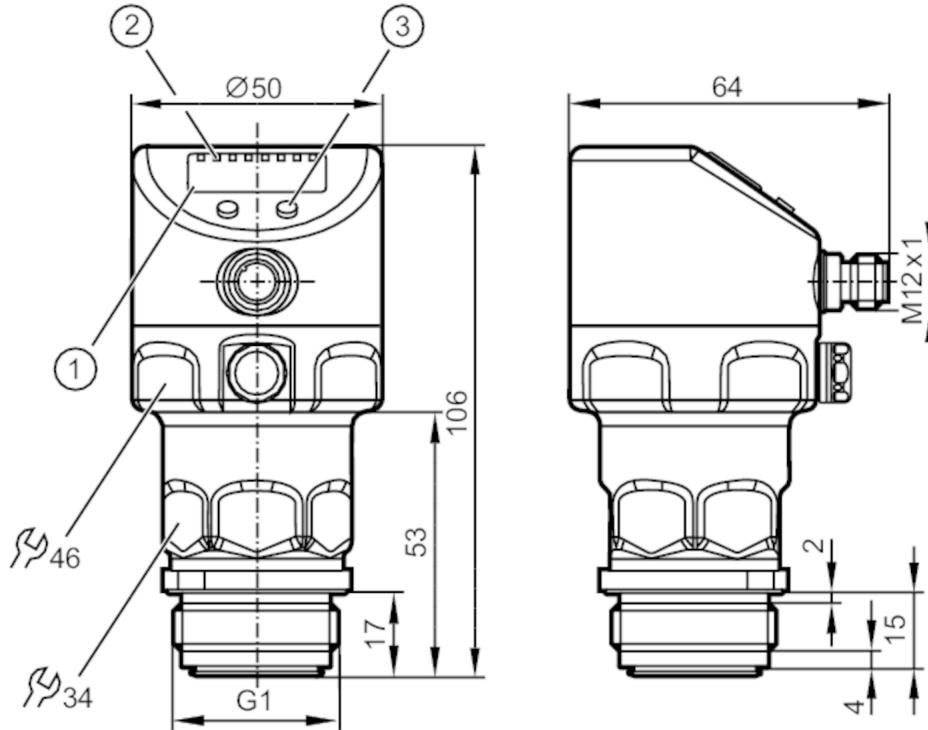


Flush pressure sensor with display

PI-016-REA01-MFRKG/US/ IP

Alternative articles: PI1714

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



ACS



CRN



EC 1935/2004

EHEDG Certified

FCM

FDA

IO-Link

NSF

Reg31

UK

CA

NSF

Reg31

UK

CA

Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1		
Measuring range	-1...16 bar	-14.6...232 psi	-0.1...1.6 MPa
Process connection	threaded connection G 1 external thread mit Dichtkontur Aseptoflex Vario		
Note	G1 Gewinde nach ISO 228. Alternativ dichtend über rückwärtige Dichtkontur mit Dichtung in Anlehnung an DIN EN ISO 1179-2.		

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. burst pressure	250 bar	3625 psi	25 MPa
Pressure rating	75 bar	1085 psi	7.5 MPa
Vacuum resistance	-1000 mbar	-0.1 MPa	
Type of pressure	relative pressure; vacuum		
No dead space	yes		
MAWP (for applications according to CRN) [bar]	60		

Electrical data

Min. insulation resistance [MΩ]	100; (500 V DC)
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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 analog outputs: 1
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Outputs

Total number of outputs	2
Output signal	switching signal; analog signal; IO-Link; (configurable)
Electrical design	PNP/NPN
Number of digital outputs	2
Output function	normally open / closed; (configurable)
Number of analog outputs	1
Analog current output [mA]	4...20, invertible; (scalable)
Short-circuit protection	yes
Type of short-circuit protection	yes (non-latching)
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]	(U _b - 10 V) / 20 mA

Measuring/setting range

Measuring range	-1...16 bar	-14.6...232 psi	-0.1...1.6 MPa
Set point SP	-0.98...16 bar	-14.2...232 psi	-0.098...1.6 MPa
Reset point rP	-1...15.98 bar	-14.6...231.6 psi	-0.1...1.598 MPa
Analog start point	-1...12 bar	-14.6...174 psi	-0.1...1.2 MPa
Analog end point	3...16 bar	43.6...232 psi	0.3...1.6 MPa
In steps of	0.02 bar	0.2 psi	0.002 MPa
Factory setting		SP1 = 4.0 bar	rP1 = 3.68 bar
		SP2 = 12.0 bar	rP2 = 11.68 bar
		ASP = 0.0 bar	AEP = 16.0 bar
		dAP = 0.06 s	dAA = 0.03 s



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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)
Reaction times		
Damping process value dAP [s]		0...30
Damping for the analog output dAA [s]		0.01...99.99
2-wire		
Step response time analog output [ms]		45
3-wire		
Min. response time of switching output (dAP) [ms]		3
Step response time analog output [ms]		7
Interfaces		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.0
SIO mode		yes
Required master port class		A
Process data analog		1
Process data binary		2
Min. process cycle time [ms]		2.3
Supported DeviceIDs	Type of operation	DeviceID
	default	729
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
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 number	J018
	File number UL	E174189

Mechanical data		
Weight [g]		361
Housing		tubular
Dimensions [mm]		Ø 50 / L = 106
Material		stainless steel (1.4404 / 316L); FKM; PTFE; PBT; PEI; PFA
Materials (wetted parts)		ceramics (99.9 % Al ₂ O ₃); stainless steel (1.4435 / 316L) surface characteristics: Ra < 0,4 µm / Rz = 4 µm; PTFE
Min. pressure cycles		100 million
Process connection		threaded connection G 1 external thread mit Dichtkontur Aseptoflex Vario

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



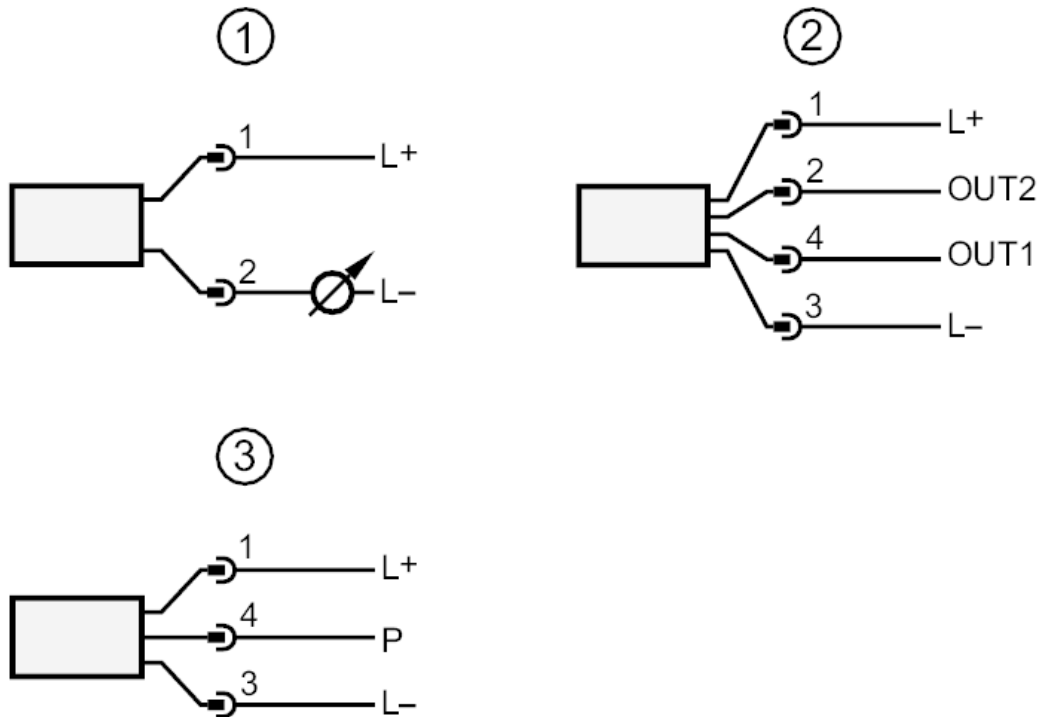
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Connection



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