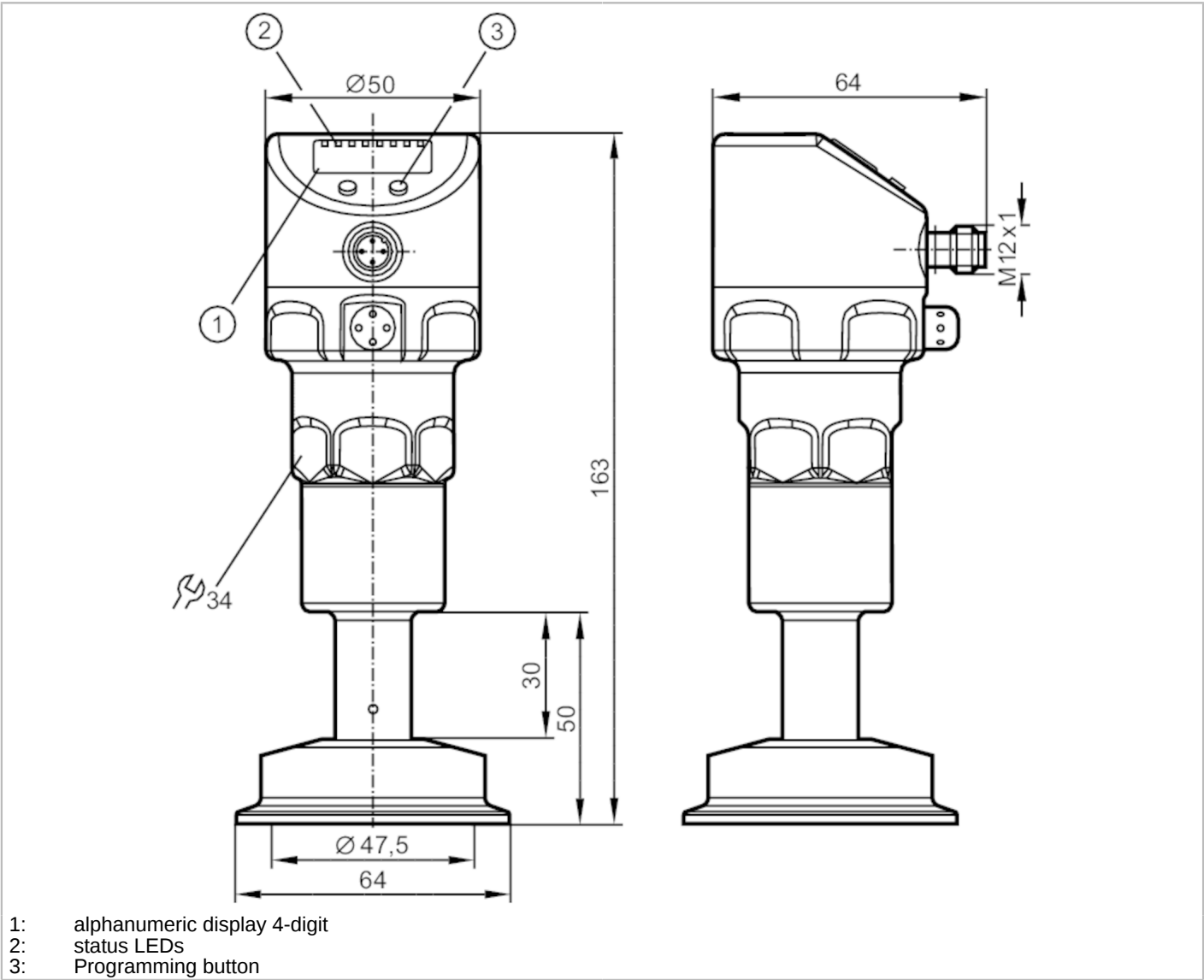


PI2303



Flush pressure sensor with display

PI-025-REZ02-MFRKG/US/ IP



1: alphanumeric display 4-digit
2: status LEDs
3: Programming button

Product characteristics			
Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1		
Measuring range	-1...25 bar	-14.4...362.7 psi	-0.1...2.5 MPa
Process connection	Clamp DN50 (2") DIN 32676 (ISO 2852)		
Application			
System	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]	-20...200		
Min. bursting pressure	150 bar	2175 psi	15 MPa
Pressure rating	80 bar	1160 psi	8 MPa
Type of pressure	relative pressure; vacuum		
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		
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]	(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
Analog start point	-1...18.74 bar	-14.4...271.8 psi	-0.1...1.874 MPa
Analog 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
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



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Accuracy / deviations		
Switch point accuracy	[% of the span]	$< \pm 0,2$; (Turn down 1:1)
Repeatability	[% of the span]	$< \pm 0,1$; (with temperature fluctuations < 10 K; Turn down 1:1)
Characteristics deviation	[% of the span]	$< \pm 0,2$; (Turn down 1:1, linearity, incl. hysteresis and repeatability, limit value setting to DIN EN IEC 62828-1)
Linearity deviation	[% of the span]	$< \pm 0,15$; (Turn down 1:1)
Hysteresis deviation	[% of the span]	$< \pm 0,15$; (Turn down 1:1)
Long-term stability	[% of the span]	$< \pm 0,1$; (Turn down 1:1; per year)
Temperature coefficient zero point	[% of the span / 10 K]	$< \pm 0,2$; (0...200 °C)
Temperature coefficient span	[% of the span / 10 K]	$< \pm 0,15$; (0...200 °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	
SDCI standard	IO-Link Communication Specification, Version 1.0, January 2009, Ordner No: 10.002	
Profiles	no profile	
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	102
Operating conditions		
Ambient temperature	[°C]	-25...80
Note on ambient temperature	Medium temperature: ≤ 160 °C	
Ambient temperature	[°C]	-25...65

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Note on ambient temperature	Medium temperature: ≤ 200 °C
Storage temperature [°C]	-25...100
Protection	IP 67; IP 68; IP 69K

Tests / approvals

EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-3	
Shock resistance	DIN EN 60068-2-27	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	20 g (10...2000 Hz)
MTTF [years]	142	
Note on approval	Including free 6-point calibration certificate.	

Mechanical data

Weight [g]	1199.2
Material	stainless steel (1.4404 / 316L); stainless steel (1.4435 / 316L); PBT; PEI; PFA
Materials (wetted parts)	stainless steel (1.4435 / 316L)
Min. pressure cycles	10 million
Process connection	Clamp DN50 (2") DIN 32676 (ISO 2852)
Surface characteristics Ra/Rz of the wetted parts	< 0.38 / -
Fill fluid for pressure transfer	NEOBEE (food grade, FDA compliant)
Diaphragm diameter [mm]	47.5

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.
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PI2303

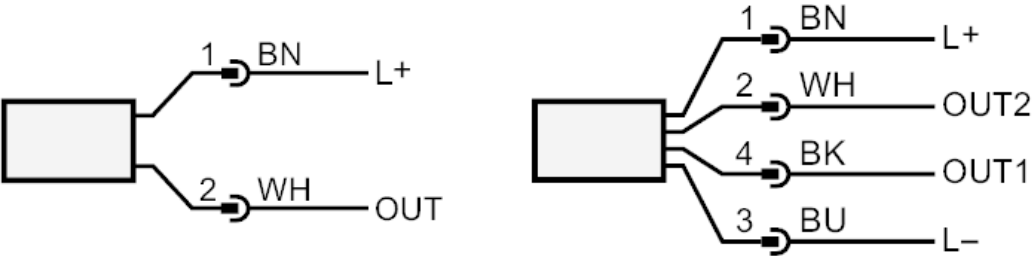


Flush pressure sensor with display

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Electrical connection

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



OUT	connection for 2-wire operation : analog output
OUT1	connection for 3-wire operation : Switching output
OUT2	IO-Link Switching output analog output
	Colors to DIN EN 60947-5-2
	Core colors :
BK =	black
BN =	brown
BU =	blue
WH =	white