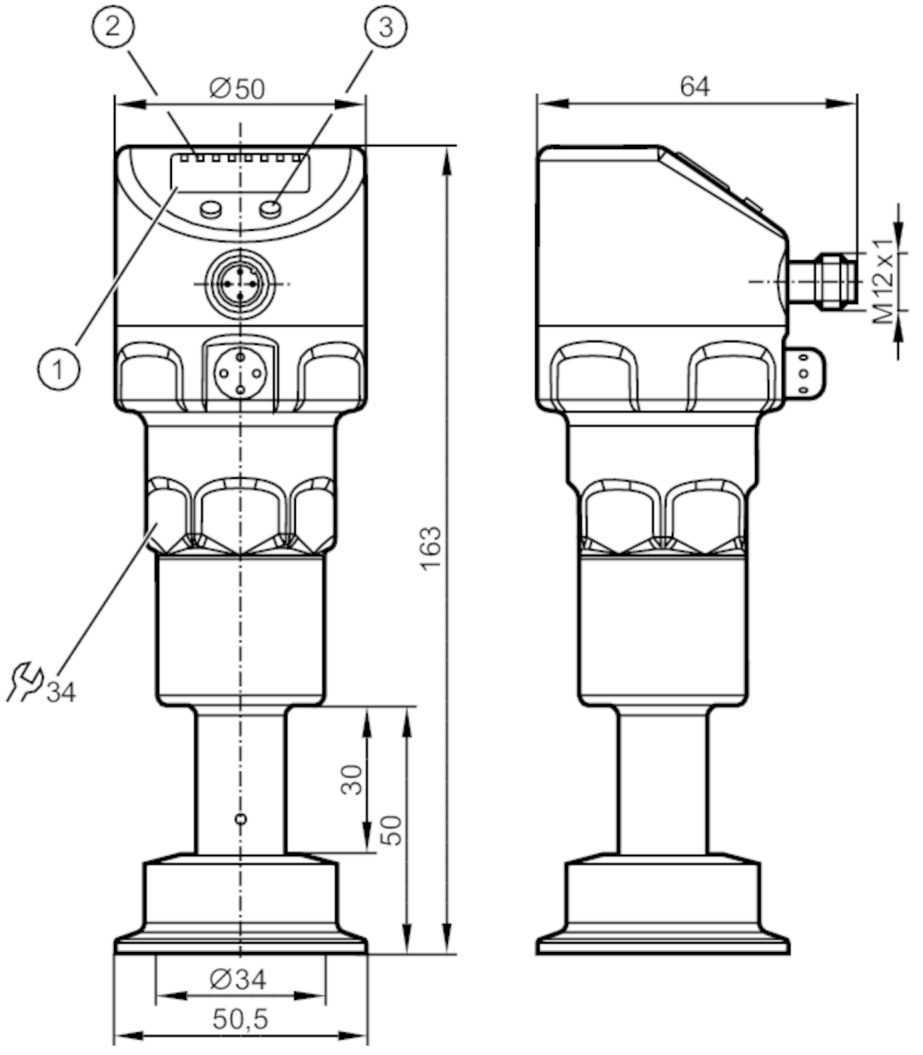
PI2203

Flush pressure sensor with display

PI-025-REZ01-MFRKG/US/ /P



1 alphanumeric display 4-digit
2 status LEDs
3 programming button

EC 1935/2004 EHEDG Certified FCM CN FCM JP IO-Link

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	Clamp DN40 (1,5") DIN 32676 (ISO 2852)		
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]	-20...200; (-20...90 < 0 bar)		
Min. burst 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 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
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]	< ± 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)		
Zero-point stabilisation [% of the span]	IO-Link, analogue output	0,15	
	display, switching output	0,2	
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...200 °C)		
Temperature coefficient span [% of the span / 10 K]	< ± 0,15; (0...200 °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		
SDCI standard	IO-Link Communication Specification, Version 1.0, January 2009, Ordner No: 10.002		
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		
Note on ambient temperature	Medium temperature: ≤ 160 °C		

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Ambient temperature	[°C]	-25...65		
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]	1066.3		
Housing		cylindrical		
Dimensions	[mm]	Ø 50 / L = 163		
Materials		stainless steel (316L/1.4404); stainless steel (316L/1.4435); PBT; PEI; PFA		
Materials (wetted parts)		stainless steel (316L/1.4435)		
Min. pressure cycles		10 million		
Process connection		Clamp DN40 (1,5") DIN 32676 (ISO 2852)		
Suitable for process connections in accordance with the standards		DIN 32676 series A (DIN)	clamp DN40	
		DIN 32676 series B (ISO)	clamp DN42,4	
		DIN 32676 series C (ASME BPE)	clamp 1,5"	
		ISO 2852	clamp DN38	
Surface characteristics Ra/Rz of the wetted parts		Ra < 0.38 µm		
Fill fluid for pressure transmission		NEOBEE (food grade, FDA compliant)		
Diaphragm diameter	[mm]	34		
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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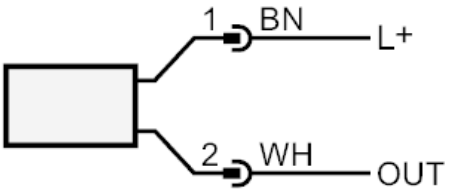
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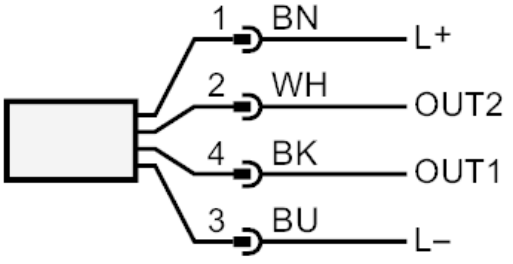
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Electrical connection

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







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