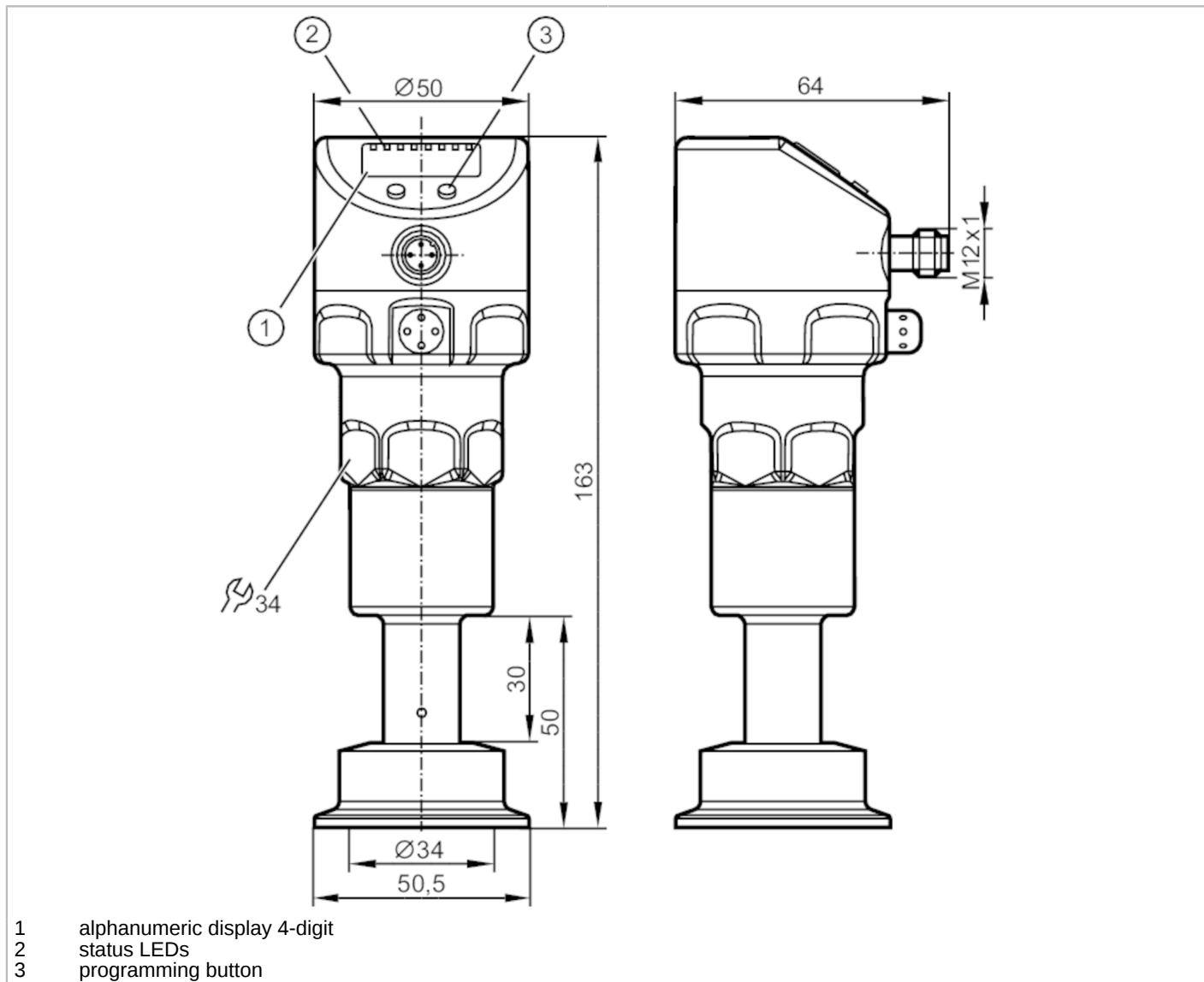


Flush pressure sensor with display

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



LISTED

EC 1935/2004 EHEDG Certified 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	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	
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 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 SP2 = 18.74 bar ASP = 0.00 bar	rP1 = 5.74 bar rP2 = 18.24 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)
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
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	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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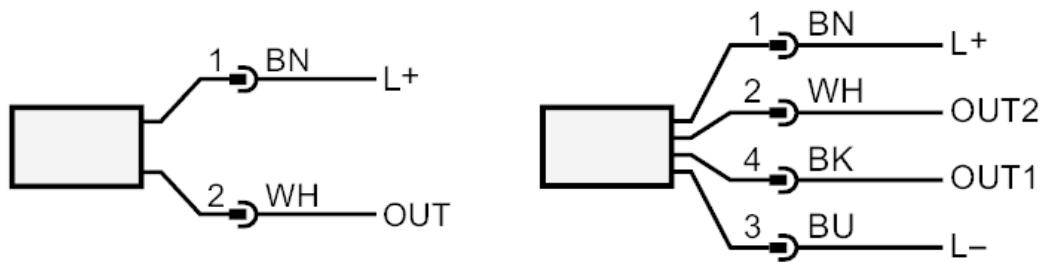
Note on ambient temperature	Medium temperature: ≤ 200 °C	
Storage temperature	[°C]	-25...100
Protection		IP 67; IP 68; IP 69K
Tests / approvals		
EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-3	
Shock resistance	DIN EN 60068-2-27	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	20 g (10...2000 Hz)
MTTF [years]		142
Note on approval	Including free 6-point calibration certificate.	
Mechanical data		
Weight [g]		1066.3
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)	
Surface characteristics Ra/Rz of the wetted parts	< 0.38 / -	
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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Electrical connection

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



OUT	connection for 2-wire operation : analogue output
OUT1	connection for 3-wire operation : 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