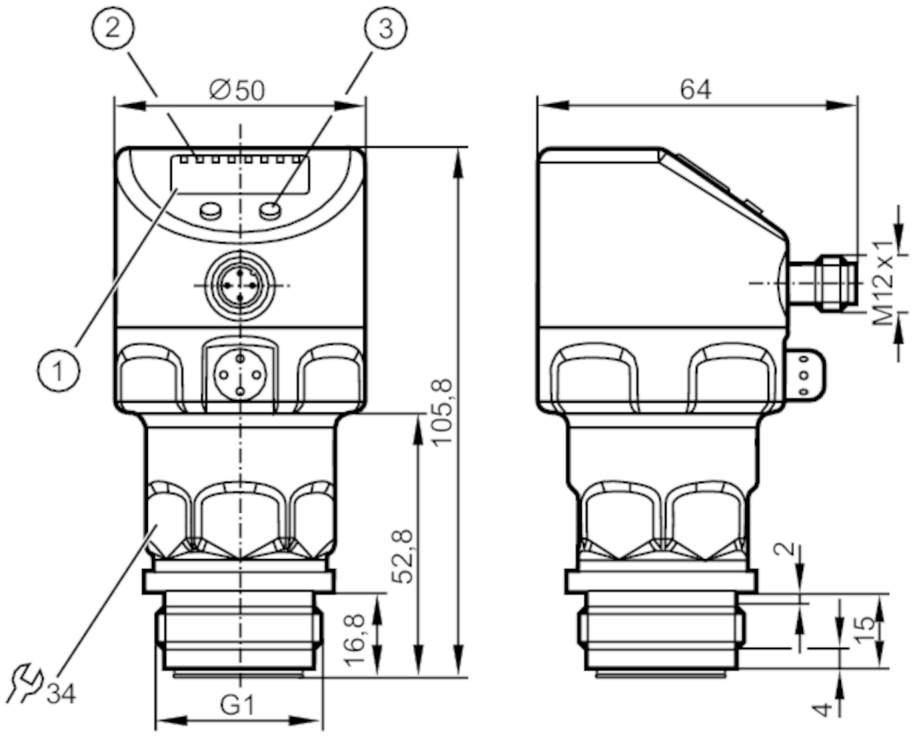
PY2794

Pressure sensor with display

PI-010-REA01-MFRKG/US/ /P



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

CE EHEDG Certified FDA UKCA

Product characteristics			
Number of inputs and outputs		Number of digital outputs: 2; Number of analogue outputs: 1	
Measuring range		-1...10 bar	-14.5...145 psi
Measuring range	[MPa]	-0.1...1	
Process connection		threaded connection G 1 external thread Aseptoflex Vario	
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. bursting pressure		150 bar	2175 psi
Min. bursting pressure	[MPa]	15	
Pressure rating		50 bar	725 psi
Pressure rating	[MPa]	5	
Type of pressure		relative pressure	
No dead space		yes	
Electrical data			
Min. insulation resistance	[MΩ]	100; (500 V DC)	
Protection class		III	

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Reverse polarity protection		yes	
Integrated watchdog		yes	
2-wire			
Operating voltage	[V]	20...32 DC	
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...10 bar	-14.5...145 psi
Measuring range	[MPa]	-0.1...1	
Set point SP		-0.98...10 bar	-14.2...145 psi
Set point SP	[MPa]	-0.098...1	
Reset point rP		-1...9.98 bar	-14.5...144.7 psi
Reset point rP	[MPa]	-0.1...0.998	
Analogue start point		-1...7.5 bar	-14.5...108.7 psi
Analogue start point	[MPa]	-0.1...0.75	
Analogue end point		1.5...10 bar	21.8...145 psi
Analogue end point	[MPa]	0.15...1	
In steps of		0.01 bar	0.1 psi
In steps of	[MPa]	0.001	

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Factory setting		SP1 = 2.50 bar	rP1 = 2.30 bar
		SP2 = 7.50 bar	rP2 = 7.30 bar
		ASP = 0.00 bar	AEP = 10.00 bar
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)	
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	
Profiles		no profile	
Process data analogue		1	
Process data binary		2	
Min. process cycle time	[ms]	2.3	
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		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]	148.66	
Mechanical data			
Weight	[g]	297	
Materials		stainless steel (1.4404 / 316L); FKM; PTFE; PBT; PEI; PFA	
Materials (wetted parts)		ceramics (99.9 % Al2O3); stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4; PTFE	
Min. pressure cycles		100 million	
Tightening torque	[Nm]	35; (recommended tightening torque; depends on lubrication, seal and pressure rating)	
Process connection		threaded connection G 1 external thread 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; psi; MPa; % of the span	
Remarks			
Pack quantity		1 pcs.	

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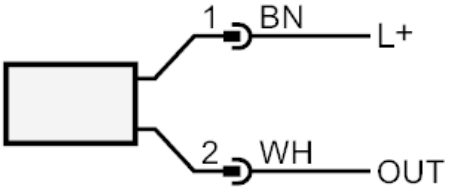
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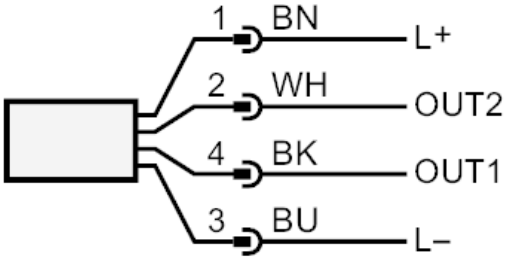
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Electrical connection

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







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