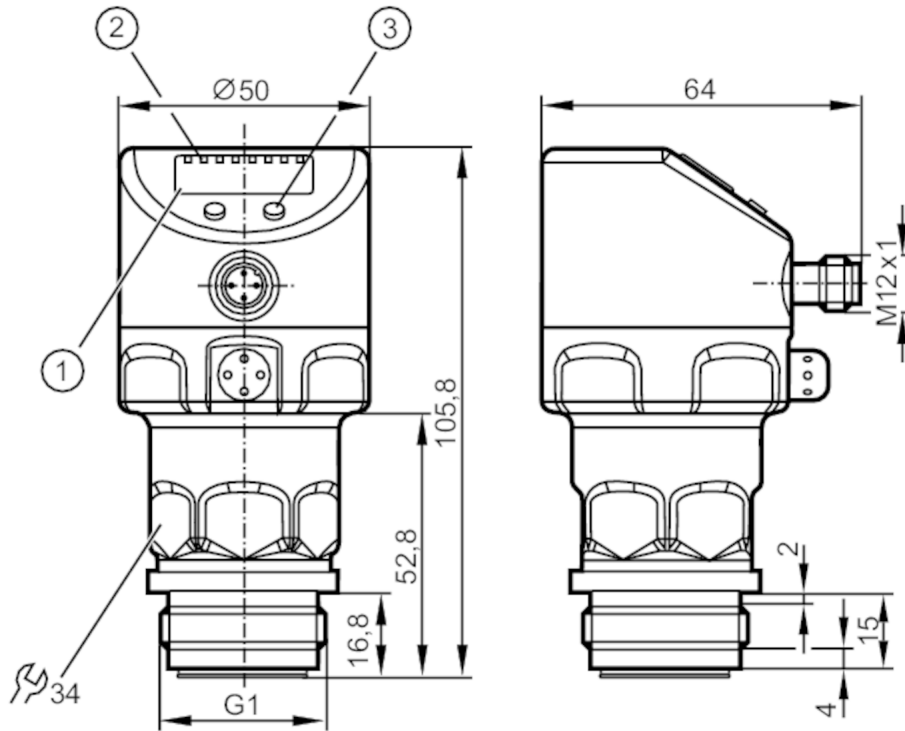


PI2796



Flush pressure sensor with display

PI-2,5-REA01-MFRKG/US/ IP



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



ACS



CRN



LISTED

US



EC 1935/2004

EHDG Certified

FCM



IO-Link



Reg31



UK

CA

Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1			
Measuring range	-0.124...2.5 bar	-124...2500 mbar	-1.8...36.27 psi	-12.4...250 kPa
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	50 bar	725 psi	5000 kPa
Pressure rating	20 bar	290 psi	2000 kPa
Vacuum resistance [mbar]	-1000		
Type of pressure	relative pressure		
No dead space	yes		
MAWP (for applications according to CRN) [bar]	20		



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Electrical data	
Min. insulation resistance [MΩ]	100; (500 V DC)
Protection class	III
Reverse polarity protection	yes
Measuring principle	hydrostatic
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]	(U _b - 10 V) / 20 mA



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Measuring/setting range				
Measuring range	-0.124...2.5 bar	-124...2500 mbar	-1.8...36.27 psi	-12.4...250 kPa
Set point SP	-0.12...2.5 bar		-1.74...36.27 psi	-12...250 kPa
Reset point rP	-0.124...2.496 bar		-1.8...36.21 psi	-12.4...249.6 kPa
Analogue start point	-0.124...1.88 bar		-1.8...27.27 psi	-12.4...188 kPa
Analogue end point	0.5...2.5 bar		7.26...36.27 psi	50...250 kPa
In steps of	0.002 bar		0.03 psi	0.2 kPa
Factory setting			SP1 = 0.624 bar	rP1 = 0.574 bar
			SP2 = 1.874 bar	rP2 = 1.824 bar
			ASP = 0.000 bar	AEP = 2.500 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 for the switching output 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			

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Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.0	
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	159

Operating conditions	
Ambient temperature [°C]	-25...80
Storage temperature [°C]	-40...100
Protection	IP 67; IP 68; IP 69K

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	50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6	20 g (10...2000 Hz)
MTTF [years]	160	
Note on approval	factory certificate available as download at www.factory-certificate.ifm	

Mechanical data	
Weight [g]	358.5
Materials	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 / Rz 4; PTFE
Min. pressure cycles	100 million
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; kPa; psi; inH ₂ O; mWS; % of the span	

Remarks	
Pack quantity	1 pcs.

Electrical connection	
Connector: 1 x M12; Contacts: gold-plated	

PI2796

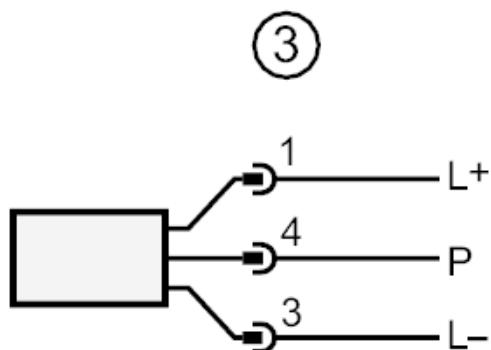
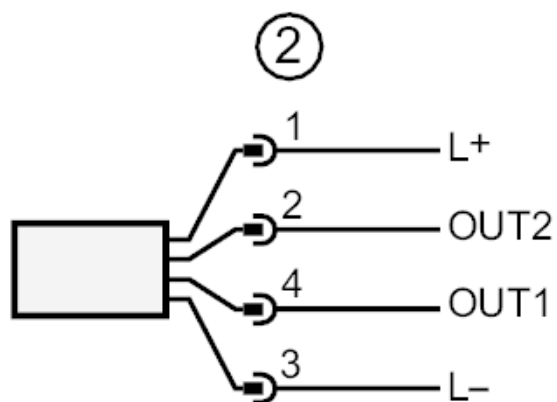
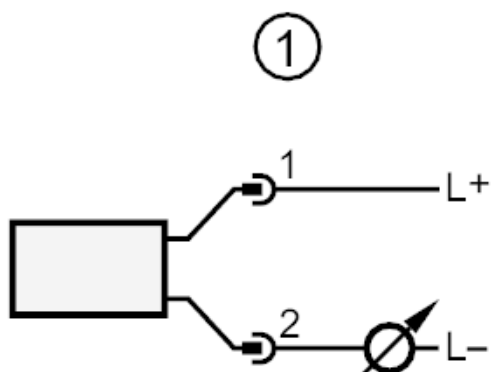


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Connection



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