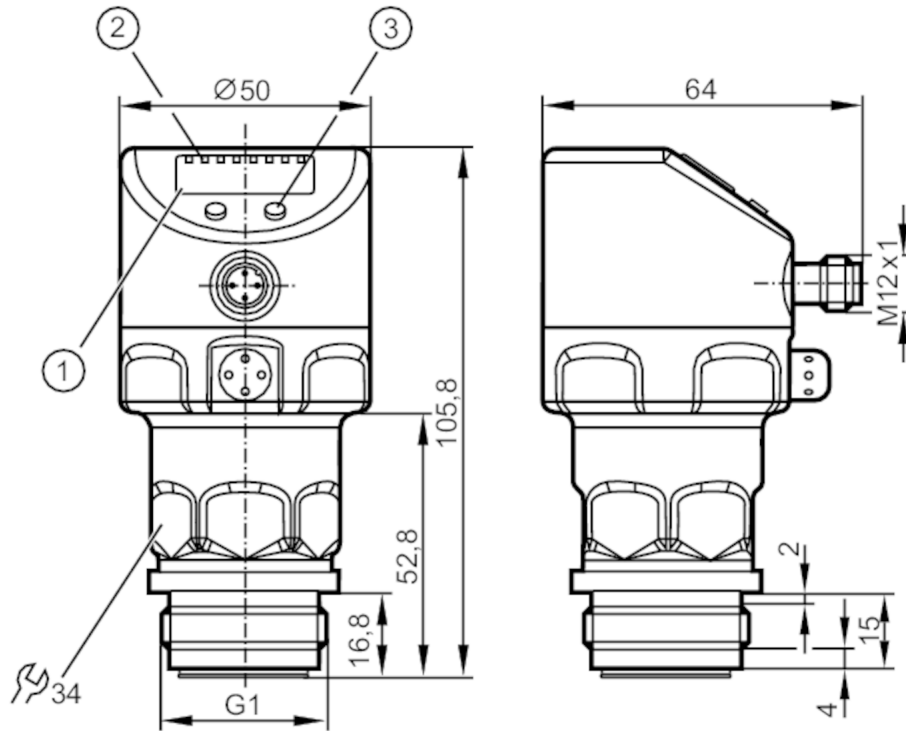


PI2798



Flush pressure sensor with display

PI-,25BREA01-MFRKG/US/ IP



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



ACS



CRN



ERIC

EC 1935/2004 EHEDG Certified

FCM

FDA



Reg31

Application

Application	hygienic systems	
Media	viscous media and liquids with suspended particles; liquids and gases	
Medium temperature [°C]	-25...125; (145 max. 1h)	
Pressure rating	6000 mbar	2400 inH2O
Min. bursting pressure	30000 mbar	12044 inH2O
Type of pressure	relative pressure	
No dead space	yes	
MAWP (for applications according to CRN) [bar]	10	

Electrical data

Min. insulation resistance [MΩ]	100; (500 V DC)	
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	

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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
Measuring/setting range		
Measuring range	-12.4...250 mbar	-5...100.4 inH2O
Set point SP	-12...250 mbar	-4.8...100.4 inH2O
Reset point rP	-12.4...249.6 mbar	-5...100.2 inH2O
Analogue start point	-12.4...187.4 mbar	-5...75.2 inH2O
Analogue end point	50...250 mbar	20.1...100.4 inH2O
In steps of	0.2 mbar	0.1 inH2O
Factory setting	SP1 = 62.4 mbar	rP1 = 57.4 mbar
	SP2 = 187.4 mbar	rP2 = 182.4 mbar
	ASP = 0.0 mbar	AEP = 250.0 mbar
Accuracy / deviations		
Switch point accuracy	< ± 0,2; (Turn down 1:1)	
	[% of the span]	
Repeatability	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)	
	[% of the span]	
Characteristics deviation	< ± 0,2; (Turn down 1:1 linearity, incl. hysteresis and repeatability limit value setting to DIN 16086)	
	[% of the span]	
Linearity deviation	< ± 0,15; (Turn down 1:1)	
	[% of the span]	
Hysteresis deviation	< ± 0,15; (Turn down 1:1)	

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	[% of the span]	
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
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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
IO-Link device ID		257 d / 00 01 01 h
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

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
UL approval	UL Approval no.	J018

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Mechanical data	
Weight [g]	356.5
Materials	stainless steel (1.4404 / 316L); FKM; PTFE; PBT; PEI; PFA
Materials (wetted parts)	ceramics (99.9 % Al ₂ O ₃); PTFE; stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4
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	mbar; kPa; inH ₂ O; mmWS; % of the span	

Remarks	
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; Contacts: gold-plated

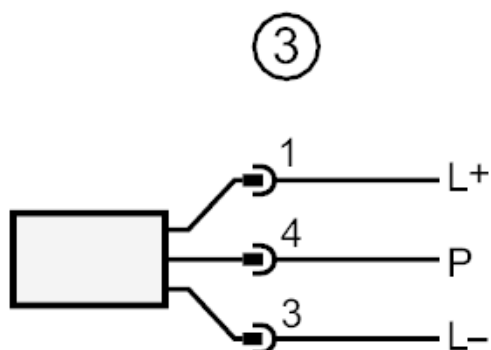
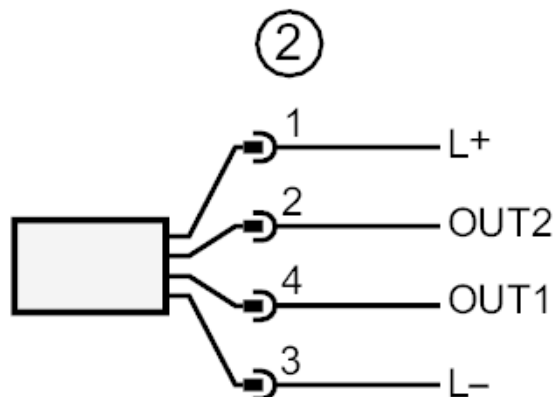
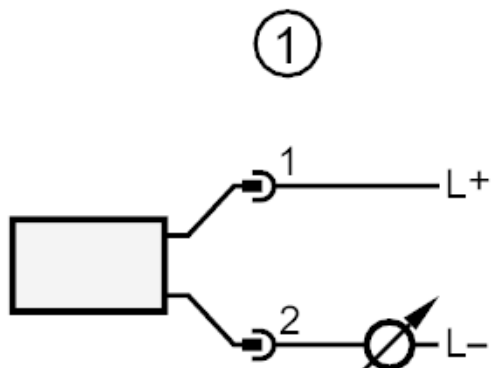




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Connection



- 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)