efectorsoo

ifm electronic

Pressure sensors

PI2798

Combined pressure sensor
PI27

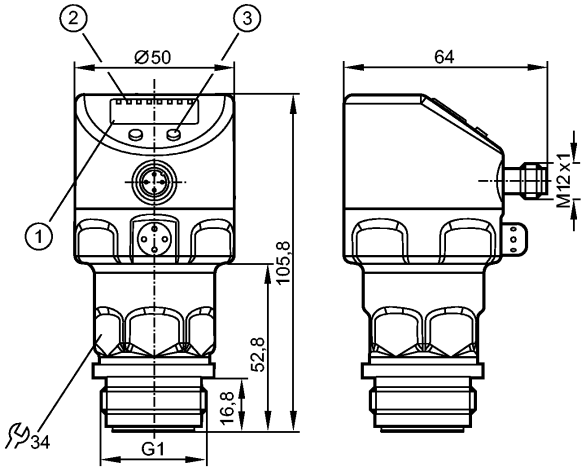
Quick disconnect
Process connection G1 / Aseptoflex Vario

Display units:
mbar, kPa, inH2O, mmWS, % of the span
Function programmable

2-wire connection technology:
analogue output
3-wire connection technology:
2 outputs
OUT1 = switching output
OUT2 = switching output or analogue output

4-digit alphanumeric display

Measuring range
-12.4...250.0 mbar
-5.0...100.4 inH2O



1: 4-digit alphanumeric display
2: LEDs
3: Programming button

Made in Germany

EHEDG Certified

IO-Link

Application	**Type of pressure: relative pressure Hygienic systems, viscous media and liquids with suspended particles Liquids and gases**	
Electrical design	**2 wires DC / 3 wires DC PNP/NPN**	
Output	**1 x normally open / normally closed programmable + 1 x normally open / normally closed programmable or 1 x analog (4...20 / 20...4 mA, scalable)**	
Operating voltage [V]	20...32 DC (2L) / 18...32 DC (3L)	
Current rating [mA]	--- (2L) / 250 (3L)	
Short-circuit protection	Yes (non-latching)	
Reverse polarity protection	yes	
Overload protection	yes	
Integrated watchdog	yes	
Voltage drop [V]	--- (2L) / < 2 (3L)	
Current consumption [mA]	3.6...21 (2L) / < 45 (3L)	
Analog output	I: 4...20 mA (Ineg: 20...4 mA)	
Load for analog output [Ω]	300 (2L) / max. (Ub - 10 V) x 50 (3L)	
Pressure rating	10000 mbar	4015 inH2O
Bursting pressure min.	30000 mbar	12044 inH2O
Setting range		
Set point, SP	-12.0...250.0 mbar	-4.8...100.4 inH2O
Reset point, rP	-12.4...249.6 mbar	-5.0...100.2 inH2O
Analog start point, ASP	-12.4...187.4 mbar	-5.0...75.2 inH2O
Analog end point, AEP	50.0...250.0 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	

PI2798

Accuracy / deviations
(in % of the span)
Turn down 1:1

Switch point accuracy	< ± 0.2
Characteristics deviation *)	< ± 0.2
Linearity	< ± 0.15
Hysteresis	< ± 0.15
Repeatability **)	< ± 0.1
Long-term stability ***)	< ± 0.1
Temperature coefficients (TEMPCO) in the temperature range 0...70° C (in % of the span per 10 K)	
Greatest TEMPCO of the zero point	< ± 0.05
Greatest TEMPCO of the span	< ± 0.15
Power-on delay time [s]	1 (2L) / 0.5 (3L)
Min. response time switching output [ms]	--- (2L) / 3 (3L)
Damping for the switching output (dAP) [s]	0.00...30.00
Switching frequency [Hz]	--- (2L) / 125 (3L)
Damping for the analog output (dAA) [s]	0.01...99.99
Step response time analogue output [ms]	45 (2L) / 7 (3L)
Ambient temperature [°C]	-25...80
Medium temperature [°C]	-25...125 (145 max. 1h)
Storage temperature [°C]	-40...100
Protection	IP 67 / IP 68 / IP 69K, III
Insulation resistance [MΩ]	> 100 (500 V DC)
Shock resistance	DIN IEC 68-2-27:50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6:20 g (10...2000 Hz)
Switching cycles min.	100 million
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
MTTF [Years]	160
Housing materials	stainless steel 316L / 1.4404; FPM (Viton); PTFE; PBT (Pocan); PEI; PFA
Materials (wetted parts)	ceramics (99.9 % Al2 O3); PTFE; stainless steel 316L / 1.4435; surface characteristics: Ra < 0.4 / Rz 4
Display	Display unit LED green Switching status LED yellow Function display 4-digit alphanumeric display Measured values 4-digit alphanumeric display
Connection	M12 connector; gold-plated contacts
IO-Link Device	
Transfer type	COM2 (38.4 kBaud)
Weight [kg]	0.308
Remarks	(2L) = value for 2-wire operation (3L) = value for 3-wire operation *) linearity, incl. hysteresis and repeatability; (limit value setting to DIN 16086) **) with temperature fluctuations < 10 K ***) in % of the span per year

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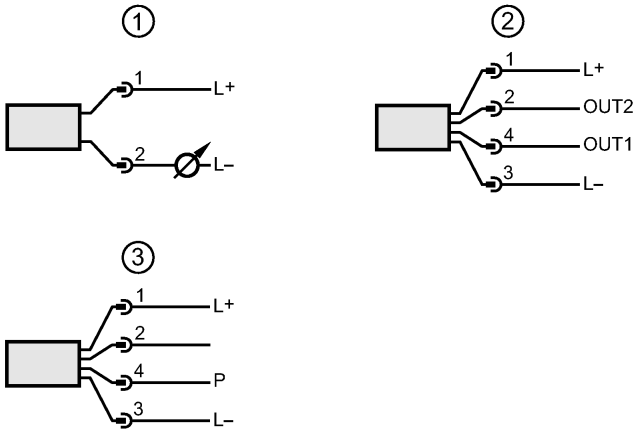
Wiring



1 connection for 2-wire operation
2 connection for 3-wire operation
3 connection for IO-Link parameter setting (P = communication via IO-Link)