efectorsoo

ifm electronic

Pressure sensors

PN004A

Combined pressure sensor
PN00

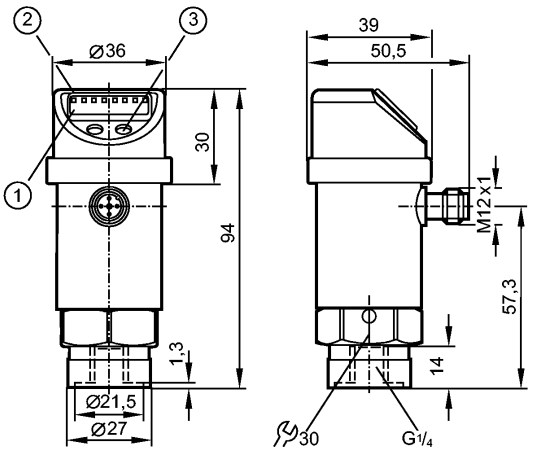
Connector
Process connection G¼ I

Function programmable
ATEX approval
Group II, category 3D

Switching output,
analogue output (0 bar = 4 mA / 0 V;
10 bar = 20 mA / 10 V)

4-digit alphanumeric display

Measuring range
-1...10 bar
-14.5...145 PSI
-0.1...1.0 MPa



1: 4-digit alphanumeric display
2: LEDs (display unit / switching status)
3: Programming button

CE

Made in Germany

Application		**Type of pressure: relative pressure Liquids and gases**		
Electrical design		**DC PNP**		
Output		**normally open / closed programmable; 4...20 mA or 0...10 V**		
Operating voltage	[V]	18...36 DC [1])		
Current rating	[mA]	250		
Short-circuit protection		pulsed		
Reverse polarity protection		yes		
Overvoltage protection		up to 40 V		
Integrated watchdog		yes		
Voltage drop	[V]	< 2		
Current consumption	[mA]	< 50		
Analogue output		4...20 mA / 0...10 V		
Load for analogue output [Ω]		4...20 mA: max. 500 / 0...10 V: min. 2000		
Pressure rating		75 bar	1087 PSI	7.5 MPa
Bursting pressure min.		150 bar	2175 PSI	15 MPa
Setting range				
Set point, SP		-0.90...10.00 bar	-12...145 PSI	-0.090...1.000 MPa
Reset point, rP		-0.95...9.95 bar	-13...144 PSI	-0.095...0.995 MPa
in steps of		0.05 bar	1 PSI	0.005 MPa
Factory setting		SP1 = 2.50 bar; rP1 = 2.30 bar		
Programming options		hysteresis / window function; N.O. / N.C; on delay, off delay; damping; display unit; current / voltage output		
Accuracy / deviations (in % of the span)				
Switch point accuracy		< ± 0.5		
Characteristics deviation *)		< ± 0.25 (BFSL) / < ± 0.5 (LS)		
Hysteresis		< ± 0.25		
Repeatability **)		< ± 0.1		
Long-term stability ***)		< ± 0.05		
Temperature coefficients (TEMPCO) in the temperature range 0...60° C (in % of the span per 10 K)				
Greatest TEMPCO of the zero point		0.2		

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Greatest TEMPCO of the span	0.2

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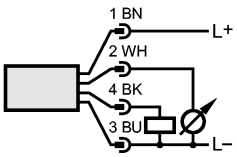
Power-on delay time	[s]	0.3
Switching frequency	[Hz]	≤ 170
Delay time programmable dS, dr	[s]	0; 0.2...50
Response time analogue output	[ms]	< 3
Ambient temperature	[°C]	-20...60
Medium temperature	[°C]	-20...60
Storage temperature	[°C]	-40...100
Protection		IP 65, III
Shock resistance		DIN IEC 68-2-27: 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]	213
Marking of the unit		Ex II 3D Ex tD A22 IP65 T80°C X Ta: -20°C...+60°C
Housing materials		stainless steel (304S15); stainless steel 316L / 1.4404; PC (Makrolon); PBT (Pocan); PEI; FPM (Viton); PTFE
Materials (wetted parts)		stainless steel (303S22); ceramics; FPM (Viton)
Display		Display unit 3 x LED green Switching status LED yellow Function display 4-digit alphanumeric display Measured values 4-digit alphanumeric display
Connection		M12 connector; gold-plated contacts
Weight	[kg]	0.305
Remarks		1) to EN50178, SELV, PELV *) BFSL = Best Fit Straight Line / LS = Limit Value Setting **) with temperature fluctuations < 10 K ***) in % of value of measuring range / 6 months

Wiring



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