

Pressure sensors

PN5004

Electronic pressure monitor
PN50

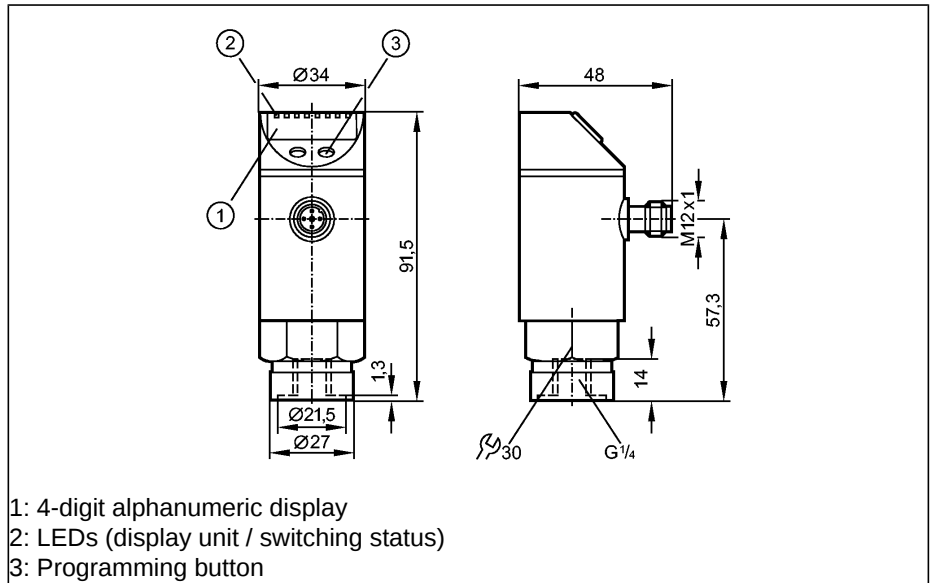
Connector
Process connection G $\frac{1}{4}$ I

Function programmable

1 switching output

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

Made in Germany



Application	Type of pressure: relative pressure		
Electrical design	Liquids and gases		
Output	DC PNP		
	normally open / closed programmable		
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		
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
Programming options	hysteresis / window function; N.O. / N.C.; on delay, off delay; damping; display unit		
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 -20...80° C (in % of the span per 10 K)			
Greatest TEMPCO of the zero point	0.2		
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
Ambient temperature [°C]	-25...80 (UB < 32 V) / -25...60 (UB > 32 V)
Medium temperature [°C]	-25...80
Storage temperature [°C]	-40...100
Protection	IP 65, 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
Housing materials	stainless steel (304S15); stainless steel 316L / 1.4404; PC (Makrolon); PBT (Pocan); PEI; FPM (Viton); EPDM/X (Santoprene); 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]	0.257
Remarks	1) to EN50178, SELV, PELV The device shall be supplied from an isolating source and protected by an overcurrent device such that the limited voltage circuit requirements in accordance with UL 508 are met. *) BFSL = Best Fit Straight Line / LS = Limit Value Setting **) with temperature fluctuations < 10 K ***) in % of value of measuring range / 6 months

Wiring

