

Pressure sensors

PN5001

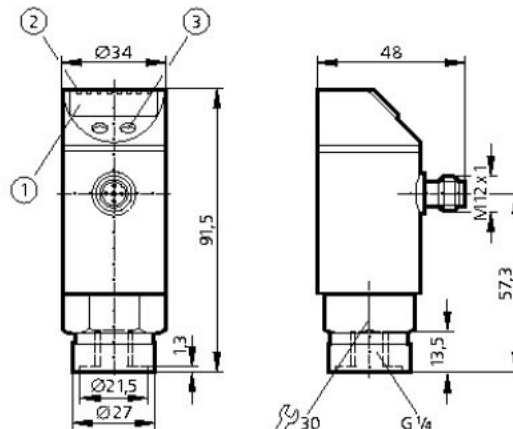
Electronic pressure monitor
PN50
G 1/4

Function programmable

1 switching output

4-digit alphanumeric display

Measuring range
0...250 bar
0...3625 PSI
0...25 MPa



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

Application

**Type of pressure: relative pressure
Liquids and gases**

For gaseous media the application is limited to max. 25 bar

DC PNP

Electrical design

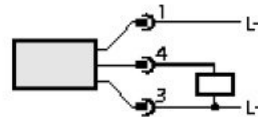
Output

normally open / closed programmable

Operating voltage [V]	18...36 DC ¹⁾		
Current rating [mA]	250		
Short-circuit protection	pulsed		
Reverse polarity protection	yes		
Overtoltage protection	up to 40 V		
Integrated watchdog	yes		
Voltage drop [V]	< 2		
Current consumption [mA]	< 50		
Permissible overl. pressure	400 bar	5800 PSI	40 MPa
Bursting pressure min.	850 bar	12300 PSI	85 MPa
Setting range			
Switch-on point, SP	2...250 bar	40...3620 PSI	0.2...25.0 MPa
Switch-off point, rP	1...249 bar	20...3600 PSI	0.1...24.9 MPa
in steps of	1 bar	20 PSI	0.1 MPa
Programming options	hysteresis / window function; N.O. / N.C.; on delay, off delay; damping; display unit		
Accuracy / deviations (in % of the span)			
Accuracy of switch point			
Characteristics deviation *)			
Hysteresis	< ± 0.5		
Repeatability **)	< ± 0.5		
Long-time stability ***)	< ± 0.25		
Temperature coefficients (TEMPCO) in the temperature range 0...80 °C (in% of the span per 10 K)	< ± 0.1		
- greatest TEMPCO of the zero point	< ± 0.05		
- greatest TEMPCO of the span	0.2		
Power-on delay time [s]	0.2		
Switching frequency [Hz]	0.3		
Switching frequency [Hz]	170...1		
Delay time programmable dS, dr [s]	0; 0.2...50		

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Operating temperature [°C]	-20...80 (UB < 32 V) / -20...60 (UB > 32 V)
Medium temperature [°C]	-25...80
Storage temperature [°C]	-40...100
Protection	IP 67 (IEC 60529) / (UL50), III (EN 50178)
Insulation resistance [MΩ]	> 100 (500 V DC)
Shock resistance [g]	50 (DIN / IEC 68-2-27, 11ms)
Vibration resistance [g]	20 (DIN / IEC 68-2-6, 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 material	stainless steel (304S15); stainless steel (316S12); PC (Macrolon); PBT (Pocan); PEI; FPM (Viton); EPDM/X (Santoprene)
Materials (wetted parts)	stainless steel (303S22); ceramics; FPM (Viton)
Function display	yellow
Switching status LED	3 x green (display unit)
Operation LED	4-digit alphanumeric display
System pressure, function LED	
Connection	M12 connector; gold-plated contacts
Wiring	



Remarks	<p>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.</p> <p>*) linearity, incl. hysteresis and repeatability; (limit value setting to DIN 16086)</p> <p>**) with temperature fluctuations < 10 K</p> <p>***) in % of value of measuring range / 6 months</p>
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