efector500

ifm electronic

Pressure sensors

PN4220

Electronic pressure monitor
PN42

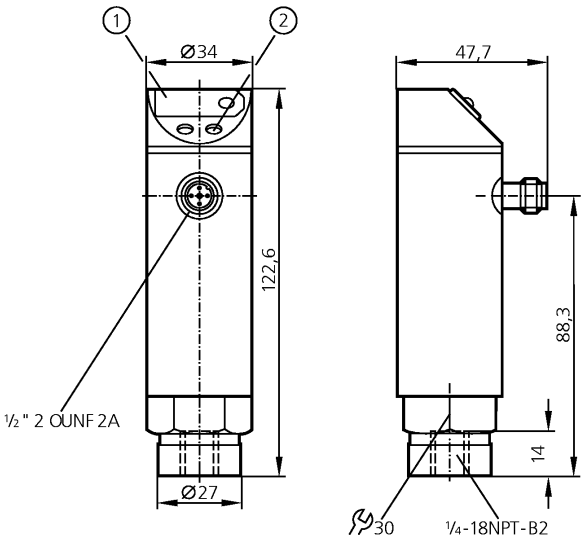
Process connection ¼" NPT

Function programmable

Switching output

7-segment LED display

Measuring range
0...400 bar
0...5800 PSI
0...40 MPa



1: 7-segment LED display
2: Programming button

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Application		**Type of pressure: relative pressure Liquids and gases For gaseous media the application is limited to max. 25 bar**		
Electrical design		**AC / triac**		
Output		**normally open / closed programmable**		
Nominal voltage	[V]	90...250 AC (45...65 Hz)		
Operating voltage	[V]	85...265 AC		
Voltage tolerance	[%]	-5 / +10		
Current rating	[mA]	2.5A (20°C), 1.5A (45°C), 1A (60°C), 0.25A (70°C)		
Short circuit proof		no		
Reverse polarity protection		no		
Overload protection		no		
Integrated watchdog		yes		
Voltage drop	[V]	< 2		
Current consumption	[mA]	< 10		
Pressure rating		600 bar	8700 PSI	60 MPa
Bursting pressure min.		1000 bar	14500 PSI	100 MPa
Setting range				
Set point, SP		4...400 bar	60...5800 PSI	0.4...40.0 MPa
Reset point, rP		2...398 bar	30...5770 PSI	0.2 ...39.8 MPa
in steps of		1 bar	10 PSI	0.1 MPa
Programming options		hysteresis / window function; N.O. / N.C; on delay, off delay; damping; calibration of displayed values; display can be rotated / deactivated; display unit		
Adjustment of the switch point		Programming button		
Accuracy / deviations (in % of the span)				
Accuracy of switch point		< ± 1.0		
Linearity		< ± 0.5		
Hysteresis		< ± 0.1		
Repeatability **)		< ± 0.1		
Long-term stability ***)		< ± 0.1		

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Temperature coefficients (TEMPCO) in the temperature range -25...80° C (in% of the span per 10 K)	
greatest TEMPCO of the zero point	< ± 0.2
greatest TEMPCO of the span	< ± 0.3

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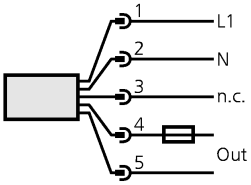
Power-on delay time	[s]	0.2
Damping for the switching output (dAP) [ms]		0; 10; 20;...100; 200;...4000
Switching frequency	[Hz]	160...0.125
Delay time programmable dS, dr	[s]	0, 0.2,...10, 11,...50
Operating temperature	[°C]	-25...80
Medium temperature	[°C]	-25...80
Storage temperature	[°C]	-40...100
Protection		IP 67, II
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 61000-4-6 HF conducted:10 V
Housing material		stainless steel (304S15); PC (Makrolon); PBT (Pocan); PA; FPM (Viton); EPDM/X (Santoprene)
Materials (wetted parts)		stainless steel (303S22); ceramics; FPM (Viton)
Function display		
Switching status	LED	red
System pressure, function	LED	7-segment LED display
Connection		1/2" UNF-Connector
Remarks		n.c. = not connected **) with temperature fluctuations < 10 K ***) in % of the span per year Recommendation: check the unit for reliable function after a short circuit.

Wiring

Programming of the output function:
Hno = hysteresis / N.O.
Hnc = hysteresis / N.C.
Fno = window function / N.O.
Fnc = window function / N.C.



Note: miniature fuse to IEC60127-2 sheet 1,
≤ 5 A (fast acting)