

PN4221



Pressure sensor with display

PN-250-SBN14-HFBOW/LS/ /V



- 1 7-segment LED display
- 2 Programming button



Product characteristics			
Number of inputs and outputs	Number of digital outputs: 1		
Measuring range	0...250 bar	0...3630 psi	0...25 MPa
Process connection	threaded connection 1/4" NPT Internal thread		
Application			
Application	for industrial applications		
Media	liquids and gases		
Conditionally suitable for	use in gases at pressures > 25 bar only on request		
Medium temperature	-25...80		
Min. burst pressure	850 bar	12300 psi	85 MPa
Pressure rating	400 bar	5800 psi	40 MPa
Type of pressure	relative pressure		
Electrical data			
Operating voltage tolerance	[%]	< 10	
Operating voltage	[V]	90...250 AC	
Nominal voltage AC	[V]	< 250	
Current consumption	[mA]	< 10	
Min. insulation resistance	[MΩ]	100; (500 V DC)	

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Protection class	II
Reverse polarity protection	no
Power-on delay time [s]	0.2
Integrated watchdog	yes

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 1
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Outputs

Total number of outputs	1
Output signal	switching signal
Electrical design	Triac
Number of digital outputs	1
Output function	normally open / closed; (configurable)
Max. voltage drop switching output AC [V]	2
Permanent current rating of switching output AC [mA]	250; ((...70 °C) 1000 (...60 °C) 1500 (...45 °C) 2500 (...20 °C))
Switching frequency AC [Hz]	< 160
Short-circuit proof	no
Overload protection	no

Measuring/setting range

Measuring range	0...250 bar	0...3630 psi	0...25 MPa
Set point SP	2...250 bar	40...3630 psi	0.2...25 MPa
Reset point rP	1...249 bar	20...3610 psi	0.1...24.9 MPa
In steps of	1 bar	10 psi	0.1 MPa

Accuracy / deviations

Switch point accuracy [% of the span]	< ± 1,0
Repeatability [% of the span]	< ± 0,1; (with temperature fluctuations < 10 K)
Linearity deviation [% of the span]	< ± 0,5
Hysteresis deviation [% of the span]	< ± 0,1
Long-term stability [% of the span]	< ± 0,1; (per year)
Temperature coefficient zero point [% of the span / 10 K]	< ± 0,2; (-25...80 °C)
Temperature coefficient span [% of the span / 10 K]	< ± 0,3; (-25...80 °C)

Reaction times

Delay time programmable dS, dr [s]	0, 0,2,...10, 11,...50
Damping process value dAP [s]	0...4

Software / programming

Adjustment of the switch point	Programming button
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Parameter setting options	hysteresis / window; normally open / closed; switch-on/switch-off delay; Damping; adaptation of displayed values; display can be rotated and switched off; Display unit
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Operating conditions

Ambient temperature	[°C]	-25...80
Storage temperature	[°C]	-40...100
Protection		IP 67

Tests / approvals

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
Shock resistance	DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6	20 g (10...2000 Hz)
MTTF	[years]	224.58
Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data

Weight	[g]	358.25
Housing		tubular
Dimensions	[mm]	Ø 34 / L = 120
Material		stainless steel (1.4301 / 304); PC; PBT; PA; FKM
Materials (wetted parts)		stainless steel (1.4305 / 303); ceramics; FKM
Min. pressure cycles		100 million
Process connection		threaded connection 1/4" NPT Internal thread
Restrictor element integrated		no (can be retrofitted)

Displays / operating elements

Display	Switching status	LED, red
	Function display	7-segment LED display
	Measured values	7-segment LED display

Electrical connection

Required protection	miniature fuse to IEC60127-2 sheet 1; ≤ 5 A; fast acting
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Remarks

Remarks	n.c. = not used
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x 1/2"; coding: C; Contacts: 5



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Connection



Note miniature fuse to IEC60127-2 sheet 1 ≤ 5 A fast acting