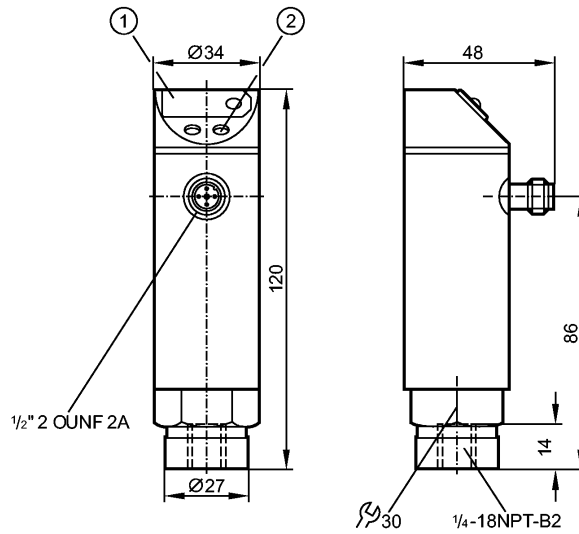


PN4227

PN-001BRBN14-HFBOW/LS/ IV

Pressure sensors



- 1: 7-segment LED display
- 2: Programming button



Product characteristics

Electronic pressure monitor

Quick disconnect

Function programmable

Process connection: 1/4" NPT

Switching output

7-segment LED display

Measuring range: 0...1000 mbar / 0...14.5 psi / 0...100 kPa

Application

Application	Type of pressure: relative pressure Liquids and gases		
Pressure rating	10000 mbar	145 psi	1000 kPa
Bursting pressure min.	30000 mbar	430 psi	3000 kPa
Medium temperature [°C]	-25...80		

Electrical data

Electrical design	AC / triac
Operating voltage [V]	85...265 AC
Nominal voltage [V]	90...250 AC (45...65 Hz)
Voltage tolerance [%]	-5 / +10
Current consumption [mA]	< 10
Insulation resistance [MΩ]	> 100 (500 V DC)
Protection class	II
Reverse polarity protection	no

Outputs

Output	Switching output
Output function	normally open / closed programmable
Current rating [mA]	250; (...70 °C); 1000 (...60 °C); 1500 (...45 °C); 2500 (...20 °C)
Voltage drop [V]	< 2
Short-circuit proof	no

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Pressure sensors

Overload protection	no		
Switching frequency [Hz]	≤ 160		
Measuring / setting range			
Measuring range	0...1000 mbar	0...14.5 psi	0...100 kPa
Setting range			
Set point, SP	10...999 mbar	0.1...14.6 psi	1.0...99.9 kPa
Reset point, rP	5...994 mbar	0.1...14.5 psi	0.5...99.4 kPa
in steps of	1 mbar	0.1 psi	0.1 kPa
Accuracy / deviations			
Accuracy / deviations (in % of the span)			
Switch point accuracy	< ± 1.0		
Linearity	< ± 0.5		
Hysteresis	< ± 0.1		
Repeatability **)	< ± 0.1		
Long-term stability ***)	< ± 0.1		
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		
Reaction times			
Power-on delay time [s]	0.2		
Delay time programmable dS, dr [s]	0, 0.2,...10, 11,...50		
Damping for the switching output (dAP) [s]	0...4		
Integrated watchdog	yes		
Software / programming			
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		
Environment			
Ambient temperature [°C]	-25...80		
Storage temperature [°C]	-40...100		
Protection	IP 65		
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		
Mechanical data			
Process connection	¼" NPT		
Materials (wetted parts)	stainless steel (303S22); ceramics; FPM (Viton)		
Housing materials	stainless steel (304S15); PC (Makrolon); PBT (Pocan); PA; FPM (Viton)		
Switching cycles min.	100 million		
Weight [kg]	0.383		

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Pressure sensors

Displays / operating elements

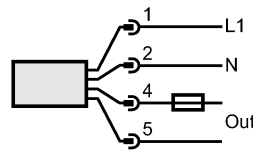
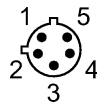
Display	Switching status LED red Function display 7-segment LED display Measured values 7-segment LED display
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Electrical connection

Connection	1/2" UNF-Connector
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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)

Remarks

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.
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Pack quantity	[piece]	1
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