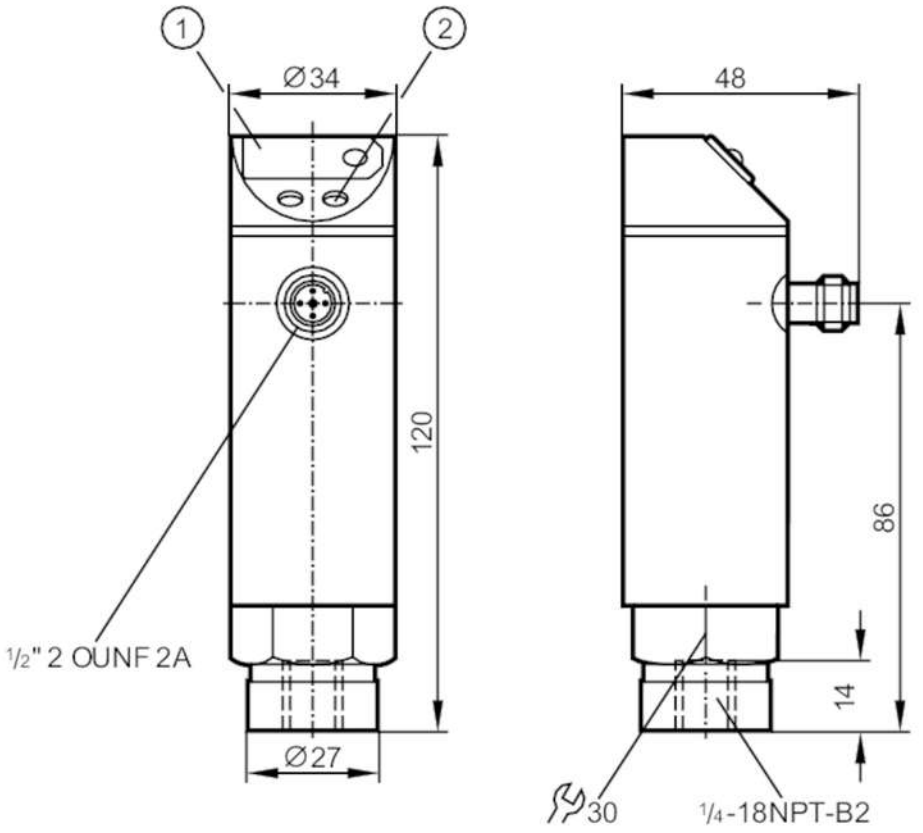
PN4229

Pressure sensor with display

PN-1-1-RBN14-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	-1...1 bar	-1000...1000 mbar	-30...30 inHg	-100...100 kPa
Process connection	threaded connection 1/4" NPT internal thread			
Application				
Application	for industrial applications			
Media	liquids and gases			
Medium temperature [°C]	-25...80			
Min. bursting pressure	50 bar	1476 inHg	5000 kPa	
Pressure rating	20 bar	590 inHg	2000 kPa	
Type of pressure	relative pressure; vacuum			
Electrical data				
Operating voltage tolerance [%]	5...10			
Operating voltage [V]	90...250 AC			
Nominal voltage AC [V]	< 250			
Current consumption [mA]	< 10			
Min. insulation resistance [MΩ]	100; (500 V DC)			
Protection class	II			

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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		
Outputs				
Total number of outputs		1		
Output signal		switching signal		
Electrical design		Triac		
Number of digital outputs		1		
Output function		normally open / normally closed; (parameterisable)		
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		-1...1 bar	-1000...1000 mbar	-30...30 inHg	-100...100 kPa
Set point SP		-0.97...1 bar	-29...30 inHg	-97...100 kPa	
Reset point rP		-0.99...0.98 bar	-30...29 inHg	-99...98 kPa	
In steps of		0.01 bar	1 inHg	1 kPa	
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)		
Response 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		
Parameter setting options		hysteresis / window; normally open / normally 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 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	
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data		
Weight	[g]	389
Housing		cylindrical
Dimensions	[mm]	Ø 34 / L = 120
Materials		stainless steel (304/1.4301); PC; PBT; PA; FKM
Materials (wetted parts)		stainless steel (303/1.4305); 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

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

Electrical connection

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

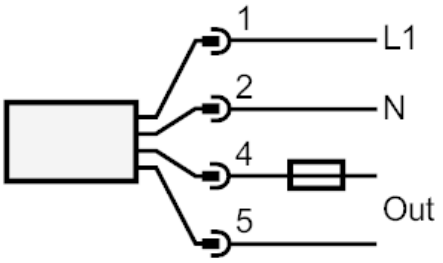


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Connection



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