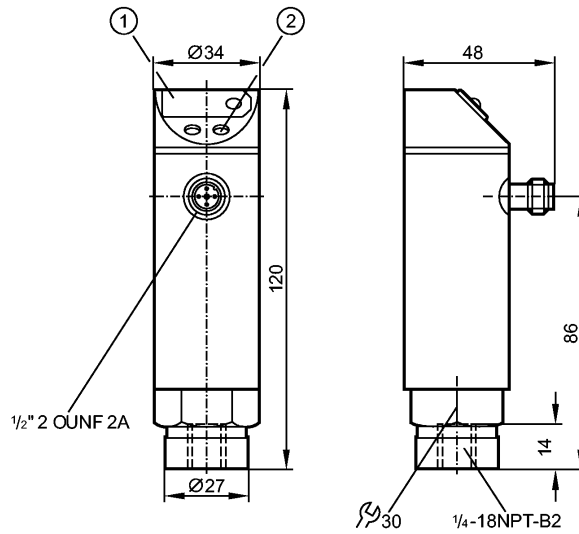


PN4224

PN-010-RBN14-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...10 bar / 0...145 psi / 0...1000 kPa

Application

Application	Type of pressure: relative pressure Liquids and gases		
Pressure rating	75 bar	1088 psi	7500 kPa
Bursting pressure min.	150 bar	2175 psi	15000 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...10 bar	0...145 psi	0...1000 kPa
Setting range			
Set point, SP	0.10...9.99 bar	1...145 psi	10...999 kPa
Reset point, rP	0.05...9.95 bar	1...144 psi	5...994 kPa
in steps of	0.01 bar	1 psi	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

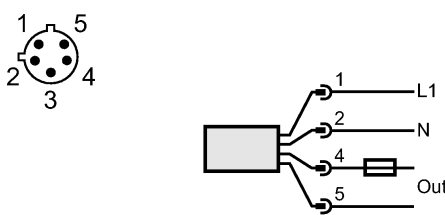
Mechanical data

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]	0.381

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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
Electrical connection	
Connection	1/2" UNF-Connector
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.
Pack quantity	1