



Pressure sensor with display

PN-025-RBN14-HFBOW/LS/ IV



- 1 7-segment LED display
- 2 programming button



Product characteristics

Number of inputs and outputs	Number of digital outputs: 1		
Measuring range	0...25 bar	0...363 psi	0...2.5 MPa
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	350 bar	5075 psi	35 MPa
Pressure rating	100 bar	1450 psi	10 MPa
Type of pressure	relative pressure		

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
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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 / 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	0...25 bar	0...363 psi	0...2.5 MPa
Set point SP	0.2...25 bar	4...363 psi	0.02...2.5 MPa
Reset point rP	0.1...24.9 bar	2...362 psi	0.01...2.49 MPa
In steps of	0.1 bar	1 psi	0.01 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)

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]	357.3
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