

PN5002



Pressure sensor with display

PN-100-SBR14-HFPKG/US/ IV

Article to be discontinued

Alternative articles: PN7092
When selecting an alternative article and accessories please note that technical data may differ!



- 1 alphanumeric display 4-digit
- 2 LEDs Display unit / Switching status
- 3 Programming button



Product characteristics			
Number of inputs and outputs	Number of digital outputs: 1		
Measuring range	0...100 bar	0...1450 psi	0...10 MPa
Process connection	threaded connection G 1/4 Internal thread		
Application			
System	gold-plated contacts		
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. bursting pressure	650 bar	9400 psi	65 MPa
Pressure rating	300 bar	4350 psi	30 MPa
Type of pressure	relative pressure		
Electrical data			
Operating voltage	[V]	18...36 DC; (to SELV/PELV)	
Current consumption	[mA]	< 50	
Min. insulation resistance	[MΩ]	100; (500 V DC)	

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Protection class	III
Reverse polarity protection	yes
Overvoltage protection	yes; (< 40 V)
Power-on delay time [s]	0.3
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	PNP
Number of digital outputs	1
Output function	normally open / closed; (configurable)
Max. voltage drop switching output DC [V]	2
Permanent current rating of switching output DC [mA]	250
Switching frequency DC [Hz]	< 170
Short-circuit protection	yes
Type of short-circuit protection	yes (non-latching)

Measuring/setting range

Measuring range	0...100 bar	0...1450 psi	0...10 MPa
Set point SP	1...100 bar	20...1450 psi	0.1...10 MPa
Reset point rP	0.5...99.5 bar	10...1440 psi	0.05...9.95 MPa
In steps of	0.5 bar	10 psi	0.05 MPa
Factory setting		SP1 = 25.0 bar	rP1 = 23.0 bar

Accuracy / deviations

Switch point accuracy [% of the span]	< ± 0,5
Repeatability [% of the span]	< ± 0,1; (with temperature fluctuations < 10 K)
Characteristics deviation [% of the span]	< ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)
Hysteresis deviation [% of the span]	< ± 0,25
Long-term stability [% of the span]	< ± 0,05; (per 6 months)
Temperature coefficient zero point [% of the span / 10 K]	0,2; (-20...80 °C)
Temperature coefficient span [% of the span / 10 K]	0,2; (-20...80 °C)

Reaction times

Delay time programmable dS, dr [s]	0; 0,2...50
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Software / programming		
Parameter setting options		hysteresis / window; normally open / closed; switch-on/switch-off delay; Damping; Display unit
Operating conditions		
Ambient temperature	[°C]	-20...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 61000-4-5 Surge	0,5/1 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]		231
Mechanical data		
Weight [g]		260.2
Material		stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM
Materials (wetted parts)		stainless steel (1.4305 / 303); ceramics; FKM
Min. pressure cycles		100 million
Process connection		threaded connection G 1/4 Internal thread
Displays / operating elements		
Display	Display unit	3 x LED, green
	Switching status	LED, yellow
	Function display	alphanumeric display, 4-digit
	Measured values	alphanumeric display, 4-digit
Remarks		
Pack quantity		1 pcs.
Electrical connection		
Connector: 1 x M12; coding: A; Contacts: gold-plated		
		



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Connection

