

PN3001



Pressure sensor with display

PN-250-SBR14-MFPKG/US/ IV

Article no longer available - archive entry

Alternative articles: PN3071

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; Number of analogue outputs: 1		
Measuring range	0...250 bar	0...3625 psi	0...25 MPa
Process connection	threaded connection G 1/4 internal thread		

Application

Special feature	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 [°C]	-25...80		
Min. bursting pressure	850 bar	12300 psi	85 MPa
Pressure rating	400 bar	5800 psi	40 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; Number of analogue outputs: 1
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Outputs

Total number of outputs	2
Output signal	switching signal; analogue signal; (configurable)
Electrical design	PNP
Number of digital outputs	1
Output function	normally open / normally closed; (parameterisable)
Max. voltage drop switching output DC [V]	2
Permanent current rating of switching output DC [mA]	250
Switching frequency DC [Hz]	< 170
Number of analogue outputs	1
Analogue current output [mA]	4...20
Max. load [Ω]	500
Analogue voltage output [V]	0...10
Min. load resistance [Ω]	2000
Short-circuit protection	yes
Type of short-circuit protection	pulsed

Measuring/setting range

Measuring range	0...250 bar	0...3625 psi	0...25 MPa
Set point SP	2...250 bar	40...3620 psi	0.2...25 MPa
Reset point rP	1...249 bar	20...3600 psi	0.1...24.9 MPa
In steps of	1 bar	20 psi	0.1 MPa
Factory setting		SP1 = 63 bar	rP1 = 58 bar

Accuracy / deviations

Switch point accuracy [X21]	< ± 0,5
Repeatability [X21]	< ± 0,1; (with temperature fluctuations < 10 K)
Characteristics deviation [X21]	< ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)
Hysteresis deviation [X21]	< ± 0,25
Long-term stability [X21]	< ± 0,05; (per 6 months)
Temperature coefficient zero point [X22]	0,2; (0...80 °C)
Temperature coefficient span [X22]	0,2; (0...80 °C)

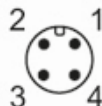
Response times

Delay time programmable dS, dr [s]	0; 0,2...50
Max. response time analogue output [ms]	3



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Software / programming		
Parameter setting options		hysteresis / window; normally open / normally closed; switch-on/switch-off delay; Damping; Display unit; current/voltage output
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 [ANN]		213
Mechanical data		
Weight [g]		263.4
Materials		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

