

PNI022



Pressure sensor with analog input

PNI100-SBR14-QFRKG/US/ IV



- 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: 2
Measuring range [bar]	0...100
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 [°C]	-25...80
Min. bursting pressure [bar]	650
Pressure rating [bar]	300
Type of pressure	relative pressure

Electrical data

Operating voltage [V]	18...30 DC
Current consumption [mA]	< 90
Min. insulation resistance [MΩ]	100; (500 V DC)
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	0.2
Integrated watchdog	yes



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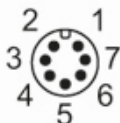
Inputs / outputs		
Number of inputs and outputs		Number of digital outputs: 2
Inputs		
Analog input (current)	[mA]	0...20
Input resistance	[Ω]	300
Analog input (voltage)	[V]	0...10
Input resistance	[kΩ]	90
Outputs		
Total number of outputs		2
Output signal		switching signal
Electrical design		PNP/NPN
Number of digital outputs		2
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)
Overload protection		yes
Measuring/setting range		
Measuring range	[bar]	0...100
Set point SP	[bar]	-24.6...100
Note on setpoint SP		differential pressure
Reset point rP	[bar]	-25...99.6
Note on reset point rP		differential pressure
In steps of	[bar]	0.2
Accuracy / deviations		
Characteristics deviation [% of the final value]		< ± 0,6
Temperature drift per 10 K		< ± 0.3
Characteristics deviation analog input		< ± 0.3
Temperature drift analog input per 10 K		< ± 0.1
Temperature drift analog input	[°C]	0...80
Reaction times		
Response time	[ms]	< 3
Delay time programmable dS, dr	[s]	0, 0,1...50
Damping process value dAP	[s]	0...4

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Software / programming		
Adjustment of the switch point	Programming button	
Parameter setting options	hysteresis / window; normally open / closed; switching logic; current/voltage input; Damping adaptation of displayed values; display can be rotated and switched off; Display unit	
Operating conditions		
Ambient temperature	[°C]	-25...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 61000-4-6 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]	152
Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight	[g]	291.5
Material	stainless steel (1.4305 / 303); PBT; PC; PA; 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	
Restrictor element integrated	no (can be retrofitted)	
Displays / operating elements		
Display	Display unit	3 x LED, green
	Display mode	3 x LED, green
	Switching status	2 x LED, yellow
	Function display	alphanumeric display, 4-digit
	Measured values	alphanumeric display, 4-digit
Display unit	bar; psi; MPa	
Remarks		
Pack quantity	1 pcs.	
Electrical connection		
Connector: 1 x M12; coding: A; Contacts: gold-plated		
		

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Connection

