

Pressure sensor with display

PE-100PSBN14-KFPKG/US/ /E

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- 1 7-segment LED display
- 2 programming button



Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1
Measuring range [psi]	0...1000
Process connection	threaded connection 1/4" NPT external thread

Application

Application	for industrial applications
Media	liquids and gases
Conditionally suitable for	For gaseous media the application is limited to max. 25 bar.
Cannot be used for	oils
Medium temperature [°C]	-25...80
Min. bursting pressure [psi]	9000
Pressure rating [psi]	4500
Type of pressure	relative pressure

Electrical data

Operating voltage [V]	20...30 DC
Current consumption [mA]	< 60
Protection class	II
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: 1; Number of analogue outputs: 1									
Outputs											
Total number of outputs		2									
Output signal		switching signal; analogue signal; (configurable)									
Electrical design		PNP									
Number of digital outputs		1									
Max. voltage drop switching output DC [V]		2									
Permanent current rating of switching output DC [mA]		250									
Number of analogue outputs		1									
Analogue current output [mA]		4...20									
Max. load [Ω]		500									
Short-circuit protection		yes									
Type of short-circuit protection		pulsed									
Overload protection		yes									
Measuring/setting range											
Measuring range [psi]		0...1000									
Set point SP [psi]		10...999									
Reset point rP [psi]		5...995									
In steps of [psi]		5									
Accuracy / deviations											
Switch point accuracy [% of the final value]		< ± 1,5									
Repeatability [% of the final value]		< ± 0,25; (with temperature fluctuations < 10 K)									
Characteristics deviation [% of the final value]		< ± 1,0									
Temperature drift per 10 K		< ± 0.3									
Response times											
Switching frequency for a given set response time of one output		Response time (dAP) [ms]	3	6	10	17	30	60	125	250	500
		Switching frequency [Hz]	170	80	50	30	16	8	4	2	1
Response time [ms]		at rectangular pressure characteristic; switch point (SPx) = 70 %; reset point (rPx) = 30 %									
Delay time programmable dS, dr [s]		0, 0,2,...10, 11,...50									
Max. response time analogue output [ms]		3									
Software / programming											
Adjustment of the switch point		programming button									
Operating conditions											
Ambient temperature [°C]		-25...80									

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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)

Mechanical data

Materials	EPDM/X; FKM; NBR; PBT; PC; stainless steel (1.4301 / 304)	
Materials (wetted parts)	EPDM/X; ceramics; stainless steel (1.4305 / 303)	
Min. pressure cycles	100 million	
Process connection	threaded connection 1/4" NPT external thread	

Displays / operating elements

Display	switching status	LED, red
	function display	7-segment LED display
	measured values	7-segment LED display

Remarks

Pack quantity	1 pcs.
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Electrical connection

Connector: 1 x M12; coding: A



Connection

