

Pressure sensor with display

PN-001-RBR14-LFPKG/US/ IV

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Alternative articles: PN3007

When selecting an alternative article and accessories please note that technical data may differ!



- 1 7-segment LED display
2 Programming button



Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1
Measuring range [bar]	0...1
Process connection	threaded connection G 1/4 Internal thread

Application

Application	for industrial applications
Media	liquids and gases
Medium temperature [°C]	-25...80
Min. bursting pressure [bar]	30
Pressure rating [bar]	10
Type of pressure	relative pressure

Electrical data

Operating voltage [V]	20...30 DC
Current consumption [mA]	< 60
Min. insulation resistance [MΩ]	100; (500 V DC)
Protection class	III
Reverse polarity protection	yes



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Power-on delay time [s]	0.2
Integrated watchdog	yes

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1
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Outputs

Total number of outputs	2
Output signal	switching signal; analog 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 analog outputs	1
Analog voltage output [V]	0...10
Min. load resistance [Ω]	2000
Short-circuit protection	yes
Type of short-circuit protection	yes (non-latching)
Overload protection	yes

Measuring/setting range

Measuring range [bar]	0...1
Set point SP [bar]	0.02...1
Reset point rP [bar]	0.01...0.99
In steps of [bar]	0.01

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

Reaction times

Switching frequency for a given set response time of one output	Response time [ms] (dAP)	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; Set point (SPx) = 70 %; Reset point (rPx) = 30 %									
Delay time programmable dS, dr [s]	0, 0,2,...10, 11,...50									
Max. response time analog output [ms]	3									

Software / programming

Adjustment of the switch point	Programming button
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PN9027



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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)

Mechanical data	
Material	EPDM/X; FKM; NBR; PBT; PC; PTFE; stainless steel (1.4301 / 304)
Materials (wetted parts)	FKM; ceramics; stainless steel (1.4305 / 303)
Min. pressure cycles	100 million
Process connection	threaded connection G 1/4 Internal 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.

Electrical connection

Connector: 1 x M12; coding: A



Connection

