



Pressure sensor with display

PN-400MSBR14-QFNKG/US/ IV

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Alternative articles: PN7000

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: 2
Measuring range [MPa]	0...40
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	For gaseous media the application is limited to max. 25 bar.
Medium temperature [°C]	-25...80
Min. bursting pressure [MPa]	100
Pressure rating [Mpa]	60
Type of pressure	relative pressure

Electrical data

Operating voltage [V]	18...30 DC
Current consumption [mA]	< 60
Min. insulation resistance [MΩ]	100; (500 V DC)



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Protection class	III										
Reverse polarity protection	yes										
Power-on delay time [s]	0.2										
Integrated watchdog	yes										
Inputs / outputs											
Number of inputs and outputs	Number of digital outputs: 2										
Outputs											
Total number of outputs	2										
Output signal	switching signal										
Electrical design	NPN										
Number of digital outputs	2										
Output function	normally open / normally closed; (parameterisable)										
Max. voltage drop switching output DC [V]	2										
Permanent current rating of switching output DC [mA]	250										
Short-circuit protection	yes										
Type of short-circuit protection	pulsed										
Overload protection	yes										
Measuring/setting range											
Measuring range [MPa]	0...40										
Set point SP [MPa]	0.4...40										
Reset point rP [MPa]	0.2...39.8										
In steps of [MPa]	0.2										
Accuracy / deviations											
Switch point accuracy [% of the final value]	< ± 1,0										
Repeatability [% of the final value]	< ± 0,25; (with temperature fluctuations < 10 K)										
Temperature drift per 10 K	< ± 0.3										
Response 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; switch point (SPx) = 70 %; reset point (rPx) = 30 %										
Delay time programmable dS, dr [s]	0, 0,2,...10, 11,...50										
Software / programming											
Adjustment of the switch point	programming button										
Parameter setting options	hysteresis / window; normally open / normally closed; switch-on/switch-off delay; Damping										
Operating conditions											
Ambient temperature [°C]	-25...80										

PN0020



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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; PA; PBT; PC; stainless steel (1.4301 / 304)
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	switching status	2 x 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; Contacts: gold-plated



Connection

