

Pressure sensor with display

PN-0-1KRBR14-QFNKG/US/ IV

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- 1 7-segment LED display
2 programming button



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2
Measuring range [kPa]	-100...0
Process connection	threaded connection G 1/4 internal thread

Application

Special feature	Gold-plated contacts
Application	for industrial applications
Media	liquids and gases
Medium temperature [°C]	-25...80
Min. bursting pressure [kPa]	3000
Pressure rating [kPa]	1000
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)
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										
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 [kPa]			-100...0										
Set point SP [kPa]			-99...-0.5										
Reset point rP [kPa]			-99.5...-1										
In steps of [kPa]			0.5										
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]		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										
Storage temperature [°C]			-40...100										
Protection			IP 65										



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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; PTFE; 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.	
Electrical connection		

Connector: 1 x M12; coding: A; Contacts: gold-plated



Connection

