

Pressure sensor with display

PE-001-RBR14-QFPKG/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: 2
Measuring range [bar]	0...1
Process connection	threaded connection G 1/4 internal thread

Application

Special feature	Gold-plated contacts
Application	for industrial applications
Media	liquids and gases
Cannot be used for	oils
Medium temperature [°C]	-25...80
Min. bursting pressure [bar]	30
Pressure rating [bar]	10
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



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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	PNP									
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 [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]	< ± 1,0									
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 (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									
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									

PE7027



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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 (304/1.4301)	
Materials (wetted parts)	EPDM/X; ceramics; stainless steel (303/1.4305)	
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

