

Pressure sensor with display

PE-001-RBR14-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 [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]	20...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: 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 [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 [X16]	$< \pm 1,5$
Repeatability [X16]	$< \pm 0,25$; (with temperature fluctuations < 10 K)
Characteristics deviation [X16]	$< \pm 1,0$
Temperature drift per 10 K	$< \pm 0,3$
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
Response time [ms]	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
Parameter setting options	hysteresis / window; normally open / normally closed; switch-on/switch-off delay; Damping
Operating conditions	
Ambient temperature [°C]	-25...80

PE3027



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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

Materials	EPDM/X; FKM; PA; PBT; PC; PTFE; 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 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.
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Electrical connection

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



Connection

