

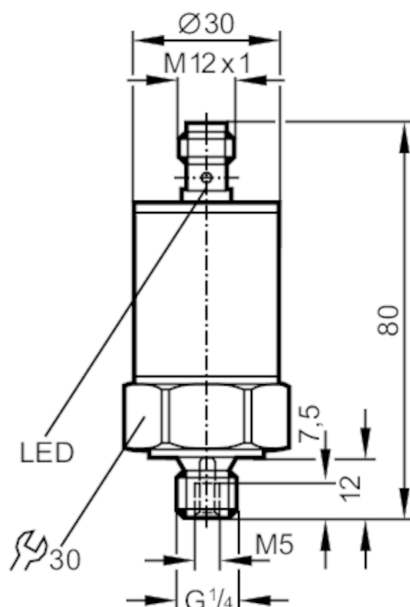
PD7024



Pressure switch with ceramic measuring cell

PD-010-RBG14-QFRKG/US/ /E

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Product characteristics

Number of inputs and outputs	Number of digital outputs: 2		
Measuring range	0...10 bar	0...145 psi	0...1000 kPa
Process connection	threaded connection G 1/4 external 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	150 bar	2175 psi	15000 kPa
Pressure rating	50 bar	725 psi	5000 kPa
Type of pressure	relative pressure		

Electrical data

Operating voltage [V]	9.6...30 DC; (PP2000 with sensor: > 18)		
Current consumption [mA]	< 45		
Min. insulation resistance [MΩ]	100; (500 V DC)		
Protection class	III		
Reverse polarity protection	yes		
Power-on delay time [s]	0.3		

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2		
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Outputs			
Total number of outputs	2		
Output signal	switching signal		
Electrical design	PNP/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	0...10 bar	0...145 psi	0...1000 kPa
Set point SP	0.1...9.99 bar	1...145 psi	10...999 kPa
Reset point rP	0.05...9.94 bar	1...144 psi	5...994 kPa
In steps of	0.01 bar	1 psi	1 kPa
Factory setting		OU1 = Hno	OU2 = tch
		SP1 = 2.50 bar	rP1 = 2.302 bar
Accuracy / deviations			
Switch point accuracy [% of the span]	< ± 1,5		
Repeatability [% of the span]	< ± 0,1; (with temperature fluctuations < 10 K)		
Characteristics deviation [% of the span]	< ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line)		
Linearity deviation [% of the span]	< ± 0,5		
Hysteresis deviation [% of the span]	< ± 0,1		
Long-term stability [% of the span]	< ± 0,1; (per year)		
Temperature coefficient zero point [% of the span / 10 K]	< ± 0,2; (-25...80 °C)		
Temperature coefficient span [% of the span / 10 K]	< ± 0,3; (-25...80 °C)		
Response times			
Response time [ms]	< 3		
Software / programming			
Adjustment of the switch point	programming unit / teach function		
Interfaces			
Communication interface	EPS		

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Operating conditions		
Ambient temperature	[°C]	-25...80
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		
Weight	[g]	0.194
Materials		stainless steel (304/1.4301); PA
Materials (wetted parts)		stainless steel (303/1.4305); ceramics; EPDM
Min. pressure cycles		100 million
Process connection		threaded connection G 1/4 external thread
Displays / operating elements		
Display	operation	LED, green
	switching status	2 x LED, yellow
Teach function		yes
Remarks		
Pack quantity		1 pcs.
Electrical connection		
Connector: 1 x M12; coding: A; Contacts: gold-plated		

Connection

