

PP7021



Pressure switch with ceramic measuring cell

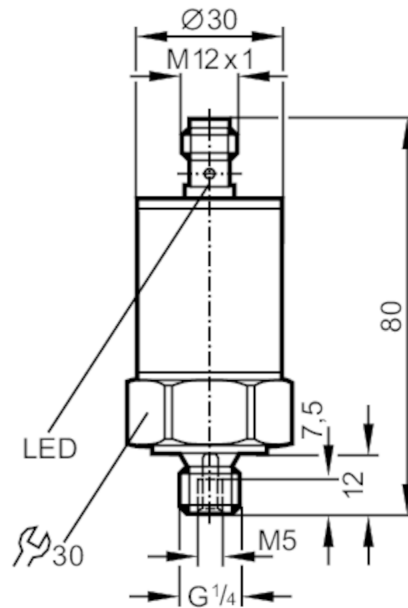
PP-250-SBG14-QFRKG/US/ IV

Article no longer available - archive entry

Alternative articles: PP7551 or PP0521

When selecting an alternative article and accessories please note that technical data may differ!

PP755x = DC pnp, PP052x = DC npn



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2		
Measuring range	0...250 bar	0...3630 psi	0...25 MPa
Process connection	threaded connection G 1/4 external thread internal thread:M5		

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	850 bar	12300 psi	85 MPa
Pressure rating	400 bar	5800 psi	40 Mpa
Type of pressure	relative pressure		

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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	
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	
Switching frequency DC	[Hz]	< 170	
Short-circuit protection		yes	
Type of short-circuit protection		pulsed	
Overload protection		yes	
Measuring/setting range			
Measuring range		0...250 bar	0...3630 psi
Set point SP		3...250 bar	40...3630 psi
Reset point rP		2...249 bar	20...3610 psi
In steps of		1 bar	10 psi
			0...25 MPa
			0.3...25 MPa
			0.2...24.9 MPa
			0.1 MPa
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; LS = limit value setting)	
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)	

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Response times		
Response time	[ms]	< 3
Damping for the switching output dAP	[s]	0...4
Software / programming		
Adjustment of the switch point	programming unit / teach function	
Interfaces		
Communication interface	EPS	
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		
Materials	stainless steel (1.4301 / 304); PA	
Materials (wetted parts)	stainless steel (1.4305 / 303); ceramics; FKM	
Min. pressure cycles	100 million	
Process connection	threaded connection G 1/4 external thread internal thread:M5	
Restrictor element integrated	no (can be retrofitted)	
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; Contacts: gold-plated		
		

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Connection

