

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		

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		



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Power-on delay time	[s]	0.3
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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
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	0...25 MPa
Set point SP	3...250 bar	40...3630 psi	0.3...25 MPa
Reset point rP	2...249 bar	20...3610 psi	0.2...24.9 MPa
In steps of	1 bar	10 psi	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)

Response times

Response time	[ms]	< 3
Damping process value dAP	[s]	0...4

Software / programming

Adjustment of the switch point	programming unit / teach function
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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 (304/1.4301); PA
Materials (wetted parts)		stainless steel (303/1.4305); 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; coding: A; Contacts: gold-plated		
		

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Connection

