

PP7020



Pressure switch with ceramic measuring cell

PP-400-SBG14-QFRKG/US/ IV

Article no longer available - archive entry

Alternative articles: PP7550 or PP0520

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...400 bar	0...5800 psi	0...40 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	1000 bar	14500 psi	100 MPa
Pressure rating	600 bar	8700 psi	60 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		



Pressure switch with ceramic measuring cell

PP-400-SBG14-QFRKG/US/ /V

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...400 bar	0...5800 psi	0...40 MPa
Set point SP	4...400 bar	60...5800 psi	0.4...40 MPa
Reset point rP	2...398 bar	30...5770 psi	0.2...39.8 MPa
In steps of	1 bar	10 psi	0.1 MPa
Accuracy / deviations			
Switch point accuracy	< ± 1,5		
[% of the span]			
Repeatability	< ± 0,1; (with temperature fluctuations < 10 K)		
[% of the span]			
Characteristics deviation	< ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)		
[% of the span]			
Linearity deviation	< ± 0,5		
[% of the span]			
Hysteresis deviation	< ± 0,1		
[% of the span]			
Long-term stability	< ± 0,1; (per year)		
[% of the span]			
Temperature coefficient zero point	< ± 0,2; (-25...80 °C)		
[% of the span / 10 K]			
Temperature coefficient span	< ± 0,3; (-25...80 °C)		
[% of the span / 10 K]			
Response times			
Response time	[ms]	< 3	
Damping process value dAP	[s]	0...4	
Software / programming			
Adjustment of the switch point	programming unit / teach function		

PP7020



Pressure switch with ceramic measuring cell

PP-400-SBG14-QFRKG/US/ IV

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		
		



Pressure switch with ceramic measuring cell

PP-400-SBG14-QFRKG/US/ IV

Connection

