

Pressure switch with ceramic measuring cell

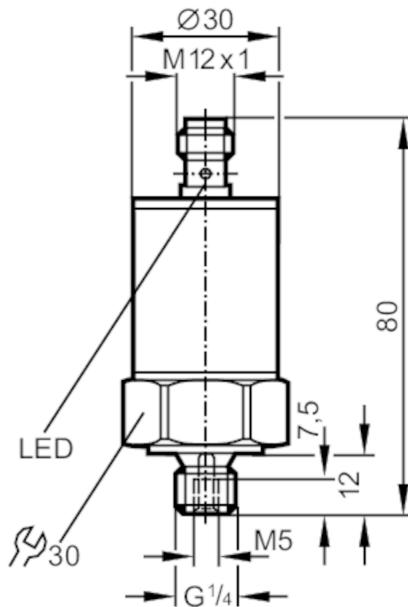
PP-025-SBG14-QFRKG/US/ IV

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Alternative articles: PP7553 or PP0523

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...25 bar	0...363 psi	0...2.5 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		
Medium temperature [°C]		-25...80	
Min. bursting pressure	350 bar	5075 psi	35 MPa
Pressure rating	100 bar	1450 psi	10 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		
Power-on delay time [s]	0.3		

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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...25 bar	0...363 psi	0...2.5 MPa
Set point SP	0.3...25 bar	4...363 psi	0.03...2.5 MPa
Reset point rP	0.2...24.9 bar	2...362 psi	0.02...2.49 MPa
In steps of	0.1 bar	1 psi	0.01 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 EN 61000-4-3 HF radiated EN 61000-4-4 Burst EN 61000-4-6 HF conducted	4 kV CD / 8 kV AD 10 V/m 2 kV 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 switching status	LED, green 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

