

# PP7531



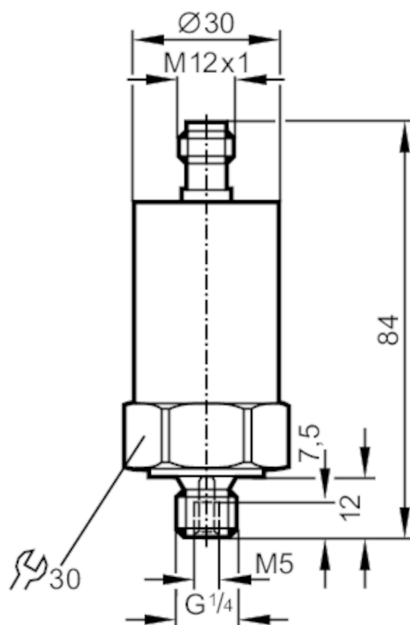
## Pressure switch with ceramic measuring cell

PP-250-SBG14-QFRKG/US/ IV

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Alternative articles: PP7551

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



### 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

System	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...90; (on request: -40...90 °C)		
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		
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 / closed; (configurable)	
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		yes (non-latching)	
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; (0...80 °C)	
Temperature coefficient span [% of the span / 10 K]		< ± 0,3; (0...80 °C)	
Reaction 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]	-40...90
Storage temperature	[°C]	-40...100
Protection	IP 68; (BFSL = Best Fit Straight Line; LS = limit value setting)	
Tests / approvals		
EMC	radiation of interference	according to the automotive directive 1995/54/EC
	noise immunity	according to the automotive directive 1995/54/EC annex IX
	HF radiated	150 V/m
	pulse resistance	ISO 7637
	supply	ISO 7637-2 (Pulse 1a, 1b, 2, 3a, 3b, 4, 6, 7)
	signal cables	ISO 7637-3 (Pulse a und b)
	noise immunity	EN 61000-6-2
	EN 61000-4-2 ESD	8/15 kV
	EN 61000-4-3 HF radiated	100 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	10 V
	Shock resistance	DIN IEC 60068-2-27 / DIN IEC 60068-2-29
Vibration resistance	DIN IEC 68-2-6	20 g (10...2000 Hz)
Mechanical data		
Material	stainless steel (1.4301 / 304); FKM; PEI	
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	Power	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

