PP7542

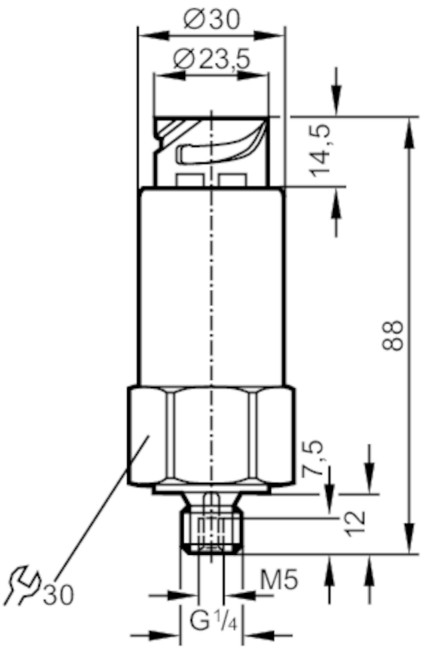
Pressure switch with ceramic measuring cell

PP-100-SBG14-QFRKG/BS/ /N

Article no longer available - archive entry

Alternative articles: PP7552
When selecting an alternative article and accessories please note that technical data may differ!

Note: electrical connection of the replacement units via M12 socket.



CE

Product characteristics				
Number of inputs and outputs		Number of digital outputs: 2		
Measuring range		0...100 bar	0...1450 psi	0...10 MPa
Process connection		threaded connection G 1/4 external thread internal thread:M5		
Application				
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		650 bar	9400 psi	65 MPa
Pressure rating		300 bar	4350 psi	30 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 / 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...100 bar	0...1450 psi	0...10 MPa
Set point SP	1...99.9 bar	10...1450 psi	0.1...0.99 MPa
Reset point rP	0.5...95.5 bar	10...1440 psi	0.05...9.95 MPa
In steps of	0.1 bar	10 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; (0...80 °C)		
Temperature coefficient span [% of the span / 10 K]	< ± 0,3; (0...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]	-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
		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)
		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	1000 g
Vibration resistance		DIN IEC 68-2-6	20 g (10...2000 Hz)
Mechanical data			
Materials		stainless steel (304/1.4301); FKM; PBT	
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.	

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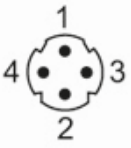
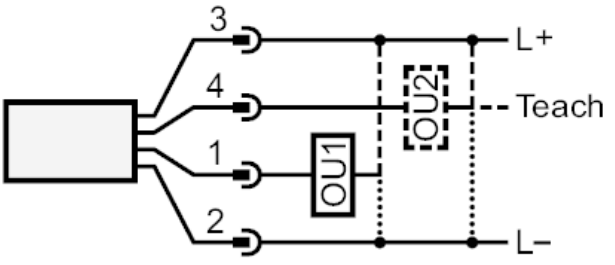
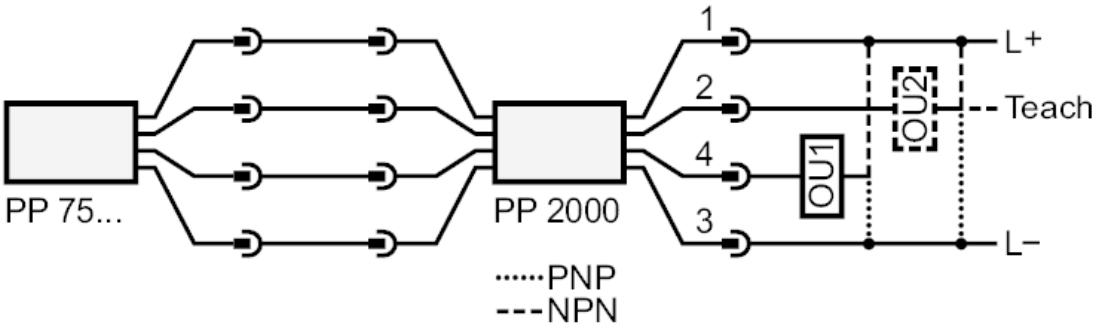
Electrical connection

Connector: 1 x Bajonett