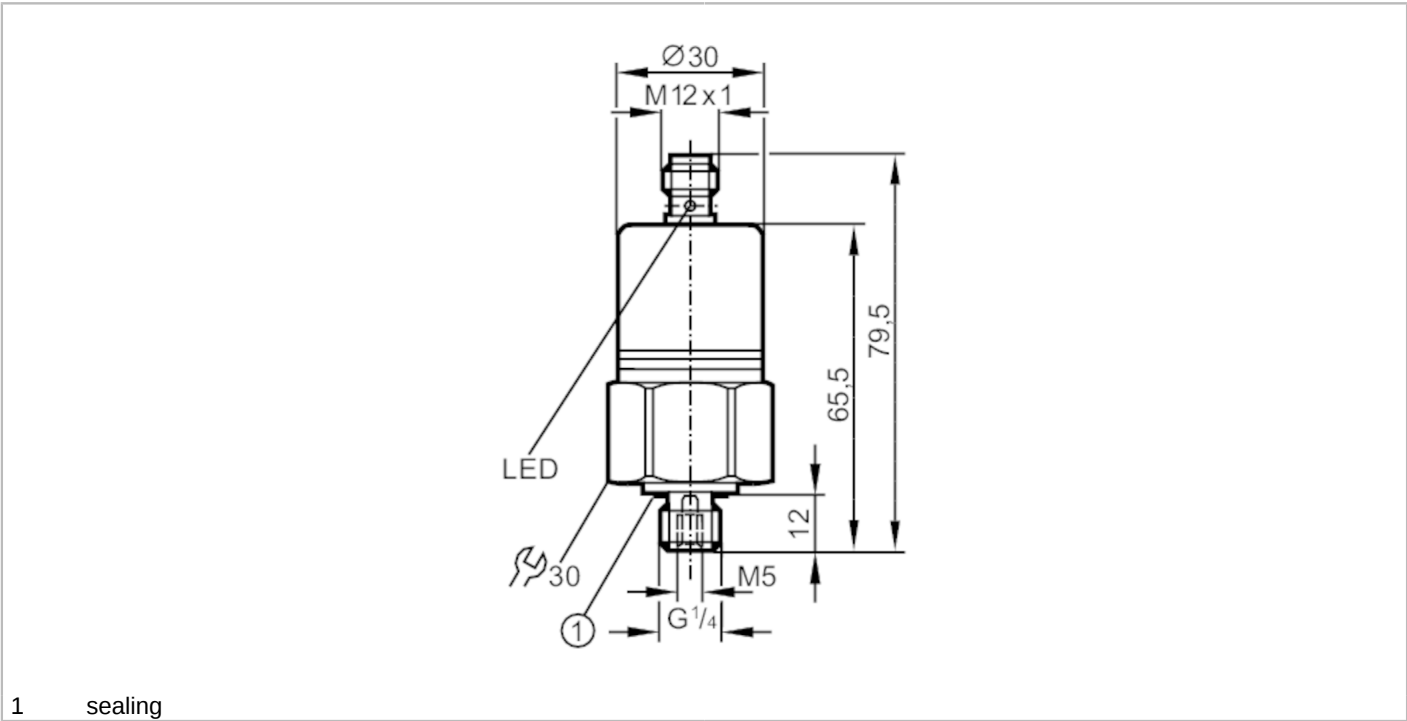


PP0522



Pressure switch with ceramic measuring cell

PP-100-SBG14-QFNKG/US/ IV



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	use in gases at pressures > 25 bar only on request		
Medium temperature	-25...90		
Min. burst 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...36 DC; (communication mode: 18...32)	
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	
Inputs / outputs			
Number of inputs and outputs	Number of digital outputs: 2		
Outputs			
Total number of outputs	2		
Output signal	switching signal		



Pressure switch with ceramic measuring cell

PP-100-SBG14-QFNKG/US/ IV

Electrical design	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...100 bar	0...1450 psi	0...10 MPa
Set point SP	1...100 bar	20...1450 psi	0.1...10 MPa
Reset point rP	0.5...99.5 bar	10...1440 psi	0.05...9.95 MPa
In steps of	0.5 bar	10 psi	0.05 MPa
Factory setting		SP1 = 25.0 bar	rP1 = 23.0 bar
		SP2 = 75.0 bar	rP2 = 73.0 bar
		OUT1 = Hno	OUT2 = Hno
Accuracy / deviations			
Switch point accuracy [% of the span]	< ± 0,5		
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)		
Zero-point stabilization [% of the span]	1,0; (Display, Switching output (see operating instructions zero-point behavior))		
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]	< ± 0,2; (0...80 °C)		
Reaction times			
Response time [ms]	< 3		
Damping process value dAP in steps [s]	0,003 - 0,006 - 0,010 - 0,017 - 0,060 - 0,125 - 0,250 - 0,500		
Operating conditions			
Ambient temperature [°C]	-25...85		
Storage temperature [°C]	-40...100		
Protection	IP 68; (7 days / 1 m water depth / 0.1 bar)		



Pressure switch with ceramic measuring cell

PP-100-SBG14-QFNKG/US/ /V

Tests / approvals		
EMC	noise immunity	EN 61000-6-2
	EN 61000-4-2 ESD	4 kV contact discharge / 15 kV air discharge
	EN 61000-4-3 HF radiated	20 V/m
	EN 61000-4-4 Burst	4 kV coupling clamp
	EN 61000-4-5 Surge	0,5 kV supply / 1 kV signal for DC units
	EN 61000-4-6 HF conducted	30 V
Shock resistance	DIN IEC 60068-2-27 / DIN IEC 60068-2-29	1000 g
Vibration resistance	DIN EN 61373	Category 3
	DIN IEC 68-2-6	20 g (10...2000 Hz)
	DIN EN 60068-2-64	14 g
MTTF	DIN EN 61373	Category 2
	[years]	309.28
Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight	[g]	224.5
Housing		tubular
Dimensions	[mm]	Ø 30 / L = 79.5
Material		stainless steel (1.4301 / 304); FKM; EPDM/X; PA
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	2 x 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: 4		
		

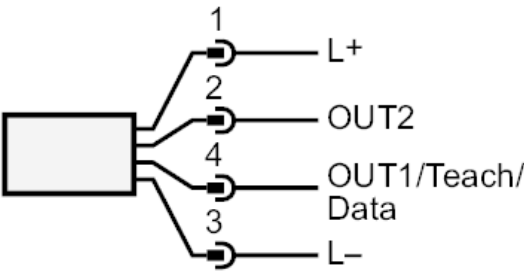
PP0522



Pressure switch with ceramic measuring cell

PP-100-SBG14-QFNKG/US/ IV

Connection



OUT1	Switching output
OUT2	Switching output
	Diagnostic output