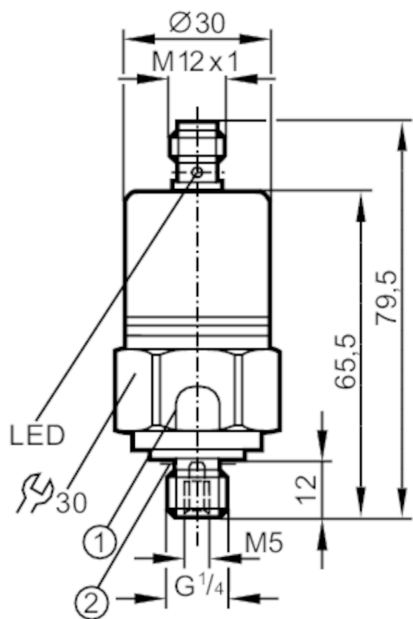


PP7551



Pressure switch with ceramic measuring cell

PP-250-SBG14-QFPKG/US/ IV



- 1 pressure relief mechanism
No mechanical force must be exerted on the pressure relief mechanism.
- 2 Sealing



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2		
Measuring range	0...250 bar	0...3625 psi	0...25 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 [°C]	-25...90		
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...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		
------------------------------	------------------------------	--	--



Pressure switch with ceramic measuring cell

PP-250-SBG14-QFPKG/US/ IV

Outputs				
Total number of outputs		2		
Output signal		switching signal; IO-Link; (configurable)		
Electrical design		PNP		
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...250 bar	0...3625 psi	0...25 MPa
Set point SP		2...250 bar	40...3620 psi	0.2...25 MPa
Reset point rP		1...249 bar	20...3600 psi	0.1...24.9 MPa
In steps of		1 bar	20 psi	0.1 MPa
Factory setting			SP1 = 63 bar	rP1 = 58 bar
			SP2 = 188 bar	rP2 = 183 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)		
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)		
Response times				
Response time [ms]		< 3		
Damping for the switching output dAP in steps [s]		0,003 - 0,006 - 0,010 - 0,017 - 0,060 - 0,125 - 0,250 - 0,500		



Pressure switch with ceramic measuring cell

PP-250-SBG14-QFPKG/US/ IV

Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.0	
Profiles	no profile	
SIO mode	yes	
Required master port type	A	
Process data analogue	1	
Process data binary	2	
Min. process cycle time [ms]	2.3	
Supported DeviceIDs	Type of operation	DeviceID
	Default	3
Operating conditions		
Ambient temperature [°C]	-25...85	
Storage temperature [°C]	-40...100	
Protection	IP 68; (7 days / 1 m water depth / 0.1 bar)	
Tests / approvals		
EMC	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	10 V
	immunity	according to the automotive directive 1995/54/EC / 04/104EG / 05/83/EG
	absorber chamber test to ISO 11452-2:	80 V/m
	EN 50155	Klasse T3, C1, S1
	DIN IEC 60068-2-27 / DIN IEC 60068-2-29	1000 g
Shock resistance	DIN EN 61373	category 3
Vibration resistance	DIN IEC 68-2-6	20 g (10...2000 Hz)
	DIN EN 60068-2-64	14 g
	DIN EN 61373	category 2
MTTF [years]	308	
UL approval	UL Approval no.	J010
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight [g]	227.5	
Materials	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	operation	2 x LED, green
	switching status	2 x LED, yellow
Teach function	yes	

PP7551



Pressure switch with ceramic measuring cell

PP-250-SBG14-QFPKG/US/ IV

Remarks

Pack quantity

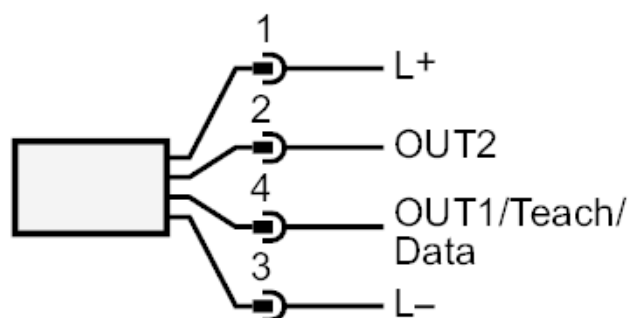
1 pcs.

Electrical connection

Connector: 1 x M12



Connection



OUT1	switching output
OUT2	switching output
	Diagnostic output