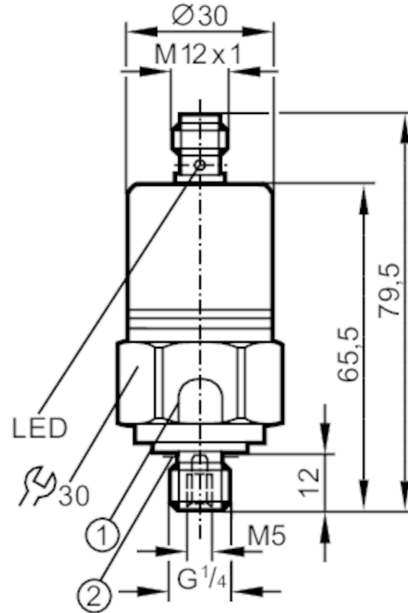


PP7551



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; for railway applications		
Media	liquids and gases		
Conditionally suitable for	use in gases at pressures > 25 bar only on request		
Medium temperature [°C]	-25...90		
Min. burst 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		
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Outputs

Total number of outputs	2		
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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)
Zero-point stabilisation [% of the span]	switching output, display 1,0
Zero-point stabilisation [% of the span]	IO-Link 1,0; (see operating instructions zero-point behaviour)
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 process value dAP in steps [s]	0,003 - 0,006 - 0,010 - 0,017 - 0,060 - 0,125 - 0,250 - 0,500

Interfaces	
Communication interface	IO-Link
Transmission type	COM2 (38,4 kBaud)

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IO-Link revision		1.0
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
	absorber chamber test to ISO 11452-2:	80 V/m
Shock resistance	DIN IEC 60068-2-27 / DIN IEC 60068-2-29	1000 g
	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	
Railway applications	DIN EN 50155	Klasse T3, C1, S1

Mechanical data

Weight [g]		227.5
Housing		cylindrical
Dimensions [mm]		Ø 30 / L = 79.5
Materials		stainless steel (304/1.4301); FKM; EPDM/X; 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	2 x LED, green
	switching status	2 x LED, yellow
Teach function		yes

Remarks

Pack quantity		1 pcs.
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PP7551



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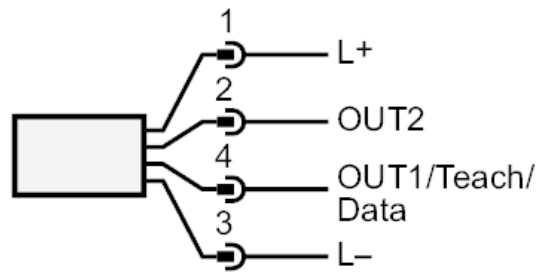
PP-250-SBG14-QFPKG/US/ IV

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4



Connection



OUT1	switching output
OUT2	switching output
	Diagnostic output