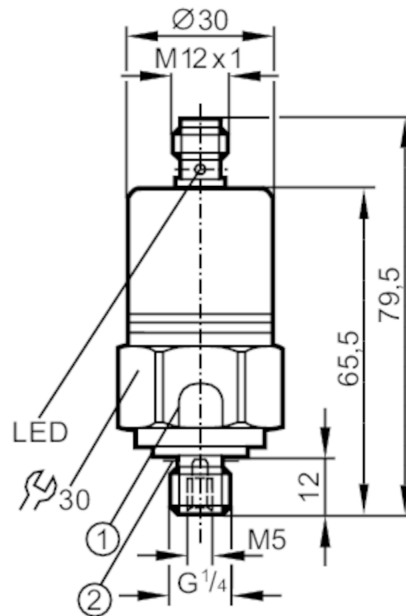




Pressure switch with ceramic measuring cell

PP-400-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...400 bar	0...5800 psi	0...40 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	1000 bar	14500 psi	100 MPa
Pressure rating	600 bar	8700 psi	60 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...400 bar	0...5800 psi	0...40 MPa
Set point SP	4...400 bar	60...5790 psi	0.4...40 MPa
Reset point rP	2...398 bar	30...5760 psi	0.2...39.8 MPa
In steps of	2 bar	30 psi	0.2 MPa
Factory setting		SP1 = 100 bar	rP1 = 92 bar
		SP2 = 300 bar	rP2 = 292 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 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)
IO-Link revision	1.0
Profiles	no profile
SIO mode	yes
Required master port type	A



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Process data analogue	1	
Process data binary	2	
Min. process cycle time [ms]	2.3	
Supported DeviceIDs	Type of operation	DeviceID
	default	2

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
	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 [years]	DIN EN 61373	category 2
		310
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data		
Weight [g]		218
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	yes	

Displays / operating elements		
Display	operation	2 x LED, green
	switching status	2 x LED, yellow
Teach function	yes	

Remarks		
Pack quantity	1 pcs.	

PP7550



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Electrical connection

Connector: 1 x M12; coding: A



Connection



OUT1	switching output
OUT2	switching output
	Diagnostic output