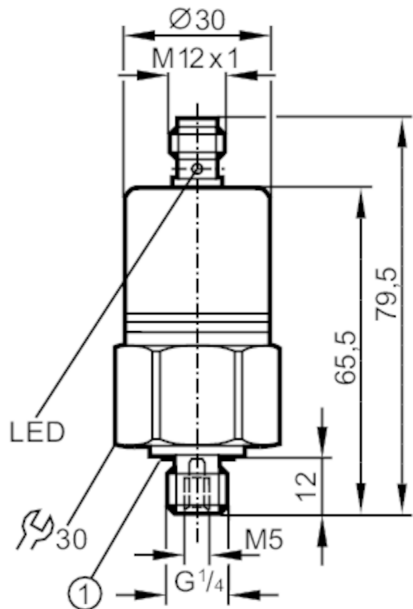


PP002E



Pressure switch with ceramic measuring cell

PP-100-SBG14-QFPKG/US/ IV



1 Sealing



Application			
Media	liquids and gases		
Conditionally suitable for	use in gases at pressures > 25 bar only on request		
Medium temperature [°C]	-25...90		
Pressure rating	300 bar	4350 psi	30 MPa
Min. bursting pressure	650 bar	9400 psi	65 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		
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...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)		
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		

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Interfaces		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.0
IO-Link device ID		4 d / 00 00 04 h
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
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	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	10 V
	noise 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]	310
Mechanical data		
Weight	[g]	230
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 threadM5
Displays / operating elements		
Display	operation	2 x LED, green
	switching status	2 x LED, yellow
Teach function		yes
Remarks		
Remarks		with reference to UL: "limited voltage" with overcurrent protection in accordance with UL508
Pack quantity		1 pcs.

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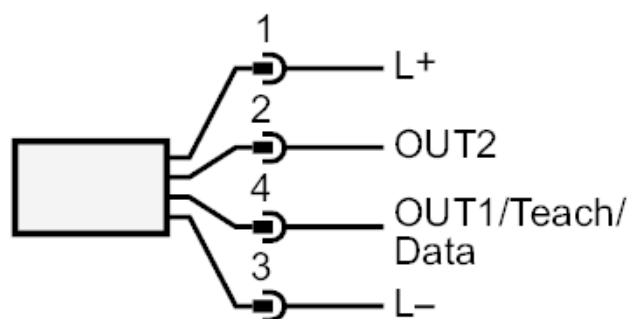
PP-100-SBG14-QFPKG/US/ IV

Electrical connection

Connector: 1 x M12



Connection



OUT1	switching output
OUT2	switching output
	Diagnostic output