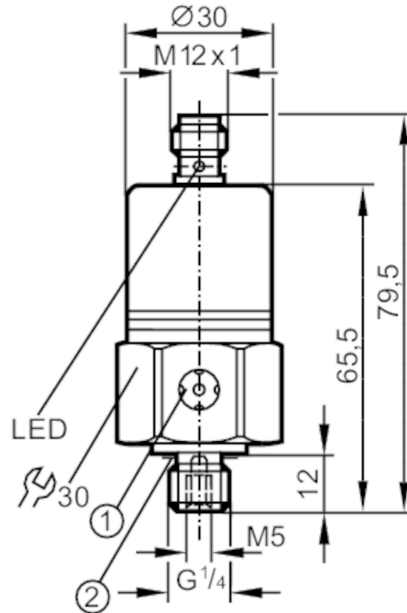


PP003E



Pressure switch with ceramic measuring cell

PP-025-RBG14-QFPKG/US/ IV



- 1 ventilation
- 2 Sealing



Product characteristics

Output signal	switching signal; IO-Link; (configurable)		
Measuring range	0...25 bar	0...363 psi	0...2.5 MPa
Process connection	threaded connection G 1/4 external thread internal thread:M5		

Application

Application	for mobile applications		
Media	liquids and gases		
Medium temperature [°C]	-25...90		
Min. bursting pressure	350 bar	5075 psi	35 MPa
Pressure rating	150 bar	2175 psi	15 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...25 bar	0...363 psi
Set point SP		0.2...25 bar	4...362 psi
Reset point rP		0.1...24.9 bar	2...360 psi
In steps of		0.1 bar	2 psi
Factory setting			SP1 = 6.3 bar
			SP2 = 18.8 bar
			OUT1 = Hno
			rP1 = 5.8 bar
			rP2 = 18.3 bar
			OUT2 = Hno
Accuracy / deviations			
Switch point accuracy		< ± 0,5	
	[% of the span]		
Repeatability		< ± 0,1; (with temperature fluctuations < 10 K)	
	[% of the span]		
Characteristics deviation		< ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)	
	[% of the span]		
Hysteresis deviation		< ± 0,1	
	[% of the span]		
Long-term stability		< ± 0,1; (per year)	
	[% of the span]		
Temperature coefficient zero point		0,2; (0...80 °C)	
	[% of the span / 10 K]		
Temperature coefficient span		0,2; (0...80 °C)	
	[% of the span / 10 K]		
Response times			
Response time		< 3	
	[ms]		
Damping for the switching output dAP in steps		0,003 - 0,006 - 0,010 - 0,017 - 0,060 - 0,125 - 0,250 - 0,500	
	[s]		

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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	5
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
Shock resistance	immunity	ECE R 10, Rev. 5
	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
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]	310	
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight [g]	223.5	
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	

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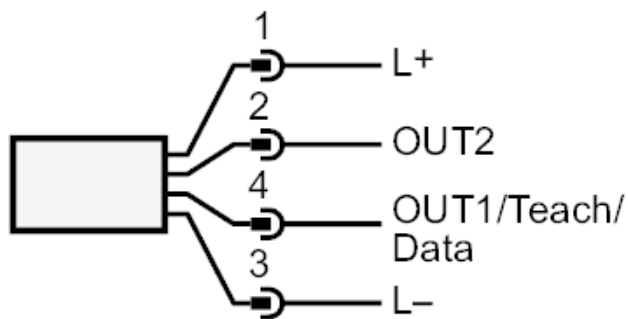
Remarks	
Remarks	with reference to UL: "limited voltage" with overcurrent protection in accordance with UL508
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12



Connection



OUT1	switching output
OUT2	switching output
	Diagnostic output