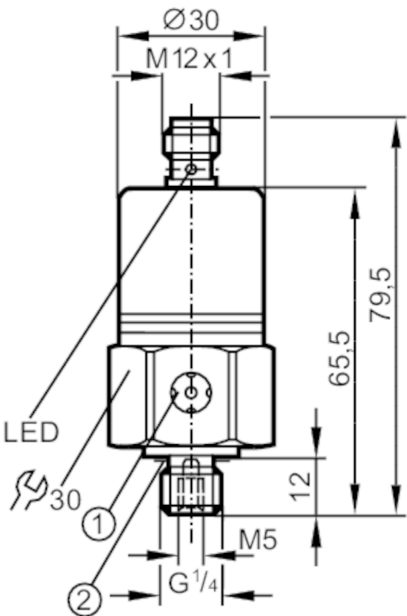


PP003E



Pressure switch with ceramic measuring cell

PP-025-RBG14-QFPKG/US/ IV



- 1 ventilation
- 2 Sealing



Product characteristics			
Number of inputs and outputs	Number of digital outputs: 2		
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		
Outputs			
Total number of outputs	2		
Output signal	switching signal; IO-Link; (configurable)		



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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	0...2.5 MPa
Set point SP	0.2...25 bar	4...362 psi	0.02...2.5 MPa
Reset point rP	0.1...24.9 bar	2...360 psi	0.01...2.49 MPa
In steps of	0.1 bar	2 psi	0.01 MPa
Factory setting		SP1 = 6.3 bar	rP1 = 5.8 bar
		SP2 = 18.8 bar	rP2 = 18.3 bar
		OUT1 = Hno	OUT2 = Hno
Accuracy / deviations			
Switch point accuracy [X21]	< ± 0,5		
Repeatability [X21]	< ± 0,1; (with temperature fluctuations < 10 K)		
Characteristics deviation [X21]	< ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)		
Hysteresis deviation [X21]	< ± 0,1		
Long-term stability [X21]	< ± 0,1; (per year)		
Temperature coefficient zero point [X22]	< ± 0,2; (0...80 °C)		
Temperature coefficient span [X22]	< ± 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		
Process data analogue	1		
Process data binary	2		
Min. process cycle time [ms]	2.3		
Supported DeviceIDs	Type of operation	DeviceID	
	default	5	

PP003E



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PP-025-RBG14-QFPKG/US/ IV

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	ECE R 10, Rev. 5
	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
	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	[ANN]	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
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; coding: A		

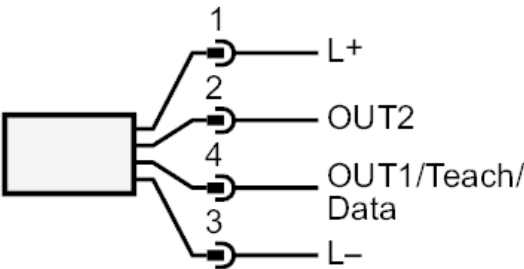
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PP-025-RBG14-QFPKG/US/ IV

Connection



OUT1	switching output
OUT2	switching output
	Diagnostic output