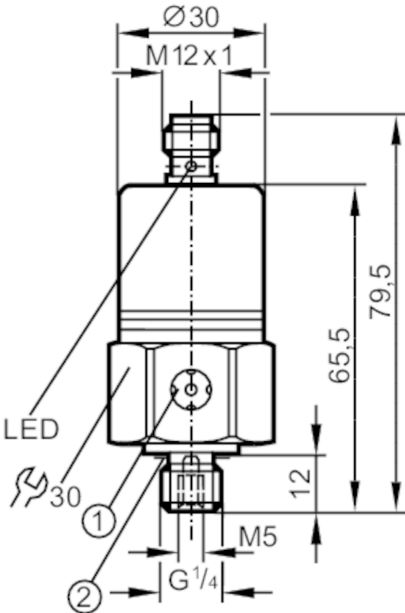


PP7556



Pressure switch with ceramic measuring cell

PP-2,5-RBG14-QFPKG/US/ IV



- 1 ventilation
- 2 sealing



Product characteristics				
Number of inputs and outputs	Number of digital outputs: 2			
Measuring range	0...2.5 bar	0...2500 mbar	0...36.3 psi	0...250 kPa
Process connection	threaded connection G 1/4 external thread Internal thread:M5			
Application				
Application	for mobile applications; for industrial applications; for railway applications			
Media	liquids and gases			
Medium temperature	-25...90			
Min. burst pressure	50 bar	725 psi	5000 kPa	
Pressure rating	20 bar	290 psi	2000 kPa	
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)			

PP7556



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Electrical design	PNP
Number of digital outputs	2
Output function	normally open / closed; (configurable)
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	yes (non-latching)
Overload protection	yes

Measuring/setting range				
Measuring range	0...2.5 bar	0...2500 mbar	0...36.3 psi	0...250 kPa
Set point SP	0.02...2.5 bar	0.4...36.2 psi	2...250 kPa	
Reset point rP	0.01...2.49 bar	0.2...36 psi	1...249 kPa	
In steps of	0.01 bar	0.2 psi	1 kPa	
Factory setting		SP1 = 0.63 bar	rP1 = 0.58 bar	
		SP2 = 1.88 bar	rP2 = 1.83 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 stabilization [% of the span]	Switching output, Display 1,0
Zero-point stabilization [% of the span]	IO-Link 1,0; (see operating instructions zero-point behavior)
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)

Reaction 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

PP7556



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SIO mode	yes				
Required master port class	A				
Process data analog	1				
Process data binary	2				
Min. process cycle time [ms]	2.3				
Supported DeviceIDs	<table> <tr> <th>Type of operation</th><th>DeviceID</th></tr> <tr> <td>default</td><td>7</td></tr> </table>	Type of operation	DeviceID	default	7
Type of operation	DeviceID				
default	7				

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
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]	310	
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	
Housing	tubular	
Dimensions [mm]	Ø 30 / L = 79.5	
Material	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	Power	2 x LED, green
	Switching status	2 x LED, yellow
Teach function	yes	

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

PP7556



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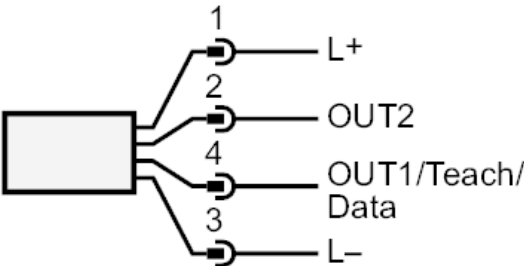
PP-2,5-RBG14-QFPKG/US/ IV

Electrical connection

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



Connection



OUT1	Switching output
OUT2	Switching output
	Diagnostic output