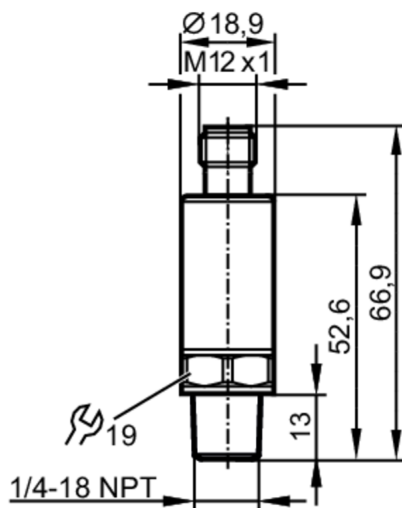


PV7601



Pressure switch with IO-Link

PV-250-SEN14-UFRVG/US/ I



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2		
Measuring range	0...250 bar	0...3626 psi	0...25 MPa
Process connection	threaded connection 1/4" NPT external thread Internal thread:M5		

Application

Measuring element	metallic thin film cell		
Application	for industrial applications		
Media	liquids and gases		
Medium temperature [°C]	-40...90		
Min. bursting pressure	1200 bar	17400 psi	120 MPa
Pressure rating	625 bar	9060 psi	62.5 MPa
Note on pressure rating	static		
Vacuum resistance [mbar]	-1000		
Vacuum resistance [MPa]	-0.1		
Type of pressure	relative pressure		
MAWP (for applications according to CRN) [bar]	625		

Electrical data

Operating voltage [V]	18...30 DC
Current consumption [mA]	< 15
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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PV-250-SEN14-UFRVG/US/ /

Outputs			
Total number of outputs	2		
Output signal	switching signal; IO-Link; (configurable)		
Electrical design	PNP/NPN		
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]	100		
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...250 bar	0...3626 psi	0...25 MPa
Set point SP	2.5...250 bar	37...3626 psi	0.25...25 MPa
Reset point rP	1.3...248.8 bar	18...3608 psi	0.13...24.88 MPa
In steps of	0.1 bar	1 psi	0.01 MPa
Factory setting	SP1 = 62.5 bar	rP1 = 57.5 bar	ou1 = Hno;
	SP2 = 187.5 bar	rP2 = 182.5 bar	ou2 = Hno;
	dS1/dS2 = 0 ms	dr1/dr2 = 0 ms	
	coF = 0 %	P-n = PnP	dAP= 60 ms
Accuracy / deviations			
Switch point accuracy [% of the span]	< ± 0,5 (nach DIN EN 61298-2)		
Repeatability [% of the span]	< ± 0,05; (with temperature fluctuations < 10 K)		
Characteristics deviation [% of the span]	< ± 0,5; (linearity incl. hysteresis and repeatability, limit value setting to DIN EN IEC 62828-1)		
Linearity deviation [% of the span]	< ± 0,1 (BFSL) / < ± 0,2 (LS)		
Hysteresis deviation [% of the span]	< ± 0,2		
Long-term stability [% of the span]	< ± 0,1; (per 6 months)		
Temperature coefficient zero point [% of the span / 10 K]	< 0,1 (-25...90 °C) / < 0,2 (-40...-25 °C)		
Temperature coefficient span [% of the span / 10 K]	< 0,1 (-25...90 °C) / < 0,2 (-40...-25 °C)		
Reaction times			
Response time [ms]	< 3		
Software / programming			
Parameter setting options	hysteresis / window; normally open / closed; switching logic; switch-on/switch-off delay; Damping		

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Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9	
Profiles	Smart Sensor: Process Data Variable; Device Identification, Device Diagnosis	
SIO mode	yes	
Required master port class	A	
Process data analog	2	
Process data binary	2	
Min. process cycle time [ms]	5	
Supported DeviceIDs	Type of operation	DeviceID
	default	852
Operating conditions		
Ambient temperature [°C]	-40...90	
Storage temperature [°C]	-40...100	
Protection	IP 67; IP 69K	
Tests / approvals		
EMC	DIN EN 61326-1	
Shock resistance	DIN EN 60068-2-27	500 g (1 ms)
Vibration resistance	DIN EN 60068-2-6	20 g (10...2000 Hz)
MTTF [years]	668	
UL approval	UL approval number	J016
Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight [g]	66	
Housing	tubular	
Dimensions [mm]	Ø 18.9 / L = 66.9	
Material	stainless steel (630/1.4542/17-4 PH); stainless steel (1.4404 / 316L); PEI	
Materials (wetted parts)	stainless steel (1.4305 / 303); stainless steel (630/1.4542/17-4 PH)	
Min. pressure cycles	60 million; (at 1.2 times nominal pressure)	
Tightening torque [Nm]	50; (recommended tightening torque; Depends on lubrication, seal and pressure rating)	
Process connection	threaded connection 1/4" NPT external thread Internal thread:M5	
Restrictor element integrated	yes	
Remarks		
Remarks	BFSL = Best Fit Straight Line	
	LS = limit value setting	
Pack quantity	1 pcs.	

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Electrical connection

Connector: 1 x M12; coding: A



Connection



OUT1	Switching output IO-Link
OUT2	Switching output Colors to DIN EN 60947-5-2 Core colors :
BK =	black
BN =	brown
BU =	blue
WH =	white