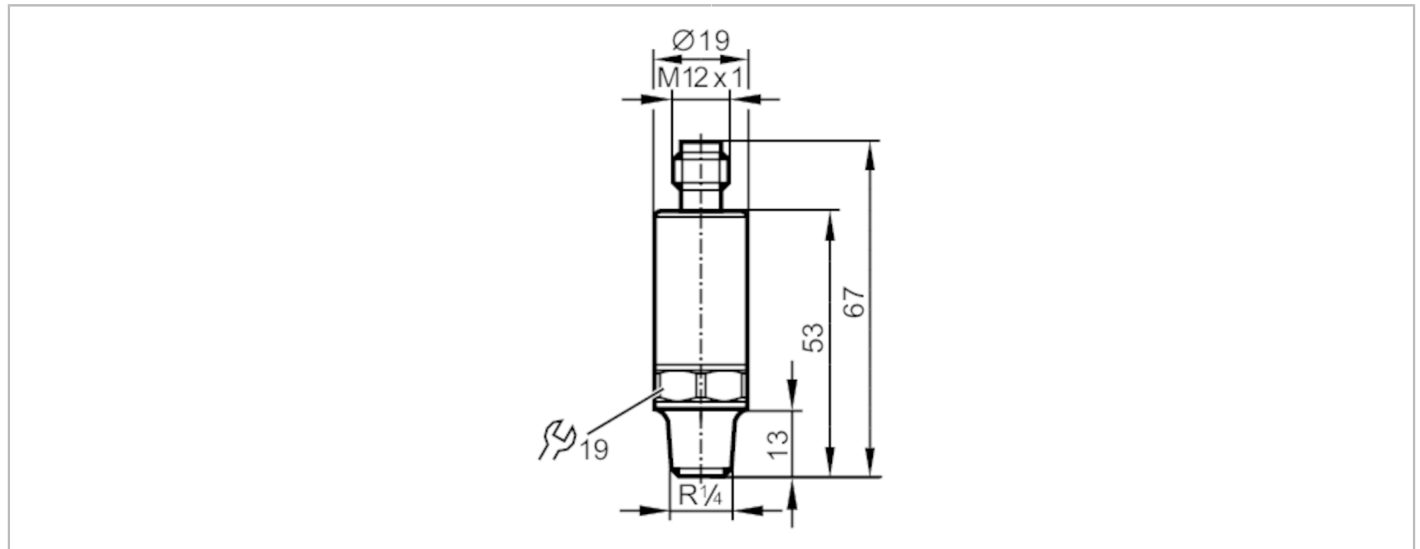


PV7701



Pressure switch with IO-Link

PV-250MSER14-UFRVG/US/ I



Product characteristics	
Output signal	switching signal; IO-Link; (configurable)
Measuring range [MPa]	0...25
Process connection	threaded connection R 1/4 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
Pressure rating [MPa]	62.5
Note on pressure rating	static
Min. bursting pressure [MPa]	120
Vacuum resistance [mbar]	-1000
Type of pressure	relative pressure
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



Pressure switch with IO-Link

PV-250MSER14-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 / normally closed; (parameterisable)												
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	pulsed												
Overload protection	yes												
Measuring/setting range													
Measuring range [MPa]	0...25												
Set point SP [MPa]	0.25...25												
Reset point rP [MPa]	0.13...24.88												
In steps of [MPa]	0.01												
Factory setting	<table border="1"> <tr> <td>SP1 = 6.25 MPa</td> <td>rP1 = 5.75 MPa</td> <td>ou1 = Hno;</td> </tr> <tr> <td>SP2 = 18.75 MPa</td> <td>rP2 = 18.25 MPa</td> <td>ou2 = Hno;</td> </tr> <tr> <td>dS1/dS2 = 0 ms</td> <td>dr1/dr2 = 0 ms</td> <td></td> </tr> <tr> <td>coF = 0 %</td> <td>P-n = PnP</td> <td>dAP= 60 ms</td> </tr> </table>	SP1 = 6.25 MPa	rP1 = 5.75 MPa	ou1 = Hno;	SP2 = 18.75 MPa	rP2 = 18.25 MPa	ou2 = Hno;	dS1/dS2 = 0 ms	dr1/dr2 = 0 ms		coF = 0 %	P-n = PnP	dAP= 60 ms
	SP1 = 6.25 MPa	rP1 = 5.75 MPa	ou1 = Hno;										
	SP2 = 18.75 MPa	rP2 = 18.25 MPa	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 (nach DIN EN 61298-2); (incl. drift when overtightened, zero point and span error, non-linearity, hysteresis)												
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)												
Response times													
Response time [ms]	< 3												
Software / programming													
Parameter setting options	hysteresis / window; normally open / normally closed; switching logic; switch-on/switch-off delay; Damping												

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Pressure switch with IO-Link

PV-250MSER14-UFRVG/US /

Interfaces	
Communication interface	IO-Link
Transmission type	COM2 (38,4 kBaud)
IO-Link revision	1.1
SDCI standard	IEC 61131-9
IO-Link device ID	781 d / 00 03 0d h
Profiles	Smart Sensor: Process Data Variable; Device Identification, Device Diagnosis
SIO mode	yes
Required master port type	A
Process data analogue	2
Process data binary	2
Min. process cycle time [ms]	5

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]		667.77
UL approval	UL Approval no.	J016
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data	
Weight [g]	63.1
Materials	1.4542 (17-4 PH / 630); stainless steel (1.4404 / 316L); PEI
Materials (wetted parts)	stainless steel (1.4305 / 303); 1.4542 (17-4 PH / 630)
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 R 1/4 external thread internal threadM5
Restrictor element integrated	yes

Remarks	
Remarks	BFSL = Best Fit Straight Line LS = limit value setting
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12



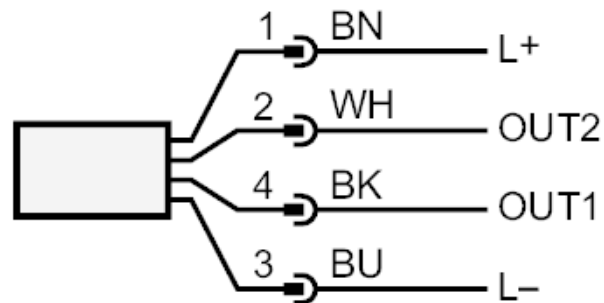
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Pressure switch with IO-Link

PV-250MSER14-UFRVG/US/ /

Connection



OUT1 switching output
 IO-Link

OUT2 switching output
 colours to DIN EN 60947-5-2
 Core colours :

BK = black
BN = brown
BU = blue
WH = white