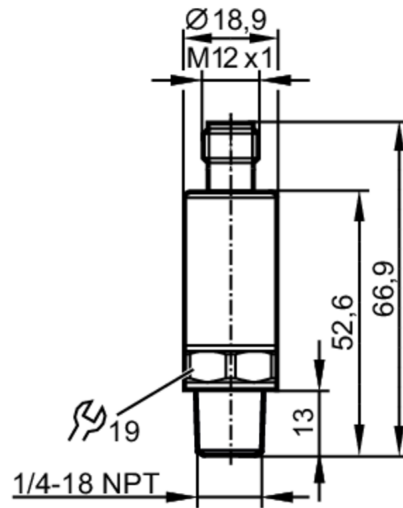


PV7603



Pressure switch with IO-Link

PV-025-SEN14-UFRVG/US/ I



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2		
Measuring range	-1...25 bar	-14.6...362.6 psi	-0.1...2.5 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	600 bar	8700 psi	60 MPa
Pressure rating	65 bar	940 psi	6.5 MPa
Note on pressure rating	static		
Vacuum resistance [mbar]	-1000		
Type of pressure	relative pressure		
MAWP (for applications according to CRN) [bar]	65		

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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Outputs

Total number of outputs	2		
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Pressure switch with IO-Link

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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	-1...25 bar	-14.6...362.6 psi	-0.1...2.5 MPa
Set point SP	-0.75...25 bar	-10.8...362.6 psi	-0.075...2.5 MPa
Reset point rP	-0.87...24.88 bar	-12.7...360.8 psi	-0.087...2488 MPa
In steps of	0.01 bar	0.1 psi	0.001 MPa
Factory setting	SP1 = 6.25 bar SP2 = 18.75 bar dS1/dS2 = 0 ms coF = 0 %	rP1 = 5.75 bar rP2 = 18.25 bar dr1/dr2 = 0 ms P-n = PnP	ou1 = Hno; ou2 = Hno; 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)

Response times

Response time [ms]	< 3
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Software / programming

Parameter setting options	hysteresis / window; normally open / normally closed; switching logic; switch-on/switch-off delay; Damping
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Interfaces

Communication interface	IO-Link
Transmission type	COM2 (38,4 kBaud)

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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 type	A				
Process data analogue	2				
Process data binary	2				
Min. process cycle time [ms]	5				
Supported DeviceIDs	<table border="1"><thead><tr><th>Type of operation</th><th>DeviceID</th></tr></thead><tbody><tr><td>Default</td><td>854</td></tr></tbody></table>	Type of operation	DeviceID	Default	854
Type of operation	DeviceID				
Default	854				

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 no. J015
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request

Mechanical data	
Weight [g]	64
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 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.

Electrical connection

Connector: 1 x M12; coding: A



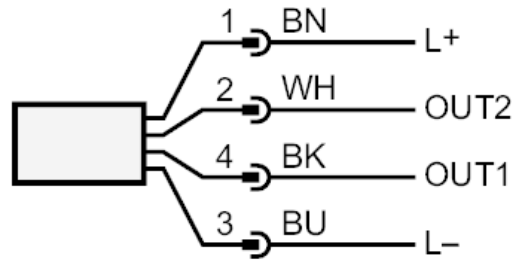
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Pressure switch with IO-Link

PV-025-SEN14-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