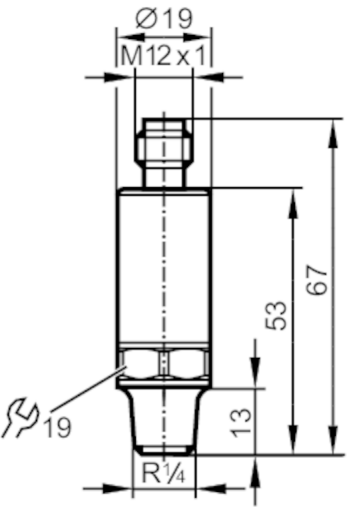


PV7702



Pressure switch with IO-Link

PV-100MSER14-UFRVG/US/ /



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2
Measuring range [MPa]	0...10
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
Min. bursting pressure [MPa]	100
Pressure rating [MPa]	25
Note on pressure rating	static
Vacuum resistance [mbar]	-1000
Vacuum resistance [MPa]	-0.1
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
------------------------------	------------------------------

Outputs

Total number of outputs	2
Output signal	switching signal; IO-Link; (configurable)
Electrical design	PNP/NPN



Pressure switch with IO-Link

PV-100MSER14-UFRVG/US/ /

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...10
Set point SP [MPa]	0.1...10
Reset point rP [MPa]	0.05...9.95
In steps of [MPa]	0.005
Factory setting	SP1 = 2.5 MPa SP2 = 7.5 MPa dS1/dS2 = 0 ms coF = 0 % rP1 = 2.3 MPa rP2 = 7.3 MPa 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
--------------------	-----

Software / programming

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

Interfaces

Communication interface	IO-Link
Transmission type	COM2 (38,4 kBaud)
IO-Link revision	1.1



Pressure switch with IO-Link

PV-100MSER14-UFRVG/US/ /

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	Type of operation	DeviceID
	default	782

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]	65	
Housing	cylindrical	
Dimensions [mm]	Ø 19 / L = 67	
Materials	stainless steel (630/1.4542/17-4 PH); stainless steel (316L/1.4404); PEI	
Materials (wetted parts)	stainless steel (303/1.4305); 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 R 1/4 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





Pressure switch with IO-Link

PV-100MSER14-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