

PT5043



Pressure transmitter

PT-040-SEG14-A-ZVG/VE



1 sealing



Product characteristics

Number of inputs and outputs	Number of analog outputs: 1		
Measuring range	0...40 bar	0...580 psi	0...4 MPa
Process connection	threaded connection G 1/4 external thread (DIN EN ISO 1179-2)		

Application

Measuring element	metallic thin film cell		
Application	for mobile applications; for industrial applications		
Media	liquids and gases		
Medium temperature [°C]	-40...125		
Min. bursting pressure	800 bar	11600 psi	80 MPa
Pressure rating	100 bar	1450 psi	10 MPa
Note on pressure rating	static		
Vacuum resistance	-1000 mbar	-0.1 MPa	
Type of pressure	relative pressure		

Electrical data

Operating voltage [V]	8...36 DC		
Min. insulation resistance [MΩ]	100; (500 V DC)		
Protection class	III		
Reverse polarity protection	yes		
Power-on delay time [s]	< 0.1		

Inputs / outputs

Number of inputs and outputs	Number of analog outputs: 1
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Outputs

Total number of outputs	1
Output signal	analog signal
Number of analog outputs	1

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Analog current output	[mA]	4...20	
Max. load	[Ω]	(U _b - 8 V) / 21,5 mA ; @8V= 0 Ω ; @12V max. 200 Ω: @24V max. 750 Ω	
Short-circuit proof		yes	
Overload protection		yes	
Measuring/setting range			
Measuring range		0...40 bar	0...580 psi 0...4 MPa
Accuracy / deviations			
Repeatability	[% of the span]	< ± 0,05; (with temperature fluctuations < 10 K)	
Characteristics deviation	[% of the span]	< ± 0,5; (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 (0...80 °C); < ± 0,2 (-40...0 °C / 80...125 °C)	
Temperature coefficient span	[% of the span / 10 K]	< ± 0,1 (0...80 °C); < ± 0,2 (-40...0 °C / 80...125 °C)	
Reaction times			
Step response time analog output	[ms]	2	
Operating conditions			
Ambient temperature	[°C]	-40...100	
Storage temperature	[°C]	-40...100	
Protection		IP 67	
Tests / approvals			
EMC		Compliant with ECE R 10, rev. 5	(E1 compliant)
		DIN EN ISO 13766-1 : 2018	earth-moving and construction machines
		DIN EN ISO 14982 : 2009	agricultural and forestry machines
		ISO 11452-2	100 V/m
		ISO 7637-2 : 2011 pulse 1	Test severity III. function state C
		ISO 7637-2 : 2011 pulse 2b	test severity IV. function state C
		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]	715	
UL approval		UL approval number	J032
		File number UL	E174189
Pressure equipment directive		sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data			
Weight	[g]	67	
Housing		tubular	
Dimensions	[mm]	Ø 19 / L = 71	

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Material	stainless steel (630/1.4542/17-4 PH); stainless steel (1.4404 / 316L); PPS
Materials (wetted parts)	stainless steel (630/1.4542/17-4 PH); stainless steel (1.4305 / 303)
Min. pressure cycles	60 million; (at 1.2 times nominal pressure)
Tightening torque [Nm]	25...35; (recommended tightening torque; Depends on lubrication, seal and pressure rating)
Process connection	threaded connection G 1/4 external thread (DIN EN ISO 1179-2)
Process connection sealing	FKM (DIN EN ISO 1179-2)
Restrictor element integrated	yes

Remarks

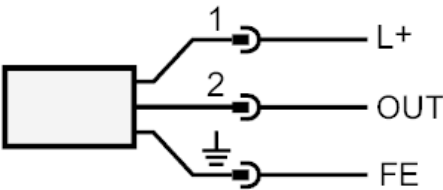
Remarks	BFSL = Best Fit Straight Line
	LS = limit value setting
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x valve plug type A DIN (EN175301-803-A)



Connection



OUT	analog output
FE	functional earth

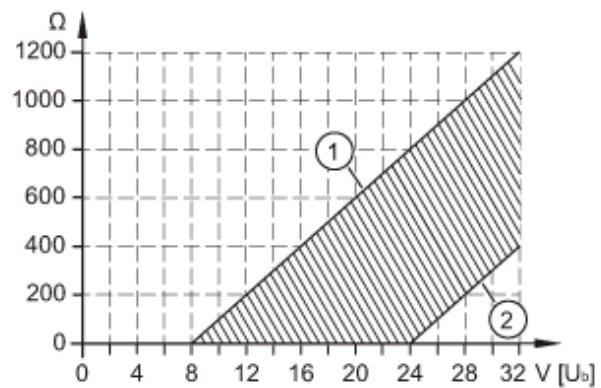


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Diagrams and graphs

Characteristic load curve current output



1: Max. load

2: Min. load