MVDPT Intelligent Differential Pressure Transmitter

Features

- Advanced monocrystalline silicon differential pressure sensor adopted
- Wide pressure range covering ±3MPa
- Double-wire mode, 4～20mA analog output, HART® protocol digital communication option
- Intelligent LCD gauge outfit with backlight
- With both the remote transmission and the local zero and pressure range adjustment
- Complete varieties, high accuracy, good stability,
- Isolation ex-proof housing structure, strong resistance to the frequency conversion interference
- High static pressure, high overload protection
- Patented double overload protection diaphragm design
- Lightning protection circuit design

Applications and industries

- Process control fields for the industries such as petroleum, chemical industry, metallurgy, electricity, food, papermaking, medicine, machine manufacturing, scientific experiment and military aviation etc.

Notes:
1 Do not touch the diaphragm with hard objects, which may cause damage to the diaphragm.
2 Please read the Instruction Manual of the product carefully before installation and check the relevant information of the product.
3 Strictly follow the wiring method for wiring, otherwise it may cause product damage or other potential faults.
4 Misuse of the product may cause danger or personal injury.

Product overview

MVDPT intelligent differential pressure transmitter is a well-developed high performance pressure transmitter based on the international leading technology, adopting the world advanced monocrystalline silicon pressure sensor technology and the patented packaging process. This product adopts the patented double overload protection diaphragm design, with the internal circuit surge protection design, and can accurately measure the gauge pressure, flow, vacuum degree, liquid level and density.

Notes:
1 Do not misuse documentation.
2 The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
3 Complete installation, operation, and maintenance information is provided in the instructions of the product.
4 Misuse of the product may cause danger or personal injury.

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Performance parameters	
Pressure range	±1kPa；±6kPa；±40kPa；±100kPa；±250kPa；±1MPa；±3MPa
Pressure reference	Differential pressure
Supply voltage	12VDC～32VDC, 24VDC recommended
Output	4～20mA+HART® protocol
ESD (Electronic Static Discharge)	National standard 4 (IEC61000-4-2; GB/T 17626.2), voltage 15KV, contact discharge
EFT (Electrical Fast Transient)	National standard 3 (IEC61000-4-4； GB/T 17626.4), voltage 2KV, pulse length 75ns, frequency 100kHZ
Surge	National standard 3 (IEC61000-4-5； GB/T 17626.5), voltage 2KV
Accuracy	±1kPa: ±0.2%FS; ±6kPa: ±0.1%FS; Other standard pressure ranges: ±0.075%FS (25±5℃)
Temp.coefficient	±0.5%FS(±1kPa); ±0.3%FS(±6kPa); ±0.25%FS(Other ranges); @-20℃～70℃
Ambient temperature	-30℃～80℃; with LCD gauge outfit -30℃～70℃
Medium temp.	-40℃～125℃
Protection grade	IP67
Ex-proof grade	Exd IIC T6 Gb
Static pressure range	±1kPa;±6kPa;±40kPa Staticpressureresistance16MPa; ±100kPa;-100～250kPa Staticpressureresistance16MPa; -0.1～1MPa; -0.1～3MPa Static pressure resistance16MPa;
Overpressure limitation	16MPa
Long-term stability	±0.1%FS/year

Structural performance	
Diaphragm material	SS316L
Exhaust/Drain valve	SS316
O-ring	Silicone rubber (contact with the measurement medium)
Filling liquid	Silicon oil
Flange and clamp block	SS316L
Housing material	Die-casting aluminum alloy with epoxy resin coating
Electrical connection	M20×1.5 (Female), NPT1/2 (Female)
Process connection	M20×1.5 (Male) with welded pipe, 304 tri-valve set M20×1.5 (Male) with welded pipe
	M20×1.5with welded pipe, NPT1/4(F), NPT1/2, NPT1/2(F), G1/2with welded pipe, G1/4 Tri-valve set M20x1.5 with welded pipe (304/316 optional), Tri-valve set NPT1/4F(304/316optional)
Weight	3.5kg (Optional accessory excluded)

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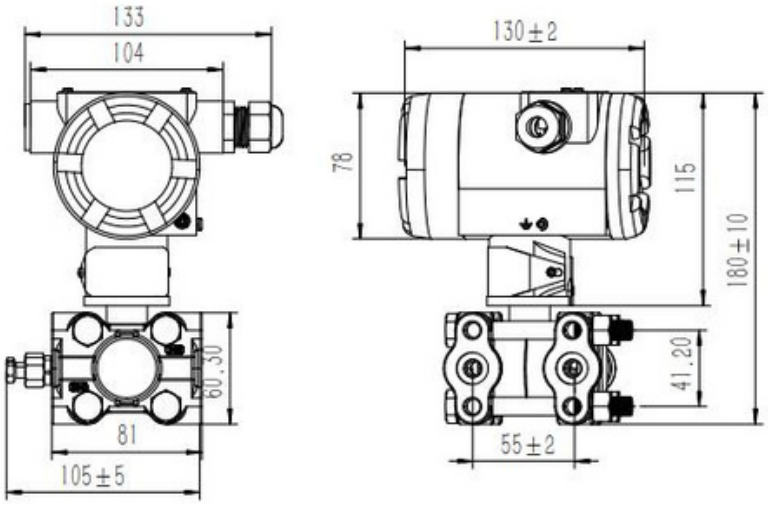
Ordering Code

MODEL	PROCESS CONNECTION	MEASURING RANGE	OUTPUT SIGNAL
MVDPT	**10** G ½"" female thread **20** G ½" male thread **30** ½" NPT female thread **YY** Special Selection	-1…400 bar Enter the range as shown in the examples below. Enter "P" for pressure and "V" for vacuum. Example 1: P0/0010 = 0...10 bar Example 2: V-1/0 = -1...0 bar	**AA** 4…20 mA **AH** 4...20 mA HART

Model Code Example : MVDPT-30-P0/0100-AH

1/2" NPT female thread, 0-100 bar, 4...20 mA HART

Outline dimension

Product model	Dimension drawing	In mm
MVDPT (Without accessories)		

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