

## MB510 Differential Pressure Transmitter

### Features

- 316L stainless steel construction, compact size, easy installation;
- Laser welding, full-sealed construction; Protection IP67;
- High precision, wider temperature compensate range;
- Anti-impact, anti-vibration, anti-overloading;
- Temperature compensation and aging, stable performance;
- Various outline structures, accepting custom design

### Introduction

MB510 Differential Pressure Transmitter adopts piezoresistive OEM differential pressure sensor as sensing element inside. The measured pressure worked on two diaphragms of the sensing elements, through amplifier circuit, the differential pressure can be transformed into electrical signal. MB510 has various output for choice. (millivolt, standard voltage, current, frequency etc.).

Stainless steel housing decides its strong anti-corrosion ability. Two M20\*1.5 (or customized connector dimension) pressure connectors can be installed on the measuring tube directly(or get a connection through a connecting tube).

Widely used in differential pressure measurement of petroleum, chemi-industry, power station, hydrology, navigation, aviation, HVAC etc.



### Specification

Pressure Type	Differential Pressure
Medium	Liquid ,gas, vapor ,which is compatible with SUS304
Pressure range(MPa)	0~...0.7 or customized
Pressure range (bar)	0~...700 or customized
Pressure range (psi)	0~...100 or customized
Overload range	200%FS
Bursting pressure	300%FS
Power Supply	(9~36) VDC

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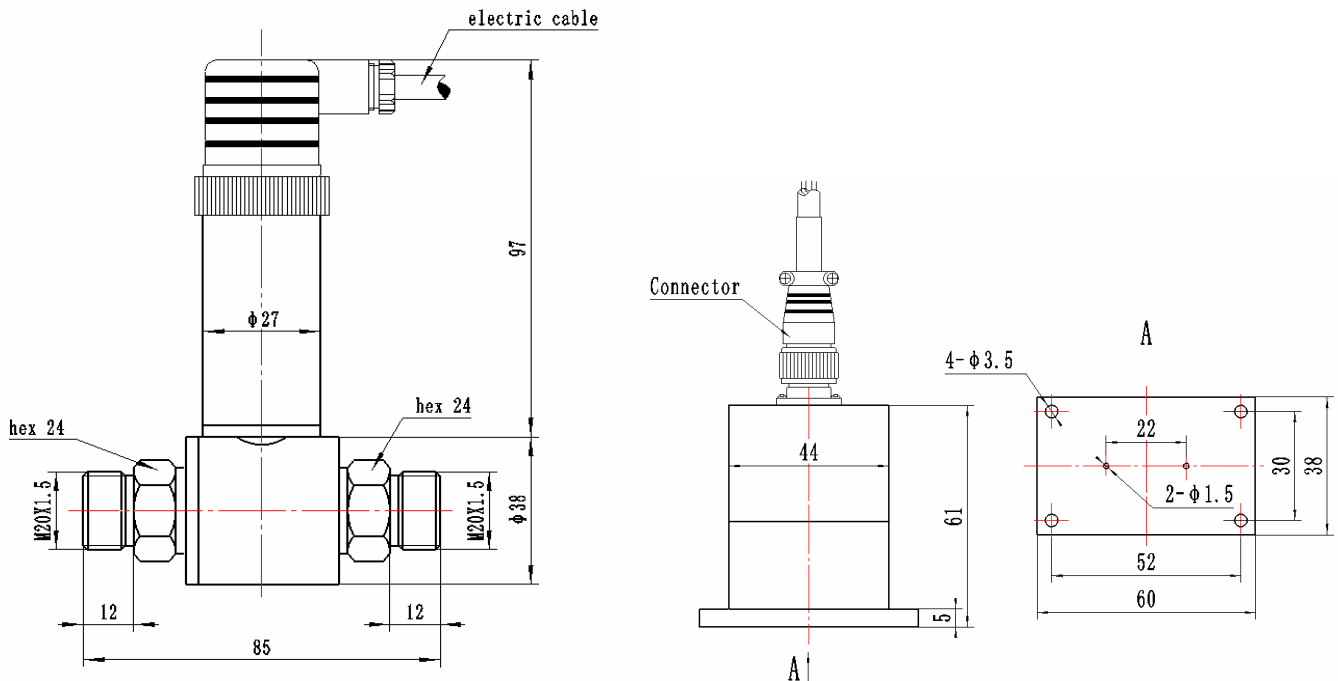
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## Differential Pressure Transmitter

Output signal	(0~5)V, (1~5)V, (4~20)mA
Vibration	10~500Hz 25g
Shock resistance	50g 11ms
Accuracy	±0.5%FS(typ.) @25°C
Zero temp.drift	±0.03%FS/°C
FS temp.drift	±0.03%FS/°C
Long-term stability	±0.2%FS/Y
Insulation resistance	250 MΩ/250V, 100MΩ/250V
Medium temp.	(-40~125)°C
Operation temp.	(-40~85)°C
Storage temp.	(-40~125)°C
Compensated temp.	(-10 ~ 80)°C
Housing	SUS304
Diaphragm	SS316L
O-ring	Viton
Protection	IP67

### Outline Construction: (Unit:mm)



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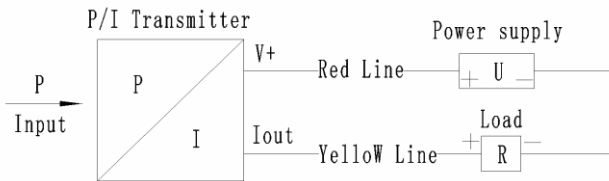
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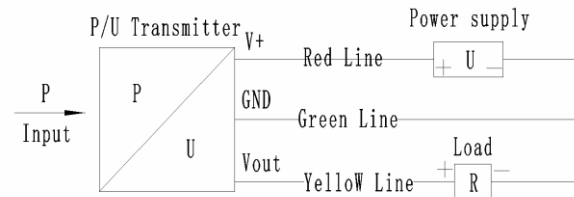
## Electrical Connection

Color	2-wires	3-wires
Red	+V	+V
Yellow	0V/+OUT	GND
Green	Null	+OUT

2-wires, 4~20mA output



3-wires, 0~5V, 1~5V output



## Order Guide

MB510	Differential Pressure Transmitter	
	0~60MPa	Pressure range (Unit:Mpa,kpa,psi,bar...)
		Code    Excitation
		V1      24V
		V2      12V
		V3      others (please specify)
		Code    Output signal
		S1      4~20mA
		S2      1~5V
		S3      others (please specify)
		Code    Pressure connection
		C1      M20×1.5
		C2      G1/2"
		C3      others (please specify)
		Code    Electrical connection
		E1      Hirschman connection
		E2      PG7 Connection
		E3      Aviation connection
		E4      Cable directly
		E5      Others(Pls specify)
		Code    Accuracy
		A1      0.1%FS
		A2      0.25%FS
		A3      0.5%FS(typ.)
		A4      1%FS

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## Differential Pressure Transmitter

							Code	Specific need
							E	Intrinsically safe Exia II CT6
							V	Anti-vibration
							I	Anti-impact
							C	Cable length 2m
							O	Other requirements
MB510	12MPa	V1	S1	C1	E1	A1	V	

### Order Note

1. The material of measuring medium should be compatible with the stainless steel. If it is corrosive, pls specify its material in detail.
2. Please pay attention that the measured pressure should be in the rating pressure range, too small or too large will influence the measuring result or even damage the transmitter.
3. Please note it in detail if your application environment is critical or the elements which may influence the pressure transmitter normal operation existed.
4. The structure and demension of the pressure transmitter can be used for most of the application occasions, if your application space is too small or having other requirements to the transmitters, please specify it in detail.
5. We suggest to install tri-value between the measured point and the transmitter to protect the media adding on transmitter's positive and negative cavities slowly.
6. Please to make two pressure ports horizontally to reduce installation direction effect.
7. All specifications are subject to change. Contact Gaohua for specifications and engineering drawings that are critical to your application. Drawings contained in this document are for reference only.

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