

# Manostar Electronic Micro Differential Pressure Measurement System

## Manosys Pressure Transmitter EMT6 General purpose compact type

RoHS compliant

- Compact and lightweight micro differential pressure transmitter
- Small hysteresis is realized by the silicone rubber diaphragm
- Zero adjustments can be done easily by turning zero adjuster at the upper part even after installed.



EMT6

### <Example of main use field>

Manufacturing machine parts of semi-conductors  
Measuring negative pressure in bag filter and differential pressure in air conditioners  
Monitoring of pressure loss in filters  
Production lines of precision machine  
Air conditioning control system of factory

### <Example of use>

Measuring inner pressure of indoor equipments  
Detector of a pressure loss in an air filter  
Detector of a pressure loss in a bag filter  
Measuring of dynamic pressure in a ventilator and an exhauster  
Measuring the inside pressure of clean rooms

\*(refer to p.93)

### Product code

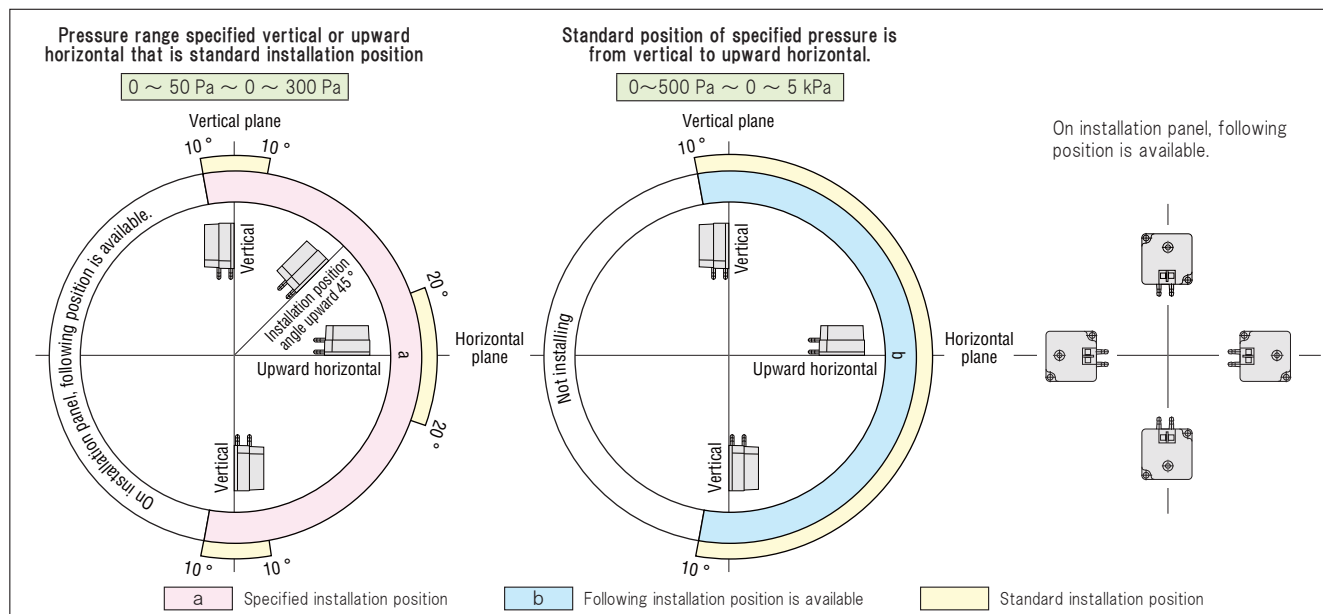
EMT6 B 0 FV D 100 V (example)

Installation positions	V	Vertical
	H	Upward horizontal
	Blank	Vertical and upward horizontal
Pressure range	Max. value of scale	
Unit	D	Pa
	E	kPa
Tube tap	FV	For vinyl or plastic tube
Output	0	Two wires method from 4 to 20 mA DC
Type	B	Exposed terminal connection type

◆If you order or ask, please specify the product code and the pressure range code.

◆In case of measuring air volume and air velocity, specification of pressure detection side is needed. Please tell us the data for calculating air volume and velocity. (refer to p.83)

## EMT6 Installation position



◆In case of ordering out of standard installation position, specify installation position and angle.

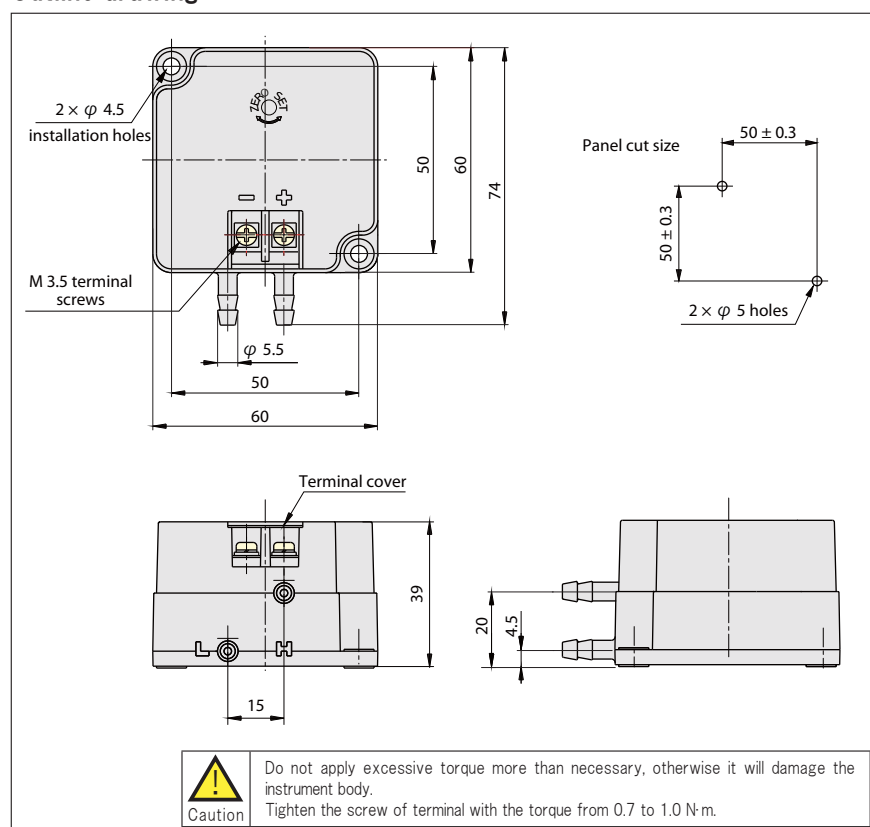
◆In case of ordering standard installation position, you do not specify installation position. Specify the pressure range code in the specification table.

## Specification

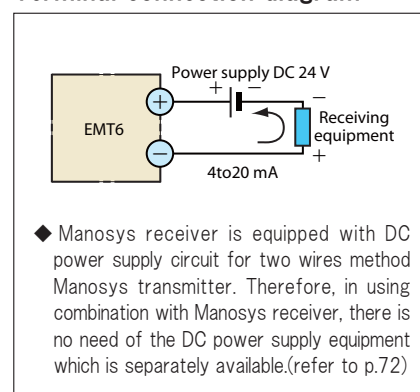
Type	EMT6				
Pressure units	Pa, kPa		Ambient humidity	90 % RH or less (no dewing)	
Pressure measuring method	Measuring differential pressure		Withstanding vibration	5 to 10 Hz Amplitude : 10 mm, 10 to 50 Hz Acceleration : 39 m / s <sup>2</sup> (each two hours on triaxial directions)	
Gas to be measured	Air or non-corrosive gas (not liquid)		Withstanding impact	100 m / s <sup>2</sup> (each six times on triaxial directions)	
Pressure receiving element	Diaphragm (silicon rubber)		Applicable piping	Vinyl, plastic or rubber tube (I.D. 4)	
Withstanding pressure of receiving element	10 kPa (refer to p.104)		Tube tap polarity	The part of tube tap is marking “H” on high pressure side and “L” on low pressure side.	
Withstanding pressure of instrument body	50 kPa (refer to p.104)		Mass	Approximately 110 g	
Material of the outer case	Polyamide resin MXD6				
Conversion method of electric signal	Variable inductance				
Insulation resistance: Between each terminal and case	20 M Ω or more (500 V DC megger)				
Medium and ambient temperature	0 to 50 °C (no freezing)				
Pressure range codes	Pressure ranges	Standard installation positions	Accuracy (at 20 °C)	Temperature characteristic (zero + span)	Output and transmission method
D 50 H	0 ~ 50 Pa	Upward horizontal (specified position)	± 2.5 % FS	± 0.15 % FS/°C	Two wires method : Output signal from 4 to 20 mA DC (load resistance : 500 Ω or less. Power supply 24 V DC ± 10 % (ripple : within 0.2 V P-P))
D 100 H	0 ~ 100 Pa				
D 200 H	0 ~ 200 Pa				
D 300 H	0 ~ 300 Pa				
D 50 V	0 ~ 50 Pa	Vertical (specified position)			
D 100 V	0 ~ 100 Pa				
D 200 V	0 ~ 200 Pa				
D 300 V	0 ~ 300 Pa				
D 500	0 ~ 500 Pa	Following installation position is available from upward horizontal to vertical			
D 1000	0 ~ 1000 Pa				
E 2	0 ~ 2 kPa				
E 3	0 ~ 3 kPa				
E 5	0 ~ 5 kPa				

◆For measuring combustible gas or using in combustible gas area, use EMT1H type (refer to p.63) that is intrinsically safe apparatus type.

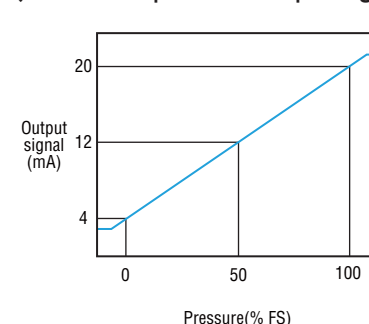
## Outline drawing



## Terminal connection diagram



## Transmission output diagram (differential pressure-output signal)



WO81

WO70

FR51A

MS30

MS61A

MS65

EB3C

EMD8

EMD7

EMT6

EMT1

EMTGP1

EMT1H

EMP5

EMA3

EMRT1

HWS15

Combination of Manosys

Accessories

Application Cautions for use Maintenance

## Product Warranty

### Warranty Period

This product warranty is valid for one year from the date of delivery to a place specified by an ordering party who has transacted directly with Yamamoto Electric Works Co., Ltd.

### Coverage

If a product breaks down due to a reason for which we are responsible during the warranty period and you return the product to us, we will either repair or replace the product free of charge.

This warranty does not cover:

- (1) Usage of the product under any inappropriate conditions or environment contrary to what is described in our product catalog, specifications or manual.  
Handling or usage of the product other than as described in our product catalog, specifications or manual.
- (2) Breakdown due to a reason other than a fault within our product.
- (3) Any product that has been modified or repaired by a party other than us.
- (4) Any breakdown due to a reason that was not foreseeable based on scientific and technical standards applied at the time of shipment.
- (5) Any breakdown due to a reason not attributable to us such as a natural calamity or other disaster.

These terms of warranty represent our entire liability with respect to the product, and we shall have no liability for any other loss arising in connection with a breakdown of the product.

\*This product warranty is only valid within Japan.

This document is a translation from the original Japanese version, and the original Japanese version has priority over this translation.

Be sure to refer to the original Japanese for the details of this warranty.



Caution

The Japanese original document shall always take precedence over the translated versions.

You should be sure to refer to the Japanese original document.

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