

### Anti-corrosion type micro differential pressure transmitter

This is an anti-corrosion type micro differential pressure transmitter dedicated to negative pressure measurement. This is mainly suitable for the monitoring of static pressure (negative pressure) at the exhaust duct for gas containing corrosive gas in a production factory.



**EMTGP1A type**  
(Indoor drip-proof type)



**EMTGP1B type**  
(Exposed terminal type)

#### <Main application fields>

- General factory management equipment
- Negative pressure for dust collector/differential pressure of air conditioners
- Filter pressure loss management
- Precision machine manufacturing line
- Building air conditioning control equipment

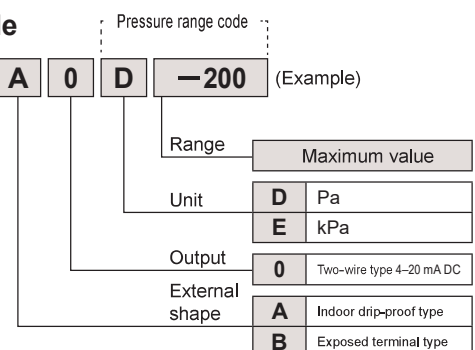
#### <Usage>

- Detection of clogging of air filter
- Room pressure measurement in a clean room
- Measurement of clogging of bug filter
- Measurement of dynamic pressure at ventilation/exhaust device

\*(Refer to pages 114 to 117)

#### Product code

EMTGP1 **A** **0** **D** **-200** (Example)



◆When making an inquiry or placing an order, specify the above product code.

List of products

WO81

WO71

FR51A

MS99

MS99S

MS61A-RA

QDP33

EMD8A

EMD7

EMT1

EMTGP1

EMT1H

EMT6

EMP5A

EMRT1

HWS15A

Accessories

Application

Precautions

Maintenance

## Specifications

Model	Indoor drip-proof type		Exposed terminal type		
	EMTGP1A		EMTGP1B		
<b>Pressure unit</b>	Pa, kPa				
<b>Pressure measurement method</b>	Single pressure type (negative pressure measurement)				
<b>Measured gas</b>	Corrosive gas (sulfuric acid gas cannot be measured; for details, contact us)				
<b>Pressure-receiving element</b>	Diaphragm				
<b>Mounting orientation</b>	Horizontal (inclination angle of within $\pm 5^\circ$ )				
<b>Operating ambient temperature</b>	10°C to 40°C				
<b>Operating ambient humidity</b>	90% RH or below (no condensation allowed)				
<b>Material of gas-contacting part</b>	Diaphragm PEEK film and molded item Base PEEK molded item				
<b>Exterior material</b>	Main body: aluminum die casting, painting on exterior (paint color: gray)				
<b>Electric signal conversion method</b>	Variable inductance				
<b>Output and transmission method</b>	Output signal of 4 to 20 mA DC (load resistance of 500 $\Omega$ or lower) Power voltage of 24 V DC $\pm 10\%$ (ripple of 0.2 V P-P or lower)				
<b>Insulation resistance</b>	Between terminal and case: 20 M $\Omega$ or higher (500 V DC megger)				
<b>Durable impact</b>	5 to 10 Hz, amplitude of 10 mm, 10 to 50 Hz, acceleration of 39 m/s <sup>2</sup> (two hours each for three axial directions)				
<b>Durable vibration</b>	100 m/s <sup>2</sup> (six times each for three axial directions)				
<b>Base mounting screw size</b>	Internal thread for general U.S. pipes 1/4-18NPT				
<b>Mass</b>	EMTGP1A type: approx. 980 g EMTGP1B type: approx. 860 g				
Pressure range code	Pressure range	Accuracy (at 20°C)	Temperature characteristics (each for zero and span) at 10°C to 40°C	Pressure-receiving element material	Withstanding pressure of pressure-receiving element (Refer to page 118)
D - 200	0 to -200 Pa	±2.5% FS	±0.15% FS/°C	PEEK film	-10 kPa
D - 300	0 to -300 Pa				
D - 500	0 to -500 Pa				
D - 1000	0 to -1000 Pa				
E - 2	0 to -2 kPa				

- ◆ This instrument cannot measure combustible gas.
- ◆ Do not install this product in an explosion hazard area.
- ◆ Although this product is corrosion resistant, it may not be used depending on the type or concentration of the corrosive gas and the use environment. Before using this product, be sure to conduct evaluation in actual usage conditions and confirm that there is no problem.
- ◆ For the use environment, refer to page 118.

## EMTGP1

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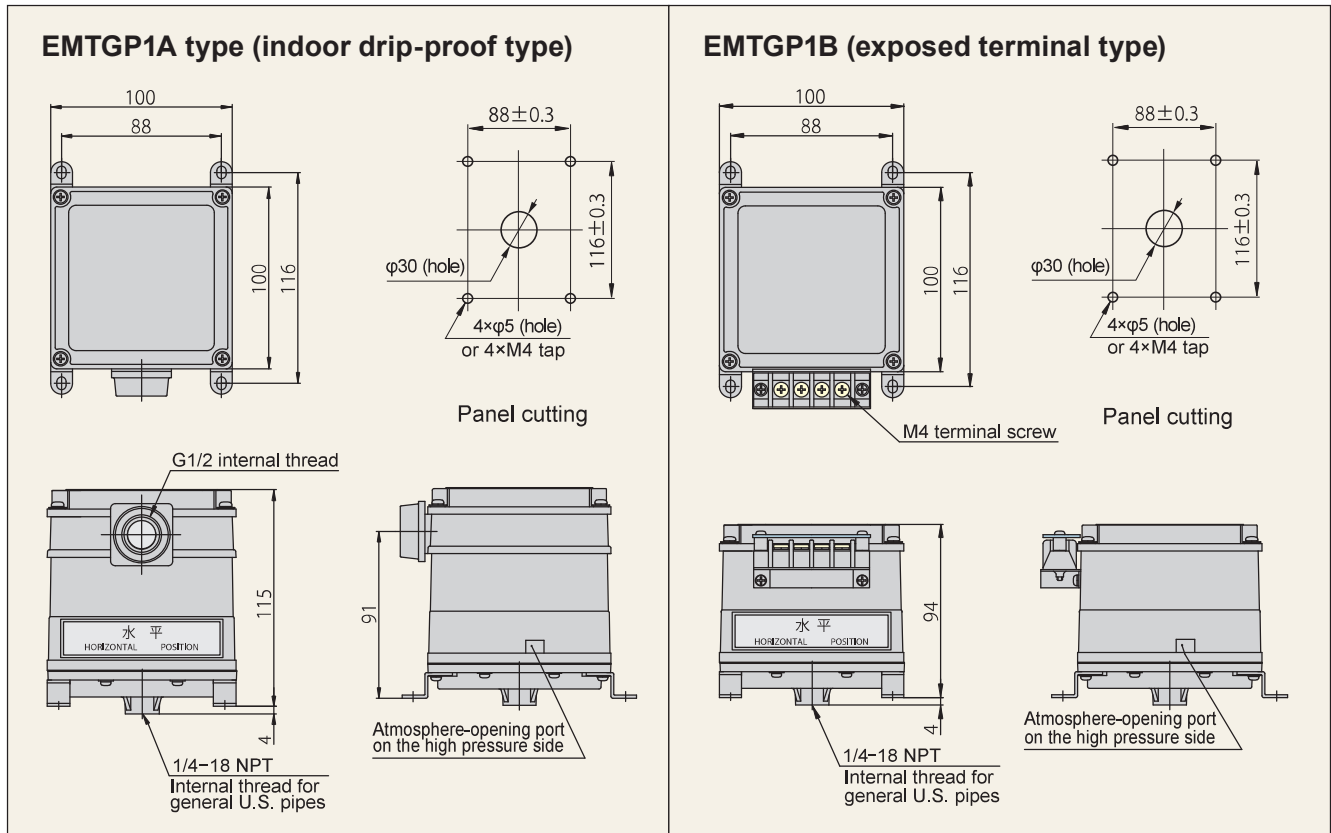
Accessories

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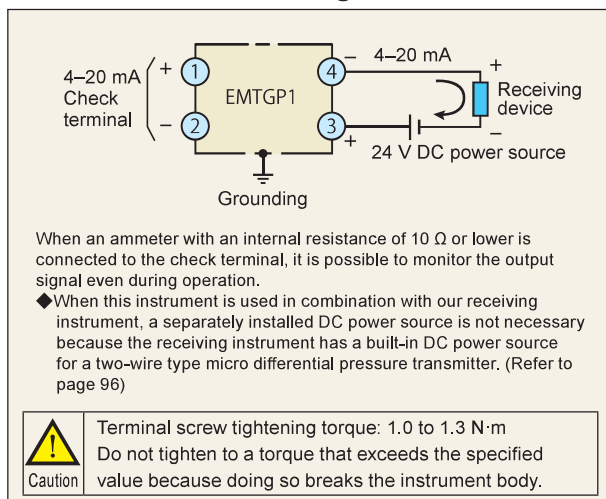
Precautions

Maintenance

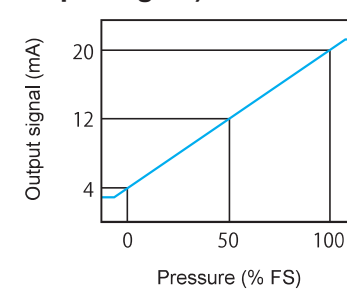
### External dimension drawing



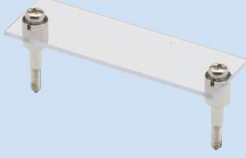

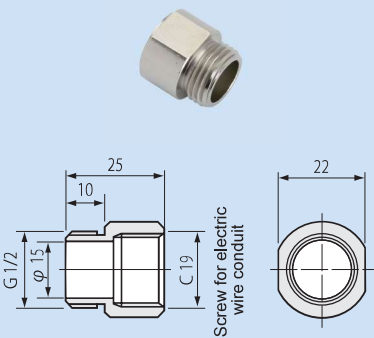
### Terminal connection diagram



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

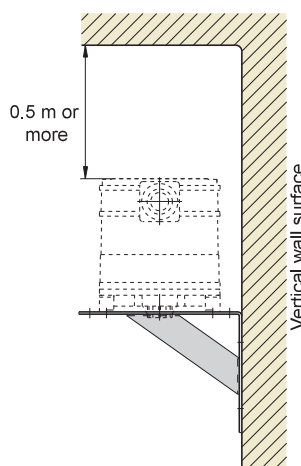
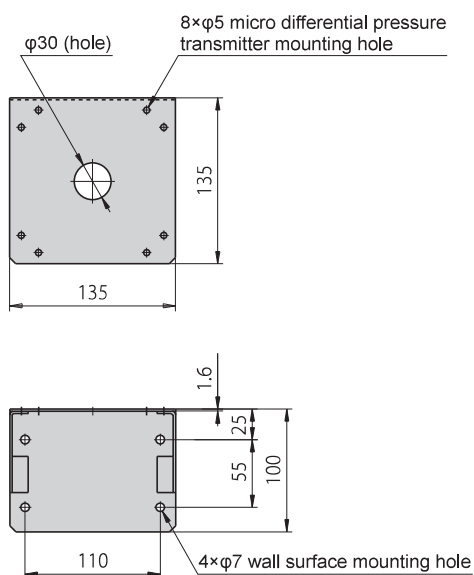


### Accessories dedicated to EMTGP1 RoHS

Terminal cover set	Plastic gland (Ace Service Co., Ltd.)	Adapter for conduit																												
(Auxiliary item)																														
																														
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<p>This is used to protect the terminal screw of EMTGP1B type (exposed terminal type). This is already installed at the time of purchase of the instrument.</p>	<p>This is used when the wiring of micro differential pressure transmitter is conducted with instrumentation cables. By paying attention to the finish outer diameter of the cable to be used, select a plastic gland in a size that allows the rubber bushing to retain the cable outer diameter when the cap nut is tightened.</p>	<p>When conducting wiring to the micro differential pressure transmitter by passing the wire through the thin steel electric wire conduit with a nominal size of 19 or a metallic flexible electric wire conduit, because the service entrance of the transmitter has a G1/2 internal thread and a different size, use an adapter for the conduit.</p>																												

### Bracket for mounting on vertical wall surface (horizontal mounting)

\*Mounting screw is not included.



Item number	Material
BRKT-T1GP1	Steel

\*For quality improvement or for another reason, part of the specifications may be subject to change without prior notice.

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## Warranty

### Warranty period

The warranty period for our product is one (1) year from delivery to the location specified by the orderer who makes a direct transaction with us.

### Scope of warranty

If any failure or defect attributable to us becomes clear during the above warranty period, we will repair the product or supply a substitute product free of charge. However, even during the warranty period, we will exclude the product from the scope of the warranty if the failure or defect corresponds to any of the following:

- (1) The failure or defect was caused by an unreasonable condition, environment, handling, or usage not mentioned in the instruction manual, specifications, and our product catalog.
- (2) The failure or defect was caused by a factor other than our product.
- (3) The failure or defect was caused by a modification or repair conducted by a party other than us.
- (4) The failure or defect was caused by an event that could not be foreseen at the scientific and technical levels at the time of product shipment from us.
- (5) The failure or defect was caused by an external factor not attributable to us, such as acts of God and disasters.

Please note that the warranty mentioned here means the warranty for our individual product, and damage provoked by a failure or defect of the product is excluded from the scope of the warranty.

\*This warranty is valid only in Japan.

## Application and usage

Our products are designed and manufactured as general-purpose instruments for general industries.

Therefore, our products are not intended for the following uses, and our products used in such a manner are outside the scope of application.

- (1) Equipment that is anticipated to greatly affect lives and properties, such as nuclear power generation, aviation, railways, marine vessels, vehicles, and medical devices
- (2) Utilities that include electricity, gas, and service water
- (3) Use in outdoor locations and under similar conditions or environments other than those stipulated in the instruction manual
- (4) Usage to which considerable safety consideration and attention equivalent to (1) and (2) above need to be given

## Service

### Scope of service

Because the product price does not include service expenses, such as the dispatch of engineers, we will separately charge for the expenses in the following cases:

- (1) Instruction for installation and adjustment and a witnessed test run
- (2) Maintenance inspection, adjustments, and repairs
- (3) Technical guidance and technical education
- (4) Witnessed inspections of products at our factory

<<Note>> The product specifications and information in this catalog are subject to change without prior notice for product improvement or other reasons.

● For order placement, contact

General  
agent



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Manufacturer



**Yamamoto Electric Works Co., Ltd.**

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