

## Differential Pressure Gauge

### Model PYY-DG85A

#### General

Model PYY-DG85 gauge measures differential pressure caused by pressure loss of air filters. This pressure differential gauge is highly accurate and used to measure very low pressure.



#### Features

- Silicon rubber for the diaphragm allows low hysteresis.
- High pressure-resistant.
- Zero adjustment from the outside is available.
- Various types selectable:
  - Wall-mount and flush mounting types
  - Number of pointers for predictive and limit values (0 or 2)
- High and low pressure sides of wall-mount types are switchable by switching the tube joints.
- Predictive and limit values are easily recognized by the pointers.

#### Model Numbers

Model Number	Description
PYY-DG85A	Base model number
1	Flush type, no pointers
2	Wall-mount type, no pointers
3	Flush type, 2 pointers (red and green)
4	Wall-mount type, 2 pointers (red and green)
005	Measuring range: $\pm 0.05$ kPa, Accuracy*1: $\pm 2.5$ %FS*2
010	Measuring range: 0 to 0.1 kPa, Accuracy*1: $\pm 2.5$ %FS*2
020	Measuring range: 0 to 0.2 kPa, Accuracy*1: $\pm 2.5$ %FS*2
030	Measuring range: 0 to 0.3 kPa, Accuracy*1: $\pm 1.5$ %FS*3
050	Measuring range: 0 to 0.5 kPa, Accuracy*1: $\pm 1.5$ %FS*3
100	Measuring range: 0 to 1 kPa, Accuracy*1: $\pm 1.5$ %FS*3

#### Notes:

\*1 The accuracies (proof pressure ranges) comply to JIS B7505: 1999. (JIS: Japanese Industrial Standards)

\*2 Range from the one end to the other end of span (10 %FS) is  $\pm 3.75$ .

\*3 Range from the one end to the other end of span (10 %FS) is  $\pm 2.25$ .

## Safety Instructions

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Please read instructions carefully and use the product as specified in this manual. Be sure to keep this manual near by for ready reference.

### Usage Restrictions

This product is targeted for general air conditioning. Do not use this product in a situation where human life may be affected. If this product is used in a clean room or a place where reliability or control accuracy is particularly required, please contact Azbil Corporation's sales representative. Azbil Corporation will not bear any responsibility for the results produced by the operators.

### WARNING



- Do not disassemble the product. Disassembly may result in electrical shock or equipment damage.

### CAUTION



- Installation and wiring must be performed by qualified personnel in accordance with all applicable safety standards.



- This product must be operated under the operating conditions (power, temperature, humidity, vibration, installation position, atmospheric condition, etc) specified in this manual to prevent equipment damage.



- This product must be operated within its rated operating ranges specified in this manual. Failure to comply will cause equipment damage.



- Dispose of this product as an industrial waste in accordance with your local regulations. Do not reuse all or part of this product.

## Specifications

Item	Specification	
Measuring range	Model PYY-DG85AX005: $\pm 0.05$ kPa Model PYY-DG85AX010: 0 to 0.1 kPa Model PYY-DG85AX020: 0 to 0.2 kPa Model PYY-DG85AX030: 0 to 0.3 kPa Model PYY-DG85AX050: 0 to 0.5 kPa Model PYY-DG85AX100: 0 to 1 kPa	
Mounting method	Models PYY-DG85A1XXX, PYY-DG85A3XXX: Flush type Models PYY-DG85A2XXX, PYY-DG85A4XXX: Wall-mount type	
Number of pointers for predictive and limit values indication	Models PYY-DG85A1XXX, PYY-DG85A2XXX: 0 Models PYY-DG85A3XXX, PYY-DG85A4XXX: 2 (red and green)	
Accuracy* <sup>1</sup>	Models PYY-DG85AX005, PYY-DG85AX010, PYY-DG85AX020: $\pm 2.5$ %FS* <sup>2</sup> Models PYY-DG85AX030, PYY-DG85AX050, PYY-DG85AX100: $\pm 1.5$ %FS* <sup>3</sup>	
Pressure resistance	Casing	200 kPa or less
	Diaphragm (single side)	Models PYY-DG85AX005, PYY-DG85AX010, PYY-DG85AX020: 10 kPa Models PYY-DG85AX030, PYY-DG85AX050, PYY-DG85AX100: 40 kPa
Size	$\phi 85$ mm	
Angle of scale	250° wide-angle scale (with approx. 180 mm scale length)	
Applicable media	Air or non-corrosive gas	
Pressure sensing method	Diaphragm displacement (silicon rubber)	
Environmental conditions	Ambient temperature	-20 °C to 60 °C
	Ambient humidity	0 %RH to 95 %RH (non-condensing)
Installation position	Vertical or horizontal	
Structure	Casing sealed pressure gauge	
Casing material	Plastic	
Connection	Joint for $\phi 6$ mm (inner) vinyl tube (For standard wall-mount type, high pressure joint is red, and low pressure joint is blue.)	
Temperature measuring error	1% or less of the max. rating. (within the 10 °C to 30 °C range)	
Weight	Approx. 480 g	
Accessories	2 pitot tubes ( $\phi 7$ mm, 110 mm long) 1 vinyl tube ( $\phi 8$ mm, 1 mm thick, 2 m long) 2 T joints (polypropylene) for tube with $\phi 3$ mm to $\phi 7$ mm inner diameter.	

Notes:

\*1 The accuracies (proof pressure ranges) comply to JIS B7505: 1999. (JIS: Japanese Industrial Standards)

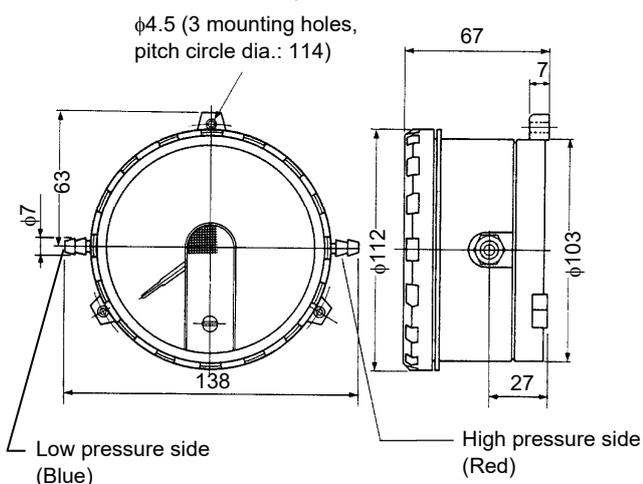
\*2 Range from the one end to the other end of span (10 %FS) is  $\pm 3.75$ .

\*3 Range from the one end to the other end of span (10 %FS) is  $\pm 2.25$ .

## Dimensions

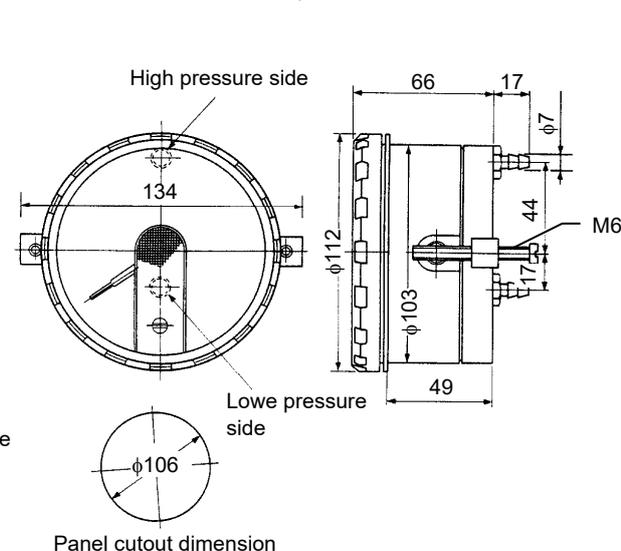
### Wall-mount type

#### Models PYY-DG85A2XXX, PYY-DG85A4XXX



### Flush type

#### Models PYY-DG85A1XXX, PYY-DG85A3XXX



Notes:

\* If you switch the joints on the right (red) and left (blue) sides, high and low pressure sides are switched as well.

\* Without the joints, the high and low pressure sides are conducted.

Figure 1. Dimensions (mm): Differential pressure gauge

Pitot tube (accessory)

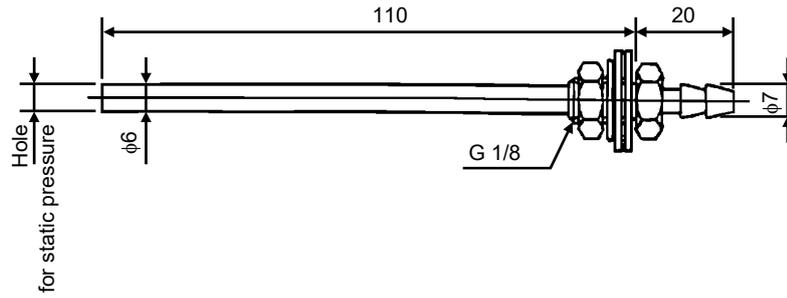


Figure 2. Dimensions (mm): Pitot tube

T joint (accessory)

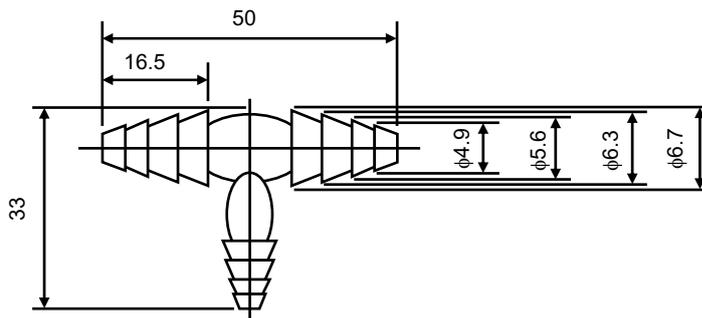


Figure 3. Dimensions (mm): T joint



Specifications are subject to change without notice.

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