

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: ± 0.05 kPa, Accuracy ^{*1} : ± 2.5 %FS ^{*2}
	010	Measuring range: 0 to 0.1 kPa, Accuracy ^{*1} : ± 2.5 %FS ^{*2}
	020	Measuring range: 0 to 0.2 kPa, Accuracy ^{*1} : ± 2.5 %FS ^{*2}
	030	Measuring range: 0 to 0.3 kPa, Accuracy ^{*1} : ± 1.5 %FS ^{*3}
	050	Measuring range: 0 to 0.5 kPa, Accuracy ^{*1} : ± 1.5 %FS ^{*3}
	100	Measuring range: 0 to 1 kPa, Accuracy ^{*1} : ± 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 ± 3.75 .

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

Safety Instructions

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: ± 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* ¹	Models PYY-DG85AX005, PYY-DG85AX010, PYY-DG85AX020: ± 2.5 %FS* ² Models PYY-DG85AX030, PYY-DG85AX050, PYY-DG85AX100: ± 1.5 %FS* ³	
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)

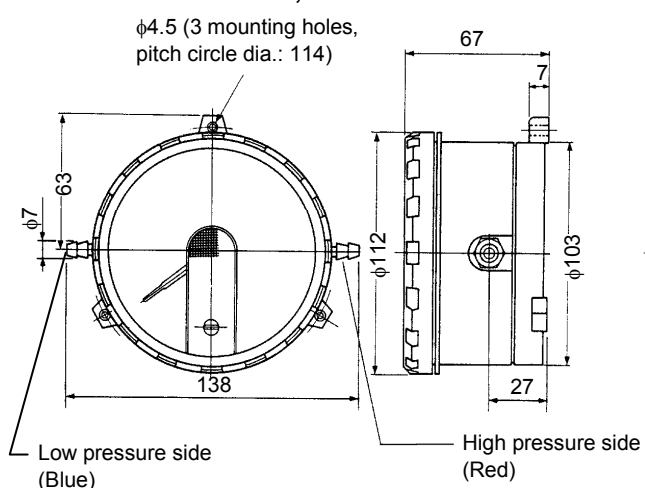
*2 Range from the one end to the other end of span (10 %FS) is ± 3.75 .

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

Dimensions

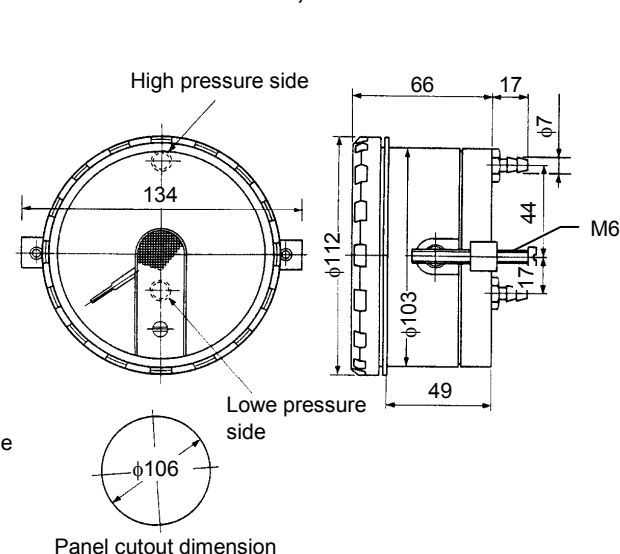
Wall-mount type

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)

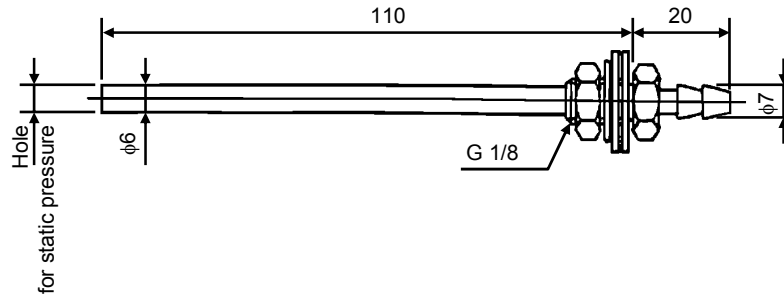


Figure 2. Dimensions (mm): Pitot tube

T joint (accessory)

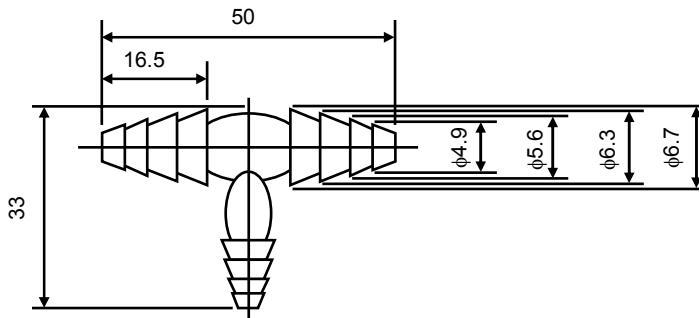


Figure 3. Dimensions (mm): T joint



Specifications are subject to change without notice.

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