

Air conditioner

Installation manual

Differential Pressure Switch MOS-P1050

- Thank you for purchasing this Samsung product.
- Before operating this unit, please read this installation manual carefully and retain it for future reference.

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Safety Information

This installation guide explains how to install a differential pressure sensor into the ventilation system. Please read this warning thoroughly before installing the product.

WARNING

Warnings or unsafe practices that may result in severe personal injury or death.

CAUTION

Warnings or unsafe practices that may result in minor personal injury or property damage.

-  Must follow the testing.
-  Do NOT attempt.
-  Make sure the machine is grounded to prevent electric shock.
-  Unplug the power plug from the wall socket.
-  Do NOT disassemble.

FOR INSTALLATION

WARNING

-  Contact a service center for installation.
 - Fail to do so may result in product malfunction, water leakage, electric shock and fire.

You must use wires that meet specifications for installation.

- Fail to do so may result in fire or damage to a differential pressure switch.

All electric works should comply with local regulations and installation work carried out by a qualified technician.

- Installation by an unqualified technician may result in product malfunction, electric shock, and fire.

Check whether the installation work is performed in accordance with the installation instructions.

- Incorrect installation of a differential pressure sensor may result in electric shock and fire.

Safety Information

FOR INSTALLATION

CAUTION

-  When connecting a wire, do not tighten it too much.
 - Failure to do so may result in breakage of the wire.

Make sure the differential pressure switch installation doesn't cause interference with other electrical appliances, particularly in a hospital etc.

- Failure to do so may result in abnormal operation.

-  Do not install the product in an area where combustible gas leaks or possible gas leakage is suspected.
 - Failure to do so may result in breakage of the wire.

Do not install the product in conditions where it is exposed to oil, steam etc.

- Use of the product in a place exposed to oil, steam, sulfuric acid gas etc. may result in component damage or product malfunction.

Do not install the product in a place where acid or alkali liquid or special sprays are used.

- Failure to do so may result in electric shock or abnormal operation.

FOR OPERATION

WARNING

-  Do not remodel or repair the differential pressure switch yourself.
 - Failure to do so may result in product malfunction, electric shock and fire, so contact a service center for repair.

When disposing of a differential pressure switch, contact a service center.

-  Do not move or reinstall an installed differential pressure switch yourself.
 - Failure to do so may result in electric shock or fire.

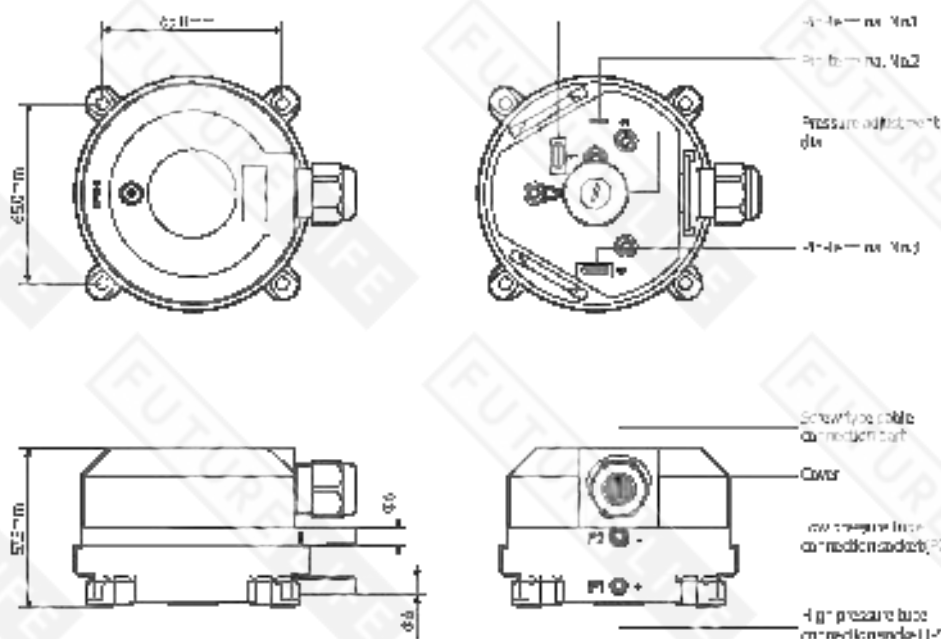
Installing the Differential Pressure Switch

Differential Pressure Switch

Product and components

Name	Differential Pressure Switch	Plastic Tube	PVC Tube	Screw (PH, M4, L10)
Shape				
Name	Screw (PH, M4, L10)	Screw (TH, M4, L8)	Pin-terminal connector	Holder Wire
Shape				

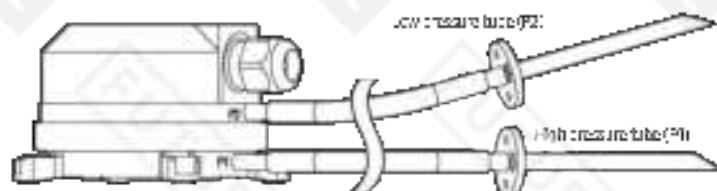
Component description



Installing the Differential Pressure Switch

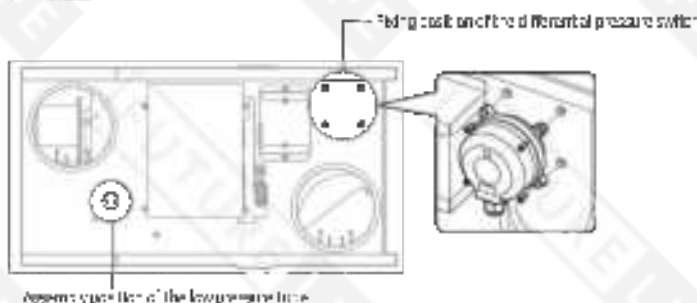
Installing the differential pressure switch onto the ERV

- 1 Connect the PVC tubes to the two sockets on the side of the differential pressure switch, and connect the plastic tubes to the opposite side as shown in the figure.
- Connect the low pressure side PVC tube to the socket P2 (upper socket) and the high pressure side PVC tube to the socket P1 (lower socket).
- Cut the PVC tube to fit the size of the product.



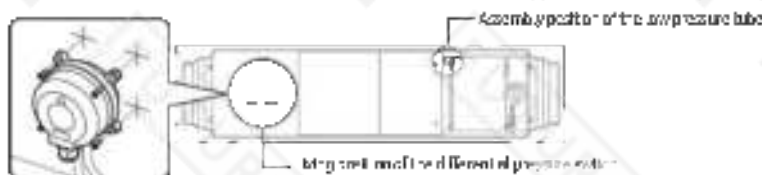
- 2 Untighten the screws on the ERV, as marked in the figure, and then assemble the differential pressure switch using screws (PH, M4, and 110).

► AN036**



► AN035** - AN050** - AN051** - AN033**

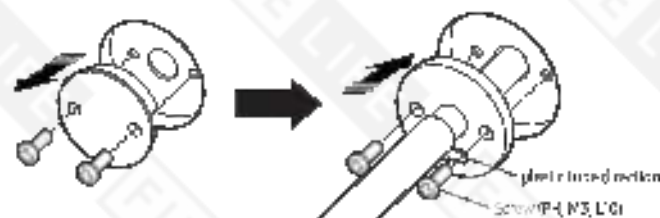
* The screws are covered with insulation at the insulation covering positions indicated by the — symbol.



⚠ CAUTION

- When installing the differential pressure switch, be aware that the sockets to which the tubes are connected face downward (based on product installation). Failure to do so may cause moisture to enter the switch or errors to occur in differential pressure measurement.

- 3 Disassemble the circular cover next to the electrical control part of the CRV, and then assemble the low pressure plastic tube connected to the differential pressure switch socket R2. Then, fix the low pressure PVC tube to the product, using the holder wire as shown in the figure.
- Disassembling the circular cover and assembling the plastic tube

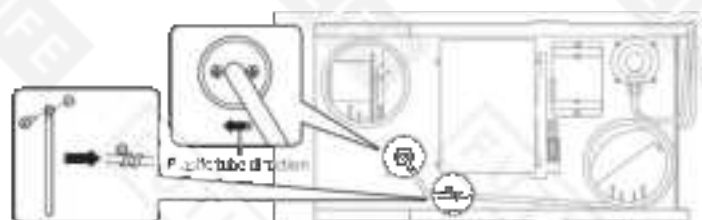


NOTE

- Make sure that the direction of the plastic tube as indicated by the arrow in the figure is identical with the air-flow direction.

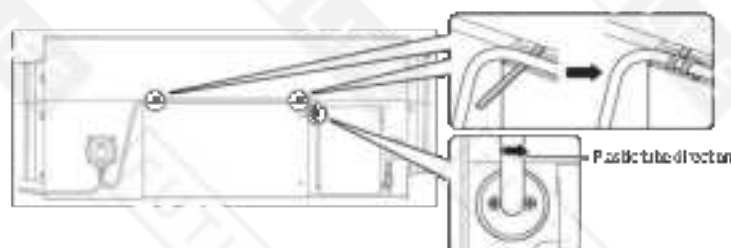
► AN226**

- Assemble the holder wire to the screw socket at the position indicated in the figure, and then fix the PVC tube.



► AN235 - AN250** - AN287** - AN2100****

- Fix the PVC tube using the holder wire located at the position indicated in the figure.

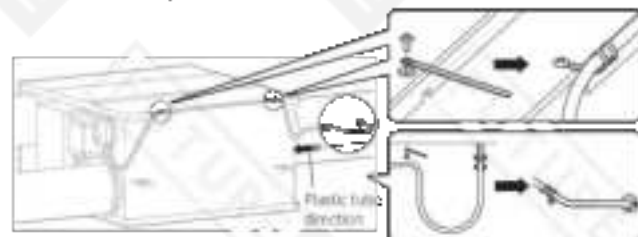


⚠ CAUTION

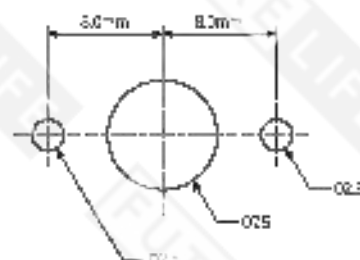
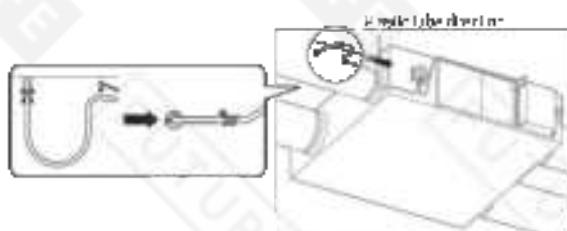
- In any case, be careful not to twist or press the PVC tube. Failure to do so may cause errors in pressure measurement, leading to product malfunction.
- If the direction of the plastic tube is not identical with the air-flow direction, errors may occur in pressure measurement, leading to product malfunction.

Installing the Differential Pressure Switch

- 4 Assemble the high pressure plastic tube (PT) to the OA duct installed on site, and then fix the high pressure PVC tube using the holder wire.
 - Assemble the plastic tube so that its direction is identical with the air flow direction in the OA duct.
 - Assemble the plastic tube at a position which is 3.00 to 5.00 mm away from the product.
 - Assemble the plastic tube to a side of the OA duct.
- ▶ **AN776AA**
 - Assemble the holder wire to the inspection cover assembly screw on the top of the product, and then fix the PVC tube.
 - Assemble the plastic tube to the external OA duct, and then fix the PVC tube using the holder wire.



- ▶ **AN755AA, AN755TA, AN755AA, AN755TA**
 - Assemble the plastic tube to the external OA duct, and then fix the PVC tube using the holder wire.



NOTE

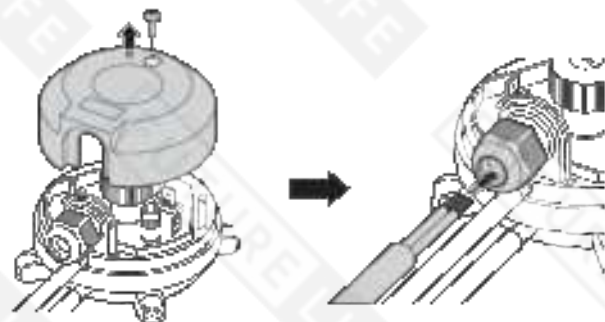
- To assemble the product to the OA duct, it is required to drill holes on the duct. For the hole sizes, refer to the figure.

CAUTION

- In every case, be careful not to twist or press the PVC tube. Failure to do so may cause errors in pressure measurement, leading to product malfunction.
- If the direction of the plastic tube is not identical with the air flow direction, errors may occur in pressure measurement, leading to product malfunction.
- If the plastic tube is assembled below the OA duct, the plastic tube can be blocked by dirt or dust. Be careful not to assemble the plastic tube below the OA duct.

Connecting the connecting wires between the differential pressure switch and the ERV/PBA

1. Tighten the screw (1) of the differential pressure switch, disassemble the cover, and then pass the cable through the screw type cable connection part.



2. Apply a crimp type ring connector to each connecting wire located at the body side of the differential pressure switch, and then connect a pin-terminal connector, as shown in the figure.

- The cable and the crimp type ring connector do not come with the product and must be purchased on site.

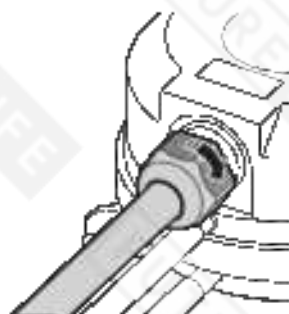


3. Connect the connecting wires to the pin-terminals No. 2 and No. 3 located on both sides to the differential pressure switch (air inlet), and then connect the opposite ends of the connecting wires to the HPCD terminals on the ERV/PBA.



Installing the Differential Pressure Switch

- 4 Rotate the screw type connection part clockwise to seal the opening appropriately in accordance with the thickness of the connecting wire.



CAUTION

- Be sure to switch off the power supply before installation. Failure to do so may cause electrical problems, leading to abnormal operation of the product.
- The wiring must be installed in compliance with a national wiring regulations.
- If the diameter of the connecting wire is less than 5mm, the sealing of the screw type cable connection part may not be complete.

Setting using the differential pressure switch

- 1 Rotate the dial located at the center of the differential pressure switch, until the number pointed by the yellow arrow becomes equal to the differential pressure setting value of the product.
(Refer to the following table for the setting values by model.)



Model	Differential pressure setting
AN006,S4-KN/FL	720
AN035,S4-KN/FL	200
AN050,S4-KN/FL	250
AN080,S4-KN/FL	280
AN100,S4-KN/FL	300

NOTE

- When rotating the dial to set the differential pressure, be sure to rotate it in the direction that the number increases from the minimum value to the setting value. If you rotate the dial in the direction that the number decreases to the setting value, errors may occur in differential pressure measurement.

WARNING

1. Be sure to set the differential pressure while the product is turned off. If it is not turned off, an electric shock may occur, or a fire may be caused with the refrigerant oil.
2. Close the cover of the differential pressure switch, and then tighten the screws.
3. Set SDG17 of the installation option 1 (02 model of the product to L (The ANx001S01-KN / EU models ship with being set to the factory default P1).

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