SIEMENS

Installation Instructions
Document No. 536-680
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Air Velocity Pick-up

Product Description

The Air Velocity Pick-up is used with any controller that uses a differential pressure sensor for control. The kit is used in situations where a terminal box manufacturer-supplied sensor (flow pick-up) is not available. Figure 1 shows the sensor kit mounted to the side of a typical round duct. The mounting flange is made of thin steel, which can be easily bent to conform to round or oval ducts.

Contents

- Sensor
- Mounting flange
- Gasket
- No. 8 self-tapping screws (two)

Product Numbers

Product Number	Duct Size
536-376	6-inch (152 mm)
536-378	8-inch (203 mm)
536-380	10-inch (254 mm)
536-382	12-inch (305 mm)
536-384	14-inch (356 mm)

NOTE: For greatest accuracy, select a probe length to extend across the entire duct width.

Required Tools

- Medium flat-blade screwdriver
- 1/4-inch (13 mm) hex driver
- Electric drill
- 1/2-inch (13 mm) and 1/8-inch (3 mm) bits
- Metal snips
- 1/4-inch (6 mm) OD black, polyethylene tubing

Expected Installation Time

12 minutes

Prerequisite

Controller with averaging air velocity transducer mounted on terminal box.

Installation

1. Using the mounting flange as a template, drill two 1/2-inch (13 mm) diameter holes on the side of the duct. Cut out the duct sheet metal between the two holes (see Figure 2).

NOTE: For greatest accuracy, mount probe at a 45° angle, relative to the damper behind it (see Figure 1).

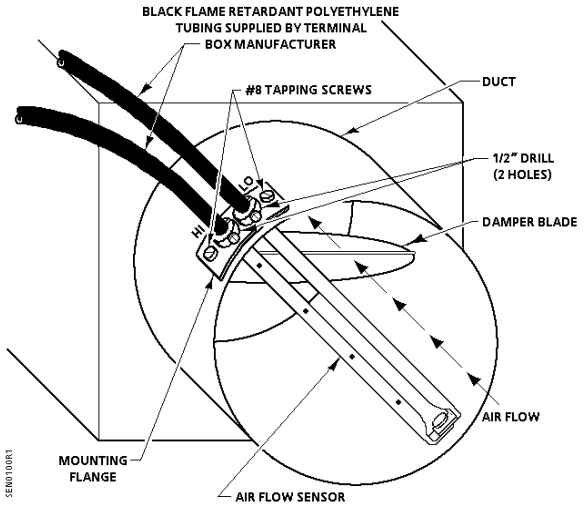

Figure 1. Mounting Flange Mounted on a Round Duct.

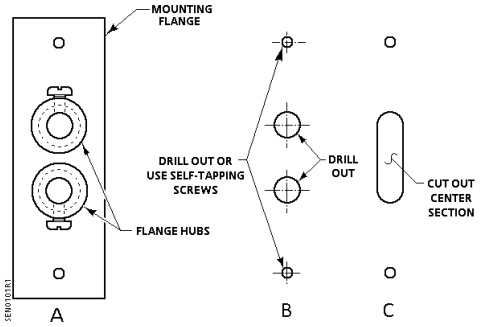

Figure 2. Preparing the Duct for the Mounting Flange.

2. If you do not want to use the self-tap screws, use the mounting flange as a template to drill two 1/8-inch (457 mm) diameter holes on the side of the duct for the No. 8 screws.
3. Insert the sensor tubes into the mounting flange hubs (see Figure 3). Adjust the sensor tubes so that the tube ends are flush with the flange hubs. Gently tighten the set screws against the sensor tubes. Do not crush or deform the sensor tube ends.

   NOTE: The sensor tube with its holes facing into the airflow will be the HI pressure side.
4. Insert the sensor into the duct with the gasket between the mounting flange and the duct.
5. Line up the holes in the mounting flange, gasket and duct, and drive the two No. 8 screws into the duct (see Figure 4).

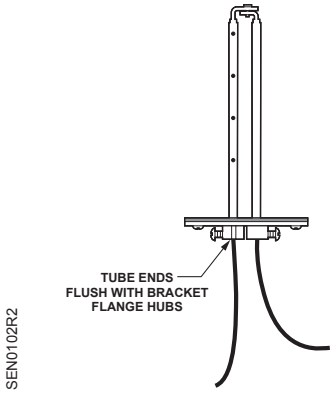

Figure 3. Mounting Flange and Sensor Tubes.

6. To connect the 1/4-inch (6 mm) polyethylene tubing from the controller, choose one of the following:
   - If the controller is within the six-inch reach of the supplied pick-up tubing:
     a. Connect the other ends of the poly tubing to the barb fittings in the controller enclosure.
     b. Ensure that the HI pressure side of the sensor is connected to the filter on port P1 and the LO pressure side is connected to port P2 (see *Installation Instructions 536-236 TCU-VAV with Averaging Transducer*).
   - If the controller is beyond the six-inch reach of the supplied pick-up tubing:
     a. Use 1/4 barbed fittings and additional tubing to connect to the controller.
     b. Continue with Step 6.b.

The installation is now complete.

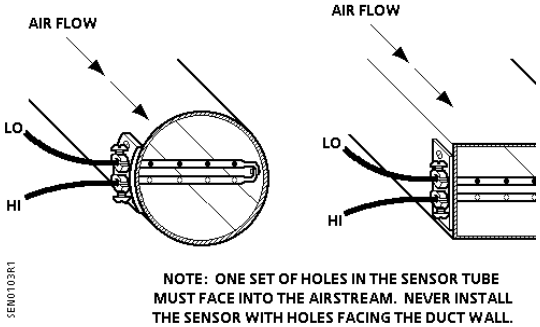

Figure 4. Sensor Location.