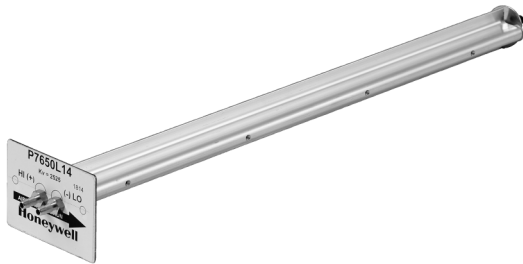


P7650L Velocity Pick Up Tubes

PRODUCT DATA



OVERVIEW

The P7650L Series probe is a differential air pressure device that, together with the P7650A/B/U pressure sensors, is designed to measure air velocities in a duct. It includes multiple sensing points to measure total and static pressures. The P7650L Series incorporates a unique design to amplify the differential pressure by approximately 2.5 times for accurate measurement of lower air velocities down to 200 fpm. It is easy to install and cost effective.

Features

- Multiple sensing points for greater accuracy
- Easy installation
- Chamfered sensing points for consistent readings
- 2% accuracy
- 2.5x signal amplification
- Accepts 1/4-inch OD tubing

Ordering Information

Available in the following standard lengths:

- P7650L6 = 6 inches
- P7650L8 = 8 inches
- P7650L10 = 10 inches
- P7650L12 = 12 inches
- P7650L14 = 14 inches

Configuring Velocity Output

Calibration is necessary because the P7650L probe samples multiple points within a cross-section of a duct to obtain an average.

IMPORTANT

When the P7650L probe is used in conjunction with a P7650A/B/U Differential Pressure/Air Velocity Transducer, the value reported by the P7650A/B/U (in Velocity mode) **must** be divided by the corresponding P7650A/B/U Divisor in the Calibration Chart. This calculation must be done in the controller. If using a P7650 pressure sensor with a display, the displayed velocity reading will need to be corrected by the divisor.

For instance:

- Assume a 10-inch probe
- P7650A/B/U set to 0-500FPM
- P7650A/B/U set to 0-10Vdc

Reading = 5Vdc
5Vdc = 250FPM
 $250\text{FPM} / 1.641 = 152.3\text{FPM}$

Table 1. Calibration Chart

Probe length	P7650A/B/U Divisor
6-inch	1.678
8-inch	1.615
10-inch	1.641
12-inch	1.602
14-inch	1.586



Installation, Wiring and Configuration

The P7650L velocity pick up tubes are for use with the P7650A/B/U pressure sensors in Velocity mode only. See Fig. 1.

Mounting

- Check that the P7650L is sized correctly for the duct in which it is being installed.
- The P7650L is mounted in the duct through a 1-inch hole.
- Secure the opposite end with the provided threaded bolts.
- Ensure that the flow direction of the air in the duct corresponds with the arrow printed on the label of the flow sensor probe.
- For round ducts, install the flow sensor diagonally to minimize the irregularities of the air flow patterns in the horizontal and vertical planes.

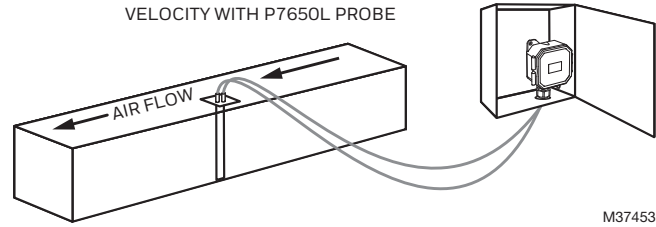


Fig. 1.

Minimum Straight Duct Approach

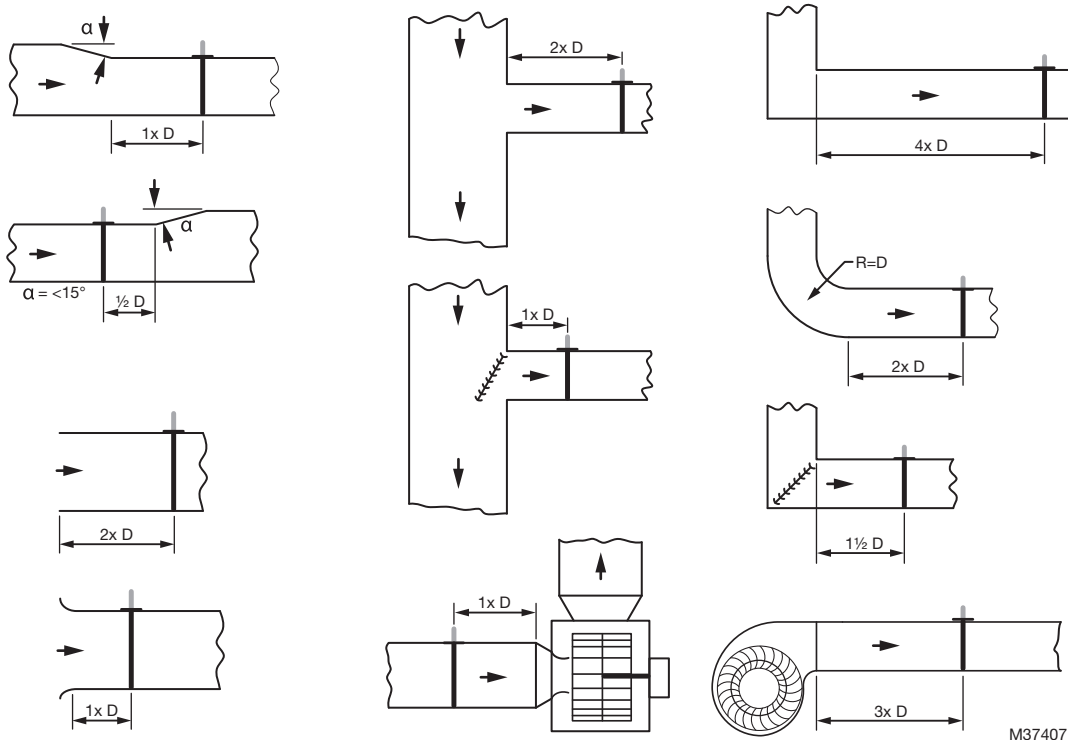


Fig. 2.

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