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### **A-306 OUTDOOR STATIC PRESSURE SENSOR**

The Dwyer A-306 Static Pressure Sensor effectively reduces the fluctuation of outdoor static pressures as caused by wind gusts. Elimination of this factor is critical in the control of building pressures which use outdoor static pressure as a reference.

In planning a building HVAC (Heating, Ventilation and Air Conditioning) system, consideration should be given to both location of the outdoor static pressure sensor and interior location of controls which reference outside pressure. In addition to building return or exhaust fan controls, zone return air dampers, if used, require a stable reference pressure.

### **INSTALLATION INSTRUCTIONS**

1. Select a mounting location as free as possible from rooftop obstructions. Your choice of a location should also consider routing of pneumatic tubing into the building to minimize tubing run on the roof.
2. If available, an existing structure such as a radio antenna mast can be used to mount the sensor. Alternatively, the "L" shaped bracket can be attached directly to any rooftop. The important factor to keep in mind when selecting a location is that obstructions, such as trees, chimneys, signs and buildings, all cause turbulence which results in abnormal, and thus inaccurate static pressure. The sensor should be positioned as far from these sources of turbulence as possible.
3. Assemble and mount the sensor as shown in drawing #71-700352-00.
4. Connect the 1/8" vinyl tubing from the sensor to the building distribution system in any convenient location. If only a single controller is involved, the tubing can be connected directly to the building pressure control. A fifty foot length of tubing is supplied with the A-306 kit. It is recommended that the full length of tubing be used. Excess tubing should be coiled at some convenient location rather than cut off.

Lengths longer than 50 feet are available on special order.

5. In some cases, it may be possible to route vinyl tubing through the exhaust duct to lower floors. A 3/8" rubber grommet should be used to protect the tubing at penetration points. Plastic ties can be used where necessary to restrain loose tubing.

71-440842-00 Rev. #1