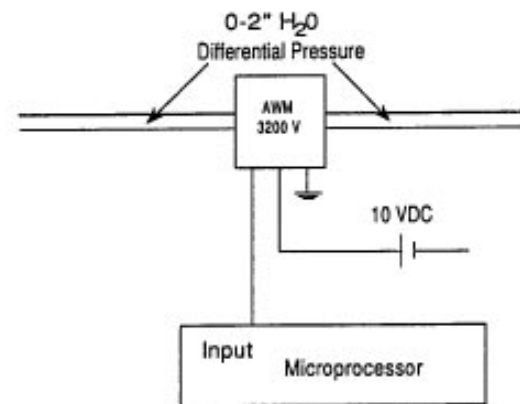
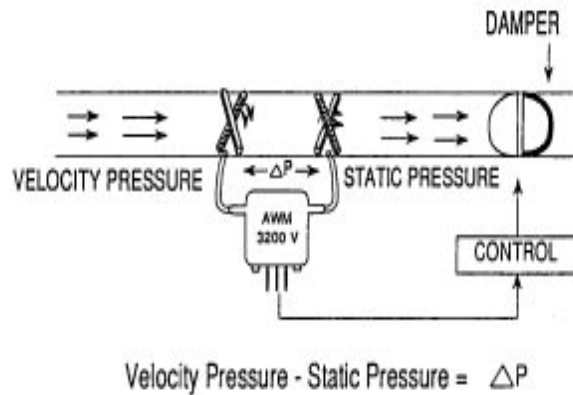


VAV Controller/ Sense Velocity Pressure

MASS AIRFLOW
AP 00076



PRODUCT AWM2200V

APPLICATION DESCRIPTION

In this application, a modern commercial building has the temperature in a control zone regulated by controlling air volume. The following is a description of the terminal unit. Its function is to detect, measure, and control the volume of heated or cooled air allowed to flow into the zone. It uses a Microbridge Mass Airflow Sensor to detect velocity pressure.

The terminal unit is attached to a supply duct on the upstream side and diffusers on the downstream side. The volume of air allowed to flow from supply to diffusers is controlled by a motor driven damper. Accurate flow rates are maintained through closed-loop control of damper position.

Flow pickups located in the duct channel transmit samples of total pressure to the Microbridge Mass Airflow Sensor. The differential of the two pressures is the velocity pressure.

There is a direct relationship between velocity pressure in the duct and air flow to the diffusers. The Microbridge Mass Airflow sensor detects the velocity pressure and delivers a signal to a microprocessor controller.

The control loop is closed when the microprocessor drives the damper to a position which yields the correct velocity pressure in the terminal unit.