

CONTROL STRATEGIES

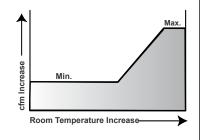
single / dual duct terminals

Variable Air Volume - VAV Cooling

As the room temperature increases over setpoint, the unit modulates the cold airflow from the minimum (which may be zero flow) to the maximum setting.

For detailed information on specific control types, refer to the following pages in Section 0:

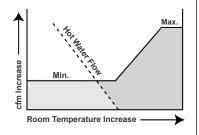
Pneumatic: See pg. 018 / Analog: See pg. 011 / Digital: See pg. 05



VAV Cooling, Hot Water Reheat

As the room temperature increases, the unit modulates the hot water coil valve toward the closed position. On a further increase in room temperature, the unit modulates the cold airflow from the minimum (which must be greater than zero) to the maximum setting.

Pneumatic: See pg. 018 / Analog: See pg. 011 / Digital: See pg. 05

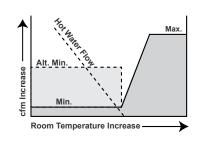


VAV Cooling, Dual Minimum Flows with Hot Water Reheat

In the cooling mode, as the room temperature increases, the unit thermostat modulates the cold airflow from the lower minimum to the maximum setting.

In the heating mode, the unit references the alternate (higher) minimum airflow. As the room temperature decreases, the unit modulates the airflow from the maximum to the higher minimum, then modulates the hot water coil valve toward the open position. The valve operates only in the heating mode.

Pneumatic: See pg. 018 / Analog: See pg. 011 / Digital: See pg. 05

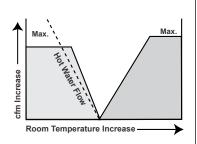


VAV Cooling and VAV Heating, Local Heat Flows

In the heating mode, as the room temperature increases, the unit modulates the airflow from maximum to minimum and modulates the hot water coil valve toward the closed position.

A further increase in room temperature changes the operation to the cooling mode, and the unit modulates the cold airflow from minimum to maximum, which is the same as the heating maximum.

Pneumatic: See pg. 018 / Analog: See pg. 011 / Digital: See pg. 05

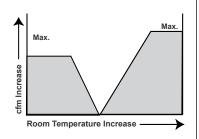


VAV Cooling and VAV Heating, Central Heat Flows

In the heating mode, as the room temperature increases, the unit modulates the airflow from maximum to minimum and modulates the hot water coil valve toward the closed position.

A further increase in room temperature changes the operation to the cooling mode, and the unit modulates the cold airflow from minimum to maximum, which is different from the heating maximum (usually higher). Both the heating and the cooling maximum airflows are adjustable.

Pneumatic: See pg. 018 / Analog: See pg. 011 / Digital: See pg. 05



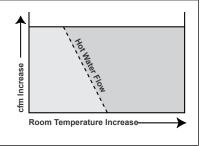


Control Strategies (continued)

Constant Volume, Hot Water Reheat

The cold airflow remains constant regardless of changes in duct pressure or room temperature. As the room temperature increases, the unit modulates the hot water coil valve toward the closed position.

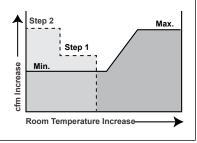
Pneumatic: See pg. 018 / Analog: See pg. 011 / Digital: See pg. 05



VAV Cooling, Electric Reheat

As the room temperature increases, the unit de-energizes the electric heating coil one step at a time. On a further increase in room temperature, the unit modulates the cold airflow from the minimum (which must be greater than zero) to the maximum setting.

Pneumatic: See pg. 018 / Analog: See pg. 011 / Digital: See pg. 05

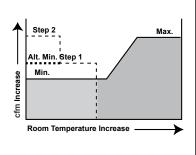


VAV Cooling, Dual Minimum Flows with Electric Reheat

In the cooling mode, as the room temperature increases, the room thermostat modulates the cold airflow from the lower minimum to the maximum setting.

In the heating mode, as the room temperature decreases, the unit modulates the airflow from the lower minimum to the higher minimum, then energizes the electric heating coil stages.

Pneumatic: See pg. 018 / Analog: See pg. 011 / Digital: See pg. 05



VAV Cooling with Morning Warmup

When provided the appropriate signal, the damper in the terminal modulates to maximum or fully open position. Heated air from the central system moves through the duct (the flow may be pressure dependent with some control types).

When the signal is removed, the unit resumes normal control of airflow. With the central system now supplying cold air, as room temperature increases, the unit modulates the cold airflow from minimum to the maximum setting.

Pneumatic: See pg. 018 / Analog: See pg. 011 / Digital: See pg. 05

