

DUAL DUCT TERMINAL UNIT MODELS: P3230 AND P3240 PNEUMATIC CONTROL PACKAGE: DP3-120

MAIN

CONSTANT VOLUME • PRESSURE INDEPENDENT • TOTAL AIR SENSING (COLD DECK MAKE-UP) LEFT HAND HOT DECK • DA/NC, DA/NC **DIRECT ACTING THERMOSTAT**

The hot and cold duct controllers are set for equal maximum flow rates (constant volume). The hot duct minimum flow rate is set at zero at 13 psi, while the cold duct minimum setting is set at the maximum (total) flow rate as well. The cold duct controller, unlike the hot duct, is not under control from the room thermostat.

When the space temperature is hot, the cold duct damper is controlling the maximum air flow and the hot duct damper is closed. Since the cold air velocity sensor is located downstream, in the mixer section of the unit, the signal it sends to the cold duct controller represents total air flow. Therefore, as the space temperature increases and thermostat output pressure exceeds 8 psi, as the hot duct damper begins to close, the cold duct damper begins to open, in order to hold total air flow constant. As the temperature calls for still more cooling, the hot air flow continues to decrease until it reaches its minimum flow rate (at 13 psi), at which point the hot duct damper is fully closed.

