

DUAL DUCT TERMINAL UNIT MODELS: P3230 AND P3240 PNEUMATIC CONTROL PACKAGE: DP3-116

MAIN

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

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

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

