



The Carnes Model AVDB, dual duct VAV unit, contains two low pressure drop, high velocity throttling valves. Hot and cold duct valves are independently controlled. Pressure independent reset constant volume controllers accurately control the hot and cold duct air flows.

A common thermostat controls the individual reset constant volume controllers. Selection of proper controller spring ranges and pneumatic devices allows sequences of operation from constant discharge volume to no mixing.

Hot and cold throttling valves can be factory set for normally open or normally closed configurations, compatible with direct or reverse acting thermostats.

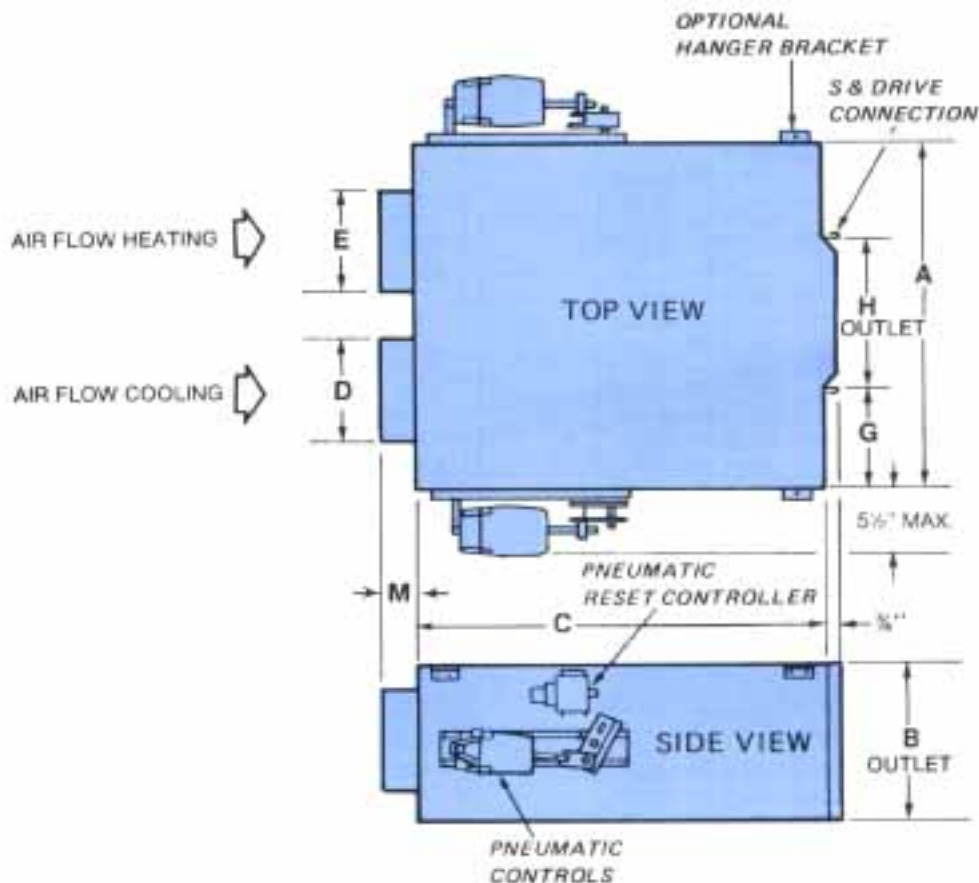
A wide variety of available control sequences makes the Carnes dual inlet VAV unit adaptable to the most energy saving system design.

Other Features Include:

- Air flow capacities from full shut-off to 6,000 CFM.
- Open-end discharge provided with S and drive connection for easy installation.
- Thermally and acoustically insulated casing.
- Hot and cold throttling valves are independently controlled.
- Integral temperature mixing section.
- Pressure independent reset constant volume controllers accurately control hot and cold air flows.
- Multi-discharge adaptors have round outlet connections with integral balancing dampers.
- Optional pressure independent pneumatic control.
- Optional pressure independent pneumatic constant volume control.
- Optional hanger brackets (Sizes 0202 - 1212 Only).
- Optional fire rated tubing.
- Optional foil coated insulation (hospital, laboratory, etc. applications).

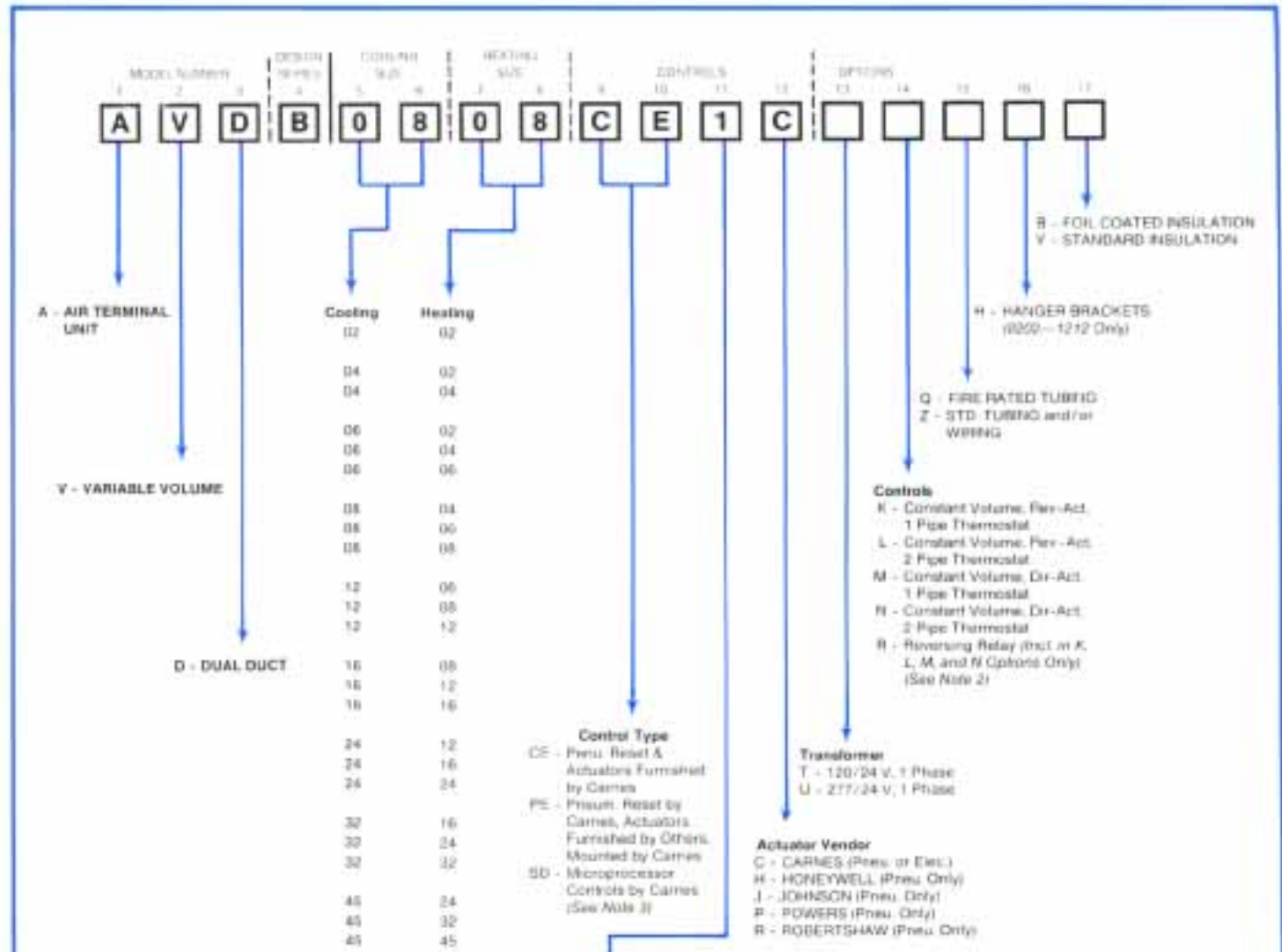
Available Modules:

- Basic control unit—Model AVDB.
- Sound attenuator—Model AXAA (See Section 5—Accessories).
- Multi-discharge adaptor—Model AXMA (See Section 5—Accessories).



RIGHT HAND COOLING SIDE
CONFIGURATION SHOWN

| Unit Size | Nominal Max. CFM | | Dimensions Listed in Inches | | | | | | | | M | |
|-----------|------------------|------|-----------------------------|----|--------|-------|----|----|----|------------|----|--|
| | CLG. | HTG. | A | B | C | D | E | G | H | Valve Size | 2% | |
| | | | | | | | | | | Valve Size | | |
| 0202 | 400 | 400 | 20 | 8 | 23 1/4 | 5 | 5 | 5 | 10 | 02 | 2% | |
| 0402 | 500 | 400 | 20 | 8 | 23 1/4 | 6 | 6 | 5 | 10 | 04 | 2% | |
| 0404 | | 500 | | | | | | | | | | |
| 0602 | 700 | 400 | 24 | 10 | 23 1/4 | 7 | 6 | 6 | 12 | 06 | 2% | |
| 0604 | | 500 | | | | | | | | | | |
| 0605 | | 700 | | | | | | | | | | |
| 0804 | 1000 | 500 | 24 | 10 | 23 1/4 | 8 | 7 | 6 | 12 | 08 | 2% | |
| 0806 | | 700 | | | | | | | | | | |
| 0808 | | 1000 | | | | | | | | | | |
| 1206 | 1500 | 700 | 28 | 12 | 23 1/4 | 10 | 8 | 7 | 14 | 12 | 2% | |
| 1208 | | 1000 | | | | | | | | | | |
| 1212 | | 1500 | | | | | | | | | | |
| 1608 | 2300 | 1000 | 32 | 14 | 35 1/4 | 12 | 10 | 8 | 16 | 16 | 2% | |
| 1612 | | 1500 | | | | | | | | | | |
| 1616 | | 2300 | | | | | | | | | | |
| 2412 | 3200 | 1500 | 36 | 16 | 35 1/4 | 14 | 12 | 9 | 18 | 24 | 2% | |
| 2416 | | 2300 | | | | | | | | | | |
| 2424 | | 3200 | | | | | | | | | | |
| 3216 | 4200 | 2300 | 40 | 18 | 35 1/4 | 16 | 14 | 10 | 20 | 32 | 2% | |
| 3224 | | 3200 | | | | | | | | | | |
| 3232 | | 4200 | | | | | | | | | | |
| 4524 | 6000 | 3200 | 48 | 18 | 35 1/4 | 18x16 | 14 | 12 | 24 | 45 | 3% | |
| 4532 | | 4200 | | | | | | | | | | |
| 4545 | | 6000 | | | | | | | | | | |



CONFIGURATION

| Control and Damper Arrangement | | Thermostat Type | Pneumatic Reversing Relay Requirement | Control Type |
|---------------------------------|-----------------------------|-----------------|---------------------------------------|----------------------------|
| Cooling | Heating | | | |
| 1 - Normally Open, Right Hand | Normally Closed, Left Hand | Direct Acting | No | Pneumatic & Microprocessor |
| 2 - Normally Open, Left Hand | Normally Closed, Right Hand | Direct Acting | No | Pneumatic Only |
| 3 - Normally Closed, Right Hand | Normally Open, Left Hand | Reverse Acting | No | Pneumatic & Microprocessor |
| 4 - Normally Closed, Left Hand | Normally Open, Right Hand | Reverse Acting | No | Pneumatic Only |
| 5 - Normally Open, Right Hand | Normally Open, Left Hand | Direct Acting | Yes | Pneumatic & Microprocessor |
| 6 - Normally Open, Left Hand | Normally Open, Right Hand | Direct Acting | Yes | Pneumatic Only |
| 7 - Normally Closed, Right Hand | Normally Closed, Left Hand | Reverse Acting | Yes | Pneumatic & Microprocessor |
| 8 - Normally Closed, Left Hand | Normally Closed, Right Hand | Reverse Acting | Yes | Pneumatic Only |

- NOTES:**
1. Hand is determined by facing the unit in the direction of air flow into the unit from supply duct.
 2. Reversing relay for air flow mixing and dead band requirements.
 3. "SD" control option includes controller, actuators and inlet sensor.
 4. Electronic Microprocessor Units do not fail open nor closed. (Refer to controls section of this catalog for additional electric actuator operating information.)