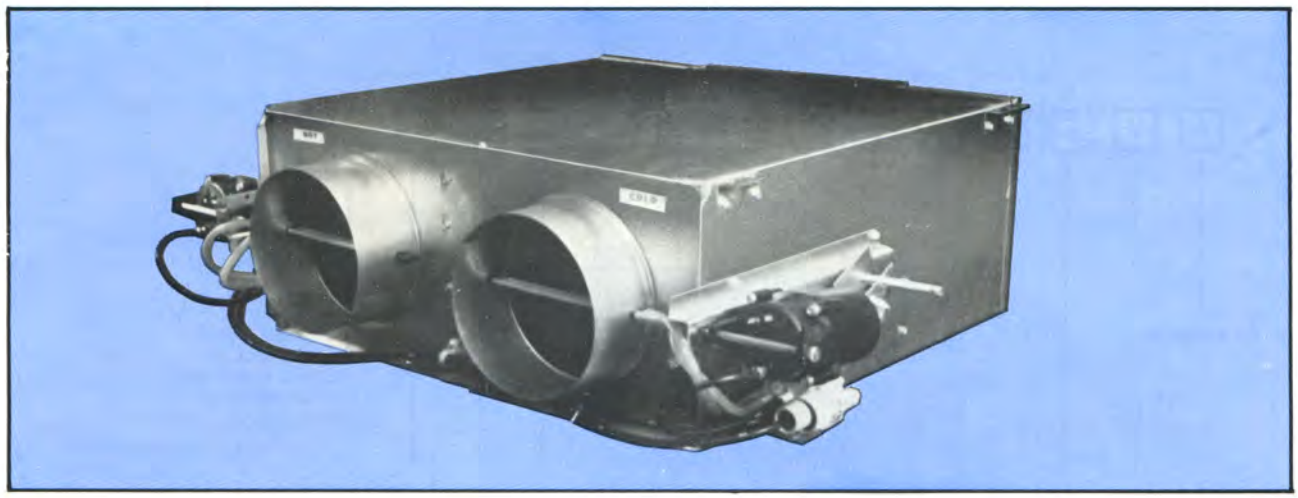
2 Duct Duct Throttling Unit—Model AVDB



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.

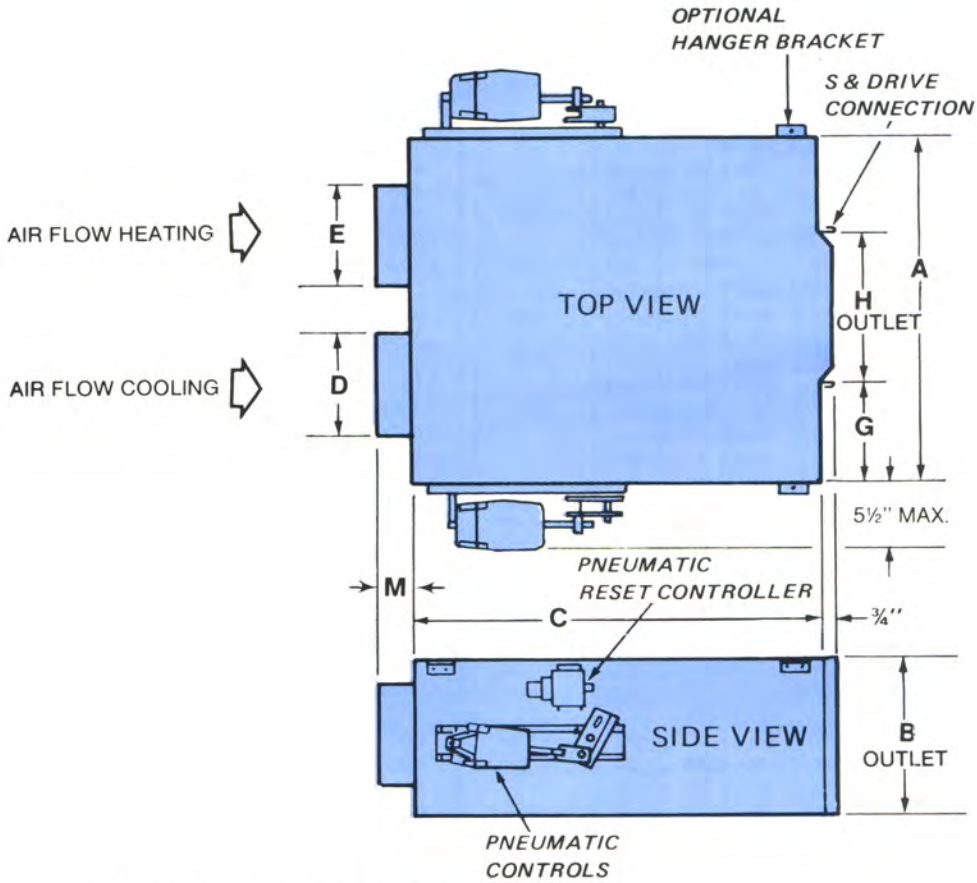
Other Features Include:

- 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).

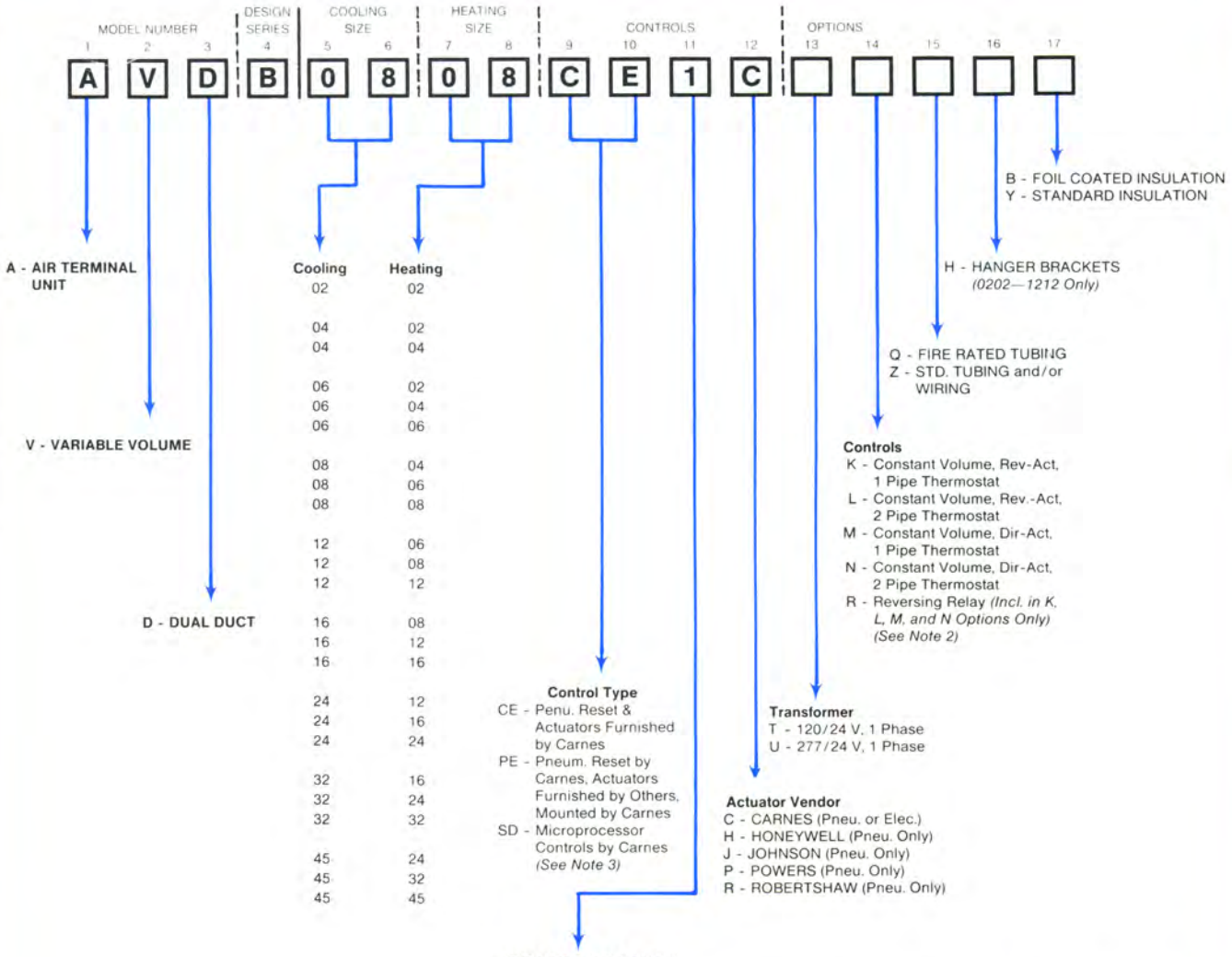
2 Dimensional Data—Model AVDB-Dual Duct Throttling Unit



RIGHT HAND COOLING SIDE CONFIGURATION SHOWN

Dimensions Listed in Inches											
Unit Size	Nominal Max. CFM CLG.	HTG.	A	B	C	D	E	G	H	M Valve Size	
0202	400	400	20	8	23¾	5	5	5	10	02	2⅜
0402 0404	500	400 500	20	8	23¾	6	5 6	5	10	04	2⅜
0602 0604 0606	700	400 500 700	24	10	23¾	7	5 6 7	6	12	06	2⅜
0804 0806 0808	1000	500 700 1000	24	10	23¾	8	6 7 8	6	12	08	2⅜
1206 1208 1212	1500	700 1000 1500	28	12	23¾	10	7 8 10	7	14	12	2⅜
1608 1612 1616	2300	1000 1500 2300	32	14	35¾	12	8 10 12	8	16	16	2⅜
2412 2416 2424	3200	1500 2300 3200	36	16	35¾	14	10 12 14	9	18	24	2⅝
3216 3224 3232	4200	2300 3200 4200	40	18	35¾	16	12 14 16	10	20	32	2⅝
4524 4532 4545	6000	3200 4200 6000	48	18	35¾	18x16	14 16 18x16	12	24	45	3⅜

Model Numbering System—Model AVDB-Control Unit



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.)