With over 20 years in the industry, Computrols has established a solid reputation as a leader in automation systems from hardware to software. For VAV applications, Computrols provides the most flexible products available. The VAV-B-P provides both air flow control and measurement for a complete VAV solution.

**Product Highlights**

**Position Indicator**
Provides a visual indication of position.

**Manual Override**
Pushbutton to allow manual positioning on the damper.

**Convenient Package**
Controller and motor assembly mount directly to VAV boxes in one step.

**Easily Addressable**
Two decimal rotary switches (0-9) allow simple addressing – no hex, no binary.

**Removable Screw Terminals**
Allows for quick replacement.

**Status Indicators**
Bright on-board LEDs assist in troubleshooting.

**Precise Pressure Measurement**
0-5" pressure pickup provides accurate control for sensitive low-volume applications.

**Orientation Independent**
Unlike many VAV controllers, our controller and pressure pickup can be mounted in any orientation without loss of accuracy.

**Multiple Actuator Support**
Add an optional damper actuator using either analog or binary outputs.

**Flexible Sensor Capability**
Supports 10K Type III thermistors or a selection of digital display wall stats.
### Hardware Specifications

<table>
<thead>
<tr>
<th>Power Supply Input</th>
<th>24VAC ± 20% 50/60Hz Class 2 transformer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Requirements</td>
<td>2VA Quiescent, 75VA full load</td>
</tr>
</tbody>
</table>

#### Analog Input Types
- Four total: Configurable for either resistance (10K Type III thermistor), or voltage 0-10VDC input. Analog Input 4 accessible on external cable.

#### Analog Output Types
- Two selectable voltage source output as 0-10VDC @20mA max analog outputs.

#### 4-20mA Loop Source
- 24VDC @100mA max loop source.

#### Binary Output Types
- Eight 24VAC triac controlled outputs, (420 mA max per output).

#### Damper Outputs
- Two 24VAC triac controlled damper outputs, one internal damper output for “built-in” damper. The second configurable damper output is externally accessible using two of eight binary outputs.

#### Actuator Outputs
- Torque Rating: 53 lb.-in. (6 N-m)
- Stroke: Full adjustable from 0° to 90°
- Timing: Approximately 3 minutes at 60 Hz (3.6 minutes at 50 Hz) for 90° rotation @ 24 VAC

#### Velocity Pressure Input
- Operating Range: 0.00 to 5.00 in. of W.C.
- Control Range: 0.01 to 5.00 in. of W.C.
- Accuracy: ±5% @ 1.00 in. of W.C.
- Sensor Type: Factory calibrated Micromachine silicon sensor (differential pressure).
- Tubing Connections: Barb fittings for 0.170” I.D. FRPE polyethylene tubing or 1/4” O.D./0.125 I.D. tygon tubing (high and low pressure taps).
- Tubing Length: 5 feet (1.52 m) maximum each tube.

#### Electrical Connections
- Pluggable terminal blocks, capable of accommodating 14-22 AWG wire.

#### Communication Ports
- RS485 communication ports.

#### Digital Thermostat Output
- One dedicated digital LCD Room temperature/humidity sensor

### Hardware Specifications (continued)

#### Dimensions
- 5-9/16” W x 7-1/16” L x 2-1/8” H

#### Ambient Limits
- Operating Temperature: 32 to 158 °F
- Shipping and Storage: -40 to 160 °F
- Humidity: 5 to 95% RH, non-condensing

#### Enclosure
- Surface mount. Conforms to NEMA-1 requirements. Meets UL94-5V flammability for plenum application use.

### Parts and Accessories

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAV-B-P</td>
<td>VAV controller with pressure pickup.</td>
</tr>
<tr>
<td>MN-S3-700</td>
<td>LCD room temperature sensor (200 feet maximum distance from controller).</td>
</tr>
<tr>
<td>MN-S3-HT</td>
<td>LCD room temperature and humidity sensor (200 feet maximum distance from controller).</td>
</tr>
<tr>
<td>MN-S4</td>
<td>LCD room temperature sensor (200 feet maximum distance from controller) with 3-speed fan control.</td>
</tr>
<tr>
<td>MN-COMM</td>
<td>Commissioning program for the MN series wall stats.</td>
</tr>
<tr>
<td>ST-S3E</td>
<td>Space temperature sensor.</td>
</tr>
<tr>
<td>ST-S3E-XA</td>
<td>Space temperature sensor with set point adjustment.</td>
</tr>
<tr>
<td>ST-D3-XH</td>
<td>Duct temperature sensor.</td>
</tr>
<tr>
<td>VP1</td>
<td>Voltage to pressure transducer (3-18 PSI).</td>
</tr>
<tr>
<td>PV3</td>
<td>Differential pressure transmitter (Specify 0-1&quot;, 0-2&quot;, or 0-5&quot; W.C.).</td>
</tr>
<tr>
<td>DCM24-44</td>
<td>0-10VDC 44 in-lb. actuator mfg. by Delta.</td>
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</tbody>
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