

# VAV-B-P

## Variable Air Volume Controller with Pressure Pickup

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

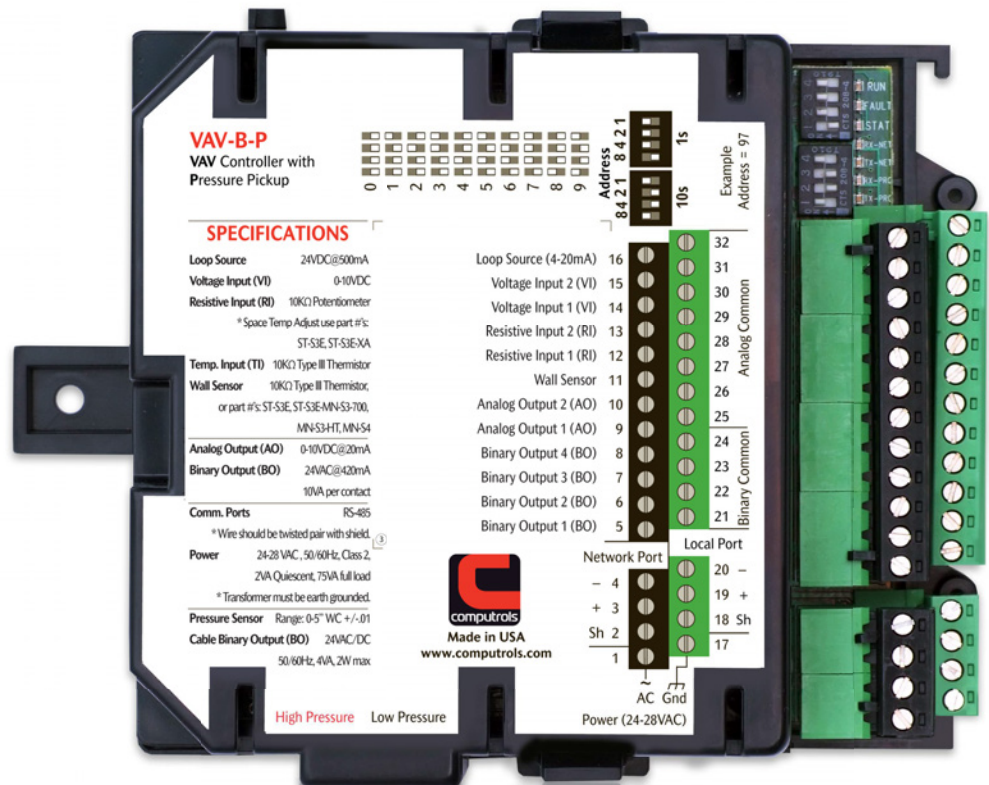
Unlike many VAV controllers, our controller and pressure pickup can be mounted in any orientation without loss of accuracy.

#### 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.



**VAV - B - P**  
Variable Air Volume Controller with Belimo bracket box and Pressure Pickup

## Hardware Specifications

Power Supply Input	24VAC $\pm$ 20% 50/60Hz Class 2 transformer
Power Requirements	2VA Quiescent, 75VA full load
Analog Input Types	<b>Four total:</b> 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	<b>Torque Rating:</b> 53 lb.-in. (6 N-m) <b>Stroke:</b> Full adjustable from 0° to 90° <b>Timing:</b> Approximately 3 minutes at 60 Hz (3.6 minutes at 50 Hz) for 90° rotation @ 24 VAC
Velocity Pressure Input	<b>Operating Range:</b> 0.00 to 5.00 in. of W.C. <b>Control Range:</b> 0.01 to 5.00 in. of W.C. <b>Accuracy:</b> $\pm$ 5% @ 1.00 in. of W.C. <b>Sensor Type:</b> Factory calibrated Micromachine silicon sensor (differential pressure). <b>Tubing Connections:</b> 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). <b>Tubing Length:</b> 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	<b>Operating Temperature:</b> 32 to 158 °F <b>Shipping and Storage:</b> -40 to 160 °F <b>Humidity:</b> 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

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