

VAV-B-AP

Variable Air Volume Controller with Belimo Actuator and 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-AP 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 DIP switches (0-9) allow simple addressing.

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

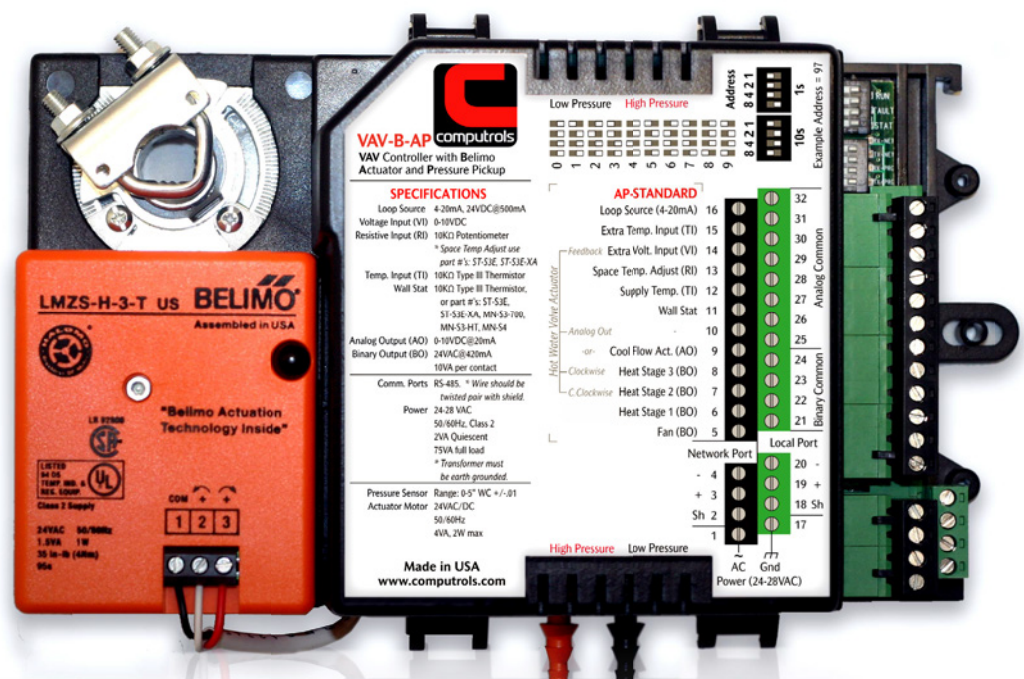
Unlike many VAV controllers, our controller and pressure pickup can be mounted in any orientation without loss of accuracy.

Multiple Actuator Support

Add an optional damper actuator using either analog or binary outputs. Voltage or resistive inputs for precise damper positioning.

Flexible Sensor Capability

Supports 10K Type III thermistors or a selection of digital display wall stats.



VAV - B - AP
Variable Air Volume Controller with Belimo Actuator and Pressure Pickup

Hardware Specifications

Power Supply Input	24VAC ± 20% 50/60Hz Class 2 transformer
Power Requirements	75VA full load
Analog Input Types	Five total: Four resistance (10K Type III thermistor), one voltage 0-10VDC input. Space Temp/S3 Stat is configurable for use with MN-S3-700 display stat option.
Analog Output Types	Two selectable voltage source output as either 0-10VDC @20mA max analog output.
Loop Source	Fixed 24VDC @ 100mA max loop source.
Binary Output Types	Four 24VAC triac controlled outputs (750 mA max per output).
Damper Outputs	One 24VAC triac controlled damper output for "built-in" floating damper.
Actuator Inputs	One resistive input or use with 10K potentiometer feedback or one 0-10V voltage feedback input.
Actuator Outputs	Torque Rating: 45 lb.-in. (5 N-m) Stroke: Full adjustable from 0° to 90° Timing: Approximately 2 minutes at 60 Hz (3.6 minutes at 50 Hz) for 90° rotation @ 24 VAC Position Indicator: Provides a visual indication of position. Manual Override: Push button to allow manual positioning on the damper. Damper Linkage: 1/2" (12.75 mm) or 3/8" (9.5 mm) diameter round shaft extending 7/8" (22.23 mm) minimum from terminal box.
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).
Electrical Connections	Pluggable terminal blocks, capable of accommodating 12-30 AWG wire.
Communication Ports	RS485 communication ports.

Hardware Specifications Continued

Power Requirements	24VAC ± 20% 50/60Hz Class 2 transformer
Dimensions	4-13/16" W x 8-7/8" L x 2-5/8" 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

Part Number	Description
VAV-B-AP	VAV controller with Belimo actuator and 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-COMM	Commissioning program for the MN series wall stats.
TERM-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.

