

UNI-B-AP

Unitary Controller with 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 open applications, Computrols provides the most flexible products available. The UNI-B-AP provides both air flow control and measurement for a complete 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

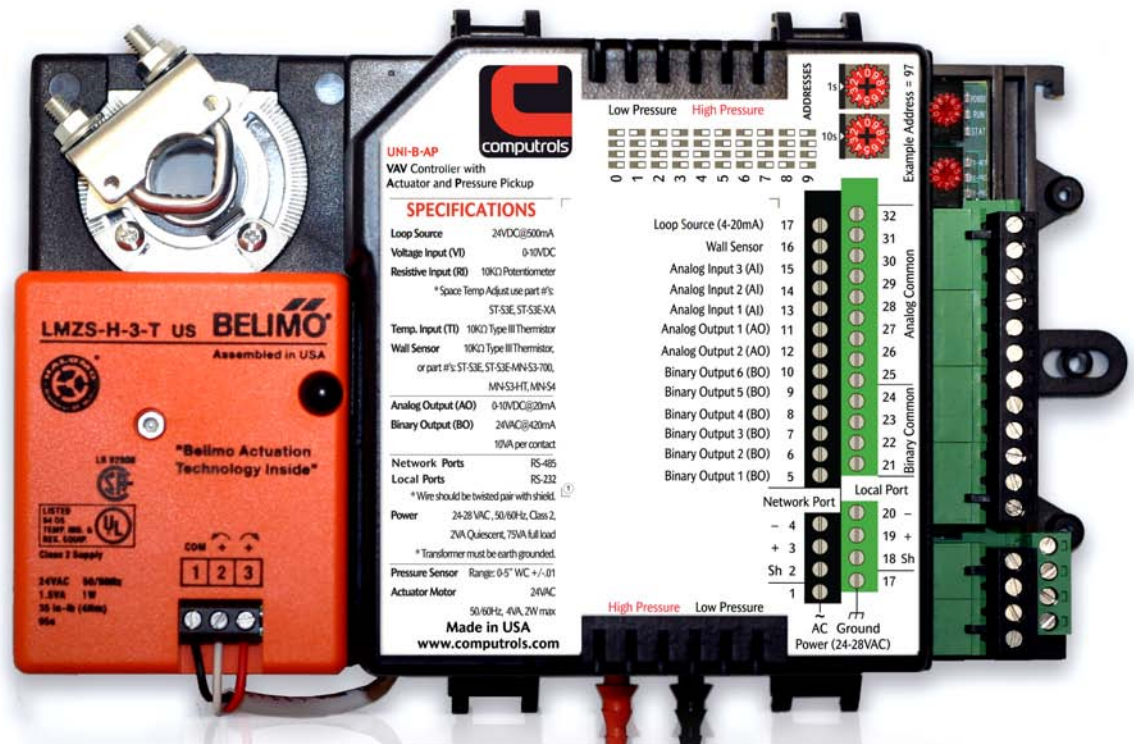
Unlike many VAV controllers, our controller and pressure pickup can be mounted in any orientation without loss of accuracy.

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.



UNI – B – AP

Unitary Controller with **B**elimo **A**ctuator and **P**ressure Pickup



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Hardware Specifications

| | |
|---------------------------|--|
| Power Supply Input | 24VAC \pm 20% 50/60Hz Class 2 transformer |
| Power Requirements | 2VA Quiescent, 75VA full load |
| Analog Input Types | Three total: Configurable for either resistance (10K Type III thermistor), or voltage 0-10VDC input. |
| 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 | Six 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, and the second configurable externally accessible damper output, using two of six binary outputs. |
| Actuator Outputs | <p>Torque Rating: 53 lb.-in. (6 N-m)</p> <p>Stroke: Full adjustable from 0° to 90°</p> <p>Timing: Approximately 3 minutes at 60 Hz (3.6 minutes at 50 Hz) for 90° rotation @ 24 VAC</p> <p>Position Indicator: Provides a visual indication of position.</p> <p>Manual Override: Pushbutton to allow manual positioning on the damper.</p> <p>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.</p> |
| Velocity Pressure Input | <p>Operating Range: 0.00 to 5.00 in. of W.C.</p> <p>Control Range: 0.01 to 5.00 in. of W.C.</p> <p>Accuracy: \pm5% @ 1.00 in. of W.C.</p> <p>Sensor Type: Factory calibrated Micromachine silicon sensor (differential pressure).</p> <p>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).</p> <p>Tubing Length: 5 feet (1.52 m) maximum each tube.</p> |
| Electrical Connections | Pluggable terminal blocks, capable of accommodating 14-22 AWG wire. |
| Communication Ports | RS485 and RS232 communication ports. |
| Digital Thermostat Output | One dedicated digital LCD Room temperature/humidity sensor |

Hardware Specifications (continued)

| | |
|----------------|---|
| Microprocessor | Intel 386EX, 25MHz, 1 MB Flash ROM, 512k RAM, Real Time Clock with 10yr + Lithium battery backup. |
| Dimensions | 4-13/16" W x 8-7/8" L x 2-5/8" H |
| Ambient Limits | <p>Operating Temperature: 32 to 158 °F</p> <p>Shipping and Storage: -40 to 160 °F</p> <p>Humidity: 5 to 95% RH, non-condensing</p> |
| Enclosure | Surface mount. Conforms to NEMA-1 requirements. Meets UL94-5V flammability for plenum application use. |

Parts and Accessories

| Part Number | Description |
|-------------|---|
| UNI-B-AP | Unitary controller with 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-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. |

