



The Alerton® TX-VAVi is a versatile, microprocessor-based controller with an integrated Belimo actuator designed for VAV box applications. It provides pressure-independent control of any single-duct VAV box. The TX-VAVi controller is part of Alerton's complete product line. All control logic for the VAV box is performed by the VAV controller independently of other equipment. The controller can stand-alone or be integrated with a site-wide DDC system.

The TX-VAVi contains an integral velocity sensor to provide pressure-independent operation of the VAV box. Minimum, maximum and reheat airflows can be entered either at a Microset or at the IBEX™ terminal. PID algorithms in the TX-VAVi ensure accurate and stable control of airflow and heating options.

Each TX-VAVi flow sensor is factory calibrated at multiple pressure points. This data, as well as operator entered setup data, is stored in non-volatile EEPROM. Calibration factors can be field adjusted

during balancing to compensate for slight variations in box installation and type. The TX-VAVi controller will operate with the Alerton Microset™, Microtouch™ or wallplate sensors.

The Microset is an intelligent wall-mounted zone temperature sensor containing a digital display and simple push-button controls. It functions as both a tenant control center and field service tool. The Microset's field service mode enables a technician to view and change variables within the VAV controller.

The TX-VAVi controller is your complete answer to control of all VAV boxes. With integral flow sensor and programming flexibility, the user has every option needed for quality VAV box control.

Product Number

TX-VAVi

Specifications

TX-VAVi™

Power	24 VAC @ 6 VA min. (which includes the integrated actuator load) plus any digital output loads. Utilizes a half-wave rectifier, which enables multiple TUXs to be powered from a single transformer. One leg of 24 VAC must connect to earth (panel) ground.
Inputs	3 inputs with 8-bit resolution. Inputs 1 and 2 support Microset™, Microtouch™, or thermistor. Input 3 is for an optional discharge air temperature sensor.
Pressure Sensor	0-1.25" differential pressure sensor.
Digital Outputs	5 outputs, each rated at 24 VAC, 0.5 A. Outputs 1, 2, and 3 utilize hot-switched triacs. Outputs 4 and 5 are pre-wired negative switching triacs for the integrated damper motor. All outputs have a common connection to the fused 24 VAC supply.
Processor	High performance CMOS processor with internal RAM and ROM.
Max. Dimensions	6.00" (154 mm) H X 8.88" (228 mm) W X 2.56" (66 mm) D.
Terminations	Removable header-type screw terminals accept 14-20 AWG wire.
Environmental	32–120°F (0-70°C). 5–95% RH, non-condensing.
Communications	Optically isolated, 9600, 4800, or 1200 baud.
Ratings	<ul style="list-style-type: none"> Listed Underwriters Laboratory for Open Energy Management Equipment (PAZX) under the UL Standard for Safety 916. Listing includes both U.S. and Canadian certification. FCC Part 15, Subpart J, Class A. EMC Directive 89/336/EEC (European CE Mark).

Actuator

Manufacturer & Model	Belimo Aircontrols, Inc. LM24-T-AL.
Overload Protection	Electronic throughout 0-95% rotation.
Angle of Rotation	Maximum 95°, adjustable with mechanical stops.
Torque	Minimum 35 in-lb. (4 Nm).
Running Time	80-110 seconds for 0-35 in-lb.
Manual Override	External pushbutton.
Servicing	Maintenance-free.
Agency Listings	UL 873 listed, CSA 4813 02 certified.

Specifications subject to change without notice.



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