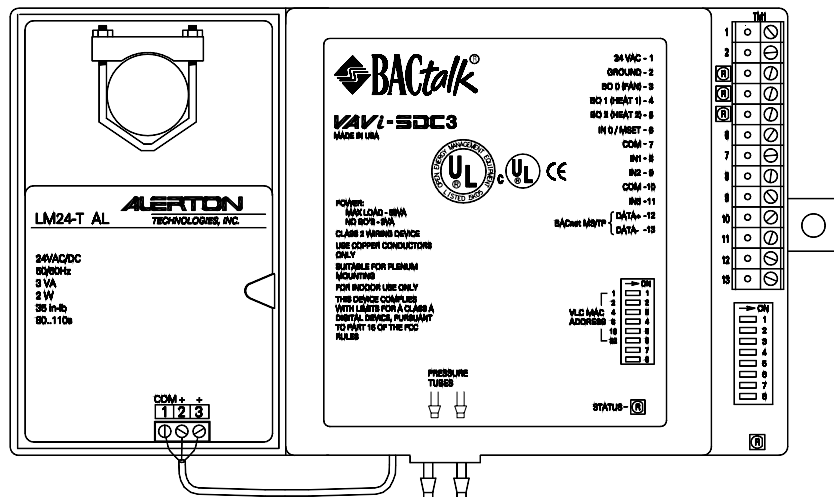




VAVi-SDC3™

VisualLogic® Controller with Actuator



Features & Application Highlights

- **Capable** 4 10-bit inputs plus an integrated airflow sensor, integrated actuator and three additional binary outputs.
- **Convenient** Integrated actuator eases installation.
- **Interoperable** Fully BACnet-compliant on MS/TP LAN at up to 76.8 Kbps.
- **Versatile** Factory-loaded, completely programmable control logic can be modified on-site.
- **Reliable** Extensive onboard filtering, with all program data backed up in non-volatile EEPROM.
- **Accurate** Factory calibrated at multiple velocity points and field-adjustable during balancing.

The Alerton® BACtalk® VAVi-SDC3™ controller with integrated actuator is a versatile BACnet-compliant controller, providing pressure-independent control of any single-duct variable air volume (VAV) box.

The VAVi-SDC3 is part of Alerton's complete BACtalk product line, in total compliance with ANSI/ASHRAE Standard 135-1995, BACnet. As a native BACnet controller, it requires no proprietary chip sets to integrate seamlessly with your BACnet system, communicating at up to 76.8 Kbps on a BACnet MS/TP LAN.

An integrated airflow sensor provides pressure-independent operation of the VAV box. Each airflow sensor is factory-calibrated at multiple velocity points. Technicians can set minimum, maximum and reheat airflows either at a Microset wall unit or a BACtalk for Windows operator terminal. With the Microset, a

technician can adjust the calibration while in the zone during balancing to compensate for slight variations in box installation and type.

The direct-coupled actuator is a high-reliability, maintenance-free ON-OFF/floating point control model manufactured by Belimo Air Controls, Inc. Its universal V-bolt clamp assembly mounts directly to the damper operating shaft.

All control algorithms are factory-loaded into EEPROM and can be field-modified. The VAV-SDC3 can execute control algorithms independently of other equipment. All calibration, programming and operator-entered setup data is stored in non-volatile EEPROM for further assurance of stable, reliable and independent operation.

Product Number

VAVi-SDC3

VAVi-SDC3 SPECIFICATIONS

Power	24 VAC @ 10 VA min. plus binary output loads (50 VA max.). Utilizes a half-wave rectifier, which enables multiple VLCs to be powered from a single transformer. One leg of 24 VAC connects to earth (panel) ground.
Inputs	4 universal inputs with 10-bit resolution. Input 0 supports the BACtalk® Microset™. Inputs 1–3 support thermistor/dry-contact.
Binary Outputs	3 outputs for staged heat or fan control, each rated 24 VAC, 0.5 A. Outputs utilize hot-switched triacs which have a common connection to the fused 24 VAC supply.
Airflow Sensor	0–1.25 inches water column differential pressure sensor.
Processor & Memory	Motorola CMOS processor with ROM and RAM. EEPROM provides non-volatile program and data storage.
Max. Dimensions	3.58" (91mm) H X 6.07" (155mm) W X 2.56" (66mm) D.
Terminations	Removable header-type screw terminals accept 14–24 AWG wire.
Environmental	32–158°F (0–70°C). 0–95% RH, non-condensing.
Communications	BACnet MS/TP LAN up to 76.8 Kbps.
BACnet Conformance	Conformance Class 3. See Protocol Implementation Conformance Statement (PICS).
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 U.S. and Canadian certification. EMC Directive 89/336/EEC (European CE Mark). FCC Part 15, Subpart J, Class A.

Actuator

Manufacturer	Belimo Air Controls, Inc.
Model	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.
Ratings	<ul style="list-style-type: none"> UL 873 listed. CSA 4813 02 certified.

Specifications subject to change without notice.

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