

Features and highlights

- Capable**
 Four 10-bit universal inputs, five binary outputs, and two analog outputs.
- Interoperable**
 Fully BACnet-compliant on MS/TP LAN at up to 76.8 Kbps.



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- Versatile**
 Factory-loaded, completely programmable control logic can be field-modified.
- Reliable**
 Extensive on-board filtering, with all program data backed up in non-volatile flash memory.
- Accurate**
 Factory calibrated at multiple velocity points and field-adjustable during balancing.



The Alerton® BACtalk® VAV-SD2A is a versatile, BACnet-compliant field controller that provides pressure-independent control of any single-duct variable air volume (VAV) box. It is particularly suited for controlling VAV series fan boxes equipped with a variable speed fan. As a native BACnet controller, the VAV-SD2A integrates seamlessly with your BACnet system, communicating at up to 76.8 Kbps on a BACnet MS/TP LAN. The VAV-SD2A-F includes a filter to reduce dust contamination.

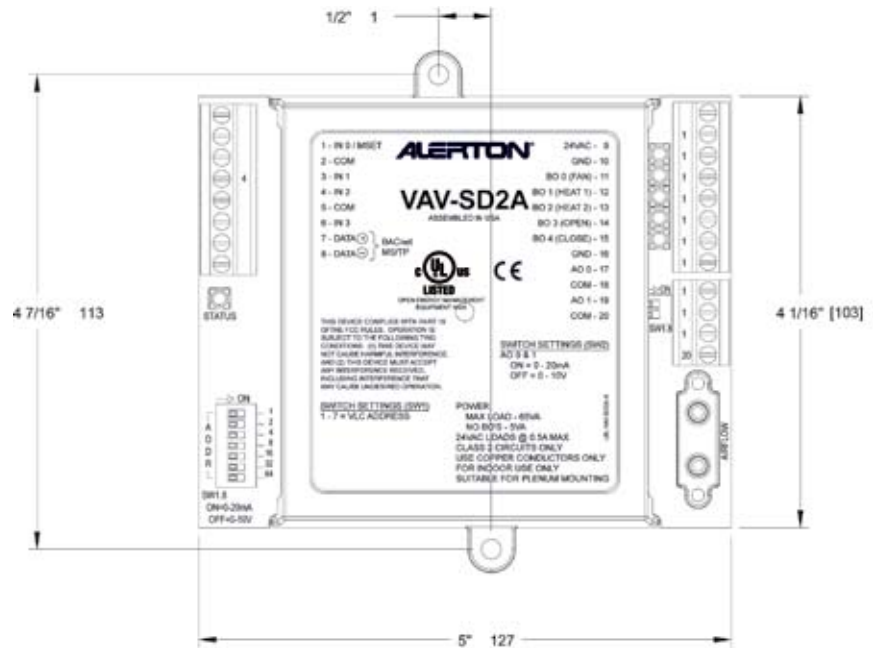
The VAV-SD2A eliminates the need for expensive products and external pressure sensors to control VAV boxes equipped with variable speed fans or analog valves. It features two analog outputs, selectable as either 0–10V or 0–20mA, to control either a variable speed fan, an analog heating valve, or another analog device.

The VAV-SD2A supports the Alerton Microtouch™, as well as the Microset™ and Microset II intelligent wall sensors, which offer convenient data display, setpoint adjustment, and technician access to equipment setup parameters.

The VAV-SD2A contains an integral airflow sensor to provide pressure-independent operation of the VAV box. The airflow sensor is factory-calibrated at multiple velocity points. Minimum, maximum, and reheat airflows can be entered using a Microset wall unit or BACtalk operator workstation software.

Technical Data

- **Power** 24 VAC @ 5 VA min., plus binary output loads (65 VA max.). Utilizes a half wave rectifier, which allows a single transformer to power multiple VLCs.
- **Inputs** 4 universal inputs with 10-bit resolution. Input 0 can be used for a BACtalk Microset. Inputs 1–3 support thermistor/dry contact.
- **Binary Outputs** 5 binary outputs. All BOs are hot-switched triac outputs rated 24VAC @ 0.5A.
- **Analog Outputs** 2 analog outputs, which are DIP-switch selectable between 0–10V and 0–20mA.
- **Pressure Sensor** 0–1.25 inches water column differential pressure sensor.
- **Processor & Memory** Motorola AZ60 processor with onboard flash memory. Flash memory provides nonvolatile program and data storage, and allows for encrypted updates to the program for future product enhancements.
- **Dimensions** 5.20" (132mm)H x 3.30" (84mm)W x 1.40" (36mm)D.
- **Terminations** Removable header-type screw terminals accept 14-24 AWG wire.
- **Environmental** 0–158 deg. F (-17–70 deg. C). 0–95% RH, non-condensing.



- **Communications** BACnet MS/TP LAN up to 76.8 Kbps.
- **BACnet Conformance** ASC level device; tested and approved by BTL. See Protocol Implementation Conformance Statement (PICS).
- **Ratings**



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Listed Underwriters Laboratory for Open Energy Management Equipment (PAZX) under the UL Standard for Safety 916; listing includes both U.S. and Canadian certification

EMC Directive 89/336/EEC (European CE Mark)

FCC Part 15, Subpart J, Class A

Ordering Information

Item number	Description
VAV-SD2A	BACtalk field controller for VAV box applications
VAV-SD2A-C	VAV-SD2A field controller with available custom DDC

Specifications subject to change without notice