VAV-SD

Features and highlights

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

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- **Versatile**
  Downloadable operating code to allow for future software improvements.
- **Reliable**
  Extensive on-board filtering, with all program data backed up in nonvolatile flash memory.
- **Accurate**
  Factory calibrated at multiple velocity points and field-adjustable during balancing.

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

The BACtalk VAV-SD contains an integral airflow sensor to provide pressure-independent operation of the VAV box. Each airflow sensor is factory-calibrated at multiple velocity points. Minimum, maximum, and reheat airflows can be entered either at an Alerton Microset™ wall unit or an operator workstation. A technician can adjust the calibration in the field during balancing to compensate for slight variations in box installation and type.

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

The BACtalk VAV-SD is your complete answer to control of all single-duct VAV boxes in a BACnet environment. With its integral airflow sensor and programming flexibility, the VAV-SD provides every option for precision VAV box control.

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. One leg of 24 VAC connects to earth (panel) ground.

- **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 outputs, each rated at 24 VAC, 0.5 A. Three outputs utilize hot-switched triacs. Two outputs utilize ground switching triacs for damper motor control. All outputs have a common connection to the fused 24 VAC supply.

- **Pressure sensor** 0–1.25 inches water column differential pressure sensor.

- **Processor & Memory** Motorola AZ60 processor with on-board flash memory. Flash memory provides nonvolatile program and data storage and allows for encrypted updates to the program for future product enhancements.

- **Max. 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. An additional header is provided for easy connection to MS/TP for testing.

- **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** An application specific controller (ASC); tested and approved by BTL. See Protocol Implementation Conformance Statement (PICS).

- **Ratings**

  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

Specifications subject to change without notice