VAViH-SD

Features and highlights

- **Economical**
  Comes with 5 inputs, 6 binary outputs; the separate replaceable actuator enables quicker, less expensive repairs.
- **Adaptable**
  Pre-loaded, DIP-switch selectable DDC applications for 5 types of VAV box control.
- **Flexible**
  Left- or right-mountable actuator enables flexible mounting configurations.
- **Innovative**
  Device addressing and application selection can all be done with common tools for easy installation or replacement.
- **Attractive**
  Sleek, updated design.

The Alerton BACtalk® VAViH-SD™ controller with integrated actuator is a versatile BACnet-compliant controller, providing pressure-independent control of any single-duct variable air volume (VAV) box. It features a built-in airflow sensor, five universal inputs (AIs or BIs) and six binary outputs (BOs). As a native BACnet controller, the VAViH-SD integrates seamlessly with your BACnet system, communicating at up to 76.8 Kbps on a BACnet MS/TP LAN.

Four of the BOs are hot-switched 24 VAC at 0.5A triac outputs, 4–20mA; the other two BOs are ground-switched and are reserved for the integrated actuator. Four inputs are permanently configured to operate as open contact/thermistor inputs. The fifth input is user selectable: Open contact/thermistor, 0–5 VDC or 0–10 VDC. All inputs are 10-bit resolution.

The BACtalk VAViH-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 a Microset™ wall unit or an operator workstation. A technician can adjust airflow parameters in the field during balancing to compensate for slight variations in box installation and type.

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

All control algorithms are factory-loaded into nonvolatile flash memory and can be completely field-modified. The VAViH-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.

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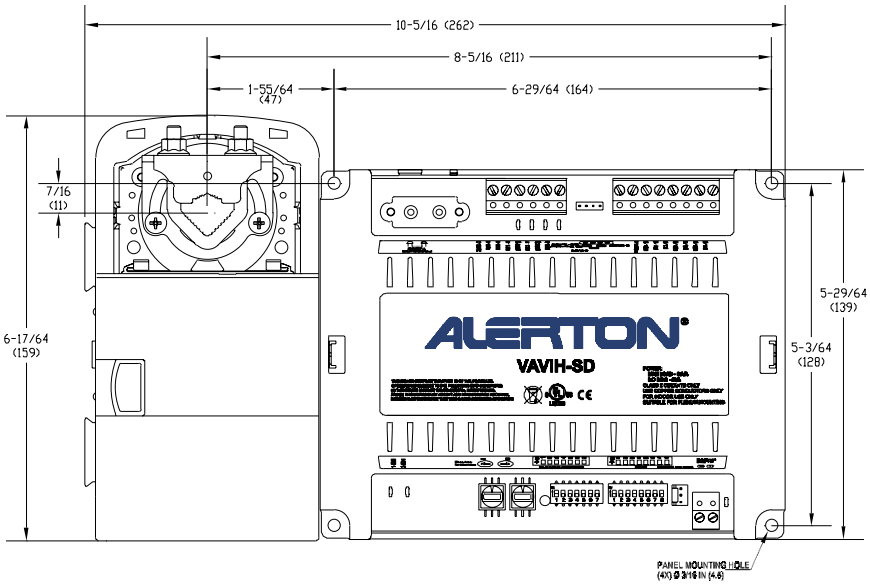
LTBT-VAVIH-SD Rev. 0001

VAViH-SD

Technical data

- **Power** 24 VAC @ 10 VA min. plus binary output loads (60 VA max.). Utilizes a half-wave rectifier, which enables a single transformer to power multiple VLCs.
- **Inputs** 5 inputs with 10-bit resolution. Input 0 supports the BACtalk Microset. Inputs 0–3 support open contact/10K thermistor. Input 4 allows user-selectable configuration: Open contact/10K thermistor, 0–5 VDC or 0–10VDC.
- **Binary Outputs** 6 binary outputs for staged heat or fan control. Except for BO 3 and 4, which are ground-switched for damper motor control, all BO terminals are hot-switched, optically coupled triac outputs rated 24 VAC @ 0.5 A, 4–20mA.
- **Airflow Sensor** 0–1.25 inches water column differential pressure sensor.
- **Actuator torque rating** 44 lb-in or 5nm.
- **Processor and Memory** Motorola AZ-60 processor with on-board flash memory. Flash memory provides nonvolatile program and data storage, and allows for updates to the firmware for future product enhancements.
- **Maximum Dimensions** 2.5" (64mm) H X 6.9" (175mm) W X 5.5" (140mm) 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** Fits application specific controller (ASC) profiles as 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, 3rd Edition. Listing includes U.S. and Canadian certification. Suitable for plenum mounting.

  FCC Part 15, Class A.

  EN 55022, Class A.

  EN 61000-3-2, 61000-3-3, 61000-4-2, 61000-4-3, 61000-4-4, 61000-4-8, 61000-4-6, 61000-4-11

Ordering information

VAViH-SD	VAViH-SD with 5 universal inputs, 6 binary outputs; 2 of the binary outputs drive integrated Honeywell actuator

Specifications subject to change without notice

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