



MS-VAV

Application Specific Controller

COMPACT DESIGN

With an integral actuator and velocity pressure sensor, MS-VAV presents a highly accurate, compact solution for VAV applications.

VERSATILE

Highly accurate, pressure independent control over a broad range of pressures and the entire operating temperature range.

SINGLE MODEL DESIGN

The MS-VAV design includes the ability to control several different terminal VAV applications including up to three stages of digital heat with the same electronics.



The MicroScan VAV is an application specific controller designed to seamlessly integrate into the Info-Scan system for variable air volume terminal unit control. The controller is specially designed to take advantage of Info-Scan's flexibility and robust architecture. It is compatible with all Info-Scan systems and operates as a MS/TP device on the Info-Scan network. The device is well-suited for a large variety of VAV applications, and is designed for long-life and high reliability. It is also compatible with all industry standard sensors and controls including damper actuators and valves.

The MicroScan VAV breaks older cost barriers by utilizing surface mount integrated circuit technology, flash memory and highly integrated microprocessor and interface circuits. This controller combines many of the external sensors and devices into a single, quickly installed platform. A single mounting screw and the attachment to the VAV damper actuator is all that is required to mount the unit.

- Proportional / Integral Cooling Control
- One Stage of Proportional / Integral Heating Control
- Up to Three Stages of Digital Heat Control
- Four Constant Speed Fan Control Strategies
- Lighting Control
- Occupancy Override From Zone Thermostat
- User Set Point Adjustment at Zone Thermostat
- Integral 24 VAC Power
- Precise Analog Actuator



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TECHNICAL SPECIFICATIONS

Physical

Size: 8.87" x 4.88" x 2.4
[0.225 x 0.124 x 0.609 m]

Weight:
1.42 lb. [0.644 kg]

Environmental

Operating Temp Range: 0 - 50 °C

Storage Temp Range: -25 - 80 °C

Processor

25 MHz, 8-bit prog Microcontroller

Memory

- 4 kB high speed RAM
- 64 kB non-volatile FLASH EEPROM for storing code and VAV configuration settings

Supply Voltage:

- 24 VAC \pm 10% 60 Hz or
- 30 - 38 VDC

Communications

- EIA 485 Bus, MS/TP
- Speeds: 1200, 9600, 19200, 38400 baud

Digital Inputs (2) DryContact

- Occupancy override input
- Occupancy status input

Analog Inputs (5) 12 bit ADC

- **Room temperature input**
500-1500 Ω resistive input or
Or 4-20 mA loop power.
- **Setpoint adjust input**
1000 Ω resistive input maximum
- **Supply air (box discharge input)**
500-1500 Ω resistive input
- **Auxiliary input (jumper selectable)**
0-5 V / 0-10 V / 4-20 mA loop power
- **CFM sensor input**
Fully integrated on-board sensor
0-2" Standard

Digital Outputs

High current digital output triacs @ 24 VAC

- Lights On (12vA)
- Lights Off (12vA)
- Fan Control (12vA)
- Digital heat 1 (12vA)
- Digital Heat 2 (12vA)
- Digital Heat 3 (12vA)

Analog Outputs

- Damper Control
- Reheat Valve Control

Utilizes 12 Bit DAC for excellent control resolution. 4-20mA or 0-10Vdc selectable, 24Vac, 3 wire configuration.

Actuator

Integrated tray actuator featuring brushless action capable of delivering up to 35 IN-lb (4 Nm).

Specifications subject to change without notice

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Features and Benefits

The MicroScan Variable Air Volume (VAV) product line (MS-VAV) is a robust controller suitable for HVAC terminal unit applications. MS-VAV features highly accurate, pressure independent control over a broad range of pressures and the entire operating temperature range.

Powered by a switch mode power supply (SMPS) and a 25 MHz microcontroller, MS-VAV exhibits excellent power efficiency with high speed control, meeting the needs of the most demanding applications.

Flexible configuration of inputs and outputs ensure compatibility with the majority of customer needs. This reduces the costs of stocking maintenance spares by requiring only one model.

Ordering Information

- **Part No. MS-VAV-AO** — Modulating Analog Output Model MicroScan VAV controller with Integrated proportional actuator and 2" velocity pressure sensor.

NEED ASSISTANCE ?

Technical Support
Installation and Setup
Maintenance
Application Support
Software Support
Warranty ???s

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