

VAV-4020

Variable Air Volume Controller



VAV-4020 is a digital VAV box controller that vastly outperforms conventional controls. Superior precision and networked control strategies ensure energy-efficient operation.

The best of both worlds
Like conventional controls, the VAV-4020 provides closed-loop control of modulated variable-air-volume systems or modulated heating/cooling boxes.

But its sophisticated digital control features include programmable settings, numerous automated functions, and network communications capability. This versatile unit increases equipment efficiency, reduces energy consumption and improves temperature control.

Bottom Line: With Novar You Know It Works

NOVAR[®]
CONTROLS

With Novar, you know.

LOGIC
ZONE



Specifications

VAV-4020

The VAV-4020 is a digital VAV box controller that contains an on-board airflow sensor for pressure independent VAV box control. Setpoints, airflow settings, and reheat fan control allow it to be used in Variable Air Volume, Variable Volume and Temperature, and other modulating airflow applications.

Hawki

ETC

ETM

HPC+

UVC

VAV

Physical Characteristics

Height:	8.25 inches.
Width:	6 inches.
Depth:	2 inches.
Weight:	1.88 lbs.
Mounting:	Four base-slotted mounting holes allow fastening directly to the VAV box or within three feet of the airflow pickup devices (installed in the airstream).

Operating Environment

Temperature:	32° to 122° F (0° to 50° C).
Humidity:	0 to 95% relative, noncondensing.

Electrical

Voltage:	24VAC (Class 2).
Consumption:	6VA.
Analog Inputs:	0 to 3.5VDC.
Digital Inputs:	Contact closure only.
Analog Outputs:	Two output PWM.
Digital Outputs:	24VAC, 1 ampere (pilot duty).
Status Indication:	One schedule-status indicator LED and five output status LEDs.

Special Circuits/Diagnostics

Low Voltage Detect:	Senses proper operating voltage.
Temperature Sensor Monitor:	Verifies operation of temperature sensors.
Watch Dog:	Monitors and ensures VAV-4020 timing and operation.
Fail Safe:	Programmed setpoints held in nonvolatile PROM.
Surge Suppression:	All inputs/outputs protected against lightning-induced surge or voltage transients.
Setup Mode:	Used during air balancing to force box to desired positions.

Network Communications

Method:	RS-485.
Cable (network):	2-wire, shielded cable. Belden 8761 or equivalent.

Airflow Sensor

Range:	.01 to 2 inches of water.
Flow Sensing Method:	Flow-compensated differential pressure transducer.
Input:	.25-inch I.D. plastic tubing connected to airflow pickup.

Options

Zone Temperature Sensors:	WTS-VAV – Standard wall-mount, non-adjustable. FTS-2 – Futura wall-mount, nonadjustable. FTS-2A – Futura wall-mount, with integral setpoint adjustment dial. RTS-UVC – Remote Temperature Sensor for supply air temperature.
Sensor Cable:	500-ft. maximum.

Input/Output Points

Inputs:	Total – 5. Zone temperature. Zone setpoint adjustment. Timed override. Airflow sensor. Supply air temperature.
Outputs:	Total – 5. Heating – 2 stages or two output PWM. Cooling – Two output PWM. Fan.

Specifications subject to change without prior notification.

Listed Device, U.S., UL File #E90949(N)
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