



EZ to order. EZ to install. EZ to setup, commission and balance.



The new EZvav Digital Controls by Nailor bring simplicity to the Variable Air Volume (VAV) terminal unit market. Designed for both stand-alone applications and for integration with BACnet building automation systems, EZvav are precise P+I pressure independent VAV controllers that are pre-configured for standard control sequences that cover the vast majority of terminal unit applications.

All terminal units with electric or hot water heating coils are supplied as standard with a DAT Discharge Air Temperature control sensor that can limit the discharge air temperature to a maximum of 15°F above room set point, helping compliance with ASHRAE Standard 62.1 and 55.

Field commissioning and balancing can all be performed using the standard digital display room temperature sensor, which has an intuitive menu driven setup. No laptop, expansion modules, communication interface or software is required.

FEATURES & BENEFITS:

- Integrated controller/actuator/transducer
- Factory mounted and wired for new building applications
- Ideal for retrofitting and upgrading pneumatic and analog controls to a digital solution
- Room temperature sensor (thermostat) options include Digital Display, Occupancy Sensor and compact Rotary Dial models
- Remote fan volume adjustment from 0 – 100% for EPIC ECM fan powered terminals
- Simple menu driven setup
- BACnet BMS network integration ready

Application Control Sequences Include:

- Single Duct VAV or CAV Cooling only and Heat/Cool Changeover
- Single Duct VAV Cooling with reheat

- Dual Duct Variable Volume or Constant Volume control
- Series Fan Powered Constant Volume with/without supplementary heat
- Parallel Fan Powered Variable Volume with/without supplementary heat

Heating Control Options:

Binary (up to 3 stages of electric heat), Modulating (0 – 10 Vdc analog) or Floating heat control.

Native BACnet

All models are BACnet Applications Specific Controllers that are ready to connect to a BACnet MS/TP network. Device instance, MAC address and baud rate are set from an STE-8001W36 without special software.

EZ to order

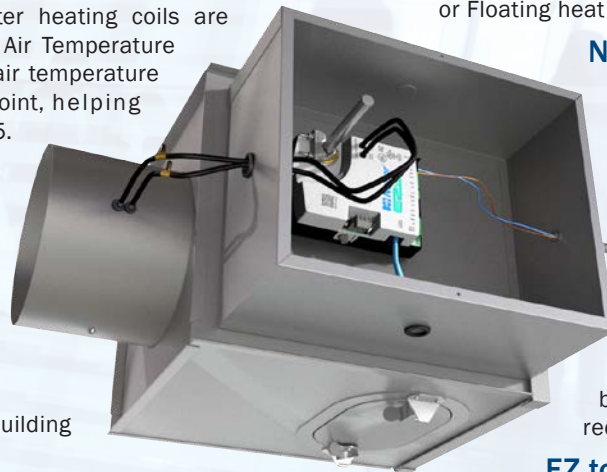
Nailor Representatives' Automated Pricing Program (RAPP) features EZ quick select options for control sequences and room temperature sensor options based on terminal unit type and application requirement.

EZ to install

For field retrofit applications, the EZvav controller is mounted within a terminal unit controls enclosure and directly coupled to the damper shaft. The flow sensor, power supply, heat and temperature sensors are then connected. The EZvav controller automatically detects them without programming or software tools.

EZ to setup, commission and balance

All options can be set by using an STE-8001W36 sensor as a technician's service tool or installed as a permanent room sensor. The EZvav Controller can be stocked by representatives to provide a simple digital solution to their customers that wish to upgrade their pneumatic or analog inventory to a new digital solution, perfect for retrofit applications!





EZvav DIGITAL CONTROLLERS:

Model Number	Application
BAC-8001-36	Single Duct Cooling and Heat/Cool changeover
BAC-8005-36	Single Duct with Reheat and Fan Powered Applications
BAC-8007-36	Dual Duct Master
TSP-8001-36	Dual Duct Secondary Actuator



ROOM TEMPERATURE SENSOR (THERMOSTAT) OPTIONS:



STE-8001W36
Digital Display

- Temperature readout in deg F or C. (and time of day when networked). User Set point adjustment
- Field Commissioning Tool
- Password Capable



STE-8201W36
Digital Display with Occupancy Sensor

- Same Features as STE-8001W36 with Occupancy Motion Sensor that provides unoccupied, setback and standby control



STE-6014W36
Rotary Dial

- Small, compact and discreet
- Economical
- Set point Adjustable Only

TECHNICAL SPECIFICATIONS:

INPUTS AND OUTPUTS

All inputs and outputs for EZvav controllers are set up at the factory and do not require field programming.

Inputs

- Sensors are automatically detected
- Inputs accept industry-standard 10K ohm thermistor sensors
- Input overvoltage protection up to 24 volts AC, continuous
- 12-bit analog-to-digital conversion

Triac outputs

- Optically isolated triac output.
- Maximum switching 24 volts AC at 1.0 ampere for each output
- Maximum for controller is 3.0 amperes

Analog outputs

- Short-circuit protected
- Output voltage 0–10 volts DC
- 30 mA per output, 30 mA total for all analog outputs
- 12-bit digital-to-analog conversion

Airflow sensor

CMOS differential pressure 0–2 inches of water (0–500 Pa) measurement range. Internally linearized and temperature compensated.

- Configured as BACnet analog input object
- Span accuracy 4.5% of reading
- Zero point accuracy 0.0008 in. H₂O/0.2 Pa at 77° F (25° C)
- Barbed connections for 1/4 inch FR tubing

Actuator

Torque	40 in-lb. (4.5 N.m)
Angular Rotation	0 to 95° Adjustable end stops at 45 and 60° rotation

Motor Timing

90 sec./90° at 60 Hz. 108 sec./90° at 50 Hz

Shaft size

Directly mounts on 3/8 to 5/8 inch (9.5 to 16 mm) round or 3/8 to 7/16 inch (9.5 to 11 mm) square damper shafts.

BACnet communication

- Integrated peer-to-peer BACnet MS/TP network communications
- Network speed from 9600 to 76,800 baud
- Meets or exceeds ANSI/ASHRAE BACnet Standard 135-2008 for Application Specific Controllers

Installation:

Supply voltage 24 volts AC (–15%, +20%), 50–60 Hz, 5 VA, Class 2 only

Weight 13.2 ounces (376 grams)

Case material Gray and black flame retardant plastic

Environmental limits

Operating 32 to 120° F (0 to 49° C)

Shipping –40 to 140° F (–40 to 60° C)

Humidity 0–95% relative humidity (non-condensing)

Regulatory

- UL 916 Energy Management Equipment
- BACnet Testing Laboratory listed as Application Specific Controller (ASC)
- CE compliant
- SASO PCP Registration KSA R-103263
- FCC Class B, Part 15, Subpart B and complies with Canadian ICES-003 Class B

For more information, please visit
www.nailor.com

