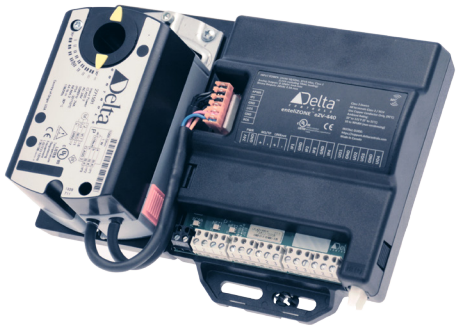
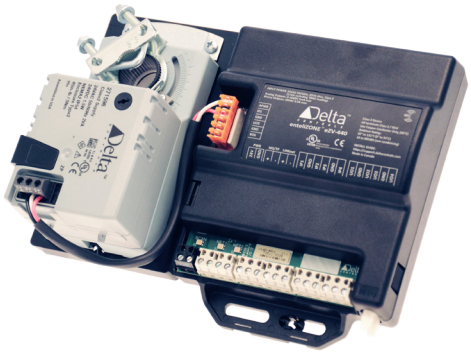
enteliZONE®

VAV Controller: eZV-440

Description
The eZV-440 is a native BACnet® controller with an integrated airflow sensor and damper actuator for VAV and VVT applications, available in both configurable (eZV-440) and fully programmable (eZVP-440) versions.

The eZV communicates using BACnet MS/TP on its RS-485 main LAN port. It also has a RS-485 subLAN port for the optional addition of Delta LINKnet network sensors.





Application
The eZV-440 covers a wide range of VAV and VVT configurations including multi-stage reheat with analog, binary or floating control, and series or parallel fan boxes.

The eZV-440 includes built-in algorithms that are easy to configure for typical VAV/VVT applications. The eZVP-440 is a fully programmable model that allows you to either create your own completely custom zone programs or modify the built-in algorithm's behavior.

Features
- Native BACnet firmware allows easy integration with any BACnet system
- Local scheduling, trending, and alarming support
- Built-in configurable VAV/VVT algorithms for quick setup and commissioning
- Programmable option allows customization for non-standard sequences or repurposing unused I/O
- Universal outputs provide flexibility for any combination of analog, binary, or floating output stages
- Firmware upgrade and database load / save over the network
- RS-485 subLAN supports up to 4 DNS or eZNS LINKnet network sensors

Specifications

BACnet Device Profile
BACnet Application Specific Controller (B-ASC)

Inputs (External)
4 Universal Inputs (12-bit), software configurable for:
- 0-5 VDC
- 0-10 VDC
- 10 KΩ Thermistor
- Dry Contact (using 10K setting)

Outputs (External)
4 Universal Outputs, software configurable for:
- Analog 0-10 VDC, 5 mA max
- 24 VAC TRIAC, 0.5 A max

Airflow Sensor
0-2 in. True Differential pressure sensor

Actuator I/O
1 Analog Input (0-10V) for actuator feedback

1 Universal Output and 1 TRIAC Output for damper control. Supports analog or floating actuator types.

Actuator Options
Belimo (-AB / -AFB)
- 45 in-lbs (5 Nm) nominal torque
- Optional Position Feedback

Siemens (-AS / -ASB)
- 44 in-lbs (5 Nm) nominal torque
- Optional Position Feedback

Device Addressing
Set via DIP switch or software

Connectors
Removable screw-type terminal connectors

Wiring Class
Class 2 / SELV

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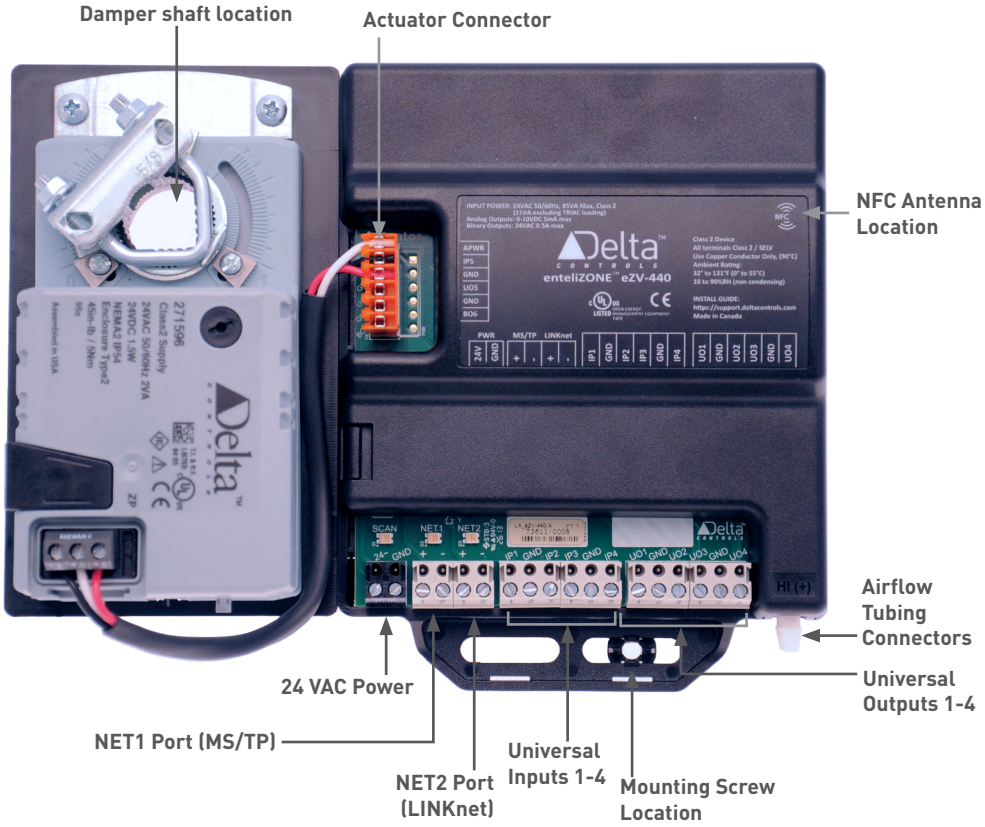
eZV-440: Board Layout Diagram



Ordering

eZV-440	enteliZONE Configurable VAV Controller—4x UI, 4x UO, with onboard DP sensor
eZVP-440	enteliZONE Programmable VAV Controller—4x UI, 4x UO, with onboard DP sensor and support for up to 4 eZNS and DNS LINKnet sensors

Actuator Options

Select an actuator option and append the actuator code to the base model name. Example: eZV-440-AB.

-AB	Belimo Actuator
-AFB	Belimo Actuator with position feedback
-AS	Siemens Actuator
-AFS	Siemens Actuator with position feedback

Accessories

eZNS-T100	enteliZONE Network Sensor—LINKnet room stat with multiple display, button and input sensor options

Specifications (Continued)

Tubing
Flow sensor tubing must be $^{5}/_{32}$ in. inside diameter

Power
24 VAC, 50/60 Hz
85 VA max. (11 VA excluding TRIAC loading)

Technology
ARM Cortex M3 CPU

Communication Ports
RS-485 NET1
BACnet MS/TP @ 38400 or 76800 bps (default)

RS-485 NET2
Delta LINKnet @ 76800 bps (for addition of up to 4 DNS or eZNS network sensors)

Ambient
0°-55°C (32° to 131°F)
10-95% RH (non-condensing)

Dimensions
eZV-440 with actuator:
20.4 x 15.7 x 7.4 cm (8.1 x 6.2 x 2.9 in.)

eZV-440 without actuator:
12.2 x 17.5 x 4.2 cm (4.8 x 6.9 x 1.7 in.)

Weight
900g (2.0 lb) with actuator
250g (0.55 lb) without actuator

Compliance
CE
FCC Class B

Listings
C-UL
UL 916
BTL

Updated December 2015

Subject to change without notice.