



## VAV Controller: eZV-440

### Description

The eZV-440 is a native BACnet controller with an integrated airflow sensor and damper actuator for VAV applications, available in both configurable and fully programmable 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 enteliZONE or BACstat® smart network sensors.



### Application

The eZV-440 covers a wide range of VAV 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 eZV-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

- ▶ Local scheduling, trending, and alarming support
- ▶ Built-in configurable VAV 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, or up to 4 EnOcean devices with addition of a CON-ENOC EnOcean gateway

### 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 universal input for actuator feedback

1 universal output and 1 TRIAC output for damper control. Supports analog or floating actuator types.

#### Actuator Options

Belimo (-AB / -AABF)

- 5 N·m (45 in-lb) nominal torque
- Optional position feedback

Siemens (-AS / -ASB)

- 5 N·m (44 in-lb) nominal torque
- Optional position feedback

#### Device Addressing

Set via DIP switch or software

#### Connectors

Removable screw-type terminal connectors

#### Wiring Class

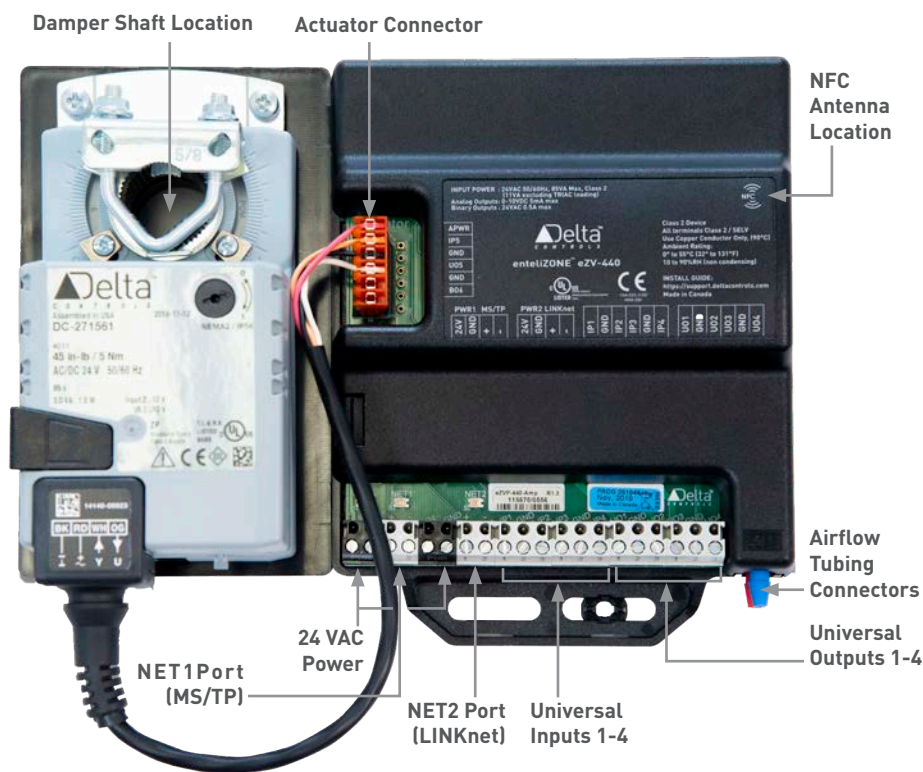
Class 2 / SELV

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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 Tri-State Actuator
-AAFB	Belimo Analog Actuator with Position Feedback
-AS	Siemens Tri-State Actuator
-AFS	Siemens Tri-State Actuator with Position Feedback

Accessories

eZNS-T100	enteliZONE Network Sensor—LINKnet room stat with multiple display, button and input sensor options
CON-ENOC-868	Delta Controls EnOcean Zone Gateway, 868 MHz Europe
CON-ENOC-902	Delta Controls EnOcean Zone Gateway, 902 MHz North America

\*Only programmable models can be purchased without an actuator.

\*\*eZV-440, eZV-440-AB, eZVP-440, eZVP-440-AB

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  
1 MB Flash  
128 KB RAM

16 Mbit external data flash

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)

EnOcean wireless (up to 4 EnOcean devices with addition of a CON-ENOC EnOcean gateway)

Near-field communication (NFC) tag

Ambient

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

Dimensions

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

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

Weight

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

Compliance

CE  
FCC Class B  
EAC\*\*

Listings

C-UL Listed  
UL 916 Listed  
BTL Listed



Subject to change without notice.