



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 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

- ▶ 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 / -AAFBJ)
5 Nm (45 in-lbs) nominal torque
Optional Position Feedback

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

Device Addressing

Set via DIP switch or software

Connectors

Removable screw-type terminal connectors

Wiring Class

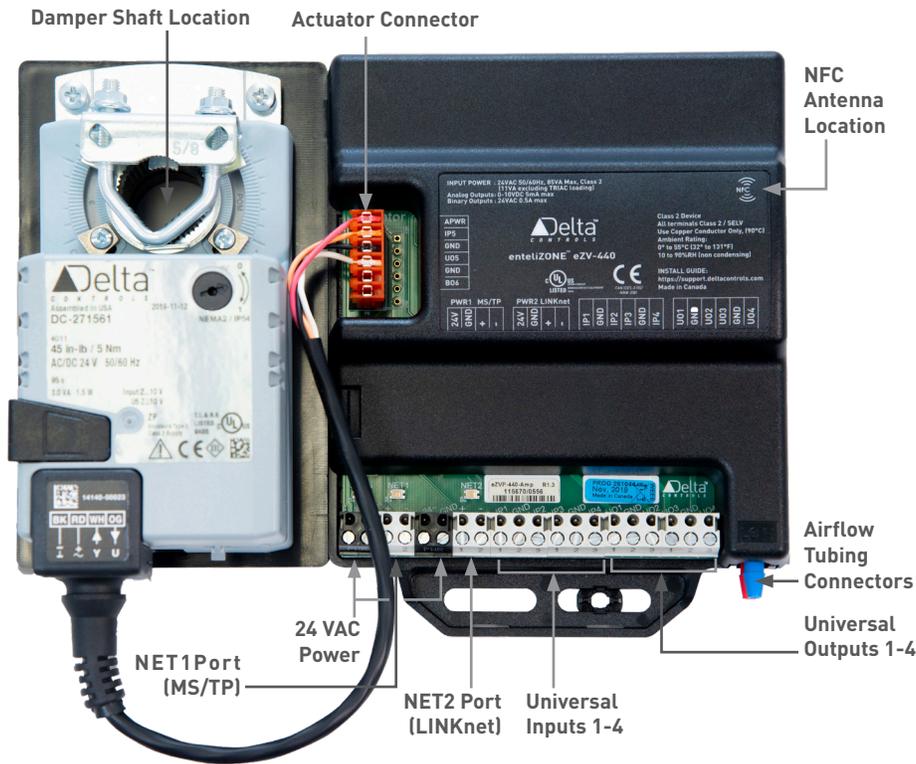
Class 2 / SELV

BACstat and enteliZONE are registered trademarks of Delta Controls Inc.
BACnet is a registered trademark of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
All other trademarks are property of their respective owners.

Updated June 11 2020

enteliZONE®

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
-AFB	Belimo tri-state actuator with position feedback
-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 N. America

*Only programmable models can be purchased without an actuator.

**eZV-440, eZV-440-AB, eZV-440-AFB, eZVP-440, eZVP-440-AB, eZVP-440-AFB

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°-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
EAC**

Listings

C-UL Listed
UL 916 Listed
BTL Listed



Subject to change without notice.