

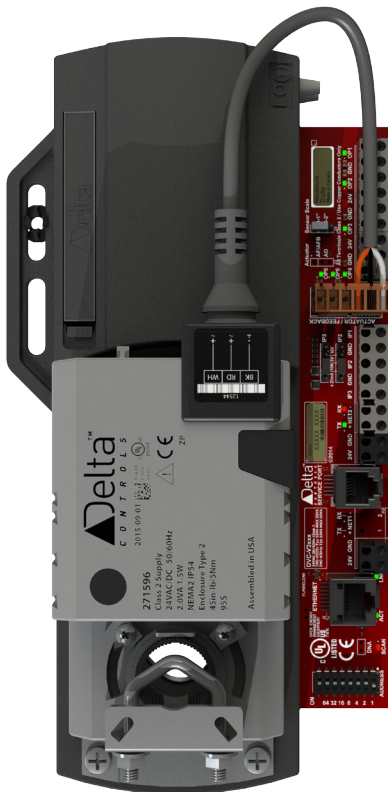
# Application Controller

## DVC-V322E

### Description

The DVC-V322E is a fully programmable, Native BACnet® Advanced Application Controller that communicates on Twisted-Pair Ethernet 10-BaseT using BACnet IP and BACnet over Ethernet.

This controller is specifically designed for VAV applications and supports a RS-485 subLAN of Delta LINKnet smart network sensors and I/O expansion modules.



### Application

The DVC-V322E is designed for VAV applications and includes an on-board actuator and true differential pressure sensor in a direct mount integrated housing.

The fully programmable DVC-V322E allows GCL+ programs and BACnet objects to be tailored to any VAV application.

### Features

- ▶ Native BACnet firmware
- ▶ Fully programmable
- ▶ BACnet IP/BACnet over Ethernet Main LAN communications
- ▶ Supports a RS-485 subLAN of Delta LINKnet smart network sensors and I/O expansion modules
- ▶ Direct Mount housing integrates controller, damper actuator and airflow sensor into a single package for easy, cost effective installation
- ▶ Firmware upgrade and database load/save over the network
- ▶ LED status indicators of outputs, communication ports and CPU Scan Status
- ▶ Service port
- ▶ Optional field upgrade to Modbus® RTU with hardware key
- ▶ Local Trending and Alarming

### Specifications

#### BACnet Device Profile

BACnet Advanced Application Controller (B-AAC)

#### External Inputs

- 1 10 kΩ or Binary Input (10-bit)
- 2 Universal Inputs (10-bit), jumper configurable for:
  - 0-5 VDC
  - 0-10 VDC
  - 10 kΩ Thermistor
  - 4-20 mA
  - Dry Contact (using 10 kΩ Thermistor jumper setting)

#### Internal Inputs

- 1 Actuator position feedback input (optional)
- 1 Air flow input, true differential pressure sensor, use jumper to select 0 to 1 inH<sub>2</sub>O (0 to 248 Pa) or 0 to 2 inH<sub>2</sub>O (0 to 498 Pa)

#### External Outputs

- 2 Universal Outputs
  - 0-10 VDC @ 20 mA max
  - Software configurable as binary or analog
- 2 Binary TRIAC Outputs
  - 24 VAC @ 0.5 Amp max per output
  - Leakage Current < 100 μA, min current 25 mA
  - Internally Powered switching to ground

#### Internal Outputs

- 2 Binary TRIAC outputs for damper open/close

#### Damper Actuator

- 44 in.-lbs. (nominal torque)
- Less than 35 db (A) noise level

#### Device Addressing

Software addressed

#### Connectors

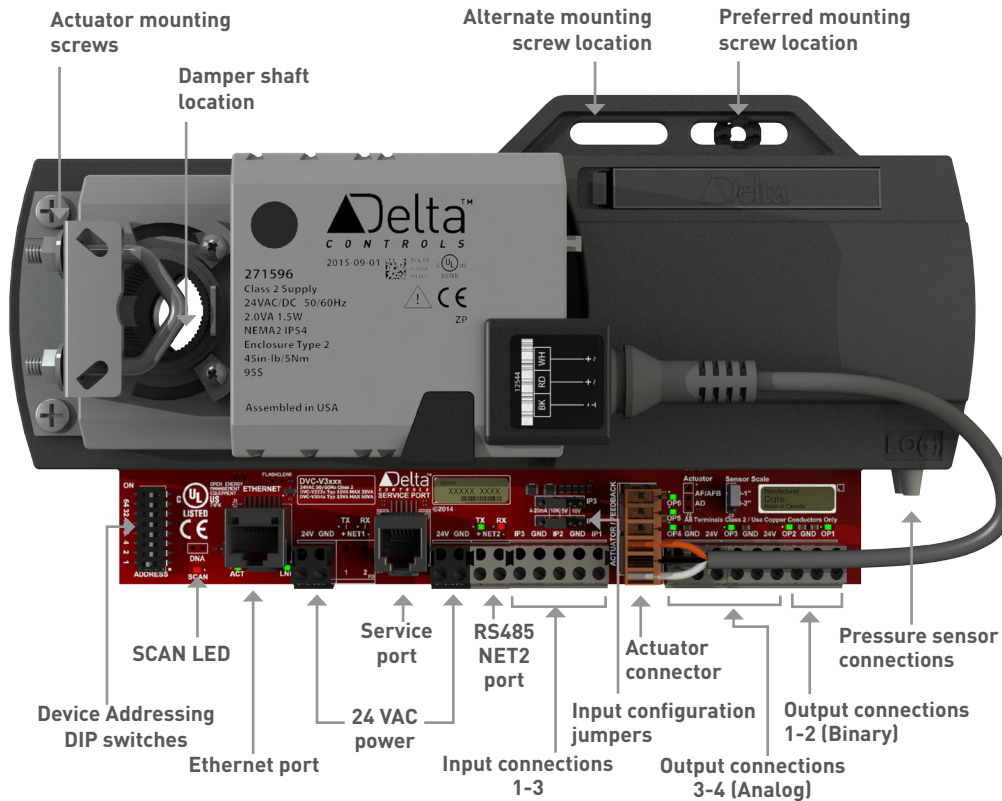
Removable screw-type terminal connectors

#### Wiring Class

NEC Class 2 / SELV

# Application Controller

## DVC-V322E: Board Layout Diagram



### Specifications (Continued)

#### Tubing

5/32 in. inside diameter tubing for flow sensor connections

#### Power

24 VAC @ 15 VA, 35 VA max with fully loaded TRIACS

#### Technology

2 MB Flash memory  
319 KB SDRAM memory  
Real-time clock  
Super Capacitor for 72-hour backup of real-time clock and SRAM

#### Communications Ports

Ethernet (10-BaseT)  
BACnet IP, BACnet over Ethernet

#### RS-485 NET2

Delta LINKnet up to 76800 bps, max 4 devices on LINKnet with no more than 2 DFM devices  
Optional Modbus up to 38400 bps, max 5 devices

#### Ambient

32° to 131°F (0° to 55°C)  
10 to 90% RH (non-condensing)

#### Dimensions

9.3 x 5.0 x 3.8 in. (23.7 x 12.7 x 9.6 cm)

#### Weight

1.679 lb. (761 g)

#### Compliance

CE  
FCC

#### Listings

UL 916 Listed  
BTL Listed

BACnet is a registered trademark of American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).

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Subject to change without notice.

### Ordering

Order the DVC-V322E according to the following product numbers:

<b>DVC-V322E</b>	Ethernet VAV with integrated airflow sensor, 1 10 kΩ & 2 universal inputs, 2 universal & 2 24 VAC TRIAC Outputs
<b>DVC-V322E-A</b>	Ethernet VAV with integrated airflow sensor, 1 10 kΩ & 2 universal inputs, 2 universal & 2 24 VAC TRIAC Outputs, Siemens Actuator
<b>DVC-V322E-AF</b>	Ethernet VAV with integrated airflow sensor, 1 10 kΩ & 2 universal inputs, 2 universal & 2 24 VAC TRIAC Outputs, Siemens Actuator with position feedback
<b>DVC-V322E-AB</b>	Ethernet VAV with integrated airflow sensor, 1 10 kΩ & 2 universal inputs, 2 universal & 2 24 VAC TRIAC Outputs, Belimo Actuator
<b>DVC-V322E-AFB</b>	Ethernet VAV with integrated airflow sensor, 1 10 kΩ & 2 universal inputs, 2 universal & 2 24 VAC TRIAC Outputs, Belimo Actuator with position feedback

### Accessories

<b>481199</b>	Siemens Actuator Shaft Insert, 3/8 in., 24 per package
<b>CON-768BT</b>	Delta MS/TP to Bluetooth Network Converter
<b>DFF099-CDT</b>	Additional 50 credit blocks for the Modbus flash key
<b>DFF099-KEY</b>	Modbus flash upgrade key with 50 credits pre-loaded