

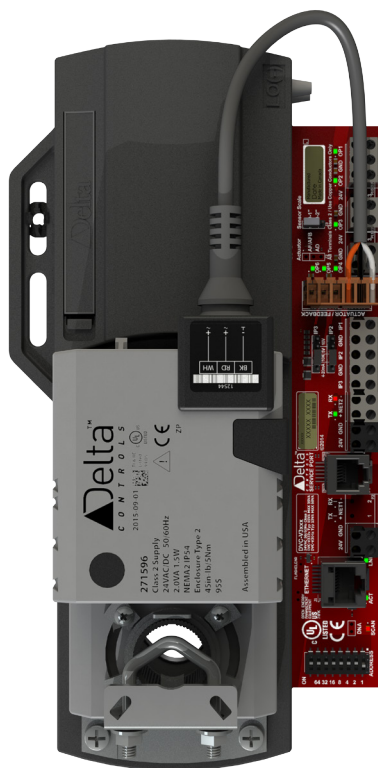
▶ Application Controller

DVC-V304E

Description

The DVC-V304E 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-V304E 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-V304E 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 inH₂O (0 to 248 Pa) or 0 to 2 inH₂O (0 to 498 Pa)

External Outputs

- 4 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

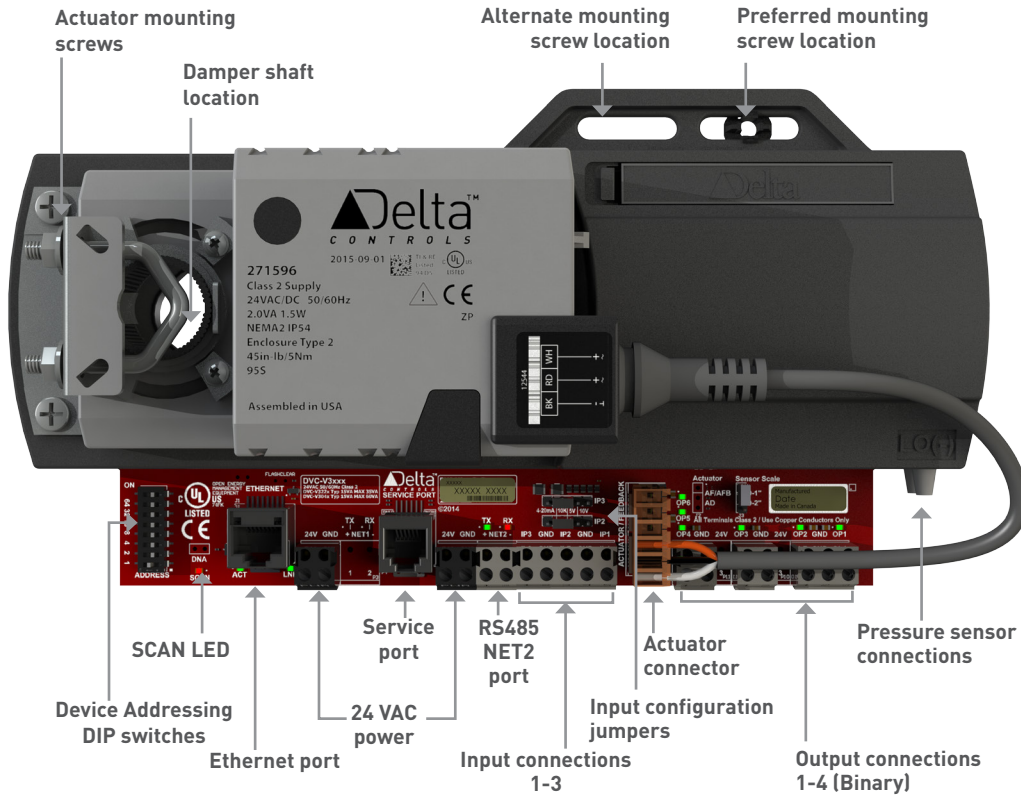
Removable screw-type terminal connectors

Wiring Class

NEC Class 2 / SELV

Application Controller

DVC-V304E: Board Layout Diagram



Specifications (Continued)

Tubing

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

Power

24 VAC @ 15 VA, 60 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).

Updated on April 2016

Ordering

Order the DVC-V304E according to the following product numbers:

DVC-V304E	Ethernet VAV with integrated airflow sensor, 1 10 kΩ & 2 universal inputs, 4 24 VAC TRIAC Outputs
DVC-V304E-A	Ethernet VAV with integrated airflow sensor, 1 10 kΩ & 2 universal inputs, 4 24 VAC TRIAC Outputs, Siemens Actuator
DVC-V304E-AF	Ethernet VAV with integrated airflow sensor, 1 10 kΩ & 2 universal inputs, 4 24 VAC TRIAC Outputs, Siemens Actuator with position feedback
DVC-V304E-AB	Ethernet VAV with integrated airflow sensor, 1 10 kΩ & 2 universal inputs, 4 24 VAC TRIAC Outputs, Belimo Actuator
DVC-V304E-AFB	Ethernet VAV with integrated airflow sensor, 1 10 kΩ & 2 universal inputs, 4 24 VAC TRIAC Outputs, Belimo Actuator with position feedback

Accessories

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

Subject to change without notice.