

▶ Application Controllers

DVC-V304

Description

The DVC-V304 is a fully programmable, Native BACnet® Advanced Application Controller that communicates on an RS-485 LAN using the BACnet MS/TP protocol. This controller is specifically designed for VAV applications and supports the Delta BACstat® and LINKnet I/O. The damper actuator assembly is available with or without position feedback. Additional inputs and outputs can be configured as required.



Features

- ▶ Native BACnet firmware
- ▶ BACnet MS/TP communications
- ▶ Supports 4 BACstat network sensors on LINKnet for room sensing and control or 2 Delta Field Modules on LINKnet for I/O expansion
- ▶ Integrated housing with damper assembly for easy, cost-effective installation
- ▶ Reliable industry standard actuator (with optional position feedback)
- ▶ Fully programmable in GCL+
- ▶ True differential pressure sensor
- ▶ LED indicator for each output, communication port and SCAN status
- ▶ Application database and firmware can be flash loaded over the network
- ▶ Optional field upgrade to Modbus® RTU with hardware key
- ▶ Service port

Application

The DVC-V304 is an application-specific controller for VAV and includes an actuator and true differential pressure sensor with integrated housing.

The fully programmable DVC-V304 allows GCL+ programs and BACnet objects to be tailored to any VAV application.

Specifications

BACnet Device Profile

BACnet Advanced Application Controller (B-AAC)

External Inputs

- 1 10K Thermistor or Dry Contact
- 2 Universal Inputs (10-bit) supporting:
 - 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 (optional)
- 1 Air flow sensor, true differential pressure, 0 to 1 inH₂O (0 to 248.8 Pa)

External Outputs

- 4 Binary TRIAC Outputs

Internal Outputs

- 2 Binary Outputs for damper open and close

Belimo Actuator

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

Siemens Actuator

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

Device Addressing

Set via DIP switch and jumpers or software setup

Connectors

Removable screw-type terminal connectors

Wiring Class

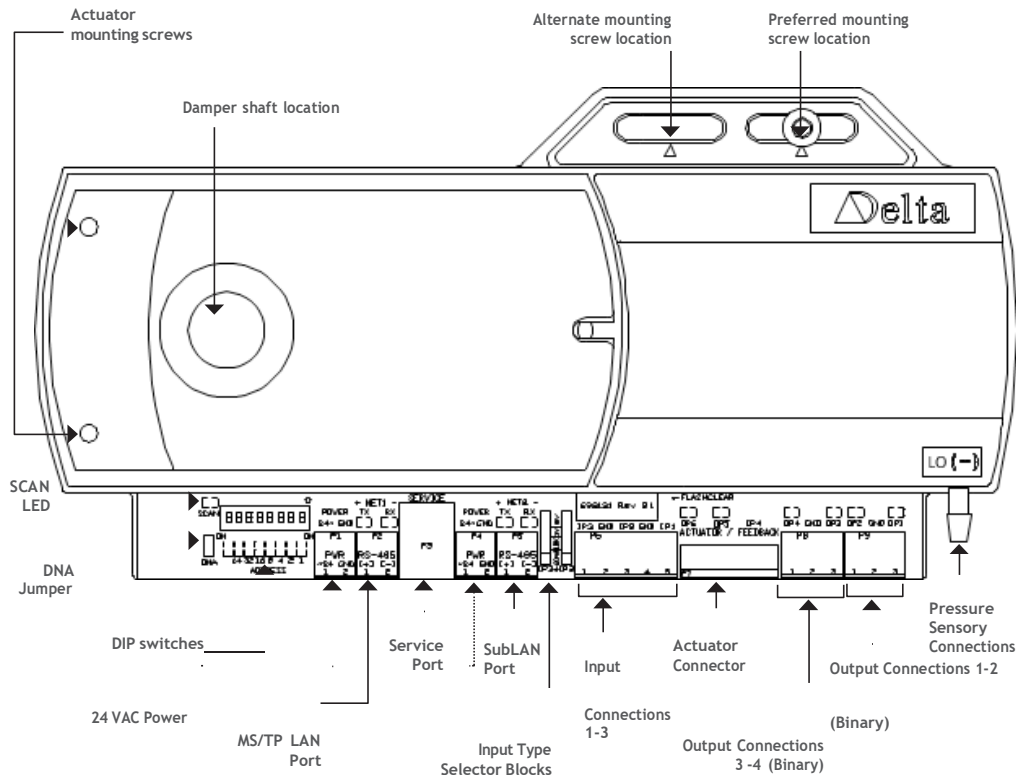
Class 2

BACstat is a registered trademark of Delta Controls Inc.
BACnet is a registered trademark of the American Society of Heating, Refrigerating and Air Conditioning Engineers Inc.

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Application controllers

DVC-V304: Board Layout Diagram



Ordering

Order the DVC-V304 application controller according to the following product numbers:

DVC-V304	Binary board (4 BOs), DP sensor for flow, integrated housing
DVC-V304A	Binary board (4 BOs), DP sensor for flow, integrated housing, Siemens actuator
DVC-V304AF	DVC-V304A with actuator feedback
-B	Belimo actuator option
-DD	Dual duct option (separate sensor for flow, integrated housing and actuator)
DVC-V304A-UL864-340	DVC-V304A with UL 864 listing
DVC-V304AF-UL864-340	DVC-V304AF with UL 864 listing
DVC-V304A-B-UL864-340	DVC-V304A-B with UL 864 listing
DVC-V304AF-B-UL864-340	DVC-V304AF-B with UL 864 listing

Accessories

DZNR-768	RS-485 BACnet MS/TP, 4-port network repeater**
TRM-768	Delta Network Terminator for BACnet MS/TP**
CON-768	Delta Network Converter
CON-768BT	Delta Network Bluetooth Converter
48119	Siemens actuator shart insert, 3/8 in., 24 per package
DFF099-CDT	Additional 50 credit blocks for the Modbus flash key
DFF099-KEY	Modbus flash upgrade key with 50 credits pre-loaded

** UL 864 versions available

Specifications (Continued)

Tubing

Flow sensor tubing must be 1/32 in. inside diameter

Power

24 VAC 50/60 Hz @ 15 VA (not including output loading, 52 VA max with fully loaded TRIAC Outputs)

Power (UL864)

24 VAC 50/60 Hz @ 15 VA (52 VA Max with fully loaded TRIAC Outputs)

Technology

16-bit processor
1 MB (8-megabit) flash memory
128 KB SRAM memory for database

Communications Ports

Main LAN

RS-485 NET1

BACnet MS/TP up to 76800 bps, max

99 devices per port

SubLAN

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 3/8 x 4 3/4 x 3 1/8 in. (23.9 x 12.0 x 8.0 cm) with housing

Weight

1.85 lb. (840 g) with housing and actuator

Compliance

CE

FCC

Listings

UL 916 Listed

C-UL Listed

BTL Listed

UL 864 Listed for UL 864 product numbers

