Application Controllers

DVC-V322

Description

The DVC-V322 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.

Application

The DVC-V322 is an application-specific controller for VAV and includes an actuator and true differential pressure sensor with integrated housing.

The fully programmable DVC-V322 allows GCL+ programs and BACnet objects to be tailored to any VAV application.

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
- Application database can be flash loaded over the network
- Controller firmware can be flash loaded over the network
- Supports Modbus® capability via flash loading in the field
- Supports flash loading Modbus upgrades via hardware key
- Derived Network Addressing (DNA) for simple integration into a standard network architecture
- Service port

Specifications

BACnet Device Profile
BACnet Advanced Application Controller (B-AAC)

External Inputs
3 Universal Inputs (10 bit) supporting:
- 0-5VDC
- 0-10VDC
- 10KΩ
- 4-20mA

Internal Inputs
1 Actuator position feedback input (optional)
1 Air flow input
Flow sensor, true differential pressure, 0 to 1 in. H2O (0 to 248.8 Pa)

External Outputs
2 Binary TRIAC Outputs
2 Analog Outputs (0-10VDC)
LED status indication of each output

Internal Outputs
2 Binary Outputs for damper open and close

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

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

Differential Pressure
0 to 1 in. H2O (0 to 248.8 Pa)

Tubing
Flow sensor tubing must be 5/32 in. inside diameter

Device Addressing
Set via DIP switch and jumpers or software setup

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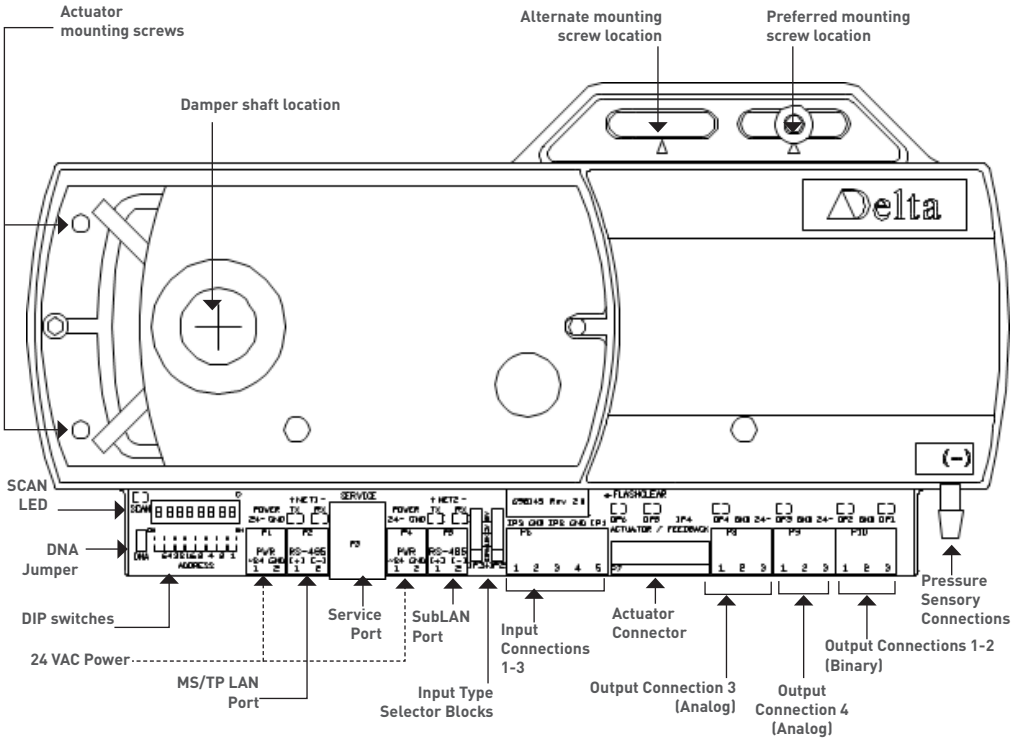
Application controllers

DVC-V322: Board Layout Diagram



Ordering

Order the DVC-V322 application controller according to the following product numbers:

DVC-V322	Analog board (2 AOs, 2 BOs), DP sensor for flow, integrated housing
DVC-V322A	Analog board (2 AOs, 2 BOs), DP sensor for flow, integrated housing, Siemens actuator
DVC-V322A-UL864	DVC-V322A with UL864 listing
DVC-V322AF	DVC-V322A with actuator feedback.**
DVC-V322AF-UL864	DVC-V322AF with UL864 listing.**
-B	Belimo actuator option
-V2*	V2 Micro firmware option
-DD	Dual duct option (separate sensor for flow, integrated housing and actuator)

* Not all features described in this document are available when this option is selected

** Actuator feedback is not available when ordering with the DD option.

Accessories

RPT-768	Delta Network Repeater for BACnet MS/TP
TRM-768	Delta Network Terminator for BACnet MS/TP
CON-768	Delta Network Converter

Specifications (Continued)

Technology
1MB (8 megabit) Flash memory
127KB SRAM memory for database
LED indication of CPU and SCAN status

Communications Ports
RS-485 NETI
BACnet MS/TP @ 9600, 19200, 38400 or 76800 bps (default), maximum of 99 devices per BACnet MS/TP segment

RS-485 NET2
Delta LINKnet @ 76800 bps, maximum 4 devices on LINKnet, with no more than 2 DFM devices

Connectors
Removable screw-type terminal connectors

Wiring Class
Class 2

Power
24 VAC with LED status
15 VA (not including output loading)

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

Dimensions
9⅜ x 4¾ x 3⅛ in. (23.9 x 12.0 x 8.0 cm) with housing
1.85 lb. (840 g) with housing and actuator

Compliance
CE
FCC

Listings
UL 916 Listed
C-UL Listed
BTL Listed
UL 864 Listed (DVC-V322A-UL864 and DVC-V322AF-UL864 only)

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