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.

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-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.

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
2 Binary TRIAC Outputs
2 Analog Outputs (0-10 VDC, 8-bit)

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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Specifications (Continued)

Tubing
Flow sensor tubing must be $\frac{5}{32}$ in. inside diameter

Power
24 VAC 50/60 Hz @ 15 VA (not including output loading; 32 VA max with fully loaded TRIAC Outputs)
Power (UL864)
24 VAC 50/60 Hz @ 15 VA (32 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
0 to 55°C (32° to 131°F)
10 to 90% RH (non-condensing)

Dimensions
23.9 x 12.0 x 8.0 cm (9⅜ x 4⅜ x 3⅛ in.) with housing

Weight
840 g (1.85 lb.) with housing and actuator

Compliance
CE
FCC

LISTINGS
UL 916 Listed
C-UL Listed
BTL Listed
UL 864 Listed for UL 864 product numbers

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-V322AF
DVC-V322A with actuator feedback

-D
Belimo actuator option

-DD
Dual duct option [separate sensor for flow, integrated housing and actuator]

DVC-V322A-UL864-340
DVC-V322A with UL 864 listing

DVC-V322AF-UL864-340
DVC-V322AF with UL 864 listing

DVC-V322A-B-UL864-340
DVC-V322A-B with UL 864 listing

DVC-V322AF-B-UL864-340
DVC-V322AF-B with UL 864 listing

Accessories

TRM-768
Delta Network Terminator for BACnet MS/TP**

CON-768
Delta Network Converter

CON-768BT
Delta Bluetooth Network Converter

DZNR-768
4-port Delta Network Repeater for RS-485 BACnet MS/TP**

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

Subject to change without notice.