VVT Bypass Controller

Part Number: OPN-VVTBP

The VVT Bypass Controller is used to regulate the supply duct static pressure for a variety of pressure-dependent VVT applications and allows constant volume HVAC equipment to provide zone level temperature control. This advanced controller features an integral, brushless actuator and an integral pressure sensor for reliability and longevity. It also features native BACnet communications and plug-and-play connectivity to the Carrier i-Vu Open Control System. The Carrier i-Vu Open Control System combines state-of-the-art Carrier equipment, plug-and-play controllers, and the powerful, web-based i-Vu user interface to form a cohesive, intuitive, and fully-integrated BACnet® Building Automation System.

Application Features

- Sophisticated factory-engineered and tested algorithms provide reliability and energy efficiency
- Temperature protection minimizes the occurrence of air source heating and/or cooling lockouts based on unacceptable discharge temperatures
- VFD support via 0-10VDC analog output to provide drive speed modulation
- Can drive multiple damper actuators
- Provides automatic pressure sensor calibration

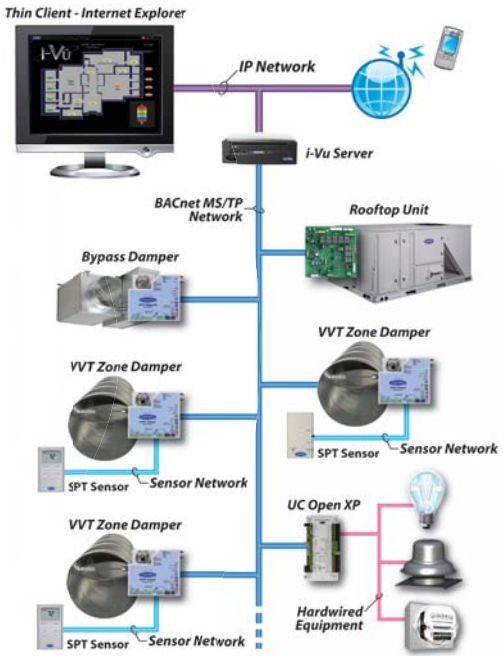
System Benefits

- Integrated Carrier airside linkage algorithm for plug-and-play integration with the Carrier VVT System
- Fully plug-and-play with the Carrier i-Vu Open Control System

Hardware Features

- Integral, brushless actuator and integral pressure sensor
- Designed for vertical or horizontal mounting
- Capable of system or stand-alone operation
- Native BACnet MS/TP communications

The Carrier i-Vu Open Control System

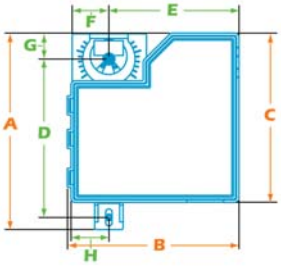


Specifications

Part Number: OPN-VVTBP

BACnet Support	Conforms to the Advanced Application Controller (B-AAC) Standard Device Profile as defined in BACnet 135-2001 Annex L
Communication Ports	BACnet port: EIA-485 port for BACnet MS/TP communications (9600 bps, 19.2 kbps, 38.4 kbps, & 76.8 kbps); Local Access port: For system start-up and troubleshooting using a PC or BACview (115.2 kbps); Rnet port: For connecting SPT room sensors. The Rnet port supports up to four SPT Standard sensors and one SPT Plus, SPT Pro, or SPT Pro+ sensor for averaging or high/low select control.
Integral Actuator	Brushless DC motor, torque 35 inch-pounds (4Nm), runtime 205 seconds for 90 degree travel during control
Integral Pressure Sensor	Precision low flow AWM series 0–2 in. H_2O, sensitive down to ±0.001 in. H_2O. Barbed tapered airflow connections accept 3/16 in. (4.75 mm) I.D. tubing. Allows for readings across the 0–2 in. H_2O range, accurate to ±5% of full flow at 2 in. H_2O
Inputs	One analog input: DAT (10k thermistor). This analog input has 10 bit A/D resolution.
Outputs	One analog output: VFD/Actuator. This analog output is 0 to 10VDC (5mA maximum) with 8 bit D/A resolution.
Protection	Incoming power and network connections are protected by non-replaceable internal solid-state polyswitches that reset themselves when the condition that causes a fault returns to normal. The power, network, input, and output connections are also protected against voltage transient and surge events.
Battery	10-year Lithium CR2032 battery provides a minimum of 10,000 hours of trend data retention during power outages
Status Indicators	LED status indicators for BACnet MS/TP communication, run status, error, power, and all digital outputs
Controller Addressing	Rotary dip switches set BACnet MS/TP MAC address of controller
Listed by	UL-916 (PAZX), cUL-916 (PAZX7), FCC Part 15-Subpart B-Class A, CE EN50082-1997, UL94-5VA plenum rated enclosure
Environmental Operating Range	0ºF to 130ºF (-17.8ºC to 54.4ºC); 10 to 90% RH, non-condensing. *For indoor use only
Power Requirements	24VAC ± 10%, 50 to 60Hz, 14 VA 26VDC (25V min, 30V max)

Dimensions



Overall	Mounting*
A: 7″ (17.8cm)	**D**: 5-5/8‴ (14.2 cm)
B: 6-1/32″ (15.3 cm)	**E**: 4-9/16″ (117.0 cm)
C: 6″ (15.25 cm)	**F**: 1-5/16″ (3.30 cm)
Depth: 2-1/2″ (6.4 cm)	**G**: 7/8″ (2.40 cm)
min. panel depth	**H**: 1-5/16″ (3.40 cm)
Weight: 1.7 lbs (0.77 kg)	

Minimum Shaft Diameter: 3/8″ (.95 cm)
Maximum Shaft Diameter: 1/2″ (1.27 cm)
Minimum Shaft Length: 1-3/4″ (4.45 cm)

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