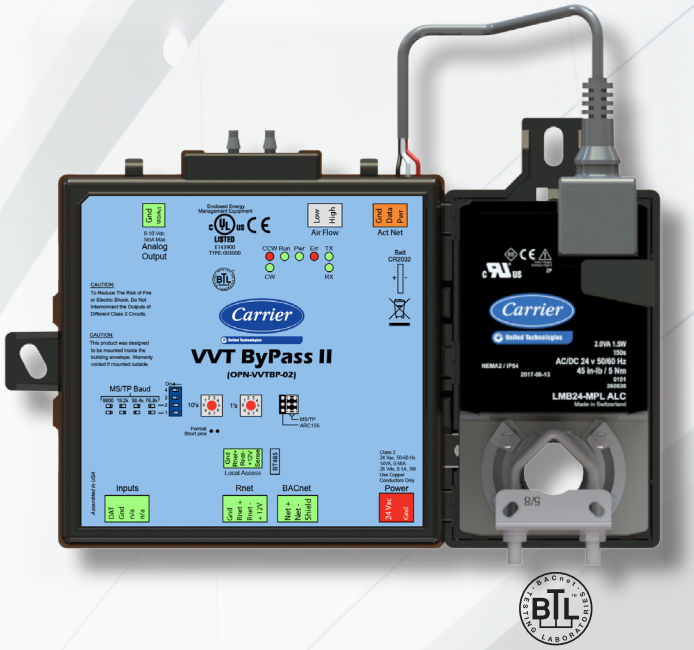
i-Vu® Building Automation System
VVT Bypass II

Part Number: OPN-VVTBP-02

The i-Vu® Building Automation System provides everything you need to access, manage, and control your building, including the powerful i-Vu user interface, plug-and-play BACnet controllers, and state-of-the-art Carrier equipment.

The VVT Bypass II 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 a separable, 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 Building Automation System.



Application Features

- Sophisticated factory-engineered and tested control programs 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

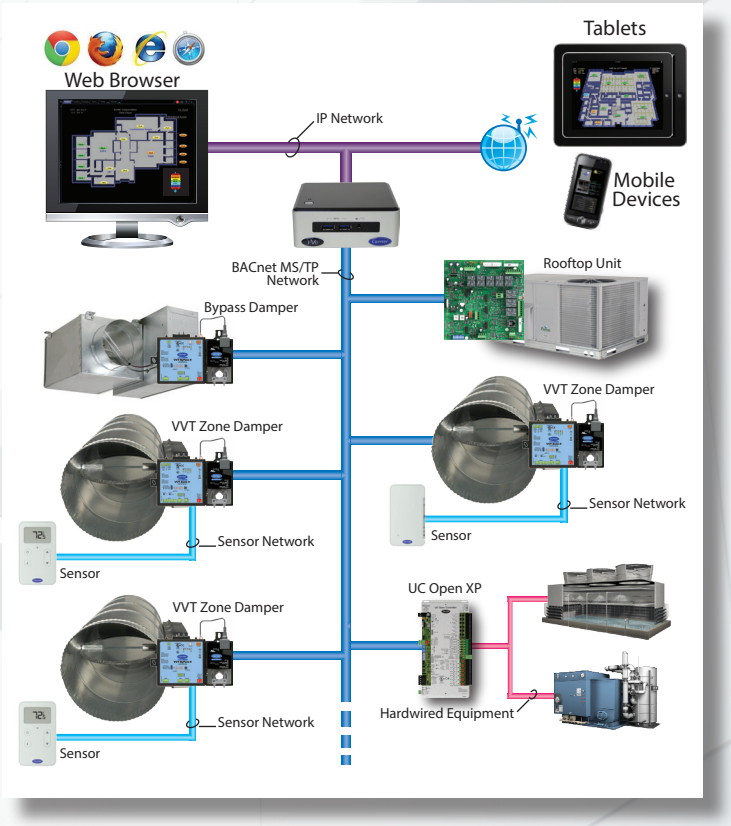
System Benefits

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

Hardware Features

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

The Carrier i-Vu Building Automation System



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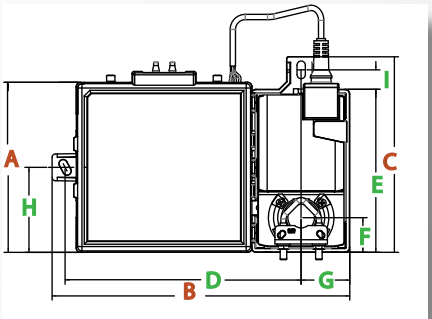
BACnet Support	Advanced Application Controller (B-AAC), as defined in BACnet 135-2012 Annex L Protocol rev. 9
Communication Ports	**BACnet port:** EIA-485 port for BACnet MS/TP communications (9600 bps, 19.2 kbps, 38.4 kbps, & 76.8 kbps) or ARCNET 156 kbps; **Local Access port:** For system start-up and troubleshooting (115.2 kbps); **Rnet port:** Not used **ACTnet Port:** For connecting the actuator cable
Separable Actuator	Brushless DC motor, torque 45 inch-pounds (5Nm), 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	**1 analog input:** DAT (10k thermistor). AI has 10 bit A/D resolution.
Outputs	**1 analog output:** VFD/Actuator. AO is 0 to 10VDC (5mA maximum) with 8 bit D/A resolution using filtered PWM.
Protection	Incoming power and network connections are protected by non-replaceable internal solidstate 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 lasting no more than 10 msec.
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 or ARCNET 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	**Operating:** 32 to 130°F (0 to 54°C) 10 to 90% RH, non-condensing **Storage:** -24 to 140°F (-30 to 60°C) 0 to 90% RH, non-condensing
Power Requirements	24VAC ± 10%, 50-60Hz, 14 VA power consumption 26VDC (25V min, 30V max), Single Class 2 source only, 100 VA or less

Dimensions

Overall
A: 5.10” (12.95 cm)
B: 8.93” (22.68 cm)
C: 5.87” (14.90 cm)

Mounting
D: 7.00” (17.78 cm)
E: 4.89” (12.42 cm)
F: 1.04” (2.64 cm)
G: 1.46” (3.71 cm)
H: 2.55” (6.48 cm)
I: 0.58” (1.47 cm)

Depth: 2.5” (6.4 cm)
Weight: 1.8 lbs (0.82 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)



CONTROLS EXPERT
Tested. Certified. Factory Authorized.

For more information, contact your local Carrier Controls Expert.
Controls Expert Locator:
www.carrier.com/controls-experts

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