



i-Vu® Building Automation System VVT Zone

Part Number: OPN-VVTZC



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 Zone controller provides zone level temperature and air quality control for a variety of pressure-dependent VVT applications. This advanced controller features an integral actuator for easy installation onto single duct and parallel fan-powered air terminals. 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 algorithms provide reliability and energy efficiency
- Pressure dependent space temperature control
- Supports modulating hot water, 2-position hot water, single, 2, or 3 stage electric heat, or zone perimeter heat
- Built-in advanced control routines for zone level humidity control or zone level demand control ventilation (ASHRAE® 62)
- Adaptive optimal start and PID control for maximum occupant comfort
- Supports Carrier communicating room sensors, which allow for local setpoint adjustment and local overrides

System Benefits

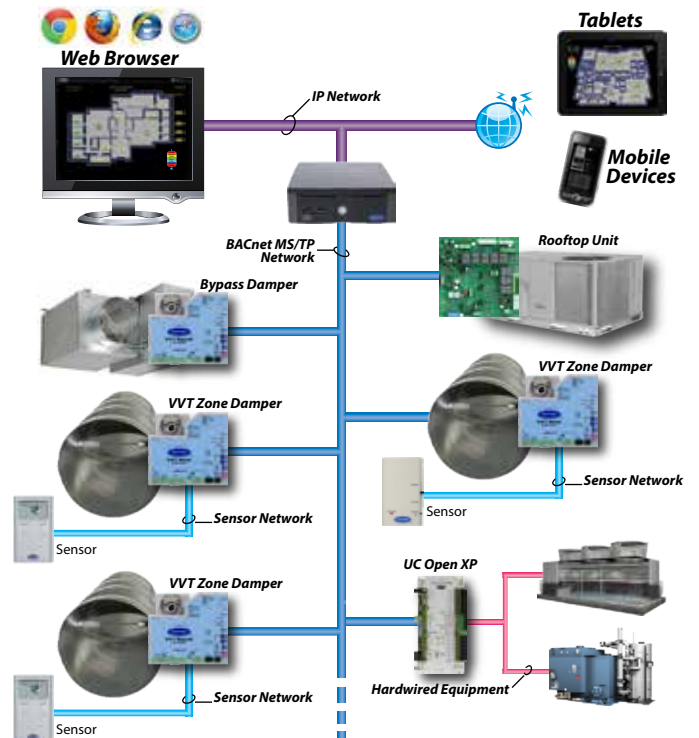
- Integrated Carrier airside linkage algorithm for plug-and-play integration with Carrier air sources
- Fully plug-and-play with the Carrier i-Vu Building Automation System
- Supports demand limiting for maximum energy savings
- Compatible with i-Vu Tenant Billing for tracking tenants' after-hours energy usage

Hardware Features

- Integral, brushless actuator for reliability and longevity
- Capable of system or stand-alone operation
- Native BACnet MS/TP communications



The Carrier i-Vu Building Automation System





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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 (115.2 kbps); Rnet port: For connecting Carrier communicating room sensors and Carrier's touchscreen user interface
Integral Actuator	Brushless DC motor, torque 35 inch-pounds (4Nm), runtime 205 seconds for 90 degree travel during control
Inputs	3 analog inputs: RH/CO2 (0-5V), T55 (10k thermistor), SAT (10k thermistor). AI's have 10 bit A/D resolution. 1 binary input: Remote Occupancy (dry contact).
Outputs	1 analog output: Hot Water Valve (HWV). AO is 0 to 10VDC (5mA maximum) with 8 bit D/A resolution using filtered PWM. 3 binary outputs: HEAT1, HEAT2, and FAN. Relay contact rated at 1A max @ 24VAC/VDC, configured normally open.
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.
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	Operating: 0 to 130°F (-18 to 54°C) 10 to 90% RH, non-condensing Storage: -24 to 140°F (-30 to 60°C) 10 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

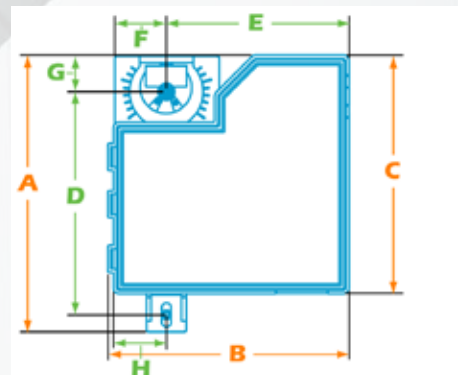
Overall

- A:** 7" (17.8cm)
- B:** 6-1/32" (15.3 cm)
- C:** 6" (15.25 cm)

Mounting

- D:** 5-5/8" (14.2 cm)
- E:** 4-9/16" (117.0 cm)
- F:** 1-5/16" (3.30 cm)
- G:** 7/8" (2.40 cm)
- H:** 1-5/16" (3.40 cm)

- Depth:** 2-1/2" (6.4 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)



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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