



- 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

- 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

- Integral, 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 diagram illustrates a BACnet MS/TP Network architecture. A central vertical blue line represents the BACnet MS/TP Network backbone. Various devices are connected to this backbone:

- Web Browser:** A computer monitor displaying a building management interface, connected to the network via an **IP Network** (purple line).
- Tablets:** A tablet displaying a map, connected to the **IP Network**.
- Mobile Devices:** A smartphone, connected to the **IP Network**.
- Bypass Damper:** A damper unit with a BACnet MS/TP module, connected to the backbone.
- VVT Zone Damper:** Two damper units, each with a BACnet MS/TP module, connected to the backbone.
- Sensor:** A temperature sensor connected to the backbone via a **Sensor Network** (blue line).
- Rooftop Unit:** A rooftop HVAC unit with a BACnet MS/TP module, connected to the backbone.
- Sensor:** A temperature sensor connected to the backbone via a **Sensor Network** (blue line).
- UC Open XP:** A control unit connected to the backbone via a **Sensor Network** (blue line).
- Hardwired Equipment:** A control unit connected to the backbone via a **Sensor Network** (blue line).



i-Vu® Building Automation System VVT Bypass

Part Number: OPN-VVTBP

BACnet Support	Advanced Application Controller (B-AAC), 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) or ARCNET 156 kbps; Local Access port: For system start-up and troubleshooting (115.2 kbps); Rnet port: Not used
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 ₂ O, sensitive down to ±0.001 in. H ₂ O. Barbed tapered airflow connections accept 3/16 in. (4.75 mm) I.D. tubing. Allows for readings across the 0–2 in. H ₂ O range, accurate to ±5% of full flow at 2 in. H ₂ O
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.
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: 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

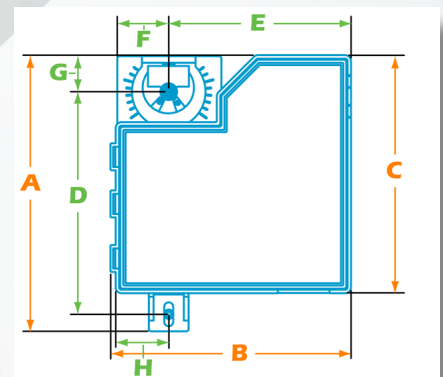
Overall

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

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your local Carrier Controls Expert.**
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