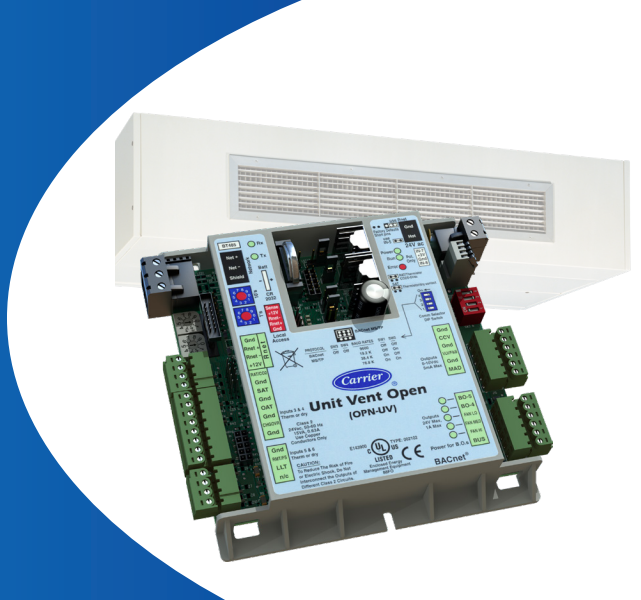




i-Vu[®] Building Automation System

Unit Vent Open

Integrated Unit Ventilator Controller



Application Features

- Controls modulating hot water/steam valves or up to 3 stages of electric heat to maintain space temperature setpoint
- Controls modulating chilled water valves or a single stage of DX cooling to maintain space temperature setpoint
- Supports 2-pipe changeover or 4-pipe system combinations
- Controls up to 3 fan speeds
- Built-in advanced control routines for zone level demand control ventilation (ASHRAE[®] 62)
- Optimal start and PID control for maximum occupant comfort
- Automatic fan speed control for matching fan speed to actual cooling or heating requirements, thus allowing the fan to run at the lowest capable setting to maintain room setpoint

Hardware Features

- Compatible with 40UV (vertical) and 40UH (horizontal) unit ventilators
- Integrates easily into any BAS using the BACnet MS/TP or ARCNET protocol
- On-board hardware clock, remote occupancy input, and support for Carrier communicating and thermistor sensors provide stand-alone operation
- Thermostat linkage allows up to 8 unit ventilators to operate from one sensor
- Easy startup and commissioning using Carrier's i-Vu user interfaces

System Benefits

- Fully plug-and-play with the Carrier i-Vu Building Automation System
- Supports demand limiting for energy saving
- Compatible with i-Vu Tenant Billing for tracking tenants' after-hours energy usage



Carrier's Unit Vent Open controller is an integrated component of a Carrier unit ventilator. The Unit Vent Open controller continuously monitors and regulates unit ventilator operation with reliability and precision. This advanced controller features a sophisticated, factory-engineered control program that provides optimum performance and energy efficiency.

For added flexibility, the Unit Vent Open controller is capable of stand-alone operation, or it can be integrated with any building automation system utilizing the BACnet protocol.

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Specifications

BACnet Support	Advanced Application Controller (B-AAC), as defined in BACnet 135-2001 Annex L, Protocol rev 9
Communication Ports	Network port: EIA-485 port for BACnet MS/TP communications (baud rate is DIP switch selectable) or ARCNET 156 kbps; Comm Option port: For connecting a LON Option Card (future); 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
Inputs	2 binary inputs: Remote Occupancy Contact/Fan Status, and Low Limit Thermostat. 4 analog inputs: RAT (10k thermistor), SAT (10k thermistor), OAT (10k thermistor), and Changeover Switch (dry contact)/Changeover Sensor (10k thermistor). AI's have 10 bit A/D resolution.
Outputs	5 binary outputs: High Speed Fan, Medium Speed Fan (or Stage 3 Electric Heat), Low Speed Fan (or Stage 2 Electric Heat), 2-Pipe Valve/Heating Valve/Electric Heat Stage 1, and Cooling Valve/Electric Heat Stage 1 with 2-Pipe Electric Heat. Relay contacts rated at 1 A max. @ 24 VAC/VDC, configured normally open. 3 analog outputs: Mixed Air Damper, Two-Pipe/Heating Valve/F&B Damper, and Cooling Valve. AO's rated at 0-10VDC, 5mA max, 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.
Real Time Clock	Battery-backed real time clock keeps track of time in event of power failure against voltage transient and surge events.
Battery	10-year Lithium CR2032 battery provides a minimum of 10,000 hours of trend data & time retention during power outages.
Status Indicators	LED status indicators for communications, 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	United States: FCC compliant to Title CFR47, Part 15, Subpart B, Class A; UL Listed, File E143900; CCN PAZX, UL 916, Energy Management Equipment; ANZ: RCM Mark AS/NZS 61000-6-3; Canada: UL Listed File E143900, CCN PAZX7, CAN/CSA C22.2 No. 205 Signal Equip., Industry Canada Compliant ICES-003, Class A; CE Mark Compliant with 2014/30/EU, and RoHS Compliant: 2015/863/EU; UKCA Mark compliant with Electromagnetic Compatibility Regulations 2016 – Gov.UK and RoHS for Electrical and Electronic Equipment 2012
Environmental Operating Range	Operating: 0 to 140°F (-18 to 54°C), 10–90% relative humidity, non-condensing Storage: -24 to 140°F (-30 to 60°C), 10–90% relative humidity, non-condensing
Power Requirements	24VAC ± 10%, 50-60Hz 18 VA power consumption 26VDC (25V min, 30V max) Single Class 2 source only, 100 VA or less

