



i-Vu® Building Automation System

Fan Coil Open

Integrated Fan Coil Controller



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.

Carrier's Fan Coil Open Controller is an integrated component of a Carrier fan coil unit. The Fan Coil Open controller continuously monitors and regulates fan coil operation with reliability and precision. This advanced

controller features a sophisticated, factory-engineered control program that provides optimum performance and energy efficiency. The Fan Coil Open controller also features plug-and-play connectivity to the Carrier i-Vu Building Automation System (BAS).

For added flexibility, the Fan Coil Open controller is capable of stand-alone operation, or it can be integrated with any BAS utilizing the BACnet®, Modbus®, LonWorks®, or N2 protocols.

Application Features

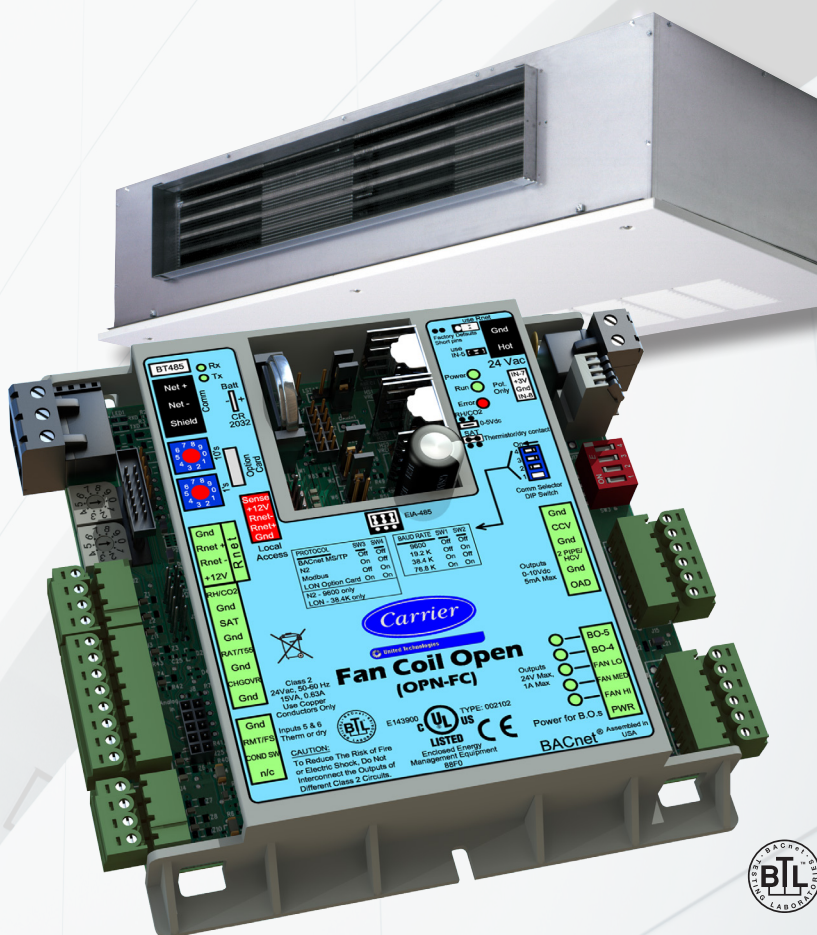
- Controls modulating or 2-position hot water/steam valves or up to 1 stage of electric heat to maintain space temperature setpoint
- Controls modulating or 2-position chilled water valves or a single stage of DX cooling to maintain space temperature setpoint
- Controls 2-position outside air damper to meet ASHRAE® 62 ventilation requirements
- Built-in advanced control routines for zone level humidity control or 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, allowing the fan to run at the lowest speed possible to maintain room setpoint

System Benefits

- 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

- Compatible with 42D, 42C, 42S, and 42V fan coils
- Integrates easily into any BAS using BACnet, Modbus, LonWorks¹, or N2 protocols
- On-board hardware clock, remote occupancy input, and support for Carrier communicating and thermistor sensors provides stand-alone operation
- Thermostat linkage allows up to 8 fan coils to operate from 1 sensor
- Easy startup and commissioning using Carrier's i-Vu user interfaces



¹LonWorks: Requires LON Option Card (part number LON-OC).



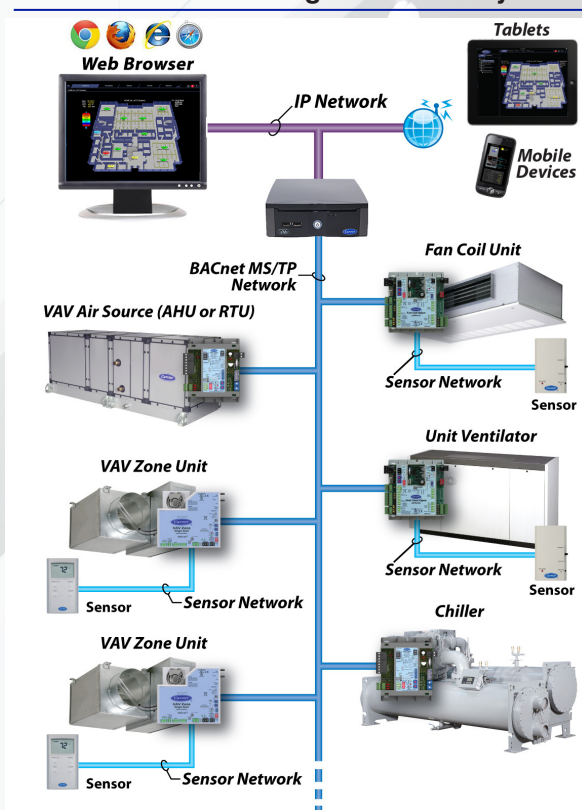
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BACnet Support	Advanced Application Controller (B-AAC), as defined in BACnet 135-2001 Annex L
Communication Ports	<p>Network port: EIA-485 port for BACnet MS/TP communications (baud rate is DIP switch selectable); Comm Option port: For connecting a LON Option Card;</p> <p>Local Access port: For system start-up and troubleshooting (115.2 kbps);</p> <p>Rnet port: For connecting Carrier communicating room sensors and Carrier's touchscreen user interface.</p>
Inputs	<p>2 binary inputs: Remote Occupancy Contact/Fan Status, and Condensate Overflow.</p> <p>4 analog inputs: RH/CO2 (0-5VDC), SAT (10k thermistor), RAT/T55 (10k thermistor), and Changeover Switch (dry contact)/Changeover Sensor (10k thermistor). AI's have 10 bit A/D resolution.</p>
Outputs	<p>5 binary outputs: High Speed Fan, Medium Speed Fan, Low Speed Fan, Two-Pipe Valve/Heating Valve/Electric Heat Stage 1, and Cooling Valve/Electric Heat Stage 1 with Type 5 Heat & 2-Pipe. Relay contacts rated at 1 A max. @ 24 VAC/VDC, configured normally open.</p> <p>3 analog outputs: OA Damper, 2-Pipe/Heating Valve, and Cooling Valve. AO's rated at 0-10VDC, 5mA max, with 8 bit D/A resolution using filtered PWM.</p>
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.
Real Time Clock	Battery-backed real time clock keeps track of time in event of power failure
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 MAC address of controller
Listed by	UL-916 (PAZX), cUL-916 (PAZX7), FCC Part 15-Subpart B-Class A, CE EN50082-1997
Environmental Operating Range:	<p>Operating: 0 to 140°F (-18 to 54°C), 10-90% relative humidity, non-condensing</p> <p>Storage: -24 to 140°F (-30 to 60°C), 10-90% relative humidity, non-condensing</p>
Power Requirements	<p>24VAC ± 10%, 50-60Hz</p> <p>18 VA power consumption</p> <p>26VDC (25V min, 30V max)</p> <p>Single Class 2 source only, 100 VA or less</p>

The Carrier i-Vu Building Automation System



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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