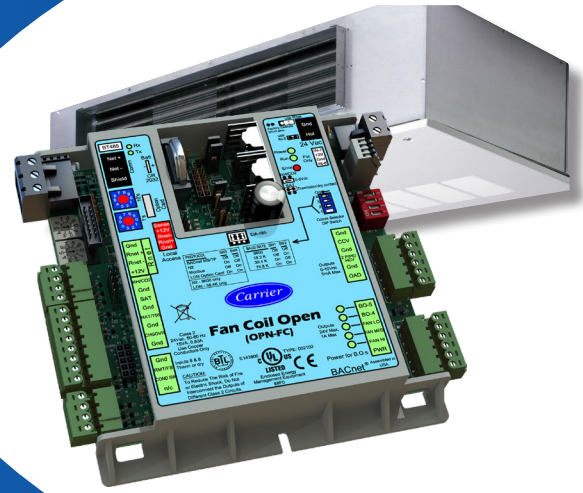




# i-Vu® Building Automation System

## Fan Coil Open

Integrated Fan Coil Controller



### 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

### Hardware Features

- Compatible with 42D, 42C, 42S, and 42V fan coils
- Integrates easily into any BAS using BACnet, Modbus, LonWorks<sup>1</sup>, 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

### 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



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.

<sup>1</sup>LonWorks: Requires LON Option Card (part number LON-OC).

# i-Vu® Building Automation System

## Fan Coil Open

### Integrated Fan Coil Controller



#### Specifications

<b>BACnet Support</b>	Advanced Application Controller (B-AAC), as defined in BACnet 135-2001 Annex L Protocol rev 9
<b>Communication Ports</b>	<b>Network port:</b> EIA-485 port for BACnet MS/TP communications (baud rate is DIP switch selectable) or ARCNET 156 kbps; <b>Comm Option port:</b> For connecting a LON Option Card; <b>Local Access port:</b> For system start-up and troubleshooting (115.2 kbps); <b>Rnet port:</b> For connecting Carrier communicating room sensors and Carrier's touchscreen user interface.
<b>Inputs</b>	<b>2 binary inputs:</b> Remote Occupancy Contact/Fan Status, and Condensate Overflow. <b>4 analog inputs:</b> 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.
<b>Outputs</b>	<b>5 binary outputs:</b> 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. 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.
<b>Protection</b>	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.
<b>Real Time Clock</b>	Battery-backed real time clock keeps track of time in event of power failure
<b>Battery</b>	10-year Lithium CR2032 battery: min of 10,000 hours of trend data & time retention during power outages
<b>Status Indicators</b>	LED status indicators for communications, run status, error, power, and all digital outputs
<b>Controller Addressing</b>	Rotary DIP switches set BACnet MS/TP or ARCNET MAC address of controller
<b>Listed by</b>	<b>United States:</b> FCC compliant to Title CFR47, Part 15, Subpart B, Class A; UL Listed, File E143900; CCN PAZX, UL 916, Energy Management Equipment; <b>ANZ:</b> RCM Mark AS/NZS 61000-6-3; <b>Canada:</b> UL Listed File E143900, CCN PAZX7, CAN/CSA C22.2 No. 205 Signal Equip., Industry Canada Compliant ICES-003, Class A; <b>CE Mark</b> Compliant with 2014/30/EU, and RoHS Compliant: 2015/863/EU; <b>UKCA Mark</b> compliant with Electromagnetic Compatibility Regulations 2016 – Gov.UK and RoHS for Electrical and Electronic Equipment 2012
<b>Environmental Operating Range</b>	<b>Operating:</b> 0 to 140°F (-18 to 54°C), 10–90% relative humidity, non-condensing <b>Storage:</b> -24 to 140°F (-30 to 60°C), 10–90% relative humidity, non-condensing
<b>Power Requirements</b>	24VAC ± 10%, 50-60Hz 18 VA power consumption 26VDC (25V min, 30V max) Single Class 2 source only, 100 VA or less

