

# i-Vu® Building Automation System **AppController**

Part Number: OPN-APP



### **Application Features**

- Library of factory-engineered control programs for fan coils, unit ventilators, water source heat pumps, and constant volume AHUs
- Supports Snap graphical programming for creating customized control programs
- Supports Carrier communicating room sensors, which allow for local setpoint adjustment and local overrides

#### **Hardware Features**

- · Battery-backed real time-clock keeps time in the event of power failure
- Stand-alone control of up to 14 I/O points using proven algorithms
- Native BACnet MS/TP or ARCNET communications

#### **System Benefits**

- Fully plug-and-play with the Carrier i-Vu Building Automation System
- Supports demand limiting for maximum energy savings



The AppController continuously monitors and regulates equipment operation with reliability and precision. The AppController's factory-engineered control programs provide optimum performance and energy efficiency for HVAC equipment such as fan coils, unit ventilators, water source heat pumps, and constant volume AHUs. It also features native BACnet communications and plugand-play connectivity to the Carrier i-Vu Building Automation System.

## **Typical Applications**



**Unit Ventilator** 



Constant Volume AHU



Fan Coil



WSHP

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## **Specifications**

| <b>BACnet Support</b> | Advanced Application Controller (B-AAC), as defined in BACnet 135-2012 Annex L Protocol rev. 9  |
|-----------------------|---|
| Communication Ports   | BACnet port: EIA-485 port for MS/TP (9600 bps – 76.8 Kbps) or ARCNET 156 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.   |
| Inputs                | <b>6 inputs</b> configurable for thermistor or dry contact. Inputs 1 and 2 are also configurable for 0–5 VDC. Inputs 7 and 8 are not used. Al's have 10 bit A/D resolution.   |
| Outputs               | <b>5 binary outputs:</b> Relay contacts rated at 1A max @ 24 VAC/VDC, configured normally open. <b>3 analog outputs:</b> 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 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: a minimum of 10,000 hours of trend data 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 addressing 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: 0 to 140°F (-18 to 54°C), 10–90% relative humidity, non-condensing   |
| Operating Range       | Storage: -24 to 140°F (-30 to 60°C), 10–90% relative humidity, non-condensing   |
| Power Requirements    | $24 \text{VAC} \pm 10\%$ , $50\text{-}60 \text{Hz}$ $18 \text{ VA}$ power consumption   |
| Dimensions            | Overall  A: 5-5/8 in. (14.3cm)  P: 5 1/0 in (12.3cm)  |

**A:** 5-5/8 in. (14.3cm) **B:** 5-1/8 in. (13 cm) **Mounting** 

D: 2-9/16 in. (6.5 cm)
C: 5-1/4 in. (13.3 cm)
E: 3/16 in. (.5 cm)
Depth: 2 in. (5.1 cm)
Weight: .44 lbs. (0.20 kg)



