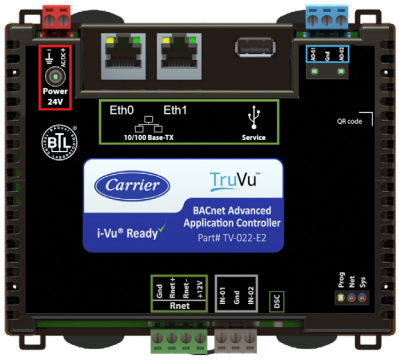
Carrier

TruVu™

i-Vu® Building Automation System
TruVu™ 022 Advanced Application Controller
Part Number: TV-022-E2



The TruVu 022 Advanced Application Controller is ideal for HVAC equipment control, advanced air quality control and most zone-level applications. The TV-022-E2 features dual Ethernet ports with built-in fail-safe that supports direct connection or daisy chain topologies using BACnet/IP and has 2 universal inputs and 2 analog outputs of on board control. Designed to operate in a wide range of environmental conditions, it is well suited for mechanical rooms, equipment boxes, or almost any other weather-tight location.

i Vu

Application Features

- Versatile controller suitable for a variety of applications, including: pump control, unit heaters and exhaust fans
- Standard library of control programs available for most unitary equipment and zone applications
- Supports Carrier communicating sensors, which are available in a variety of zone and equipment sensing combinations
- Supports Carrier TruVu touchscreen interfaces for managing and troubleshooting the connected equipment easily and for occupant engagement
- Supports live, visual displays of control logic, which uses real time operational data and aids in optimizing and troubleshooting system operations
- Supports SNAP graphical programs to create custom sequences

Hardware Features

- Dual 10/100 Mbps IP ports
- Supports home run, daisy chain and ring IP network topologies
- Capacitor-backed real-time clock keeps time in the event of power failure or network interruption for at least three days
- USB service port for local access: connect PC via a hard-wired connection or wirelessly using a USB-W adapter
- DIN rail or screw mounting

System Benefits

- Connects seamlessly to the i-Vu building automation system

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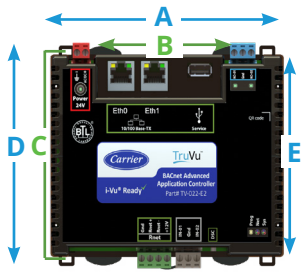
Specifications

BACnet Support	Conforms to the BACnet Building Controller (B-BC) and BACnet Broadcast Management Device (B-BBMD) Standard Device Profiles as defined in ANSI/ASHRAE Standard 135-2016 (BACnet) Annex L, Protocol Revision 15
Power Requirements	24 Vac ±15%, 50–60 Hz, 50 VA 24 Vdc ± 10%, 18 W
Max # of Control Programs	2
Communication Ports	**Eth0,Eth1:** 10/100 BaseT, full duplex, Ethernet ports with built-in fail safe. Supports direct connection or daisy chain topology natively using BACnet/IP and/or BACnet Ethernet communication. **Rnet Port:** Supports up to 10 ZS sensors, and one EQT1 or TruVu™ EQT3 Equipment Touch. Supplies 12/Vdc/260 mA power to the Rnet across its rated temperature range. **Service Port:** USB 2.0 host port for setting up the controller and troubleshooting through a local connection to a computer, connecting to the TruVu™ interface, or the Carrier wireless service adapter.
Inputs	2 universal inputs electronically configurable in the control program for 0-5 Vdc, 0-10 Vdc, thermistor, dry contact or pulse counter. **Resolution:** 12 bit A/D **Input Pulse Frequency:** 10 pulses per second. Minimum pulse width (on or off time) required for each pulse is 50 msec.
Outputs	2 analog outputs, 0-10 Vdc (10 mA max), PWM @ 80 HZ **Resolution** 12 bit D/A
Real Time Clock	Real-time clock keeps track of time in the event of a power failure for up to 3 days.
LED Status Indicators	Tricolor **NET** LED to show network status / Tricolor **SYS** LED to show controller status/**POWER** LED A **TX** (Transmit) and **RX** (Receive) activity LED and yellow link status LED for the following ports: Ethernet port Eth0 and Ethernet port Eth1/Output LEDs indicate status for each output/**Prog** LED is customizable
Environmental Operating Range	-40 to 158°F (-40 to 70°C), 10-95% relative humidity, non-condensing The TV-022-E2 is suitable for installation inside or outside the building envelope. It should be placed in a UL Listed enclosure. If installed outside, the enclosure must be suitable for the environmental conditions.
Compliance	United States of America: FCC CFR, Part 15, Class A; Canada: Industry Canada Compliant, ICES-003, Class A cUL Listed UL 916, PAZX7, Energy Management Equipment; Europe: Mark, UK: EN50491-5-2:2009; Part 5-2: EMC requirements for HBES/BACS used in residential, commercial and light industry environment RoHS Compliant: 2015/863/EU REACH Compliant
Plastic Rating	Fire-retardant plastic ABS, UL94-5VA
Mounting	35mm DIN rail mounting or screw mounting
Physical	**Overall** **A:** 5.51 in. (14 cm) **D:** 5.88 in. (14.93 cm) **E:** 4.41 in (11.20 cm) **Depth:** 2.01 in. (5.11 cm) **Weight:** .75 lbs. (.3402 kg) **Mounting** **B:** 3.00 in. (7.62 cm) **C:** 5.29 in. (13.44 cm)



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For more information, contact your local Carrier Controls Expert.

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