



TruVu

i-Vu® Building Automation System

TV-UCXP683T

Expandable Universal Controller



The TruVu™ Expandable Universal Controller is ideal for HVAC equipment control, advanced air quality control and most zone-level applications. The TV-UCXP683T features dual Ethernet ports with built-in fail-safe that supports direct connection or daisy chain topologies using BACnet/IP and 17 points of onboard 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.



Application Features

- Versatile controller suitable for a variety of applications, including: small AHUs, fan coils, exhaust fans
- Standard library of control programs available for most unitary equipment and zone applications
- Supports Snap graphical programming software
- 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 50 Modbus points for system integrations

Hardware Features

- Dual 10/100 Mbps, BACnet IP and IP addressing
- 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
- I/O expander bus supports one TV-UCXP IO Expander
- USB port for local device updates, hard-wired, and wireless service connections
- DIN rail or screw mounting

System Features

- Connects seamlessly to the i-Vu building automation system

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Specifications

BACnet Conformance	Conforms to the BACnet Advanced Application Controller (B-AAC) and BACnet Broadcast Management Device (B-BBMD) standard device profiles, as defined in BACnet 135-2001 2012 Annex L Protocol Rev 14	
Power	24Vac +/- 15% , 50 - 60Hz, 55VA 24Vdc +/- 10%, 20W. (80VA / 35W if additional Act Net devices are connected)	
Communication	BAS Primary port	Dual 10/100 BaseT Ethernet ports with built-in fail safe, supporting direct connection or daisy chain topology natively using BACnet/IP (non-routing)
	Serial port 1	RS-485 port for communication with third party devices (up to 50 points). Network at 9,600 to 115,200 bps.
	I/O Bus port	Supports one TV-UCXP I/O expander
	Rnet port	12Vdc @ 260mA Supports the following: Up to 5 ZS sensors (freely mix ZS zone, ZS duct, ZS immersion and ZS outdoor sensors), iVu Equipment Touch, or TruVu ET Displays (external power required)
	Act Net port	Supports up to 5 Act Net communicating devices such as the i-Vu Smart Valves and Smart Damper Kit
	USB Service port	For TruVu ET Display support configuration wireless service access firmware updates and controller recovery via USB drive
	USB Expansion port	For support of comm expansion devices
Inputs	Universal	8 Universal Inputs electronically configurable to any of the following types: Dry Pulse Counting Thermistor 0-10 Vdc
	Auxiliary Power	24Vdc @ 100mA total current capacity
Outputs	Universal output	1 Output selectable to 0-10 Vdc (20 mA max), 12 Vdc 80 Hz PWM, or (Dry Contact) Rated @24VAC 1 Amp
	Analog Output	2 Analog Outputs 10Vdc @ 20mA max (D/A Resolution 12 bits)
	Digital output	6 Digital outputs (Dry Contact) Rated @24Vac/Vdc 1 Amp. Configured normally open
Memory	4 GBs eMMC Flash memory and 256 MB DDR3 DRAM. User data is archived to non-volatile flash memory when parameters are changed, every 90 seconds	
Real Time Clock	Real-time clock keeps track of time in the event of a power failure for at least 3 days	
Compliance	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.	
Plastic Rating	Fire-retardant plastic ABS, UL94-5VA	
Environmental	Operating Range: -22 to 158°F (-30 to 70°C), 10-95% RH, non-condensing Storage: -40 to 158°F (-40 to 70°C), 10-95% RH, non-condensing	

Physical

DIN rail or Screw mounting
Minimum panel depth: 2.75 in. (7 cm)



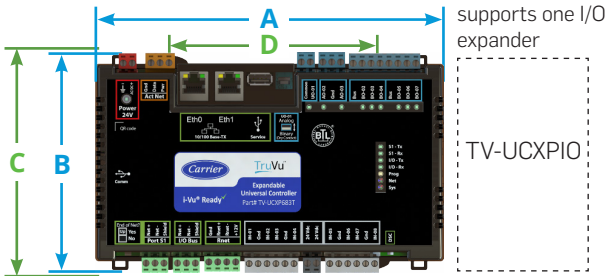
Dimensions: Overall

A: 7.785 in. (19.77 cm)
B: 4.89 in. (12.43 cm)
Depth: 2.00 in. (5.09 cm)
Weight: 1.6 lb. (0.82 kg)

Screw Mounting

C: 6.45 in (16.38 cm)
(fully extended)
D: 4.5 in. (11.43 cm)

QR code on label to provide technician with access to MAC address, serial number and technical documentation



For more information, contact
your local Carrier Controls Expert.
Controls Expert Locator:
www.carrier.com/controls-experts