i-Vu® Building Automation System
ComfortVu™ BACnet Thermostat

Line Voltage Standard Models

Part Numbers: TB-C, TB-HM-C

Features

- Large, backlit LCD display with push-button occupant controls
- Support for Celsius or Fahrenheit
- BACnet MS/TP port for easy integration with the i-Vu system or any BACnet-compliant BMS
- On-board DIP switches to configure equipment type and sequence of operation
- 2 universal inputs, 2 universal outputs and 4 relay outputs
- Available in two 120/220 Vac models (International only, not UL approved): Temperature only (#TB-C) and Temperature/Humidity/PIR Motion (#TB-HM-C)

Supported Functions

- Manage 7-day schedules via the thermostat
- Manage setpoints, occupancy status, fan speed, and heating/cooling mode via the thermostat or BACnet BMS
- Support for Title 24 demand response/economizer FDD and IECC2015 economizer FDD when connected to a BMS
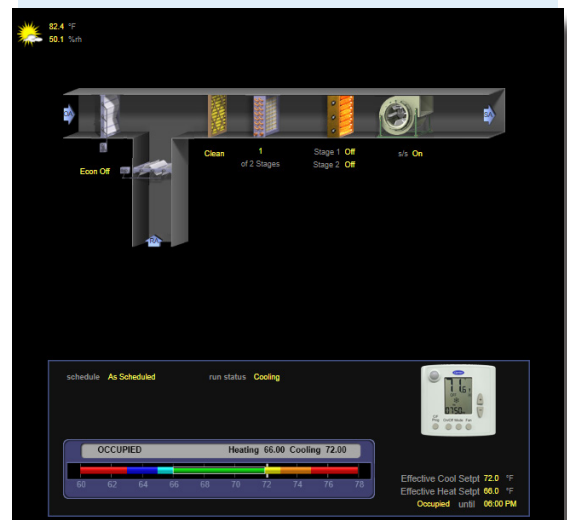
Equipment Compatibility

- Rooftop Units
- Heat Pumps
- Fan Coils
- Exhaust Fans
- Unit Heaters

Typical Applications

- Up to 3 stages of heat / 2 stages of cool / up to 3 fan speeds
- 2 pipe / 4 pipe cooling / heating valves (0-10V normally closed only)
- VFD (0-10V)
- Economizer (open/close)
- Reversing valve
- Humidifier (0-10V) / Reheat (dehumidify)

Carrier's ComfortVu™ BACnet thermostats offer control of a building's heating, ventilating and air-conditioning (HVAC) system from any BACnet-based building management system (BMS), including Carrier's powerful i-Vu® building automation system. These thermostats are the perfect solution for hotels, dorms, classrooms and office buildings.

Seamless integration with the i-Vu® building automation system makes it easy to view, schedule, and manage the connected HVAC system.

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Specifications

Power Requirements	85-240 Vac line voltage: 1.5 VA unit, 920 VA full load
Communication	BACnet MS/TP with baud rates up to 76.8 kbps, detected and set automatically by the BACnet Thermostat. Max 127 devices.
Real-Time Clock	Real-time clock keeps track of time in the event of a power failure for up to 7 days.
Display	Backlit segmented LCD, °F or °C Selectable

Sensing Element	Temperature Range 41° to 95°F (5° to 35°C)
	                       Accuracy ±1.0°F (0.5°C)
	Humidity Range 10% to 90%
	                       Accuracy ±3.0% typical

Motion Sensing	Sensor Type: PIR, quad, omnidirectional Distance:16.4 feet (5 m) Detection range: (HxV) 90° x 30° Movement speed: 2.62 to 3.94 ft/s (0.8 to 1.2 m/s) Detection object:15.75 x 9.84 in. (400 x 250 mm)

Inputs	T1, 0 – Normally open or normally closed dry contract, or
	          50 kOhm thermistor @ 25°C
	A, B - Communication +/- (RS485)
	In1, 0 - Normally open or Normally closed dry contract, or
	          50 kOhm thermistor @ 25°C
	C, R - Power: 24 Vac for part numbers TB-24-C and TB-24-HM-C, or
	          110-220 Vac line voltage for part numbers TB-C and TB-HM-C

Outputs	11, 12, 13 – Digital outputs, 3A; 14 – Digital outputs 0.3A; 15, 16 - Digital Output 0.3A or Analog output 0-10 Vdc, 5 mA max., not isolated (normally closed valves)
Environmental Operating Range	50° to 122°F (10° to 50°C), 10 to 90% relative humidity, non-condensing
Compliance	United States of America: FCC CFR47, Chapter 1, Subchapter A, Part 15, Class B Canada: Industry Canada Compliant, ICES-003, Class B Europe: CE-Mark Low Voltage Directive: 2014/35/EU RoHS Compliant: 2011/65/EU Australia and New Zealand: C-Tick Mark, AS/NZS 61000-6-3 CA Prop 65 Warning: This product can expose you to chemicals including Styrene and 1,3 – Propane sultone, which are known to the State of California to cause cancer. Go to www.p65warnings.ca.gov
Physical	Fire-retardant plastic ABS, UL94V-0
Mounting	Wall mount on a standard 4" x 2" electrical box using provided 6/32 x 1/2" mounting screws and wall plate
Dimensions	**Overall** **Weight:** 4.8 oz (0.14 kg)

3.62 in.
9.2 cm.

3.19 in.
8.1 cm.

FRONT VIEW

0.91 in.
2.3 cm.

SIDE VIEW

For more information, contact your local Carrier Controls Expert.

Controls Expert Locator:
www.carrier.com/controls-experts