



i-Vu® Building Automation System TB & TM Series Thermostats



The Carrier TB and TM Series Thermostats available in BACnet (TB series) or MODBUS (TM series) communication protocols come with a variety of options and features for a wide range of HVAC applications. The TB and TM Series thermostats offer either zone/room/building control or building management system (BMS) level control. Utilizing Carrier's powerful i-Vu® building automation system's platform, the user can be sure that each space has precision temperature control.



Key Features

- Built-in temperature, humidity, and/or motion sensing for optimal control
- Intuitive push-button interface with a clear LCD display
- BACnet or MODBUS communication protocol capable (depending on model) for flexible system integration
- Configurable inputs and outputs to support a variety of HVAC applications
- Real-time clock maintains accurate time for up to 7 days during power outages
- Choice of 24VAC or 110-220V power supply for installation flexibility*

*depending on thermostat model

Applications

- Fan (FCUs): Enhance occupant comfort by providing individual control over fan speed and temperature
- Rooftop Units (RTUs): Optimize RTU operation for energy efficiency through precise temperature and airflow control
- Heat Pumps: Maximize heat pump performance and efficiency with integrated control of heating and cooling modes
- Variable Frequency Drives (VFDs): Seamlessly integrate with VFDs to fine-tune motor speeds and optimize energy consumption

TB & TM Series Thermostats



Specifications

| | | | |
|--|--|------------------------------|------------------------|
| TB Series (BACnet) | Part# | | |
| Options | 24 V, Temp. Only | 24 V, Temp, Humidity, Motion | 110 - 220V, Temp. Only |
| Branded | TB-24-C | TB-24-HM-C | TB-C |
| Unbranded | TB-24 | TB-24-HM | TB |
| Communication | BACnet MS/TP (subordinate device) Baud rates up to 76.8 kbps, detected and set automatically by the thermostat | | |
| TM Series (MODBUS) | Part# | | |
| Options | 24 V, Temp. Only | - | 110 - 220V, Temp. Only |
| Unbranded | TM-24 | - | TM |
| Communication | Modbus RTU (server) Baud rates up to 76.8 kbps, detected and set automatically by the thermostat | | |
| Power Requirements | 24 VAC ± 15% 4VA no load, 76 VA Full Load | | 110-220 VAC |
| Display | LCD | | |
| Sensing Element | | | |
| Temperature | Range: 41-95° (5-35°C), Accuracy: ± 1°F (0.5°C) | | |
| Humidity Range: 10-90% Accuracy: ± 3% Typical | - | X | - |
| Motion Sensor Type: PIR, quad, omnidirectional Distance: 16.4 ft. (5 m) Detection Range: 90 x 30 (HxV) Movement Speed: 2.62 – 3.94 ft/s (0.8 – 1.2 m/s) Detection Object: 15.75 x 9.84 in. (400 x 250 mm) | - | X | - |
| Inputs | T1, 0 - Normally Open (NO) or Normally Closed (NC) dry contract, or 0-10 Vdc AI, or 50 kOhm thermistor @ 77°F (25°C) A, B - Communication +/- (RS485) In1, 0 - NO or NC dry contract, or 0-10 Vdc AI, or 50 kOhm thermistor @ 77°F (25°C) C, R – Power 24 VAC | | |
| Outputs | 11, 12, 13 – DO, 3A 14 – DO 0.3A 15, 16 - DO 0.3A or AO 0-10 Vdc, 5 mA max.,not isolated | | |
| Environmental Operating Range | 50° to 122°F (10° to 50°C), 10 - 90% RH, non-condensing | | |
| Housing | Square form factor, fire-retardant ABS plastic, UL94V-0 | | |
| Mounting | Installs to a standard wall box with mounting hardware included (consult technical instructions) | | |
| Compliance | FCC CFR47, chapter 1, subchapter A, part 15, class B ICC, ICES-003, class B CE Mark LVD, 2014/35/EU RoHS 2011/65/EU C-Tick Mark, AS/NZS 61000-6-3 CA Prop. 65 | | |
| Dimensions | 3.62" W x 3.19" H x 0.91" D (9.2cm W x 8.1cm H x 2.3cm D) | | |
| Weight | 4.8 oz (0.14 kg) | | |

