

THB002 Series – Introduction



The THB Series thermostat family is specifically designed for zoning applications. The THB002 Series are communicating thermostats with models available in BACnet® and ZigBee® wireless mesh protocols and can be easily integrated into a building automation system.

Typical applications include local hydronic reheat valve control and pressure dependent VAV with or without local reheat. Accurate temperature control is achieved due to the product's proportional control algorithm, which virtually eliminates temperature offset associated with traditional, differential based thermostats. Models are available for 3 point floating and analog 0 to 10 Vdc control. In

Features

- Available in BACnet and ZigBee wireless protocols
- Backlit LCD display with dedicated function menu keys for simple operation
- Pre-configured sequences of operation means one model meets more application needs
- Four levels of keypad lockout to limit access to change user parameters such as set points, system mode, etc.
- Available in 24 Vac on/off, floating or 0-10 Vdc analog control to meet advanced applications requirements
- Three configurable inputs for monitoring and advanced functions
- SPST auxiliary output that can be used for lighting or reheat
- All wiring connections are made to removable terminal blocks simplifying installation

THB002 Series Models

Product Number	Description	Outputs
BACnet Models		
THB002AY6024B	Modulating with Reheat	2 floating or on/off + 1 Aux
THB002FZ6024B	Modulating with Reheat	2 0-10Vdc + 1 Aux
Wireless Models		
THB002AY6024W	Modulating with Reheat	2 floating or on/off + 1 Aux
THB002FZ6024W	Modulating with Reheat	2 0-10Vdc + 1 Aux

SPECIFICATIONS

Network Protocol: Models available in BACnet or ZigBee wireless mesh

Thermostats Per Controller:

BACnet: 126 thermostats (BACnet allows 128 but 1 node is used by the controller, and when more than 64 devices are on the network a repeater is required so 1 node used by the repeater).

Thermostat power requirements: 19-30 Vac 50 or 60 Hz; 2VA Class 2

Operating conditions: 32 F to 122 F (0 C to 50 C) 0% to 95% R.H. non-condensing

Storage conditions: -22 F to 122 F (-30 C to 50 C) 0% to 95% R.H. non-condensing

Temperature sensor: 10 K NTC thermistor on board

Temperature sensor resolution: ± 0.2 F (± 0.1 C)

Temperature control Remote Sensor Input: 10K NTC

Room and outdoor air temperature display range: -40 F to 122 F (-40 C to 50 C)

Proportional band for room temperature control: Cooling and Heating: 3.2 F (1.8 C)

Contact output rating: Triac output: 30 Vac, 1 Amp. Max., 3 Amp in-rush Analog: 0 to 10 Vdc into 2K Ω min.

Wire gauge: 18 gauge maximum, 22 gauge recommended

Dimensions:

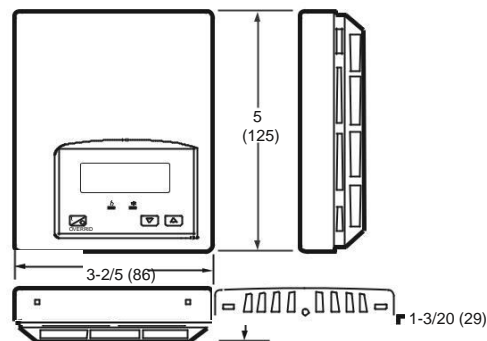


Fig. 1. Thermostat dimensions in inches (mm).

Agency Approvals all models:

UL: UL 873 (US) and CSA C22.2 No. 24 (Canada), File E27734 with CCN XAPX (US) and XAPX7 (Canada)

Industry Canada: ICES-003 (Canada)

Agency Approvals all models

FCC: Compliant to CFR 47, Part 15, Subpart B, Class A (US)

CE: EMC Directive 89/336/EEC (Europe Union)