

Mesh Thermostat



Specification

- Voltage: 24VAC
- Thermostat Sensing Range: 32°F to 113°F (0°C to 45°C)
- Control Accuracy: $\pm 2^\circ\text{F}$
- Terminations: R-20-26AWG (0.4-0.8mm²) wire/screw less
- Wireless Radio: 2.4GHz Bluetooth Mesh
- Dimensions: 5.1" x 3" x 0.9" – 4in x 4in x 1in (97 x 97 x 21 mm)

Description

The **Mesh Thermostat** is a Bluetooth Mesh thermostat with an advanced remote sensor bus, designed for new or replacement commercial and residential applications. The X-TM3 functions both as a standalone thermostat and as part of its connected mesh network. Its settings can be dynamically adjusted through occupancy sensors or pre-set schedules for optimized comfort and efficiency. Control is seamless via the BubblyNet app, available on iOS and Android, or remotely through a secure web gateway.

Protection Class: IP30

Certification

Installation

The **Mesh Thermostat** needs to be installed within 50 feet of the closest device within the Bluetooth Mesh network.

Connectivity

Devices are repeaters for other devices and should be installed within a certain maximum distance from each other.

Typical maximum distance:

Outdoor (line of sight):	200ft
Indoor (through building material):	
Glass:	100ft
Drywall:	70ft
Cinderblock:	60ft
Brick:	50ft
Concrete + rebar:	0ft

Devices with external antenna should have the antenna outside any metal box and away from metal surfaces as metal reduces connectivity.

For design purposes a 60ft. maximum distance is appropriate for most installations.

Thermostat Connectors

Terminals	What it means
Rc	24 VAC power from cooling transformer
Rh	24 VAC primary for heating
C	24 VAC common
W/W1 (AUX)	1st stage Primary heating relay in conventional system / Auxiliary or Alternative 1st stage heat in heat pump system
W2/E (AUX 2)	2nd stage Secondary heating relay in conventional system / Auxiliary or Alternative 2nd stage heat in heat pump system / Emergency heat
Y/Y1	1st stage Primary compressor contactor
Y2	2nd stage Secondary compressor contactor
G	Fan relay
O/B	Changeover valve for heat pumps
CWA	Optional C-Wire Adapter terminal, combine signals from the Y (cooling) and G (fan) wire into a single wire

The manufacturer reserves the right to change or modify the design, dimensions and specifications at any time without notice. The manufacturer accepts no liability for consequential damage which is occasioned to the user based on the data provided.