

Wireless/Standalone Programmable 24V Thermostat Wi-Stat IIIe Provides Reliable Zone Comfort and Enhanced Energy Economy Through Remote Monitoring and Set Point Management, Enabling Greater Energy Policy Compliance and Usage Analysis

Features at a Glance

- Standalone programmable or wireless DDC Thermostat
- ~ 60 data points available
- +/- 1 °F control accuracy for maximum comfort
- Easy to install - economical retrofit is compatible with and uses the existing thermostat and HVAC wiring for control and power
- Remote occupancy scheduling and monitoring capabilities define and enforce energy policies
- Allows for local thermostat operation within the specified comfort zone
- Override feature allows local operation during scheduled unoccupied periods
- Configurable "dead-zone" based on HVAC system type
- Setback control can continue independent of wireless communications
- FCC-compliant hardware modules
- RoHS-compliant

Wireless Sensor Network Features

- Operates on a license-free 2.4 GHz ISM radio band with 15 user-selectable channels
- Configures as part of a wireless network that includes hundreds of wireless devices or
- Standalone 5/2 day programmable thermostat
- Upgradeable firmware and device configuration
- Wireless communication ranges available of at least 750 feet between adjacent devices
- Extensive (1000s of feet) mesh network coverage

Compatibility

The Wi-Stat IIIe is an intelligent energy conservation device for commercial, industrial, and municipal HVAC environments with retrofit, low cost, and ease of deployment as key drivers. It is ideal for any multi-zone HVAC application where remote monitoring and control of all zones is desired. Wi-Stat IIIe is compatible with most of 24V heating and cooling systems, including single or dual stage forced air, gas, electric, oil, hot water, heat pump and many others.

Wiring terminals accommodate for:

- Heating: one or two stages (W, W2)
- Cooling: one and two stages (Y, Y2)
- Heat pump (B/O)
- Fan (G)
- Power (C)*

*Power wire (C) is required for configurations.

Try it for yourself

Setting up a wireless mesh network is fast and easy. The MeshScape self-forming and self-healing network is designed for rapid deployment and easy operation.

For more information, visit www.millennialnet.com

MeshScape GO Networking

The Wi-Stat IIIe uses the industrially-proven MeshScape GO networking system which features:

- **Self-administrating network:** a self-forming and self-healing mesh network requires no administration
- **Robust:** a network that ensures multi-route, reliable data transmission over extensive distances
- **Responsive:** a network that quickly adapts to changes in topology and radio frequency (RF)
- **Power efficient:** very low power consumption
- **Scalable:** with the application, can scale to hundreds of wireless nodes with minimal overhead
- **Low latency:** very short network data delivery times

The Wi-Stat IIIe is designed to be part of the MeshScape system, which can be configured to provide either single-site monitoring/control via a local PC or multi-site monitoring/control via an internet web interface.



Remote Monitoring/Control Software Features

The MeshScape Wi-Stat IIIe is designed to interface with any Modbus® or BACnet compatible remote HVAC monitoring and control software application. Millennial Net's Wi-EMS Remote HVAC Monitoring and Control provides a full-featured and easy-to-use 365-day occupancy scheduling calendar that reports, trends, and analyzes energy consumption.

Wi-Stat IIIe HVAC Compatibility

The Wi-Stat family of products is compatible for use with:

- Most 24V heating and A/C systems
- 1- or 2-stage heat/cool (oil, gas, electric, or single-stage heat pump systems)
- 2 wire, heat-only Hydronic systems (hot water baseboard and radiator)
- Ask for more details



MeshScape®

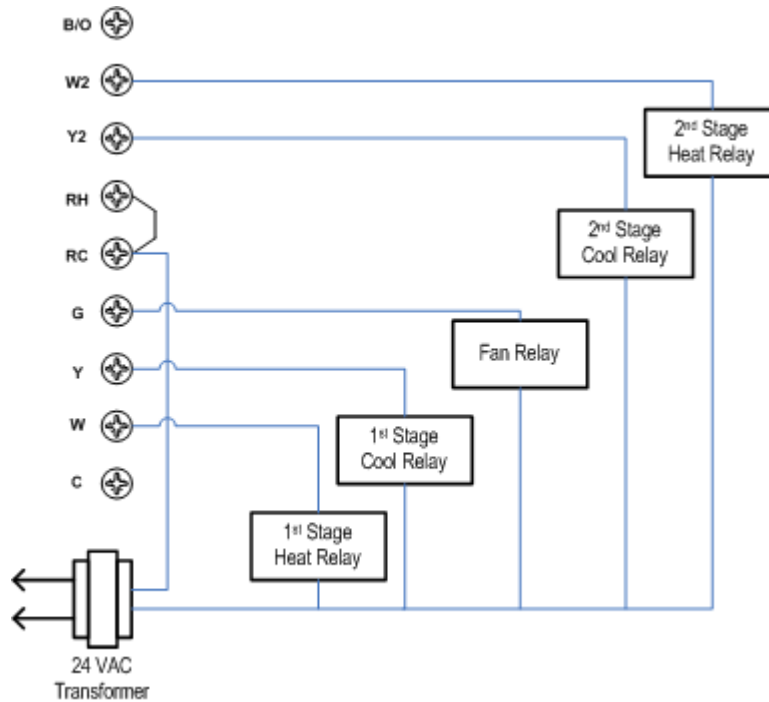
6424 Wi-Stat IIIe Specifications

Parameter	Value	Unit	Notes
Power			
External power supply	12 ~ 28	V, AC or DC	
Temperature Measurement			
Sensor type	Thermistor		10 KΩ thermal resistor
Number of sensors	1		
Measurement range	32 ~ 99	°F	
	0 ~ 37	°C	
Accuracy	±1.00 (±0.56)	°F (°C)	
Sensitivity	±0.18 (±0.10)	°F (°C)	At room temperature 77 °F (25 °C)
Dry Contact Output Channels			
Number of channels	6	Channel	W – 1 st stage heat Y – 1 st stage cool W2 – 2 nd stage heat Y2 – 2 nd stage cool B/O – Changeover to heat/cool (heat pumps) G – Fan
Maximum voltage	50	V, AC or DC	
Maximum current	1	A	
Occupancy Sensor Signal Input Channel			
Number of channels	1	Channel	Accepts dry contact occupancy sensor input signal
Radio			
Operating frequency range	2405 ~ 2475	MHz	ISM band
Number of available channels	15		IEEE 802.15.4 channels 11 ~ 25
Channel spacing	5	MHz	
Maximum RF transmit power	18	dBm	
Receiver sensitivity	-95	dBm	At 10 ⁻⁵ bit error rate
RF data transmission rate	250	Kbits/sec	
Environmental & Mechanical			
Operating temperature range	-14 (-10) ~ 131 (55)	°F (°C)	
Storage temperature range	-40 (-40) ~ 185 (85)	°F (°C)	
Dimension	5.5 x 4.5 x 1.5	in	
	140 x 114 x 38	mm	
Weight	10.5 (300)	oz (g)	
Regulatory Compliance			
FCC and IC for unlicensed operation			



Note: a Power (C) wire from a 24V HVAC transformer is required for all HVAC Systems

Regular Dual Stage Heat/Cool Systems



Dual Stage Heat Pump Systems

