

The 6424 Meshscape® Wireless Zone Sensor (Wi-Zone) Measures And Communicates Temperature And Relative Humidity As A Node In A Self-Forming And Self-Healing Wireless Network.

### Features At a Glance

- MeshScape® compatible wireless sensor node
- Operates on worldwide license-free 2.4 GHz ISM radio band, with 16 user selectable channels
- Available in two configurations:
  1. Battery powered End Node:
    - Complete wireless operation
    - Low-power consumption for extended use
  2. Line Powered Mesh Node
- Factory-installed temperature and relative humidity sensor
- Battery-pack for completely wireless operation
- Low power, configurable duty cycling
- CE and FCC compliant hardware module
- Indoor/Outdoor enclosure, easy to mount

### Wireless Zone Sensor

The 6424 MeshScape Wireless Zone Sensor, Wi-Zone, is ideal for retrofit or new installations for such purposes as HVAC monitoring and control, energy management, environmental monitoring, and storage or refrigeration condition monitoring. It serves as a specific instance of a MeshScape 6424 End Node, with a factory-installed temperature and relative-humidity sensor.

### Zone Sensing Where It's Needed

The Wi-Zone can be located where it is most advantageous for sensing environmental conditions of a thermal zone for HVAC monitoring and control applications. There is no need to run signal wires for control and monitoring. The Wi-Zone is designed for low power consumption, to enable battery-powered operation with configurable duty cycling for optimum battery life.

### Typical Applications

The Wi-Zone is ideal for indoor or outdoor temperature and relative humidity sensing. If used in conjunction with a MeshScape Wireless Thermostat (Wi-Stat) within the same thermal zone, the Wi-Stat can be configured to include the Wi-Zone temperature input for improved temperature uniformity within the zone.

### Long Range

Wi-Zone is available with two radio power choices: 10-mW and 18-mW (allowed by North American regulations). Higher power provides greater transmission distance up to 750 feet, clear line of sight.

#### 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 ease of operation.

For more information, visit [www.millennialnet.com](http://www.millennialnet.com)

### MeshScape® 4 Networking

The Wi-Zone uses industrially-proven MeshScape 4 networking software. MeshScape 4 uses patented Persistent Dynamic Routing™ (PDR) techniques to form a self-configuring, wireless mesh network. PDR uses a node-initiated network formation for efficient topology discovery, and uses "best route" information for network re-formation (required in ever-changing RF environments). With MeshScape, you can deploy industrial-class wireless mesh networks that are:

- **Self-administrating:** a self-forming and self-healing mesh network that requires no administration
- **Robust:** a network that ensures reliable data transmission
- **Responsive:** a network that quickly adapts itself to changes in topology or radio frequency (RF) environments
- **Power efficient:** can run for years on a single battery set
- **Scalable:** can scale with the application to hundreds of wireless nodes with minimal overhead y
- **Low latency:** with very short network data delivery times

The Wi-Zone is designed to be part of the MeshScape 4 LAN-based 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.



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### Remote Monitoring/Control Software Features

The MeshScape Wi-Zone is designed to interface with any ModBus® or MeshScape-compatible Remote Monitoring and Control software application. For example, Millennial Net's Wi-EMS is a full-featured, easy-to-use Wireless Energy Management System. Wi-EMS provides all the tools you need for reporting, historical trending and in-depth energy analysis.