

# Field Commander™

## Wireless Temperature Sensors

### Overview

The unitary controller network now supports *Inovonics* wireless temperature sensors. Wireless sensors work well for retrofits and challenging structures where traditional installations are often expensive or impractical. Sensors are battery operated and require no control wiring.

The *Inovonics* wireless temperature sensor transmits temperature periodically (every 5 minutes) or upon change greater than 1°F. When the *Inovonics* receiver receives a temperature, it is passed to the wireless unitary interface. This interface attaches to the unitary network as a normal unitary device and broadcasts temperature changes over the unitary network to any controller that may wish to use the temperature. An advisory message is placed with the Field Commander or UMI if the sensor stops sending data, a low battery condition is detected, or the sensor cover is removed (tamper switch).

The wireless sensor does not completely eliminate the need for hard-wired sensors. The periodical transmission and occasional temperature change updates will only occur every few minutes. Although a wireless sensor could possibly be used in large open spaces with slowly moving temperatures, for fine temperature control a hard-wired return air sensor or wall thermostat is recommended. The wireless sensor is best used for periodic temperature logging or for averaging temperatures in an open space..

### Features and Benefits

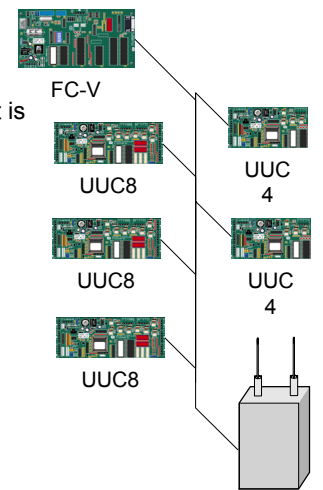
Battery powered sensors can last up to two years in typical temperature sensing applications and can sense temperatures from 0°F to 110°F.

The wireless transmitter and receiver can be up to 2000 feet apart in an open area. In a building with walls or multiple floors, the range is approximately 300 feet. Transmitters use 900 MHz frequency hopping spread-spectrum technology.

The optional *Inovonics* line-powered high power intelligent repeater can increase the range of transmission up to 4 miles.

Up to 30 sensors can be linked to the same receiver. Multiple receivers can be connected to the same unitary network, but the total number of sensors should remain 30 or lower.

Optional digital alarm inputs such as panic buttons, motion detectors, or door/window contacts can be received using a special order receiver. The receiver is a passive monitor and will not interfere with security system operation. Monitoring will allow detailed message logs to be created based on specific security sensors and events.



INTEGRATION WITH INOVONICS WIRELESS TECHNOLOGY BRINGS WIRELESS TEMPERATURE MEASUREMENT TO THE FIELD COMMANDER BUILDING AUTOMATION SYSTEM.

### Applications

Wireless temperature sensors are especially useful for buildings incorporating glass or marble walls and high ceilings such as museums, historical buildings, retail facilities, and atriums where traditional wiring can be quite expensive.

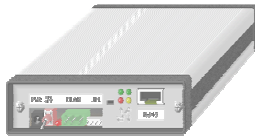
Wireless sensors are useful for temporary monitoring applications. Clean rooms, environmental chambers, sealed laboratories, archival storage facilities, and other difficult to wire locations can also benefit from wireless temperature sensors.



**Wireless Interface + Receiver**

**016-6501-7**

**Wireless Interface**



Includes *Inovonics* receiver, power cube, and cables  
 Dimensions: 1.6" x 5.5" x 5.9"  
 Power Requirements: 15VDC, 600mA  
 Interface: RS-485 Unitary LAN  
*Inovonics* Serial Interface  
 Mounting: Stand-alone enclosure, rubber feet

**Receiver**



Dimensions: 6.9" x 3.9" x 1.2" excluding two 3" antennas  
 Power Requirements: 11-14V DC, 80mA  
 Interface: *Inovonics* Serial Interface  
 Mounting: Wall-mount, indoor  
 Operating Environment: 32°F to 140°F up to 95% relative humidity (non-condensing)

**Wireless Repeater**

**2900-3101-01**



Increases range of wireless transmission up to 4 miles.  
 Dimensions: 6.5" x 3.5" x 1.0" indoor  
 7" x 7" x 3" outdoor (optional)  
 Power Requirements: 120V AC, External transformer included  
 Mounting: Wall-mount; indoor  
 Operating Environment: -20°F to 145°F up to 95% relative humidity (non-condensing)

**Temperature Transmitter**

**2900-1700W/WT**



Battery powered wireless sensor that periodically transmits temperature to the wireless interface with internal sensor. WT model has terminal block to connect external sensor.

Sensor: W: 0°F to 110°F Thermistor included  
 WT: Terminal block for external sensor

Dimensions: 3.5" x 1.7" x 0.9"  
 Weight: Approximately 3oz.  
 Color: Off-white  
 Battery: 2/3 A size LiMnO<sub>2</sub> (e.g., Duracell DL123A)  
 Battery Life: 5 years  
 Environment: -13°F to 140°F up to 95% relative humidity (non-condensing)  
 Open Field Range: 2500 ft.  
 RF Specifications: Frequency Agile, 900MHz, Spread Spectrum

**About H I Solutions**

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