

# Temperature Sentinel Pro II

## Wi-Fi® Based Sensor Solution

- 802.11, 2.4GHz Radio
- Battery-Powered
- Up to 2 external T probes
- Optional internal T & RH sensor (SHT11)



## Applications

The Sentinel products are ideal for storage applications where continuous monitoring is required.

- Health Care
- Food Storage
- Transportation
- Ware Housing
- Server Rooms
- Military

## Features

The complete solution includes the sensor, wireless transceiver, database and a web-based portal.

- Form Factor – 3" x 2" x 1"
- Web-based Data Visualization<sup>i</sup>
- Up to 5 Years Life using a single Lithium AA battery<sup>ii</sup>
- Alarming/Alerting System<sup>iii</sup>
- Uses the Wi-Fi Infrastructure
- Audit Trail of the Sensor Data

## Benefits

No wireless receiver is necessary as it uses the existing Wi-Fi infrastructure – therefore the overall cost is significantly lower; full sensor audit trail; data can be viewed remotely from any computer using a web browser; sensor units are battery operated therefore portable; sensor units can last up to 5 years using a single Lithium AA battery;

## Technical Specifications

### Sensor Unit

Data Storage	At least 21 days of sensor data at sampling rate of once per minute (10 days with optional T&RH probe)
Data Visualization & Reporting	Desktop Software, Web Hosted or Enterprise Portal
Alerting System	Email or cell phone alerts when sensor crosses set threshold values (depending on Software version)
Power supply	Using a single AA 3.6V Lithium battery - Expected life of up to 5 years with measurements every minute
Operating conditions	Operating temp. range: -10°C to +60°C Operating humidity range 0% RH to 90% RH non-condensing
Physical dimensions	3.3"L X 2.5"W x 0.8"H (82mm x 62mm x 21mm) Weight: 2.3oz (66g)
Regulatory	FCC
Typical power emission	33mW

### Wi-Fi

Radio Protocol	IEEE 802.11 b/g compatible (g-only not supported)
Supported rates	1, 2 Mbps only
Security	WPA2-PSK (AES) WPA1-PSK (TKIP) WPA1+2 PSK (AES+TKIP) 802.1x EAP-FAST WEP (40bit, 104bit)

### Networking

Addressing	IP v4 static or DHCP address
Protocol used to communicate with server	SNMP/UDP, UDP

Ports	161-163 on both server and sensor
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## Sensor unit accuracy

External Temperature Sensors	Unit accuracy: $\pm 0.25^{\circ}\text{C}$ (at $25^{\circ}\text{C}$ )
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## Probes

External Temperature Sensors	<p>Up to 2 Identical Probes can be attached.</p> <p><u>XPROBE-TEMP-0002</u>            Range: <math>-30^{\circ}\text{C}</math> to <math>10^{\circ}\text{C}</math>            Resolution: <math>0.1^{\circ}\text{C}</math>            Accuracy: <math>\pm 0.5^{\circ}\text{C}</math> (<math>-20^{\circ}\text{C}</math> to <math>10^{\circ}\text{C}</math>) or <math>\pm 1^{\circ}\text{C}</math> (<math>-30^{\circ}\text{C}</math> to <math>10^{\circ}\text{C}</math>)</p> <p><u>XPROBE-TEMP-0004</u>            Range: <math>0^{\circ}\text{C}</math> to <math>70^{\circ}\text{C}</math>            Resolution: <math>0.1^{\circ}\text{C}</math>            Accuracy: <math>\pm 0.1^{\circ}\text{C}</math></p>
Light Sensor	Responsivity: 400-1000 nm (spectral)
Internal Ambient Humidity (SHT11 version only)	Range: 0-100% RH Resolution: 0.03% RH Accuracy: $\pm 3.0\%$ RH
Internal Ambient Temperature (SHT11 version only)	Range: <i>same as unit operating range</i> Resolution: $0.01^{\circ}\text{C}$ (typical) Accuracy: $\pm 0.4^{\circ}\text{C}$ (typical at $25^{\circ}\text{C}$ )

## About Aginova

Aginova Inc. is a wireless sensor network solution provider. The Company will provide the packaged wireless sensor hardware with the data acquisition and management software using leading-edge Internet and Web technologies.

<sup>i</sup> Available separately: Desktop Software, Web Hosted Portal or Enterprise Portal

<sup>ii</sup> Battery Life varies depending on network conditions and sensor settings

<sup>iii</sup> Available only with Web Hosted, Enterprise and Desktop Software Gold Edition