

## SNT-1 and SNT-2

This guide describes the physical and functional attributes of the **Aegis Monitoring** line of sensors.

**RTD Probe for ultra-low freezers and liquid nitrogen chambers.** Used in tissue and blood storage, pharmaceutical, and other healthcare applications.



### Sentinel Next Wireless Unit (XTEMP-3001-0000)

<b>Dimensions (HxWxD)</b>	89mm x 60mm x 14mm (3.50" x 2.36" x 0.55")
<b>Weight</b>	102g (3.60 Oz)
<b>Connectors</b>	10-pin Sensor Connector; micro USB for Charging
<b>Battery</b>	Integrated 1000mAh Rechargeable Li-Ion Battery
<b>Wi-Fi Protocols</b>	IEEE 802.11b/g/n
<b>Wi-Fi Models Supported</b>	Wi-Fi Direct, Infrastructure, Remote
<b>Wi-Fi Encryption</b>	WEP, WPA/WPA2 Personal, PEAPv0, PEAPv1, EAP-TLS
<b>On Board Data Storage</b>	1 Week with a Once/Minute Sampling Rate
<b>Operating Temperature</b>	0°C to 40°C on Charger -20°C to 60°C on Battery only
<b>Non-operating Temperature</b>	-30°C to 70°C
<b>Relative Humidity</b>	10% to 90%
<b>Certifications</b>	FCC, CE



### SNT - Probe Specifications (IPROBE-4101-0004)

<b>Probe Length &amp; Diameter</b>	Stainless probe: 25mm, Ø 4mm (1", Ø 0.16")
<b>Cable Length</b>	304cm (10ft)
<b>Measurement Range</b>	-30°C to +150°C (-22°F to +302°C)
<b>Accuracy</b>	±0.2°C (±0.4°F) at 25°C (77°F)
<b>Response Time (to reach 90%)</b>	In water, with stirring: <10sec
<b>Display Resolution</b>	0.1°C (0.1°F)

# 1. Battery Status LED

When a Micro USB cable is plugged in to the Micro USB input (4) and connected to a charger the Battery Status LED will have the following behavior.

- **Solid Green:** Battery is fully charged
- **Solid Red:** Battery is charging.

If both Mode (3) and Battery LED are blinking red:

- Battery is almost 100% depleted. Sensor cannot function until battery is recharged (rechargeable version) or replaced (battery only version).

# 2. Power Button

This is just a momentary push that functions as an On/Off button.

**To power the unit on** – briefly press and release the power button. The Mode LED (3) will blink green 5 times very quickly indicating the unit is turning on.

**To power the unit off** – press and hold the power button for 5 seconds. When you release the power button the Mode LED (3) will blink red 5 times very quickly indicating the unit is turning off.

# 3. Mode Button / LED

The Mode Button / LED has several functions.

**LED indicator:**

- Green (solid): Sensor is in factory default Direct Mode
- Blue (periodic blink): Sensor is configured to post data to a server.
- Blue (solid): Sensor is configured to post data to a server and is plugged into a power source.
- 5 quick green blinks: Sensor is powering on.
- 5 quick red blinks: Sensor is powering off.
- Blinking red at same time as Battery Status LED (1): Battery is almost 100% depleted. Sensor cannot function until battery is recharged (rechargeable version) or replaced (battery only version).
- Red blinks per dbg table included discussed in Troubleshooting.

**Switching Modes:**

To return sensor to factory default Direct Mode, press and hold the Mode Button for ~5s. Upon release

the Mode Button LED will flash green a few times and stay solid Green.

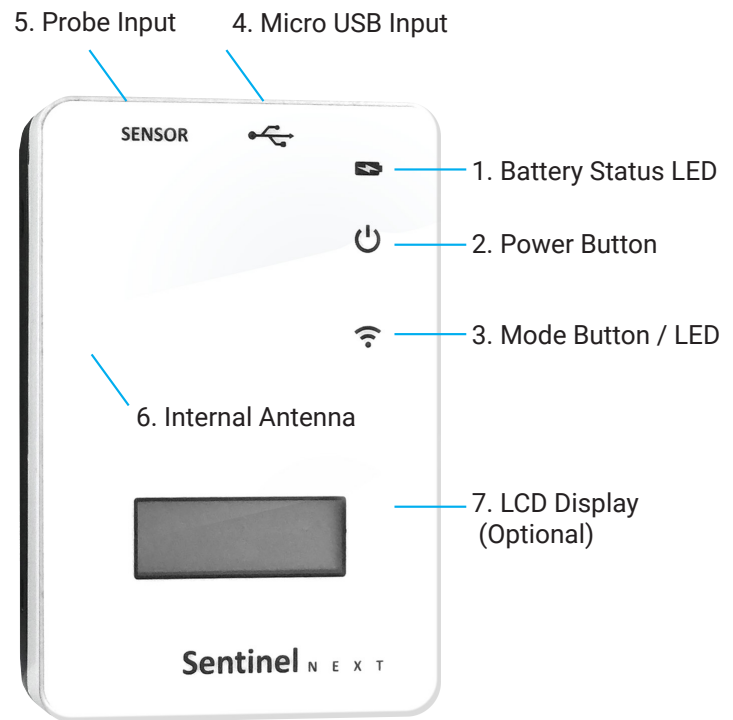
To return sensor from Direct Mode to post to last configured data server, briefly press the Mode Button. The Mode Button LED will flash blue a few times indicating it has been set to report to last configured data server.

**Control LCD Display (7) functions on units with display.**

This function is covered in detail in section 7. LCD Display Function.

**Control debug function.**

Covered in section 8. Troubleshooting.



## 4. Micro USB Input

The Micro USB input is used solely for charging the built in rechargeable battery. To charge, plug the Micro USB connector into the Micro USB Input. Plug the other end of the micro USB cable into a USB charging brick with rated output of 5Vdc and minimum 150mA.



The Aegis Monitoring sensor comes preinstalled with a 3.6V rechargeable lithium battery.



## 5. Probe Input

The probe input is keyed so it is only possible to connect the probe in the correct orientation. Make sure the sensor probe is connected securely and completely. Use only official Aegis Monitoring Sensor probes by Aegis. Below is pictured an example of a probe that is properly connected.



## 3. Internal Wi-Fi Antenna

The Aegis Monitoring Sensor communicates via the internal 2.4 Ghz antenna and is compatible with 802.11 b/g/n Wi-Fi access points. The Aegis Monitoring Sensor is not compatible with 802.11ac and cannot communicate on the 5Ghz band.

When installing, it is best to ensure the front of the Aegis Monitoring Sensor is facing the Wi-Fi access point as directly as possible. It is best to ensure there are as few obstacles between the Aegis Monitoring Sensor and the Wi-Fi access point as possible.



Do NOT place the sensors inside refrigerators/freezers as the radio signal will get almost fully attenuated.