

## Temperature (WTS-NIST2 / WTS-NIST2-xx)

### If you're spending money for monitoring, wouldn't you want to know the sensors are calibrated?

Weatherproof temperature sensor with Wireless Tunnel™ radio. 10 year battery life with 4xAA batteries, 5VDC or 12VDC powered. Either run 100% battery, or with battery backup. 10 year battery life.

Every temperature sensor is calibrated with NIST traceable certification available upon request. It features our dual sensor calibration check, where the sensor works as a pair checking the value against each other. An alert is sent if we detect the sensor to be out of calibration.

### Custom Options:

The WTS temperature sensor can be ordered with the sensor on cable up to 15ft length. This allows you to place the radio module in a convenient location with the sensor placed in a precise position. Replace the xx in the product code with the length required (WTS-NIST2-15 for example)



sensor tube on custom cable up to 15ft



Sensor fixed on box

## **Temperature (WTS-NIST3 / WTS-NIST3-xx)**

### **Calibration check temperature sensor with failover**

#### **Sensor with Failover:**

In critical applications such as pharmaceutical monitoring, the sensor can be ordered with three sensors, each sensor working as a pair (total of 3 sensors, WTS-NIST3). In this setup, the primary pair will check for calibration, and if we detect the sensor to be out of calibration we automatically switch over to the secondary pair.

Every temperature sensor is calibrated with NIST traceable certification available upon request. It features our dual sensor calibration check, where the sensor works as a pair checking the value against each other. An alert is sent if we detect the sensor to be out of calibration.

#### **Custom Options:**

The WTS temperature sensor can be ordered with the sensor on cable up to 15ft length. This allows you to place the radio module in a convenient location with the sensor placed in a precise position. Replace the xx in the product code with the length required (WTS-NIST3-15 for example)

## Temperature (WTS-NIST3G / WTS-NIST3G-xx)

Temperature sensor with Wireless Tunnel™ radio. 10 year battery life with 4xAA batteries, 5VDC or 12VDC powered. Either run 100% battery, or with battery backup.

### Calibrated Sensor with Failover:

NIST traceable calibrated temperature sensors with calibration check and failover. The WTS-NIST3G is equipped with 3 temperature sensors working in pairs. The primary pair will check for calibration and if out of range will alert. The secondary pair will then take over automatically and continue a seamless graph of data.

### Glycol Jar:

To comply with FDA regulations and standard best practices in monitoring temperature sensitive pharmaceuticals and vaccines the WTS-NIST3G comes with the sensor attached with a glass jar of glycol (glycol not included). This acts as a buffer ensuring the sensor readings are not affected by the opening and closing of the door causing temporary minor fluctuations.

### Custom Options:

The WTS-NIST3G can be ordered with a fixed length of cable between the sensor and radio module. Up to 15ft can be ordered. The code WTS-NIST3G-xx for 15ft, substitute the xx for the number 15.

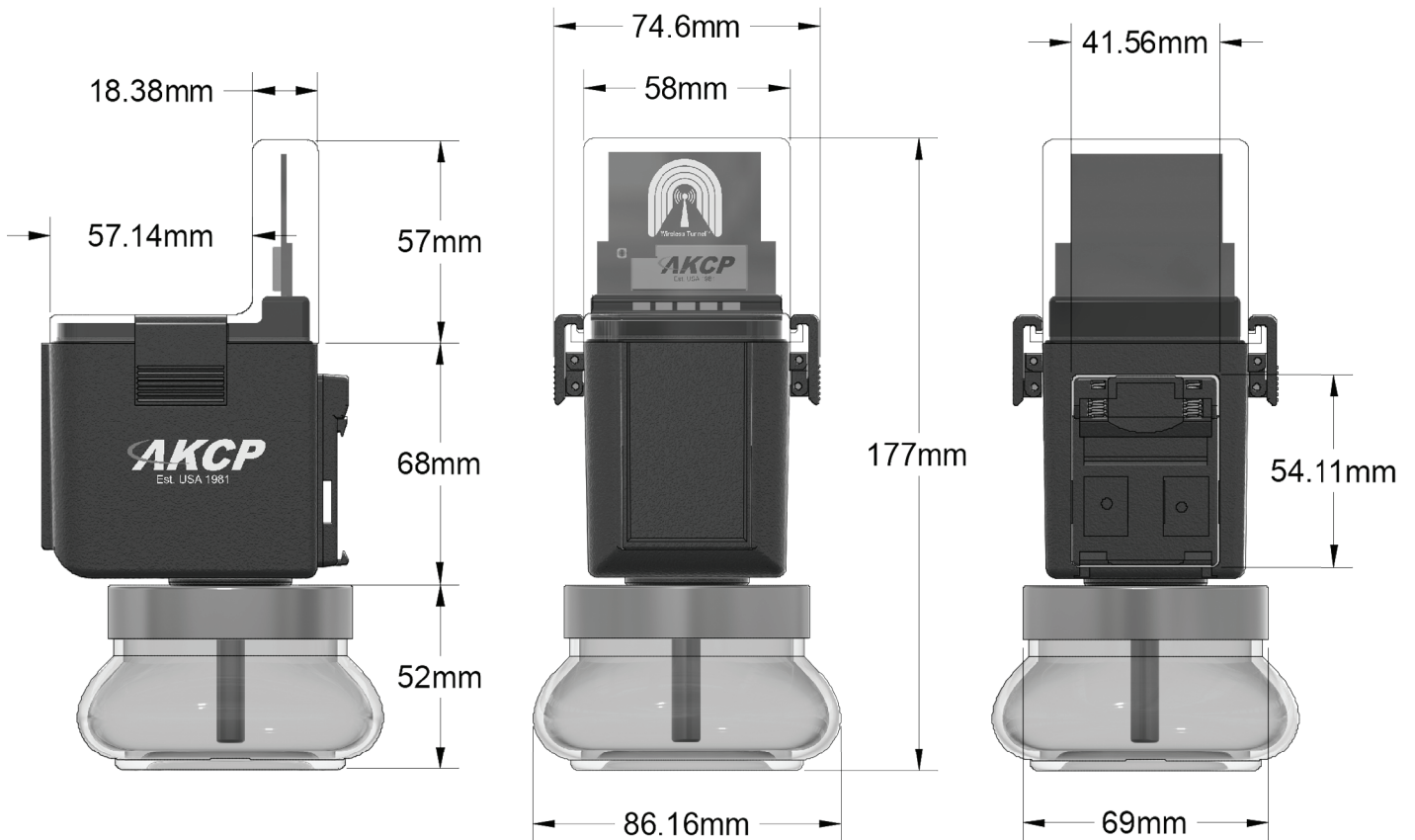
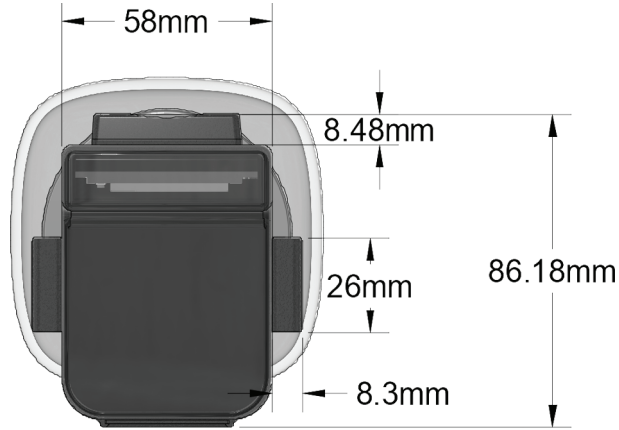


**WTS-NIST2 / WTS-NIST3 / 3G Technical Specification**

<b>Measurement Range</b>	-40°C to +75°C -40°F to +167°F
<b>Measurement Resolution</b>	0.1°C increments 0.2°F increments
<b>Measurement Accuracy</b>	Typical : * ±0.2 from 0°C to +75°C * ±0.4 from 32°F to +167°F Maximum : * ±0.4 at -40°C and ±0.4 at +75°C * ±0.7 at -40°F and ±0.7 at +167°F Dual sensor calibration check - alert when out of calibration WTS-NIST2 sensors include second pair for failover
<b>Status Indication</b>	LED indication for - Mode - Status - RSSI
<b>Components</b>	Manufactured using highly integrated, low power surface mount technology to ensure long term reliability.
<b>Operating Environment</b>	Temperature : Min. -35° C – Max.80° C Humidity: Min. 20% – Max. 80% (Non-Condensing)
<b>LoRa (R) Radio Regional plans</b>	- EU868 : 863~868Mhz Max TX Power +14dBm Duty Cycle 1% - US915: 903~915Mhz Max TX Power +17dBm - AS923 : 920~925Mhz Max TX Power +14dBm Duty Cycle 1% - KR920 (Korea) : 922~923Mhz Max TX Power +14dBm Duty Cycle 1% - IL917 (Israel) : 915~917Mhz Max TX Power +14dBm Duty Cycle 1%
<b>Certification</b>	FCC Part15C, CE EN300220-2, NIST Calibration Certificate
<b>Interface</b>	Micro-USB port for powering, adding and upgrading to the Gateway base unit
<b>Dimension</b>	76x77x120mm
<b>Mounting</b>	Wall hanging, DIN rail, Pipe Clamp
<b>Power source</b>	4xAA batteries or via micro-USB port
<b>Power Consumption</b>	Average 12 mWatt, 10uA in Idle, up to 10 years battery life.
<b>Gateway sensor count</b>	6 (3 + 3)
<b>Calibration</b>	NIST traceable Calibration Certificate Built in calibration check, alerts when sensor needs re-calibration Optional failover sensor when out of calibration (WTS-NIST3)

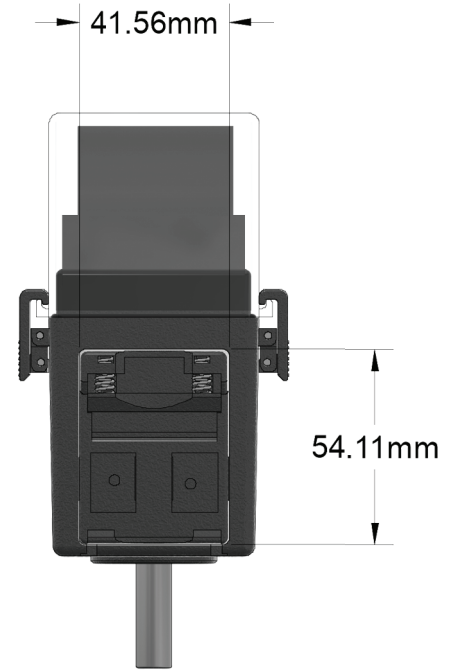
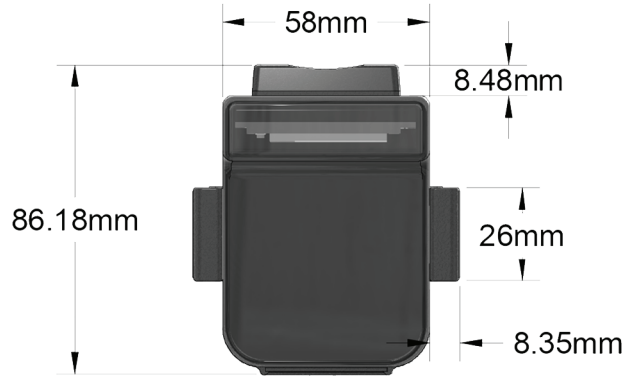
**WTS-NIST3G - Technical Drawing**

Wireless Tunnel™ Sensor - Temperature with Glycol Jar



**WTS-T / WTS-NIST3 - Technical Drawing**

Wireless Tunnel™ Sensor - Temperature



**WTS-T-xx / WTS-NIST3-xx - Technical Drawing**

Wireless Tunnel™ Sensor - Temperature with up to 15ft cable

