

Data Sheet:

T5 Sensor Tags

Provides a wide range of Wi-Fi based solutions for temperature, humidity, and voltage monitoring



Product Description

T5 Sensor Tags add advanced condition monitoring capabilities to AeroScout's market-leading family of Wi-Fi Tags. In addition to asset location and asset status, T5 Sensor Tags enable users to accurately monitor environmental conditions, including ambient temperature, humidity, and voltage levels. T5 Sensor Tags use standard Wi-Fi networks to determine the asset's location and transport the sensor data, and do not require dedicated or proprietary sensor networks.

T5 Sensor Tags enable users to improve their operations, quality, and regulatory compliance. Various types of industries, including healthcare, laboratory, food service, manufacturing, and logistics-related organizations have a critical need for wireless monitoring of environmental conditions.

By combining the Tags with the MobileView software, automatic alerts can be set to trigger when environmental conditions or battery levels reach a preconfigured threshold level. Staff can be notified in many ways, such as by emails, pagers, VOIP phone alerts, and text messages. Automatic reporting and alerts increase staff productivity, improve business processes, and ensure regulatory compliance. The battery-powered T5 Sensor Tags host an on-board memory that can be used to monitor and store condition data when the Tags are out of network range or when a power outage occurs.

Industry Benefits

The T5 Sensor Tags provide mission-critical benefits in various industries, including:

Healthcare

T5 Sensor Tags are easily deployed in hospital rooms and refrigerators and freezers that store vaccines, pharmaceuticals, blood, food, and other items. The Tags can be deployed either inside the storage units or can be attached outside and utilize a probe to monitor the conditions inside the unit. In other cases, the Tags monitor the ambient temperature and humidity levels in rooms. The Tags send the temperature, voltage, and humidity readings at user-defined intervals via the Wi-Fi network to MobileView. T5 Tags provide an automated and reliable solution that improves regulatory compliance and saves time so that staff may focus more on patient care and safety. T5 Tags can also be used to monitor the battery levels of a workstation on wheels (WOW) to ensure its availability.

Manufacturing

Ensuring correct environmental levels can be essential for many manufacturing processes. For example, in Aerospace manufacturing, some epoxies and composite material components must be stored or applied in specific temperature or humidity ranges. T5 Tags can be placed in refrigerated storage rooms and other key locations to automatically monitor temperatures and send alerts when needed. In Consumer Packaged Goods manufacturing, Tags can be used on pallets and in cooling tunnels where temperature conditions must be maintained.

Logistics and Cold Chain

Maintaining proper environmental conditions during the storage and

Product Highlights

- Wirelessly monitors, records and analyzes condition and status information
- Leverages Wi-Fi infrastructure for low total cost of ownership and ease of deployment
- Offers a variety of sensors, including both on-board and external sensors
- Provides a robust application for sensor data viewing, alerting and reporting
- Supports offline condition monitoring

transportation of perishable inventory (such as food or pharmaceutical products) is critical for the proper delivery of those goods. T5 Sensor Tags provide cost-effective wireless monitoring for warehouses, and even trucks on the road, to measure against thresholds and deliver automated alerts and reports. In long term storage facilities, T5 Tags can also be used to monitor car and truck battery levels or battery levels of other mission critical devices.

Data Centers

For areas with a large amount of computing hardware such as data centers and server rooms, T5 Tags can remotely monitor temperatures and alert in the event of an air conditioning failure or general overheating. Monitoring humidity levels can alert to potential for static buildup or mildew. Immediate alerts follow client business rules and can be sent to a variety of devices, including mobile phones and pagers. Timely monitoring can prevent work disruptions and protect against equipment damage.

T5 Sensor Tag Family Specifications					
	T5a Tag	T5b Tag	T5c Tag	T5h Tag	T5m-v Tag
PERFORMANCE					
Outdoor range	Up to 200m (650 feet)				
Indoor range	Up to 80m (260 feet)				
SPECIFICATIONS					
Wi-Fi Radio	802.11 compliant (2.4 GHz)				
LF Receiver	Low Frequency receiver for chokepoint detection (125kHz)				
Transmission power	+19dBm (~81mW)				
Dimensions	62mm x 40mm x 17mm	113mm x 59mm x 19mm	113mm x 59mm x 19mm	62mm x 40mm x 17mm	113mm x 59mm x 19mm
	(2.4in x 1.6in x 0.7in)	(3.3in x 2.3in x 0.7in)	(3.3in x 2.3in x 0.7in)	(2.4in x 1.6in x 0.7in)	(3.3in x 2.3in x 0.7in)
Weight	35gm (1.2oz)	135gm (4.7oz)	137gm (4.8oz)	37gm (1.3oz)	137gm (4.8oz)
Battery	1/2 AA 3.6V	AA 3.6V	AA 3.6V	1/2 AA 3.6V	AA 3.6V
IP Rating	65	54	54	54	54
External Power Range					4.5V-30V
SENSOR RANGE					
	On-board temperature sensor: Range -30°C to +75°C (-22°F to +167°F)	External temperature sensor: Range -60°C to +140°C (-76°F to +284°F)	External temperature sensor: Range -200°C to +140°C (-328° F to +284°F)	On-board temperature sensor: Range -30°C to +75°C (-22°F to +167°F)	On-board temperature sensor: Range -30°C to +75°C (-22°F to +167°F)
				Humidity Sensor Range: See Figure 1	Humidity Sensor Range: See Figure 1
					Voltage Sensor Range: 2.5V to 30V
PROGRAMMABILITY					
	Transmission interval is configurable, 1 sec to 3.5 hours				
	Channel programmable				
	Wireless programming				
ACCESSORIES					
	Mounting Cradle	Mounting/Potting Kit	Mounting/Potting Kit	Mounting Cradle	Mounting Cradle
	Potting Kit (Optional)				
	Tag Management Suite	Tag Management Suite	Tag Management Suite	Tag Management Suite	Tag Management Suite
CERTIFICATIONS					
	Optional calibration certification with NIST traceability				Not Available
Radio	FCC Part 15, sub-part C class B, sub-part B, EN 300-328, EN 300-330, EN 301-489				
Safety	CE and cTUVus (EN60950)				
SKU	TAG-5100	TAG-5110	TAG-5120	TAG-5200	TAG-5400
					

Humidity Sensor Operating Range

The Humidity Sensors, in the T5h and T5m-v Tags, deliver their optimum performance within the recommended normal range, as shown in Figure 1. Long-term exposure to conditions outside the normal range, especially at humidity levels above 80% RH, may temporarily offset the accuracy of the reported Relative Humidity level. After returning the Tag to the normal range, the reported Relative Humidity gradually returns to a more accurate reading. Prolonged exposure to extreme conditions may accelerate aging of the sensor.

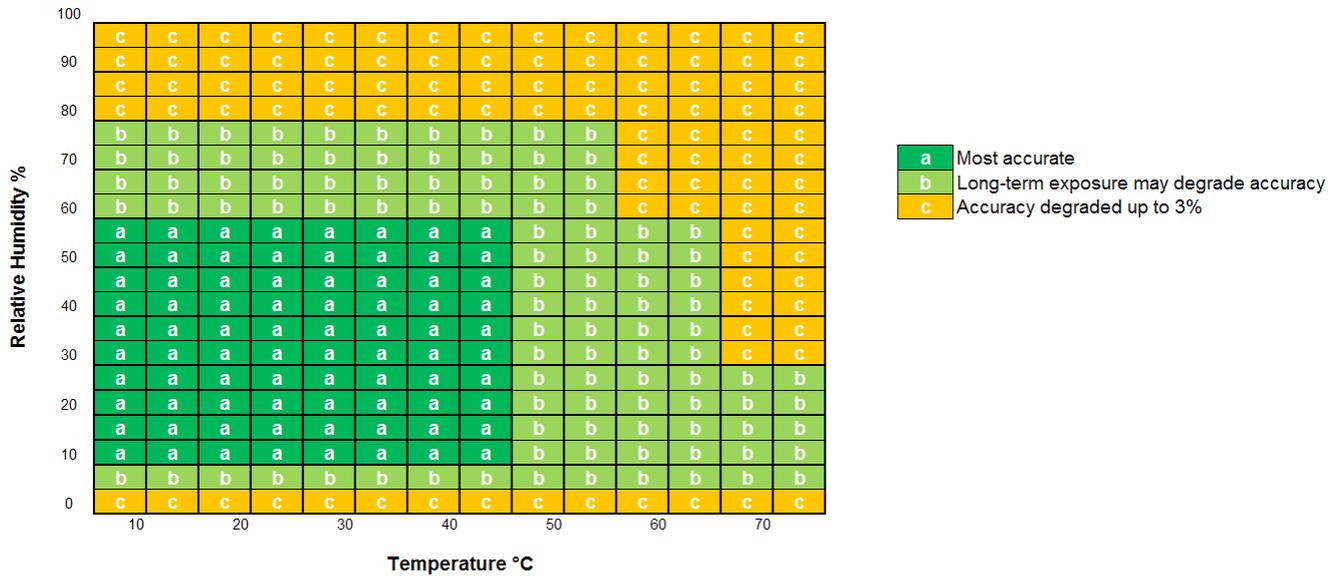


Figure 1: Humidity Sensor Operating Range

Potting Solutions:



T5a Tag Temperature Stabilizing Container (SKU: TAC-500)



T5b and T5c Tags Potting Solution (Shipped by default with every tag)

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