ekahau

Ekahau TS
Temperature Sensor Tags
(TS1, TS2, TS-c)

Automated wireless temperature monitoring solution
The Ekahau temperature monitoring solution provides an automated way of measuring and monitoring temperature ranges using wireless transmitters. The solution monitors and automatically alerts when the temperature in a monitored storage unit, such as a freezer, refrigerator or oven goes outside a predefined temperature range. Temperature measurements are transmitted wirelessly to the application for providing historical reports and real-time views of the monitored temperatures.

Improves patient safety and helps following compliance regulations
Storing pharmaceuticals, organs, blood bags, vaccines, and other items at specific temperatures is important for patient safety and quality of patient care in hospitals. Several regulators worldwide have issued temperature monitoring policies for storing easily perishable items in hospitals. Ekahau temperature monitoring solution improves the patient safety by providing complete visibility into the current and historical temperature conditions of the monitored items.

Ensures correct manufacturing and logistics conditions
For industrial use, maintaining the proper environmental condition is vital to keep factories and processes running. Ekahau temperature solution measures and monitors the temperature levels throughout the whole manufacturing process and supply chain. With local data logging capability, Ekahau TS Temperature Sensor tags provide the full temperature history even for the transportation and storage time where the network connection is not always available.

Ekahau advantage
Unlike other solutions, the Ekahau TS temperature sensors can locally store the temperature measurements even with 2 minute interval and automatically provide them to the application when connection to the application is made. If the temperature exceeds the allowed threshold, the TS temperature sensors will immediately alert the application.

Ekahau TS1 & TS2 temperature sensors have an external probe(s) that can be installed inside the unit where temperature is being measured. The external probes are NIST traceable and can be used both, for monitoring air or glycol solution temperatures. With the TS2 Dual Temperature Sensor tag, it is even possible to monitor two separate probes from the same sensor which lowers the total cost of deployment. The TS1 & TS2 temperature sensor tags itself remain always outside of the extreme temperatures allowing for easy maintenance and better network connectivity. Respectively, the Ekahau TS-c is a very small sealed on-board temperature sensor tag that can be easily installed practically everywhere, even inside the refrigerators.

Ekahau TS2 Dual Temperature Sensor Tag

Features:

- Wireless temperature sensing for a variety of applications
- Up to 3 year battery life with a 15 minute reporting interval
- Flashing LED when in alarm
- Temperature monitoring and calibration done within Ekahau Vision web application
- Programmable alarm limits
- Unit samples temperature every 15 seconds or as required for the specific application
- TS1 & TS2 external probe options include:
  - TP1 Temperature Probe range -112 to 257F / -80 to 125C
  - TP2 Temperature Probe range -328 to 302F / -200 to 150C
- Local data logging capability: No lost measurements even during network outages
- Dual temperature monitoring (TS2)

Benefits:

- Lowers the cost of remote temperature monitoring of cold storage and cold chain items
- Utilizes any existing 802.11 b/g/n standard network
- Automates the temperature monitoring, reporting and alerting process required for regulatory compliance and improved business operations
- Easily configured for alerting on exceeding high or low temperature limits
- As an alternative to wired systems, the Ekahau solution allows for easy reconfiguration and redeployment of facilities without having to run expensive cabling for power and connectivity.

Technical Specifications

Models

- TS1 Temperature Sensor: Single probe
- TS2 Dual Temperature Sensor: Dual probes
- TS-c Cube Temperature Sensor: On-board temperature sensor

Radio

- 802.11 b/g 2.4GHz
- Transmit power: 12mW
- Encryption: 128bit WEP, WPA and WPA2-PSK (AES)

Battery

- 2 x 1.5 Volt standard lithium AA Battery
- Battery life: up to 3 years / 15 min transmission interval

Configuration

- Configured via USB cable and Windows based tool

Certifications

- FCC: Part 15

Measurement accuracy

- Resolution: 0.1 C
- Standard RTD interface: ±0.9 F / ±0.5 C
- TP1 RTD interface: ±0.9 F / ±0.5 C
- TP2 RTD interface: ±2.7 F / ±1.5 C
- TS-c On-board sensor: ±0.7 F / ±0.4 C

Physical

- TS1 & TS2: 4.60 x 2.87 x 0.98in / 118 x 73 x 25mm
- TS-c: 2.56 x 1.97 x 1.38in / 65 x 50 x 35mm

Environment

System temperature: -40 to 140F / -40 to 60C
Operating temperature:
- TS1 & TS2: 32 to 122F / 0 to 50 C
- TS-c: -40 to 140F / -40 to 60C

Probe operating temperature
- Standard: -58 to 257F / -50 to 125C
- TP1: -112 to 257F / -80 to 125C
- TP2: -328 to 302F / -200 to 150C