# Wireless Thermocouple Temperature Sensor
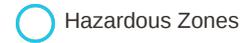
Smart Agriculture, Smart Building, Smart City, Smart Energy, Smart Facility, Smart Factory, Smart Farm, Smart Retail, Smart Utilities

SKU: WS433-TCT

**daviteq**

⊘ Safe Zone          ◯ Hazardous Zones

WS433-AG is LoRaWAN wireless sensor with modular design connected to Thermocouple temperature sensor, based on 10-year experience in design and manufacturing Industrial sensor of Daviteq Company. It has been factory pre-calibrated for high accuracy and quick set-up. The wireless portion is Sub-GHz technology from Texas Instruments allows long range transmission at ultra-low power consumption. It will connect 2-way wirelessly to the wireless co-ordinator WS433-CL to send data and receiving the configuration. It can be configured the operation parameters like data sending interval, health check cycle... remotely from Globiots platform or via ModbusRTU software (thru the WS433-CL). Its default data rate is 50kbps, can be switched to 625bps to increase the communication range. The sensor can last up to 10 years with 1 x AA battery.
Typical Applications: Temperature monitoring for factories, agriculture, boilers,...

**Applications**
Temperature Monitoring, Process Monitoring, Safety Monitoring

**Notes For Applications**

## WIRELESS THERMOCOUPLE TEMPERATURE SENSOR WS433-TCT



WS433-TCT-H1.JPG

⊘ **Reliable & Secured Wireless Connection**
Sub-Ghz technology from Texas Instruments allows reliable wireless connection and secured data by AES-128

⊘ **Ultra-low power with 5 years battery**
Ultra-low power sensing technology from Daviteq with Ultra-low power wireless technology from Texas Instruments allow the sensor can last up to 5 years

⊘ **Pre-calibrated**
Sensors are pre-calibrated at factory to deliver high accuracy and quick installation

⊘ **IP67**
For both indoor and outdoor applications

## CONNECT WITH THERMOCOUPLE TEMPERATURE SENSOR



Thermocouple Temperature Sensor

WS433-TCT-H2.JPG

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**DAVITEQ TECHNOLOGIES INC**
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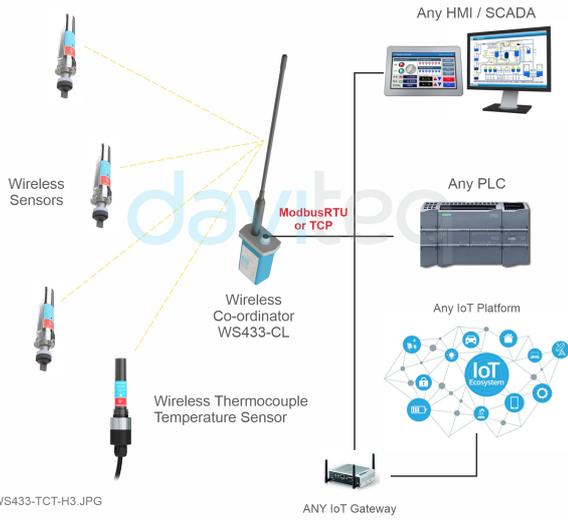✉️ info@daviteq.com          **www.iot.daviteq.com**          Created date: Dec-21-2022          |          Updated date: Nov-08-2025

## Specification

| | |
|---|---|
| Input | Thermocouple Temperature Sensor |
| Accuracy | 0.05% |
| Sensor port connector | PG13.5 Connector |
| COMMUNICATION | |
| Data speed | Up to 50kbps |
| Transmission distance, LOS | LOS 500m |
| Antenna | Internal Antenna, 3 dbi |
| Battery | 01 x AA 1.5-3.6VDC, up to 10 years operation, depends on the configuration |
| Frequency Band | ISM 433MHz, Sub-GHz technology from Texas Instrument, USA |
| International Compliance | ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan) |
| Vietnam Type Approval Certification | QCVN 73:2013/BTTTT, QCVN 96:2015/BTTTT (DAVITEQ B00122019) |
| Security Standard | AES-128 |
| Operating temperature of PCB | -40~60℃ (with AA L91 Energizer®) |
| Housing/Protection | Poly-carbonate, IP67 |
| Mounting method | Mounting bracket for wall mount |
| Dimension | 194x41x41mm |
| Net weight | < 200g |

## CONNECT WIRELESS SENSORS TO any PLC, HMI, SCADA or IoT Platform

Any HMI / SCADA

Wireless Sensors

**ModbusRTU or TCP**

Any PLC

Wireless Co-ordinator WS433-CL

Any IoT Platform

Wireless Thermocouple Temperature Sensor

ANY IoT Gateway

WS433-TCT-H3.JPG

## CONNECT WIRELESS SENSORS TO GLOBIOTS Platform

**6000m !**

globiots

Internet connection via GPRS/3G/NB-IOT

WIRELESS SENSORS

ICONNECTOR SMART IOT GATEWAY STHC

Wireless Thermocouple Temperature Sensor

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## WIRING THE THERMOCOUPLE TEMPERATURE SENSOR

Hot junction

+

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+

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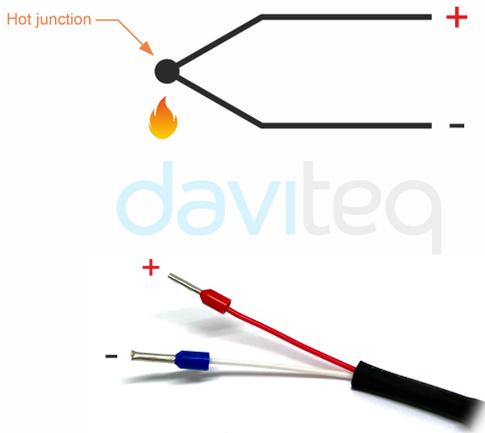
WS433-TCT-H5.JPG

## DIMENSION DRAWINGS OF WS433 SENSOR WITH CABLE OUTPUT

22.00

116.00

194.00

Ø 41.00

78.00

54.00

SIZE: 50x50X190MM
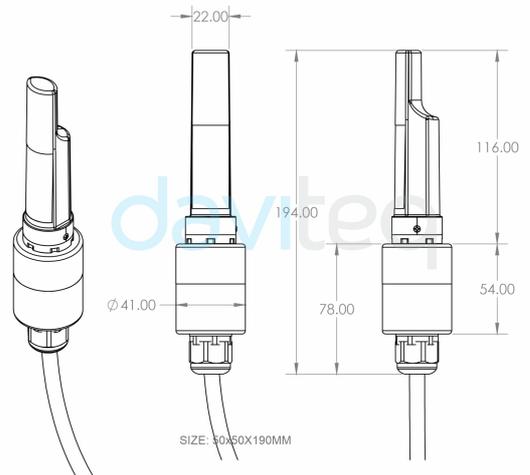
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## CARTON BOX OF WIRELESS SENSOR

LoRaWAN  Sub-1GHz
sigFox  NB-IoT

daviteq
**WIRELESS SENSOR**

READY TO COMPLY

CE FC

SIZE: 50x50X190MM

WS433-TCT-H7.JPG

## RECOMMENDED BATTERIES

**E91 AA Alkaline battery**

Energizer

**-18 .. + 60 oC working temperature**

**10-year shelf life**

**3000 mAH Capacity**

**Price: 1X**

**L91 AA Lithium battery**

Energizer ULTIMATE LITHIUM

**-40 .. + 60 oC working temperature**

**20-year shelf life**

**3500 mAH Capacity**

**Price: 3.5X**

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## Ordering Information

| ITEM CODE | DESCRIPTIONS |
|---|---|
| WS433-TCT-01 | Wireless Thermocouple Temperature Sensor, 433MHz, Type AA battery 1.5VDC, IP67 |