# CS-iWPT302-T

# Bluetooth Temperature Sensor

(Product Specification)

XI'AN CHINASTAR M&C LIMITED

# CS-iWPT302_T


## Overview

The CS-iWPT302-T wireless Bluetooth temperature transmitter is mainly used for temperature acquisition and monitoring of oil, gas, heating and other transportation pipelines, as well as tanks and other facilities. The product is transmitted via Bluetooth and can be configured with parameters and monitored for data collection through a mobile app. It can also be used in conjunction with a Bluetooth host (Bluetooth data collector) to receive Bluetooth data.

The CS-iWPT302-T is equipped with a disposable lithium battery and features a low-power design, with a lifespan of up to 5 years. The product adopts PT1000 platinum resistance as the temperature sensor and uses a dedicated signal conversion device for temperature acquisition and calculation. It has the characteristics of small size, low power consumption, high accuracy, easy installation, and simple use.

## Main technical parameter

Table1 main technical parameters

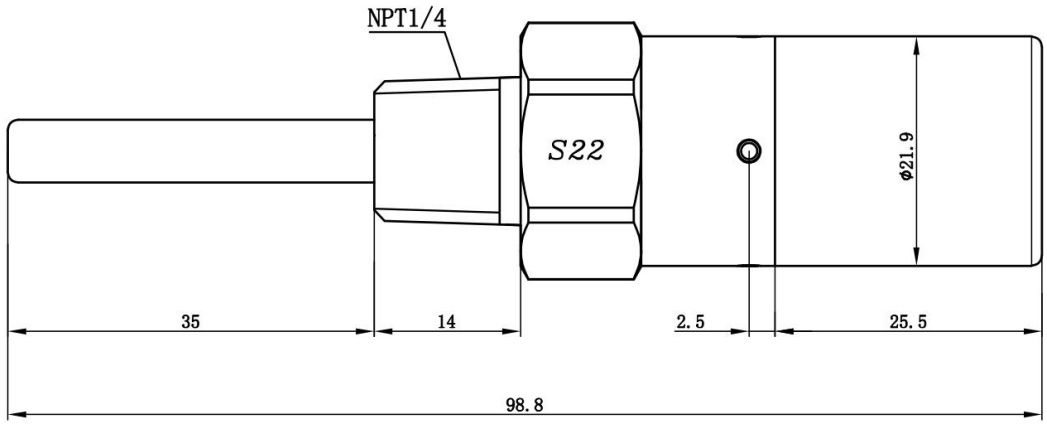
| Name | Technical parameters | Note |
|---|---|---|
| Transmission mode | Bluetooth 5.1 | |
| Temperature range | -40～85℃ | Standard type [1] |
| | -40～125℃ | Non-standard type |
| Temperature accuracy | ±1° C | Typical values |
| Medium of measurement | Liquid or gas compatible with stainless steel 304SS | |

| | | |
|---|---|---|
| Insulation resistance | 100MΩ@100VDC | |
| Power supply mode | 3.6VDC | ER14250, Disposable lithium battery |
| Maximum operating current | 6mA | |
| Battery life | ＞ 5years | @25℃ 60 s sampling interval and 10 s broadcast interval |
| Shell material | 304SS+ABS+PC | Other materials can be customized |
| Level of protection | IP65 | |
| Operating temperature | (-40～+85)℃ | |
| Storage temperature | (-40～+85)℃ | It is recommended that the storage temperature does not exceed 30℃ |
| ATEX certified | TBD | |

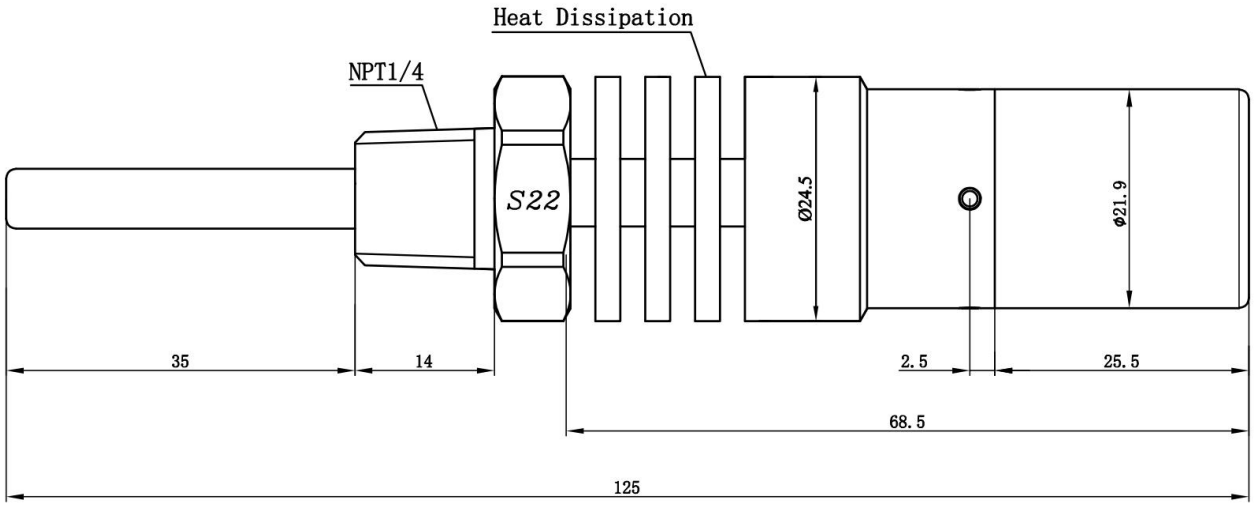
Note 1: Due to the influence of the shell material, the standard model can only measure temperatures of -40 to 125 ℃ for a short period of time;

Note 2: The sampling interval setting range is 2-180 seconds (default 60 seconds), and the Bluetooth broadcast interval setting range is 1-10 seconds (default 10 seconds)

## Boundary Dimension




Standard type




Non-standard type

Outline dimension drawing (unit: mm)

## Instructions

The product is in a deep sleep state after leaving the factory: no broadcasting, no sampling.

When using the product, activation is required. Activation method:

Use a magnet to cross the top. After successful activation, it will automatically send a non-connectable broadcast. Open mobile phone Bluetooth or other Bluetooth devices to scan Bluetooth broadcast information (product Bluetooth broadcast name: "CS-IWPT_T"), parse Bluetooth broadcast data to obtain temperature values.

Refer to "CS-iWPT302-T-XY-Communication Protocol" for communication protocol and parameter modification.

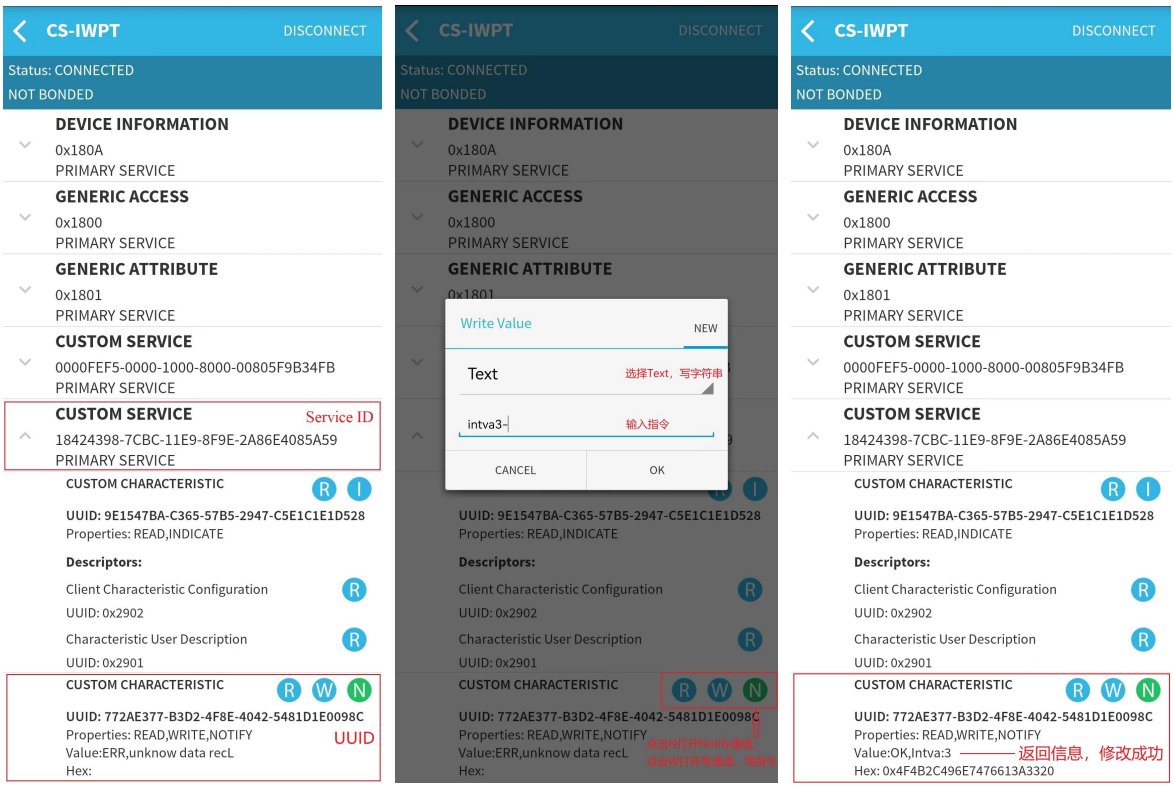
Example of modifying the broadcast interval operation:

Use the magnet to cross the top, the device switches to the connectable broadcast mode, the mobile phone opens the Bluetooth and uses the Bluetooth debugging software to connect the device. After successful connection, find the following Service ID and UUID:

Service ID：18424398-7cbc-11e9-8f9e-2a86e4085a59

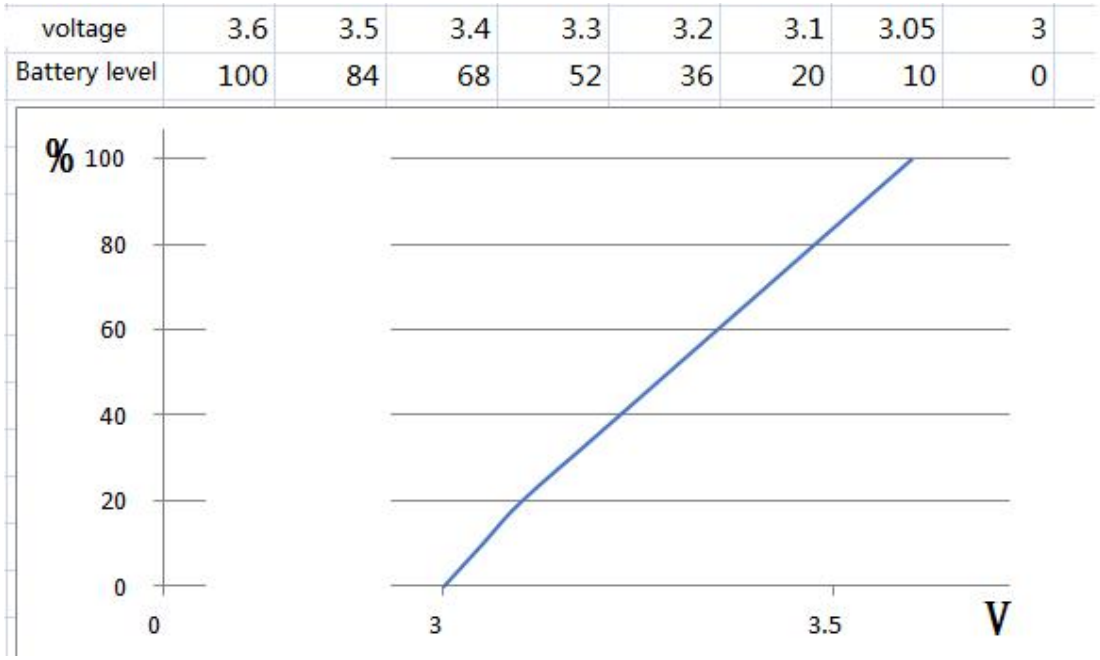
UUID:772ae377-b3d2-4f8e-4042-5481d1e0098c

Open the Notify channel under this UUID, and enter the modification broadcast interval instruction: “intva3-“ in the write channel. After successful modification, the Notify channel will return: “OK,Intva:3”.




## Battery Level

The diagram of voltage and remaining electricity is as follows：



Attentions：

a. The transmitter must be used in a medium that is non corrosive to the shell material;

b. It is strictly prohibited to open the transmitter for calibration, maintenance, or battery replacement by oneself;

c. If unsure if the transmitter is suitable for the measuring medium used, please contact the manufacturer;

d. The installation location of the transmitter should be chosen in a place that is not easily bumped or stepped on;

f. Using beyond the measurement range of the transmitter may cause permanent damage.

## Disposal method for waste circuit boards and components and other hazardous wastes after the end of product life

After the end of the life of the product, according to the "National Catalogue of Hazardous Wastes",distinguish each part to determine whether it is hazardous waste, and the waste lithium battery that has not been disassembled is not hazardous waste. Waste circuit board (including components, chips, plug-ins, pins, etc.) attached to the waste circuit board belongs to hazardous waste.

The part that is not hazardous waste will be treated as general industrial solid waste. The lithium battery will be handed over to the nearby renewable resources recycling department or sent to the product producer for recycling.

Hazardous wastes must be handed over to units with legal qualifications for disposal in accordance with State regulations, and may not be dumped or piled up without authorization. Where temporary storage is really necessary, protective measures conforming to the State standards for environmental protection must be taken, and the storage period must not exceed one year, and the time and place of temporary storage and protective measures taken must be

reported to the competent department of environmental protection. Hazardous waste transfer activities can be arranged according to the actual production situation, and the transfer process shall strictly implement the transfer joint document system.

## Declarations

The company reserves the right to modify the specifications and contents of this manual. Subject to change without prior notice. Due to the update of the product, the individual details of this document may not be consistent with the product, please refer to the actual product. The right to interpret this document belongs to the company.