

# OnlineSensors

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## UTS-GP Series

### Model: UTS-GP-T11-xx

#### USB Temperature Sensor



#### Description:

USB Temperature Sensor UTS-GP-T11 is a USB Thermometer. It is a fast ,accurate and reliable method for measuring temperature.

Most commonly used for Vending , Smart fridges and freezers this USB Thermometer is versatile reliable and easy to use.

The UTS-GP-T11 can be used with the UTS GUI, a windows desktop application for logging , visualization and real time graphs. A simple versatile command set is also available to integrate into existing or bespoke systems.

Ideal for hobbyist and commercial applications it is fast and IP67 rated with engineering support and code examples for easy integration.

Filtering logic as standard with additional advanced filtering mode available.

Compatible with Windows , Linux and of course Raspberry Pi.

Customizations are available please contact for more information.

Code examples and full integration support provided

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## Probe

- Cable lengths 0.6m, 1.5m
- IP67
- Customisable
- Probe dimensions 15\*6mm
- Small probe area for fast response
- Operating temperature -24°C to 100°C

### **Product Highlights:**

- Waterproof.
- -50°C to +110°C probe temperature range.
- $\pm 0.5^{\circ}\text{C}$  between -20°C and 50°C
- 0.5°C resolution (standard)
- Windows and Raspberry Pi compatibility.
- Accurate and versatile.
- ASCII command set
- User GUI
- 140 samples per second
- Sophisticated input filtering circuitry
- Advanced filtering mode
- Full application and engineering support
- Customization considered

### **Applications include, but not limited to:**

- Server Rooms
- Smart freezers
- IoT Projects
- Chamber and fridge monitoring
- Weather Station
- Temperature control
- PC ROCK PI and Raspberry Pi temperature monitoring
- Thermostatic controls
- Industrial systems
- Any thermal sensitive system
- Engineering and Development
- Aquarium , vivarium and formicarium monitoring

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## Specification:

USB Series - USB Temperature Sensor - UTS-GP-T1-X	
Sensor technology	NTC
Output Versions	USB serial
Supply voltage	5Vdc (USB port)
Temperature ranges	-24 °C to +100 °C
Accuracy	±0.5 °C (-10 °C to +80°C) ±1°C(-24 °C to +110 °C)
USB operating temperature	0 °C to +50°C
Probe Media temperature	-50 °C to +110 °C
Storage temperature	0 °C to +50 °C
Probe material	TPE
Permissible media	Non aggressive/corrosive
Cable sheath material	TPE
Environmental Protection	IP67
Sample Speed	7ms (max) 200ms with graphical user interface

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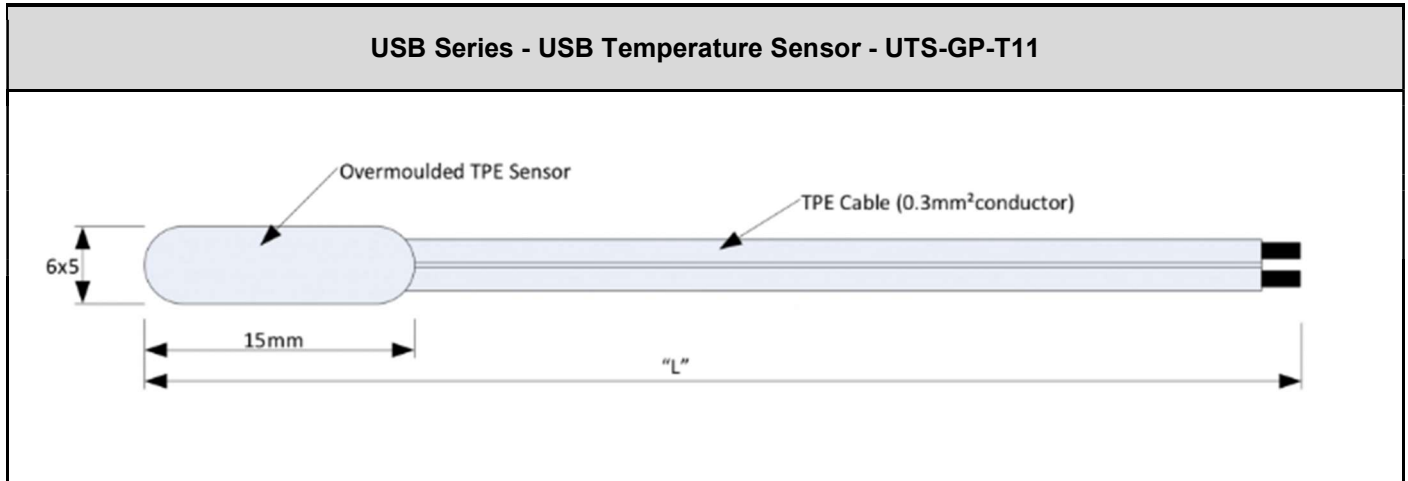
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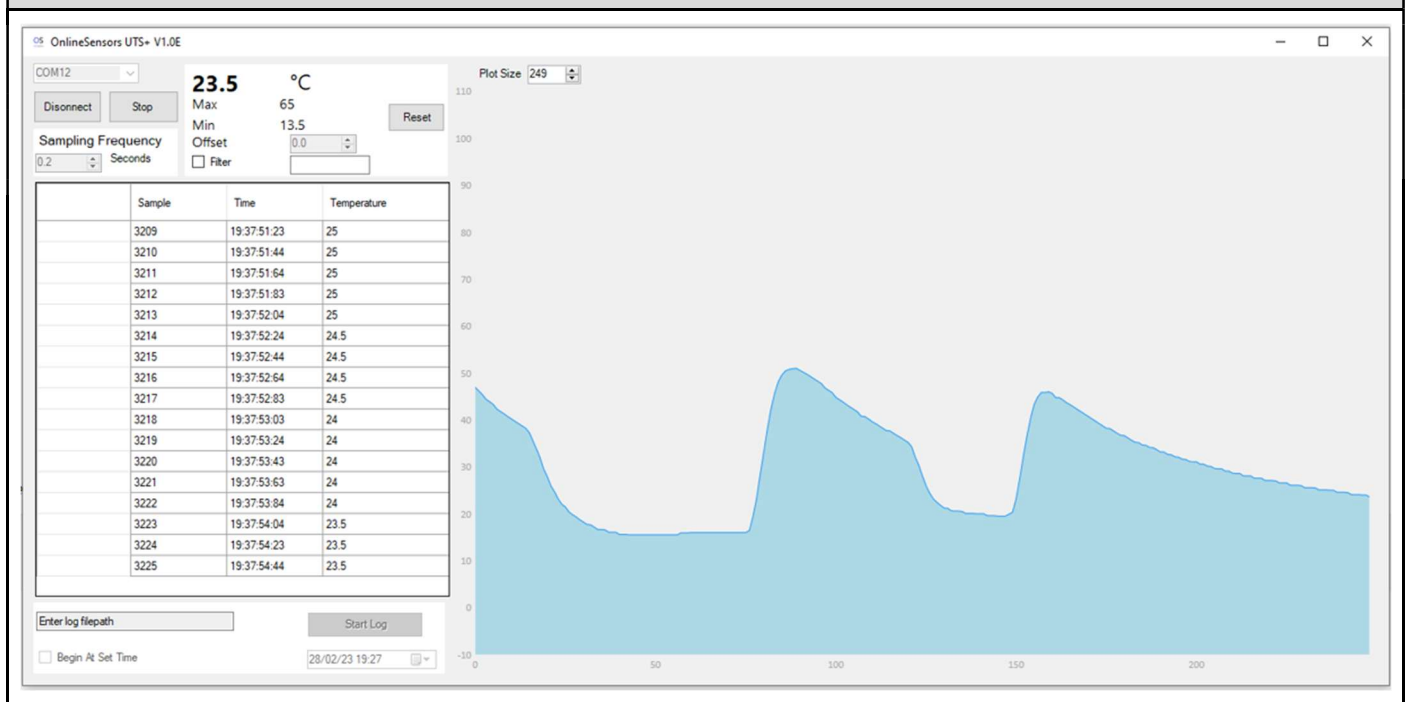
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## Dimensional Drawings:



## Graphical User Interface



## Part Numbering system

UTS-GP-T11-XX

- XX = Cable length 6 = 0.6m 15 = 1.5.

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## UTS Command Set:UTS-GP-T1-x

Command Ascii	Response	# Data Bytes	Description
RX201	ASCII string	10	Poll Temperature Output Value Turn Stream OFF
RX202	ASCII string	10	Stream Temperature Output Value Stream ON
RX301	ASCII string	22	FW and HW Version of UTS Device
RX707	Hex	18	Request serial number

## Command Summary

### Communication specification

9600 ( changeable upon request)

8 Data bits

1 Stop Bytes

Parity None

### **RX201**

Poll Temperature Output Value Turn Stream OFF

Command : RX201\r\n

Return :24.5<\r><\n>

### **RX202**

Stream Temperature Output Value Turn Stream OFF

Command : RX201\r\n

Return :24.0<\r><\n>

### **RX301**

Request Firmware and Hardware version

Command: RX301

Return : FW-TSv0.9<\r><\n>HW-v1.1SL<\r><\n>

### **RX707**

Request Controller ID , this is the inbuilt serial number of the processor and can be used as the serial number

Command: RX707

Return : 18 bytes <\r><\n> example 00 22 00 22 00 35 00 52 00 91 00 51 00 28 00 08 00 40 0D 0A <\r><\n>

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## Software

The UTS-GP-T11-xx can be used with custom applications such as C# , Visual Basic or Python projects or the downloadable UTS GUI that has a real time graph , minimum and maximum indication and a logging function.

When used with a windows PC used for the first time a driver may need to be installed for the PC to recognize the device.

The driver and UTS GUI are available from [www.onlinesensors.co.uk](http://www.onlinesensors.co.uk)  
engineering and technical support [info@onlinesensors.co.uk](mailto:info@onlinesensors.co.uk)

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