

OnlineSensors

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UTS-GP Series

Model: UTS-GP

USB Temperature Sensor



Description:

USB Temperature Sensor UTS is a USB Thermometer. It is a simple ,accurate and reliable method for measuring temperature. It 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.

Compatible with Windows , Linux and of course Raspberry Pi.

<u>Probe -Stainless Steel Probe</u>	<u>Probe -Molded</u>
<ul style="list-style-type: none">• Cable lengths 1m ,2m,3m.• Anti Rust• Water resistant.• Probe dimensions 6*50mm• Operating temp of the probe -20°C to 110°C	<ul style="list-style-type: none">• Cable length 2m.• Waterproof.• Mold dimensions 7mm*26mm• Operating temp of the probe -55°C to 110°C

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Product Highlights:

- Waterproof.
- -55°C to +125°C probe temperature range.
- +/- 0.5°C Accuracy between -5°C and +80°C
- 0.5°C, 0.25°C, 0.125°C resolution.
- Windows Linux and Raspberry Pi compatibility.
- Accurate and versatile.
- ASCII command set
- User GUI

Applications include, but not limited to:

- Server Rooms
- IoT Projects
- Chamber monitoring
- Weather Station
- Temperature control
- PC temperature monitoring
- Thermostatic controls
- Industrial systems
- Any thermal sensitive system

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Specification:

USB Series - USB Temperature Sensor - UTS-GP-D1-x	
Sensor technology	Digital
Output Versions	USB serial
Supply voltage	5Vdc (USB port)
Temperature ranges	-55 °C to +110 °C
Accuracy	±0.5 °C (-10°C to 85°C) ±2°C(-55°C to +125°C)
USB operating temperature	0 °C to +50°C
Probe Media temperature	-55 °C to +110 °C
Storage temperature	0 °C to +50 °C
Media wetted parts	Stainless Steel, Resin Mould
Permissible media	Non aggressive/corrosive
Cable sheath material	PVC
Environmental Protection	IP67

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Part Numbering system

UTS-GP-D1-E - Molded Probe

- Cable length 1.8m.
- Waterproof.
- Mold dimensions 7mm*26mm
- Operating temp of the probe -55°C to 110°C

UTS-GP-D1-S Stainless Steel Probe

- Cable lengths 1m ,1.5m,2m
- Anti Rust
- Water resistant.
- Probe dimensions 6*100mm
- Operating temp of the probe -20°C to 110°C

UTS Command Set:UTS-GP-E

Command Ascii	Response	# Data Bytes	Description
RX101	OK\r\n	4	0.5°C Resolution 87 ms
RX102	OK\r\n	4	0.25°C Resolution 165ms
RX103	OK\r\n	4	0.125°C Resolution 320ms
RX104	OK\r\n	4	0.0625°C Resolution 650ms
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

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Command Summary

Communication specification

9600 Baud
8 Data bits
1 Stop Bytes
Parity None

RX101

Returns OK\r\n
Command: RX101\r\n
Sets resolution to 0.5°C

RX102

Returns OK\r\n
Command: RX102\r\n
Sets resolution to 0.25°C

RX103

Returns OK\r\n
Command: RX103\r\n
Sets resolution to 0.125°C

RX201

Poll Temperature Output Value Turn Stream OFF
Command : RX201\r\n
Return :24.8750<\r><\n>

RX202

Stream Temperature Output Value Turn Stream OFF
Command : RX201\r\n
Return :2OK\r\n 24.8750<\r><\n>

RX301

Request Firmware and Hardware version
Command: RX301
Return : FW-DTvX.X\r\nHW-vX.XXX\r\n

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Software

The UTS 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 recognise the device.