Qti Sensing Solutions

DIRECTEMP™

DIRECTEMP™ USB THERMOMETERS

QTI is a privately-held manufacturer of temperature sensors and assemblies. Founded in 1977, we have grown to be the trusted supplier of temperature sensing solutions for many world leaders in equipment manufacturing. Our products can be found in a wide variety of applications, from medical catheters to industrial refrigeration equipment to the Curiosity Mars rover.

Why choose QTI? We...

■ ARE THE EXPERTS IN THERMISTOR MANUFACTURING

QTI designs and manufactures the thermistors used in our probes, so we know with certainty that our customers receive the most accurate and reliable sensors available.

■ TEST 100% FOR ACCURACY

All of the temperature probes manufactured by QTI are 100% inspected for accuracy. Calibration data is available as an option on all of the probes we manufacture.

■ CARE ABOUT THE DETAILS

Our proprietary manufacturing processes and the materials we use ensure proper sensor placement to optimize thermal time response and minimize thermal load on the sensing element.

■ PROVIDE DESIGN ASSISTANCE

While we trust that the information provided here will assist you, there is no substitute for one-to-one dialogue. We encourage you to contact us to discuss specific design, sales, or customer support needs.

■ MANUFACTURE IN THE USA

We own all of our facilities, allowing production schedule flexibility and control of all processes and materials. Our thermistors are precision manufactured in the USA.

Qti Sensing Solutions

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MADE IN THE USA

The DirecTemp USB thermometer features a precision thermistor combined with a 14-bit analog-to-digital converter and a simple USB communication interface for real-time capture of temperature data. The DirecTemp thermometer communicates either through a plug-and-play HID interface or a virtual serial port. DirecTemp probes are calibrated in QTI's metrology laboratory and can be recalibrated and returned to service for extended life.

DIRECTEMP FEATURES

- Probes and cables able to be customized
- NIST-traceable certification available
- Data logging and alert notification software included
- Able to run multiple sensors simultaneously
- Probes can be recalibrated by QTI
- Use as a plug and play device or with a variety of custom software programs

SPECIFICATIONS

Available tolerances*	+/- 0.5°C (0°C to 70°C) +/- 0.1°C (0°C to 100°C) +/- 0.05°C (0°C to 70°C)
Resolution	0.01˚C
RoHS compliant	Yes
Current draw	< 100mA

*User specified single point temperatures and tolerances available

Warning: Do not use in human life support applications.
This device is not designed nor intended to operate in situations where human injury will result in the event of a failure.

SOFTWARE INTERFACE

(Above) A screen capture of the DirecTemp interface, showing data plotting and logging options.

INTERFACE OPTIONS

HID configuration
(Plug and play, DirecTemp software included)

- Automatic driver installation in Windows
- DirecTemp data logging software included for Windows
- Stream data to plot and record or to file for future analysis
- Compatible with Windows (XP, Vista, 7, 8) and Mac OS 32 and 64 bit systems

USB-serial configuration
(Virtual Com Port, for OEM and proprietary software)

- Virtual serial device
- Designed for integration with custom third party software applications
- Free demo software and LabVIEW VI included
- Communication protocol information available upon request
- Compatible with Linux, Windows and Mac OS systems
- Additional programming language examples available

DTU6028S

Ideal for:
- Harsh environments
- Food safety inspection
- Point-of-use and audits

DTU6001

Ideal for:
- Food safety inspection
- Liquid-filled containers
- Thermometer replacement

Designed as a replacement for traditional dial thermometers, this stainless steel probe is ideal for measuring temperature in liquid-filled containers. It features a 0.5 in. NPT housing made from food grade 316 stainless steel, a 2 in. long probe and10 ft. of PVC cable.

DTU6009

Ideal for:
- Server racks
- Confined spaces
- Tracking multiple locations

This #10 size ring lug (0.19 in. hole) is great as a general use indoor or outdoor USB thermometer. The probe is made of a nickel-plated ring lug and 10 ft. of durable PVC cable. Other ring lug sizes are also available.

DTU6035

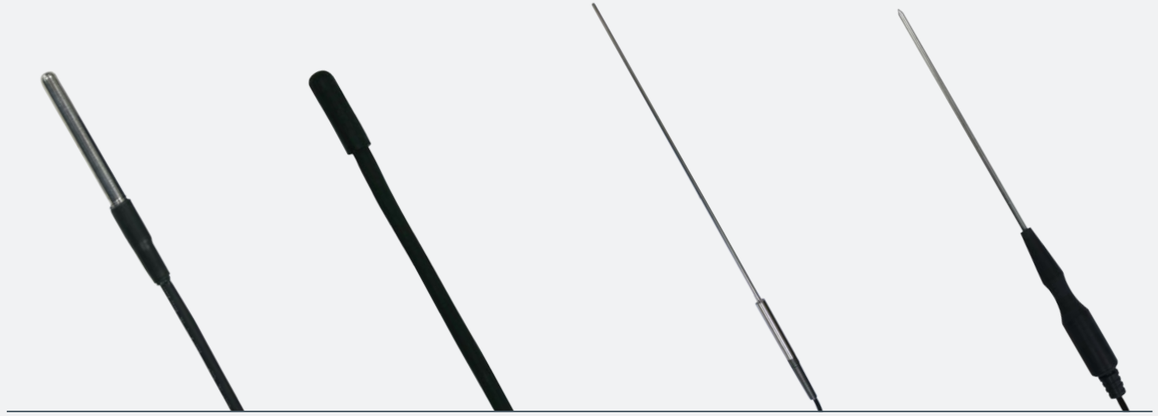
Ideal for:
- Air temperature sensing
- Fast thermal response times

This sensor is ideal for measuring air temperature. The open-ended shape of the sensor helps to protect the sensing element while reducing thermal mass. QTI's micro thermistor can be used as the sensing element for even faster response times.

DTU6022

Ideal for:
- Server racks and computers
- Confined spaces
- Tracking multiple locations

QTI's small flat disc USB thermometer is a great general use indoor temperature sensor. This probe is made up of a stainless steel disc with 10 ft. of durable PVC cable that allows you to monitor and log temperature remotely.



DTU6005

Ideal for:
- Outdoor/indoor temps
- Confined spaces
- Cold storage monitoring

This sensor is ideal as a general purpose probe. It measures 0.187 in. by 2 in. and made from food grade stainless steel. Other probe sizes are also available.

DTU6024C

Ideal for:
- Pipes and round surfaces
- High humidity
- HVAC/R applications

Originally designed for freeze/thaw environments in the HVAC and Refrigeration industry, this sensor is ideal for humid environments or immersion in most liquids. It is made from TPE.

DTU6005-008

Ideal for:
- Liquid immersion
- Chemical inspection
- Thermometer replacement

This model was designed for use as a calibration probe. It features an immersible 9 in. by 0.125 in. stainless steel probe and a spring strain relief. Other tube diameters are also available.

DTU6028P

Ideal for:
- Food safety inspection
- Chemical inspection
- Thermometer replacement

This probe can be used for anything from food safety inspections to laboratory chemical monitoring. It comes with an ergonomic non-slip handle, a 0.125 in by 5 in. piercing probe made of food grade stainless steel, and 6 ft. of coiled cord.