SEN2071 Skin Temperature Sensor

PowerLab Sensors Series

Description

The PowerLab Sensors Skin Temperature Probe contains a small biomedical ship thermistor in a metal case with strain relief between the cable and thermistor. The thermistor is designed to operate from 0 °C to 50 °C.

Operation

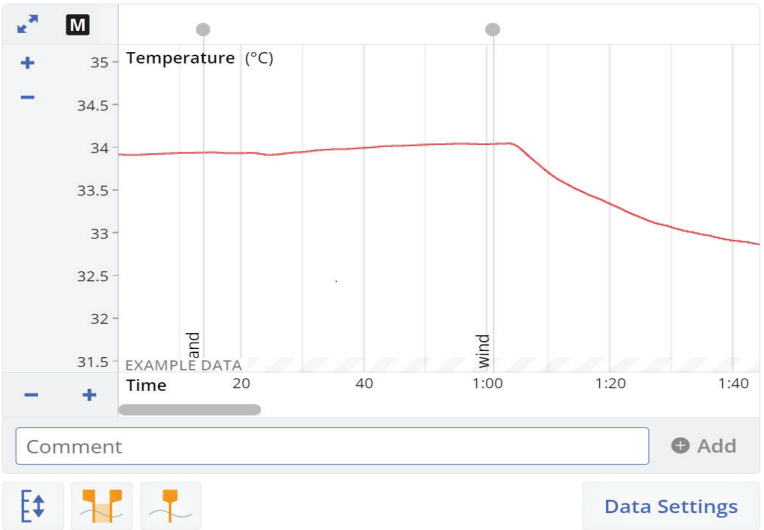
The thermistor is a small, ceramic-encapsulated metal-oxide semiconductor. It exhibits a characteristic non-linear inverse relationship between resistance and temperature (see graph below) that allows it to be used as a temperature sensor. The relatively large change in resistance as a function of temperature (~4%/°C) gives a signal response far greater than thermocouples and resistance temperature devices (RTD). The metal case of the probe is held flat against the skin of the subject and is usually taped into position. It can be cold-sterilized between subjects.

To use the Skin Temperature Sensor, plug the sensor into the USB port of a laptop or desktop computer, with a Windows or Mac operating system. Alternatively, plug the sensor into the PowerLab T1 or a USB hub connected to a computer. A green LED on the connector housing indicates the transducer is receiving power and is ready for use.

Application

The Skin Temperature Sensor is specifically designed for continuous biomedical temperature monitoring requiring repeatability, high sensitivity, and rapid response.

Typical Data



Recording of skin surface temperature following wind exposure

Caution

Read “Statement of Intended Use” on our website.

Specifications

Thermal response time:	still air 45 s
Operating range:	0°C to 50°C
Accuracy:	±0.25°C
Height x Diameter:	4.5 x 12 mm (0.18” x 0.47”)
Cable length:	1.8 m (5.9’)
Connector:	USB
Cup/barrel:	stainless steel filled with epoxy resin

All specifications were tested at the time of printing and are subject to change.

Ordering Information

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For use with:
Laptop or desktop computer with Windows or Mac operating system

WARRANTY: 1 year as per ADInstruments warranty terms for PowerLab Sensors.