



WATER & SOIL

Temperature Probes



For soil, water or surface temperatures



Utilises a precision 10k thermistor



Available in a fully waterproof package for burying in the soil or as an unsheathed tip for faster surface responses



Also available in a micro version for very fast measurements



Low cost



Left to right, SKTS 200, SKTS 200U, SKTS 200U/M

Skye Instruments offer a variety of temperature probes for many different applications, including indoor and outdoor air temperature, soil and ground temperature, water temperature, small area or surface temperatures etc.

This datasheet describes the three temperature probes which utilise a 10kohm precision, curve matched thermistor element. (Other elements are also available, such as PT100 or PRT, thermocouples, current sourcing sensors etc.)

The SKTS 200 probe houses the thermistor in a robust and fully submersible tip. This is ideal for inserting into the soil for measuring

ground temperatures, or for long term monitoring of water temperatures.

In the SKTS 200U 'unsheathed' probe, the thermistor has a thin, weatherproof PVC coating for a fast response to temperature. The tip size is greatly reduced and is ideal for small area or surface measurements. This probe is not submersible.

A micro version of the unsheathed probe is also available with an extremely small tip size and very fast response. The SKTS 200U/M probe is ideal for leaf temperature measurements, insect studies etc. This probe has very fine 40 A.W.G. leads which must be supported

independently when installed.

All temperature probes can be supplied wire ended for user's own dataloggers or systems, or with waterproof connectors for use with Skye's dataloggers and meters.

Skye DataHog and MiniMet dataloggers and the HydroSense meter are ready programmed with the 10kohm thermistor curve so that they will read out in Degrees C directly from these 3 probes.

ALL PROBE SPECIFICATIONS

Sensing element	Resistance	Resolution	Cable Length
10K curve-matched thermistor	10,000 ohms at +25°C	Better than 0.01°C - limited by readout equipment	3m screened cable (Up to 50m on request)

SKTS 200 AND 200U

Tip dimensions	Range	Accuracy
SKTS 200 - sheathed - 7mm diameter x 60mm SKTS 200U - unsheathed - 1.8mm diameter x 6mm	-20°C to +100°C	0.2°C from 0 to 60°C (0.3°C at -20°C)

SKTS 200U/M

Dimensions	Range	Accuracy	Time Constant *	Dissipation Constant *
Tip - 0.45 x 3.18mm Lead Wire - 10cm	-55 to +150°C	0.1°C	<1.0 second	1 mW / °C

* Dissipation Constant - power in milliwatts required to raise thermistor device 1°C

* Time Constant - time required for thermistor device to indicate 63% of a temperature excursion

ORDERING INFORMATION

Temperature Probes

(all fitted with 3m cable)

SKTS 200	Sheathed temperature probe
SKTS 200U	Unsheathed temperature probe
SKTS 200U/M	Micro temperature probe
CAB/L	Extra cable per metre

Meters & Loggers

SKT 660	HydroSense meter
SDL 5000 series	DataHog dataloggers
SDL 2900 series	MiniMet weather station

Skye Instruments Ltd

21, Ddole Enterprise Park
Llandrindod Wells
Powys LD1 6DF
United Kingdom

TEL +44 (0)1597 824811

FAX +44 (0)1597 824812

EMAIL skyemail@skyeinstruments.com

WEB <http://www.skyeinstruments.com>

