



## Rugged, Accurate, Versatile

Can be used in a variety of applications

### Overview

The 107 is a rugged, accurate probe that measures temperature of air, soil, or water from -35° to +50°C. It easily

interfaces with most Campbell Scientific dataloggers and can be used in a variety of applications.

### Benefits and Features

- › Versatile product—measures air, soil, or water temperature
- › Easy to install or remove
- › Durable
- › Compatible with AM16/32-series multiplexers, allowing measurement of multiple sensors

### Technical Description

The 107 consists of a thermistor encapsulated in an epoxy-filled aluminium housing. The housing protects the

thermistor allowing the probe to be buried in soil or submerged in water.

### Specifications

Sensor Description	BetaTherm 100K6A11A Thermistor	Polynomial Linearization Error	Typically <math>\pm 0.5^{\circ}\text{C}</math> over measurement range (Edlog data loggers only)
Tolerance	$\pm 0.2^{\circ}\text{C}$ (over $0^{\circ}$ to $50^{\circ}\text{C}$ range)	Time Constant in Air	30 to 60 s (in a wind speed of $5\text{ m s}^{-1}$ )
Temperature Measurement Range	$-35^{\circ}$ to $+50^{\circ}\text{C}$	Maximum Submergence	15 m (50 ft)
Temperature Survival Range	$-50^{\circ}$ to $+100^{\circ}\text{C}$	Probe Diameter	0.76 cm (0.3 in.)
Steinhart-Hart Equation Error	$\leq \pm 0.01^{\circ}\text{C}$ over measurement range (CRBasic data loggers only)	Probe Length	10.4 cm (4.1 in.)
		Maximum Cable Length	› 305 m (1000 ft) is typical and requires no programming changes.

› 762 m (2500 ft) requires programming changes. (Refer to section 8.4 of the 107 manual for assistance.)

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Weight

136 g (5 oz) with (3.05 m) 10 ft cable

For comprehensive details, visit: [www.campbellsci.eu/107](http://www.campbellsci.eu/107) 



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