



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 $+50^{\circ}\text{C}$. It easily interfaces with most Campbell Scientific data loggers and can be used in a variety of applications.

The 107 consists of a thermistor encapsulated in an epoxy-filled aluminum housing. The housing protects the thermistor, allowing you to bury the probe in soil or submerge it in water.

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

Specifications

Sensor Description	BetaTherm 100K6A11A Thermistor	Maximum Submergence	15 m (50 ft)
Tolerance	$\pm 0.2^{\circ}\text{C}$ (over 0° to 50°C range)	Probe Diameter	0.76 cm (0.3 in.)
Temperature Measurement Range	-35° to $+50^{\circ}\text{C}$	Probe Length	10.4 cm (4.1 in.)
Temperature Survival Range	-50° to $+100^{\circ}\text{C}$	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.)
Steinhart-Hart Equation Error	$\leq \pm 0.01^{\circ}\text{C}$ over measurement range (CRBasic data loggers only)	Weight	136 g (5 oz) with (3.05 m) 10 ft cable
Polynomial Linearization Error	Typically $< \pm 0.5^{\circ}\text{C}$ over measurement range (Edlog data loggers only)		
Time Constant in Air	30 to 60 s (in a wind speed of 5 m s^{-1})		