

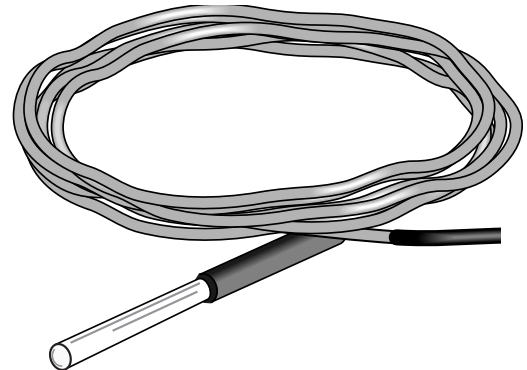
Temperature Probe for CR200-Series Dataloggers

Model 109

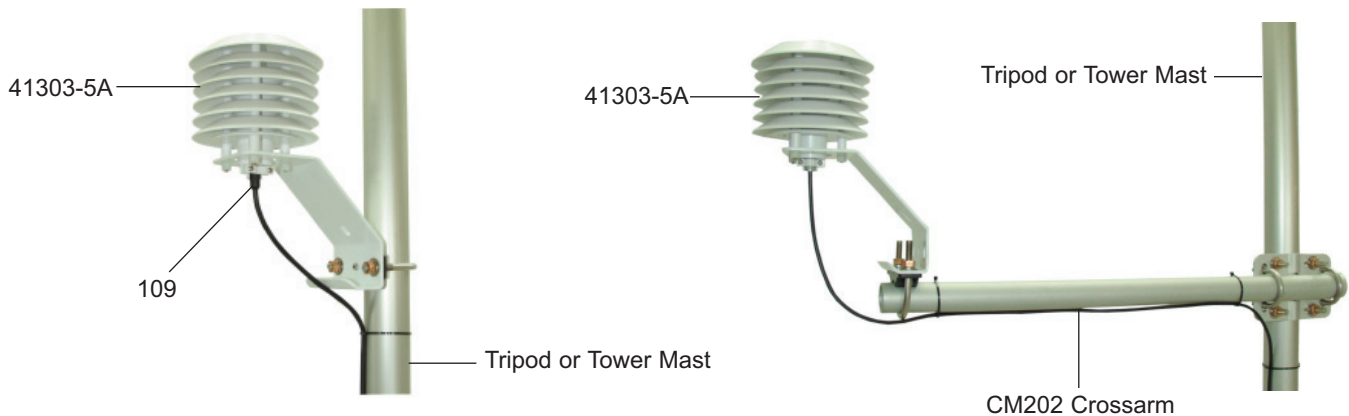
The 109 is a rugged, accurate probe that measures air, soil, and water temperature for a variety of applications. It consists of a thermistor encapsulated in an epoxy-filled aluminum housing. The housing protects the thermistor allowing the 109 to be buried or submerged. The 109 measures from -50° to $+70^{\circ}\text{C}$.

Sensor Mounts

When exposed to sunlight, the 109 probe must be housed in a 41303-5A radiation shield. To attach the 41303-5A to a CM202, CM204, or CM206 crossarm, place the 41303-5A's u-bolt in the bottom holes. To attach the radiation shield directly to a tripod mast, tower mast, or tower leg, place the u-bolt in the side holes.



Each probe requires one single-ended channel for measurement.



Ordering Information

- 109-L Temperature Probe with user-specified lead length; enter the lead length (in feet) after L. Specify a 6' lead length (109-L6) for a 2 m mounting height.
- 41303-5A 6-Plate Gill Radiation Shield that houses the 109

Specifications

Weight:	0.3 lbs
Length:	3.125"
Diameter:	< 0.375 "
Sensor:	BetaTherm 10K3A11B Thermistor
Temperature measurement range:	-50° to $+70^{\circ}\text{C}$
Polynomial linearization accuracy:	Maximum error is 0.03°C at -50°C
Interchangeability error:	Typically $\pm 0.2^{\circ}\text{C}$ over 0° to 70°C range; increasing to $\pm 0.5^{\circ}\text{C}$ at -50°C
Time constant in air	Between 30 and 60 seconds in a wind speed of 5 m sec^{-1}
Temperature survival range:	-50° to $+100^{\circ}\text{C}$



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