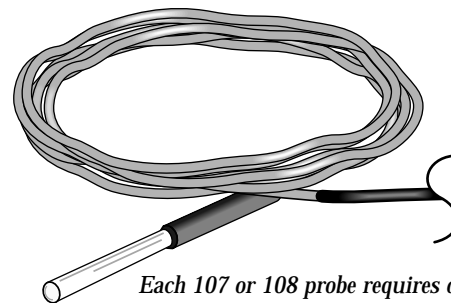


Temperature Probes

Models 107 and 108

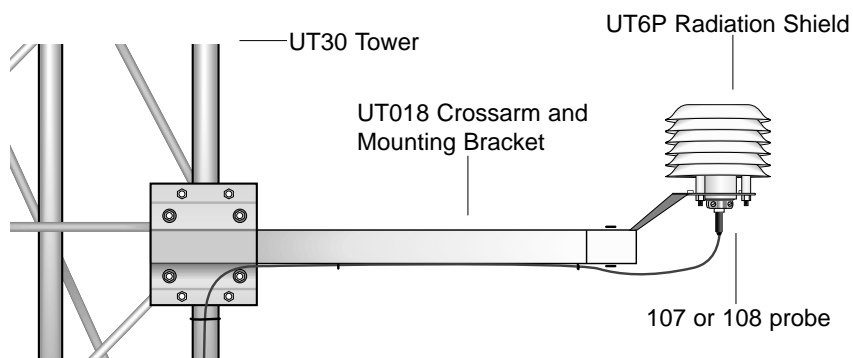
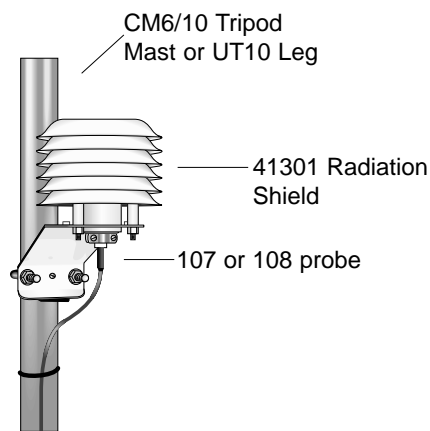
The 107 and 108 are rugged, accurate probes that measure air, soil, and water temperature in a variety of applications. These probes consist of a thermistor encapsulated in an epoxy-filled aluminum housing. The housing protects the thermistor allowing the probes to be buried or submerged. The 107 measures from -35° to $+50^{\circ}\text{C}$, the 108 from -5° to $+95^{\circ}\text{C}$.



Each 107 or 108 probe requires one single-ended channel for measurement.

Sensor Mounts

When exposed to sunlight, the 107 and 108 probes must be housed in a radiation shield. If the probe is mounted to a CM6/CM10 tripod or a UT10 tower, use a model 41301 6-plate radiation shield. A 41002 12-plate radiation shield and 41322 adapter may also be used when mounted to a tripod or UT10 tower. If the probe is mounted to a UT30 tower, use a UT6P radiation shield and a UT018 Mounting Bracket and Crossarm Mount.



Ordering Information

- 107-L User-specified lead length; enter the lead length (in feet) after L. Specify a 6' lead length (107-L6) for a 2-meter mounting height; specify a 9' lead (107-L9) for 2-meter mounting height with UT018 crossarm.
- 108-L User-specified lead length; enter the lead length (in feet) after L. Specify a 6' lead length (108-L6) for a 2-meter mounting height; specify a 9' lead (108-9) for 2-meter mounting height with UT018 crossarm.

107 and 108 Specifications

Weight:	0.3 lbs
Length:	3.125"
Diameter:	< 0.375"
Sensor:	BetaTherm 100K6A1 Thermistor



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107 Specifications

Temperature measurement range:	-35° to +50°C
Polynomial linearization accuracy:	Typically $<\pm 0.5^{\circ}\text{C}$ over -38° to +50°C range, $<\pm 0.1^{\circ}\text{C}$ over -24° to +48°C range
Interchangeability error:	Typically $<\pm 0.2^{\circ}\text{C}$ over 0° to 50°C range increasing to $\pm 0.4^{\circ}\text{C}$ at -40°C
Time constant in air:	Between 30 and 60 seconds in a wind speed of 5 m sec^{-1}

108 Specifications

Temperature measurement range:	-5° to +95°C
Polynomial linearization accuracy:	Typically $<\pm 0.5^{\circ}\text{C}$ at the -5° to +90°C range
Interchangeability error:	Typically $<\pm 0.2^{\circ}\text{C}$ over 0° to 70°C range increasing to $\pm 0.3^{\circ}\text{C}$ at 95°C
Time constant in air:	Between 30 and 60 seconds in a wind speed of 5 m sec^{-1}

Note: The 107B and 108B probes have become obsolete because the 107 and 108 probes can now measure soil and water temperature.



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Printed September 2001