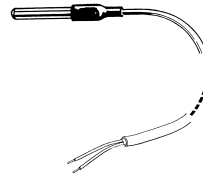


Stainless Steel Temperature Probe with Two-Wire Termination



6470

Vantage Pro2™ Accessories

For the Wireless Leaf & Soil Moisture/Temperature Station (# 6345)

The probe is designed to measure soil temperature in order to provide temperature compensation for the Watermark Soil Moisture Sensor.

The sensor is a precision thermistor which produces a resistance change proportional to temperature. It is epoxy-encapsulated in a 316 alloy stainless steel body with vinyl strain relief. The 22 AWG direct burial cable is resistant to damage from pests, moisture or UV.

To ensure accurate readings when measuring outdoor air temperature, the Multi-Purpose Temperature Probe should be shielded from direct sunlight and other sources of reflected or radiated heat. We recommend the use of the Radiation Shield (#7714) for this purpose.

General

Sensor Type (see Charts)	Precision thermistor
Time Constant	
In Still Air	100 seconds
In Liquid	28 seconds
Attached Cable Length	15' (4.6 m)
Cable Type	22 AWG direct burial cable, wires stripped and tinned
Recommended Maximum Cable Length (see Note 1)	
24 AWG Cable	800' (242 m)

Note: There is no absolute maximum cable length. Increasing the cable length above the recommended maximum length causes an increased measurement error at a rate of approximately +0.24°F (+0.13°C) per 100' (30 m) of 22 AWG cable. We recommend the use of 18 AWG fully waterproof with VF insulation and 3M Scotchpak or Duraseal heat shrink splice connector.

Housing Material	316 alloy stainless steel housing with vinyl strain relief
Housing Dimensions	0.312" diameter x 2.5" long (8 mm diameter x 64 mm long)
Weight	4.5 oz. (128 g)

Sensor Output

Resolution and Units	1°F or 1°C (user-selectable) Historical Graph Data and Alarms: 1°F or 1°C (user-selectable)
Range	-40° to +150°F (-40° to +65°C)
Sensor Accuracy	±1°F (±0.5°C) typical
Update Interval	77 to 90 seconds

Input/Output Connections

Black	Common
White	Temperature (variable resistance to common)

Charts

Figure 1 shows the resistance of the sensor. Figure 2 shows the cable-induced error of an un-calibrated sensor using 100' (30 m) of cable.

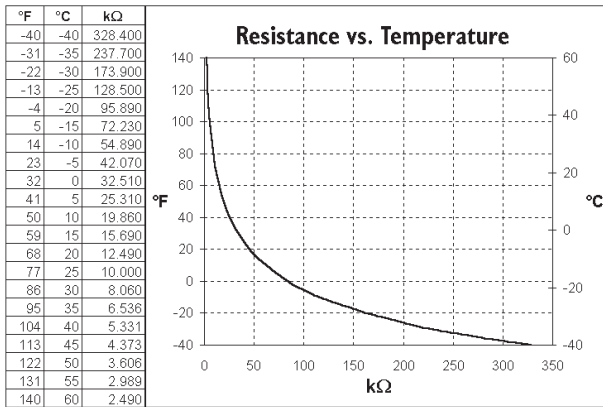


Figure 1: Sensor Resistance Readings

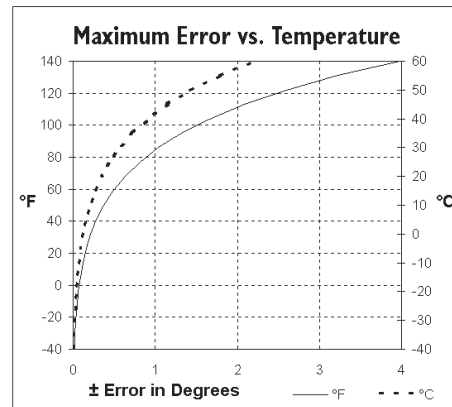


Figure 2: Cable-Induced Temperature

Figure 3 shows the accuracy of F and C temperatures.

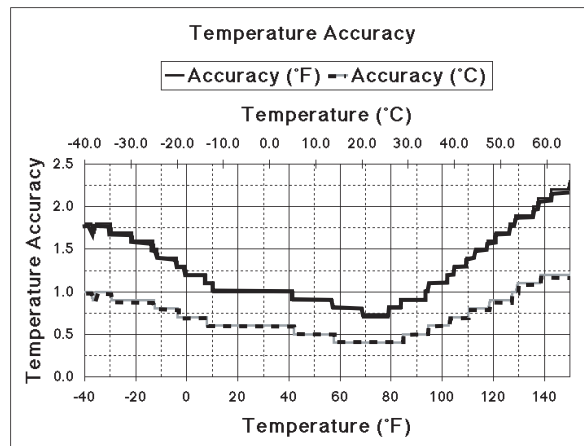


Figure 3

Package Dimensions

Product #	Package Dimensions (Length x Width x Height)	Package Weight	UPC Codes
6470	5.50" x 4.50" x 1.50" (140 mm x 115 mm x 38 mm)	6.0 oz. (.2 kg)	011698 00241 2