

Multi-Purpose Temperature Probe

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

6470

VANTAGE PRO2

The Multi-Purpose Temperature Probe is for use with the Vantage Pro Wireless Soil Moisture/Temperature Station. 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 platinum wire 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.

The WATERMARK soil moisture sensor is a product of the Irrrometer Company, Inc.

Specifications

General

Sensor Type (see Charts)	Platinum wire 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 Shielded Cable	800' (242 m)
22 AWG Shielded Cable	1,200' (260 m)
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)

Console Data (as displayed on Vantage Pro consoles)

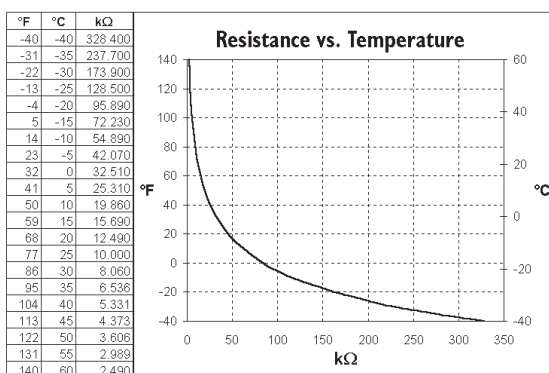
Resolution and Units	1°F or 1°C (user-selectable)
	Historical Data and Alarms: 1°F or 1°C (user-selectable)
Range	-40° to +150°F (-40° to +65°C)
Sensor Accuracy	±1°F (±0.5°C) up to 110°F (43°C), ±2°F (±1°C) over 110°F (43°C)
Update Interval	62.5 to 75 seconds
Current Data	Instant Reading (user adjustable)
Alarms	High and Low Thresholds from Instant Reading

Input/Output Connections

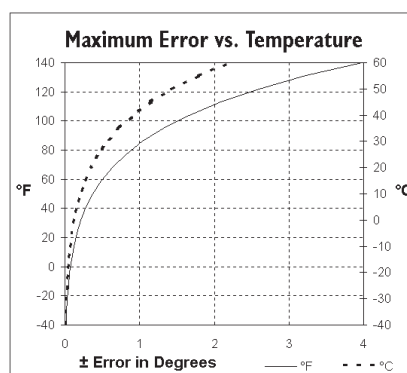
Black	Common
White	Temperature (variable resistance to common)

Charts

The chart and graph on the left show the resistance of the sensor. The chart on the right shows the cable-induced error of an uncalibrated sensor using 100' (30 m) of cable.



Sensor Resistance Readings



Cable-Induced Temperature Error

Notes

1. 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.