

External Temperature Probes

with RJ Connector and 25-Cable



6475
6477

Vantage Pro2™ Accessories

The External Temperature Probes may be used with the wireless the Solar-Powered Sensor Transmitter (6332), AC-Powered Sensor Transmitter (6331), Weather Envoy (6316), and Envoy8X (6318). They can be used to measure air, soil or water temperatures.

The sensor is a precision platinum wire thermistor which produces a resistance change proportional to temperature. In the Stainless Steel model (6475), it is epoxy-encapsulated in a 316 alloy stainless steel body with vinyl strain relief. In the External Temperature Probe (6477), it is sheathed in vinyl.

To ensure accurate readings when measuring outdoor air temperature, the 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	25' (7.6 m)
Cable Type	4-conductor, 26AWG
Recommended Maximum Cable Length (see Note 1)	200' (61 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. See Figures 1 and 2, on page 2.

Housing Material	
6475	316 alloy stainless steel housing with vinyl strain relief
6477	Black vinyl
Housing Dimensions	
6475	0.312" diameter x 2.5" long (8 mm diameter x 64 mm long)
6477	0.25" diameter x 1.25" long (6.5 mm diameter x 32 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 (see Figure 3)
Update Interval	
When used with Wireless Temperature Station or Anemometer/Sensor Transmitter Kit	10 - 12 seconds
When use with Weather Envoy or Envoy8X	1 minute

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.

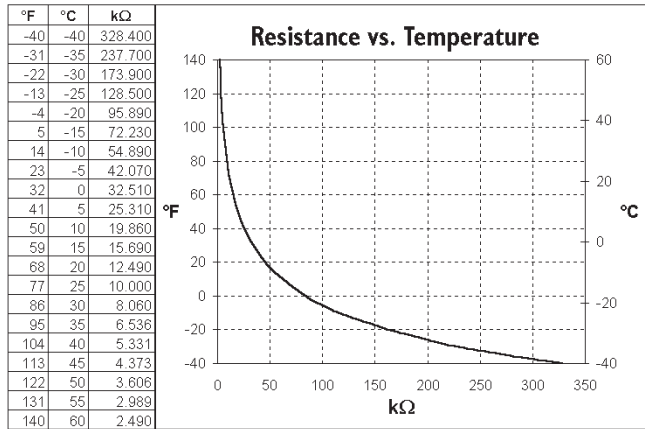


Figure 1

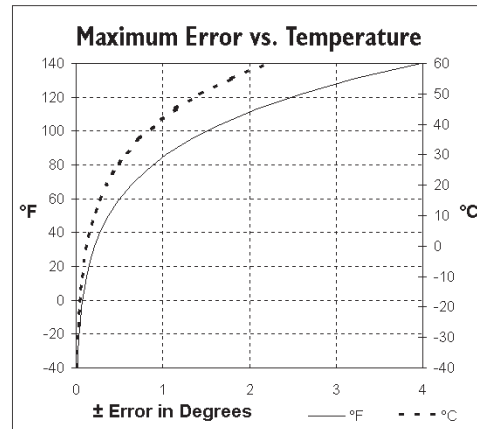


Figure 2

Figure 3 shows temperature accuracy for F and C.

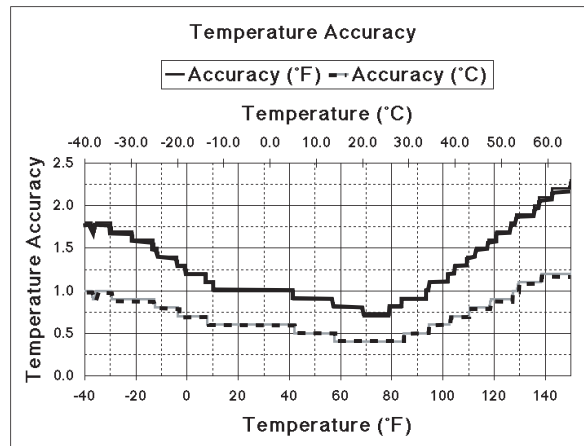


Figure 3

Package Dimensions

Product #	Package Dimensions (Length x Width x Height)	Package Weight	UPC Codes
6475	5.50" x 4.50" x 1.50" (140 mm x 115 mm x 38 mm)	5.8 oz. (.16 kg)	011698 009497
6477	5.50" x 4.50" x 1.50" (140 mm x 115 mm x 38 mm)	5.5 oz (.156 kg)	011698 009527