

STAINLESS STEEL TEMPERATURE PROBE, Industrial

7819
SENSORS

The Stainless Steel Temperature Probe is designed for more physically-demanding conditions. It may be used to measure the temperature of solids, soils, liquids, or gasses. 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 24 AWG shielded cable protects against Electro-magnetic Interference (EMI).

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

SPECIFICATIONS

General

Sensor Type (see Note 2)	Platinum wire thermisto
Time Constant	
In Still Air	100 seconds
In Liquid	28 seconds
Attached Cable Length	16' (5 m)
Cable Type	24 AWG shielded twisted pair cable with UV-resistant jacket, 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 (These specifications apply to sensor output as converted by Davis Instruments weather station consoles.)

Range	-50° to 140° F (-45° to 60° C)
Accuracy (see Note 2)	±1°F (±0.5°C)
Resolution	1.0° or 0.1°, selectable, (F or C)
Sample and Display Update Interval	16 seconds (max)

WeatherLink® Data (These specifications apply to sensor output as logged and displayed by the WeatherLink.)

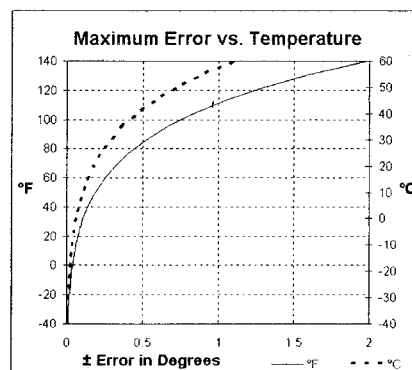
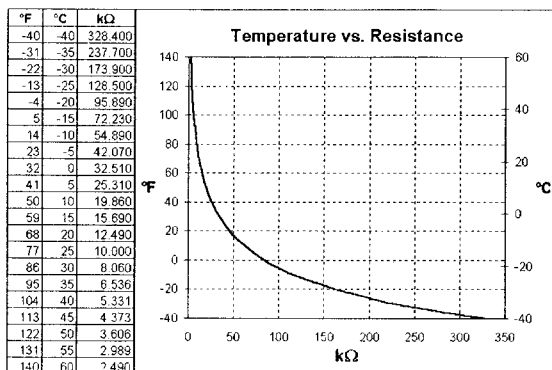
Temperature	Average over archive interval
High and Low Temperature	Maximum and minimum values during archive interval

Input/Output Connections

Black	Common
White	Temperature (variable resistance to common)
Bare	Shield Ground

NOTES

- There is no absolute maximum cable length. Increasing the cable length above the recommended maximum cable length causes an increased measurement error at a rate of approximately $\pm 0.024^{\circ}\text{F}$ ($\pm 0.013^{\circ}\text{C}$) per 100' (30 m) of 22AWG cable.
- The chart and graph on the left show the resistance of the sensor. The chart on the right shows the maximum error of an uncalibrated sensor.



INSTALLATION OPTIONS

