

Stainless Steel Thermistor Probe TSSP-1

Soil, Surface, Liquid Temperature

DATA SHEET

Preliminary

FEATURE SUMMARY

- Long term stability
- IP68 Waterproof rating
- Swaged stainless steel
- Soil, liquid, or surface temperature
- 10 k ohm @ 25°C
- Design for freeze-thaw thermal cycles
- Curve-matched for +/-0.1°C interchangeability

DESCRIPTION

Stainless Steel Thermistor Probe TSSP-1™ is a precision NTC thermistor in a durable package.

The thermistor element is double encased. It is double-potted and tightly swaged (formed) within a stainless steel probe. The swaged forms a liquid-tight seal around the cable, ensuring integrity in harsh freeze-thaw environments and excellent strain relief.

TSSP-1™ is suitable for a wide range of temperature measurement applications, including:

Soil
Liquid submersion
Gasses
HVAC
Refrigeration

When used with Dyacon Control Modules, the temperature value is included in weather reports and can be used to trigger text message alarms.



KEY FEATURES

Construction: TSSP-1™ is double potted with thermally conductive epoxy and swaged in a stainless steel probe. The swaged enclosure increases the cable strain relief and sensor sealing. The sensor will not crack or come lose from the stainless steel tip even in high temperature cycling environments.

Interchangeability: An interchangeability value of 0.1°C ensures that TSSP-1 thermistors are field replaceable without further calibration.

Installation: When used with Dyacon Control Modules, a reference resistor is included. Once installed in a Dyacon Control Module, simply enable the feature and it will be included in the condition reports.

THERMISTOR SPECIFICATIONS

Resistance	10 k ohms @ 25°C
Interchangeability Tolerance	+/- 0.1°C (within 0°C to 70°C/ 32°F to 158°F)
Measurement Range	-40°C to 105°C (-40°F to 220°F)
Storage Temperature	-40°C to 105°C (-40°F to 220°F)
Dissipation Constant	2 mW/°C
Time Constant	8 s, still air

MECHANICAL FEATURES

Sealed	IP68
Cable to Thermistor Connection	Thermistor leads welded to cable
Submersion Depth	Greater than 2 m (6 ft)
Cable Length	6.1 m (20 ft)
Wire	22 AWG, 7 x 30, Tin plated, PVC
Cable Jacket	PVC, Gray
Cable Diameter	3.8 mm (0.15 in)
Probe Dimensions	4.8 mm x 38.1 mm (0.188 in x 1.5 in)
Weight	100 g (4 oz)
Probe Materials	Double potted with thermally conductive epoxy. Swaged in 305 stainless steel probe.

