



## Soil Temperature

### S1282

- Thermistor type
- High accuracy
- Good interchangeability
  - Rugged
- Stainless Steel

#### *How the thermistor is manufactured:*

Powder metal oxide mixes are precisely formulated and pressed into densely packed disks. These disks are sintered to achieve the characteristic “slope” of the thermistor. The disks are then metalized to allow for electrical contact. Calibration is accomplished by use of a patented method of material removal to achieve the final interchangeability specification. The thermistor is encapsulated with epoxy or glass to isolate it from the measurement environment. 100% of the thermistors are measured at multiple temperatures to insure that the resistance and slope are within the device’s interchangeability specification.

#### *Advantages of using a thermistor:*

- Sensitivity – A thermistor is much more sensitive to temperature change than the alternative measurement components.
- Interchangeability – There are several reasons for wanting to achieve such tight interchangeability specifications:
  - One is the ability to control the manufacturing process precisely.
  - Another is the sensitivity of the device itself, which allows for great resolution in the measurements.



## Technical Specifications

**S1282**

Range:	-50°C to +50°C
Accuracy:	+/- 0.15°C over full range
Time Constant, Max.:	1 sec. in well-stirred oil, 15 sec. in still air
Cable:	15 ft (standard)