



## Water Temperature

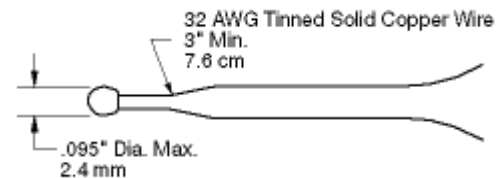
### S1117W / S1117Z

- Thermistor type
- High accuracy
- Good interchangeability

#### *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 metallized 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. All of the thermistors are measured at multiple temperatures to ensure 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. One typical thermistor changes 1,290 ohms/°C at 25°C.
- Interchangeability: The thermistors are available to +/- 0.05°C. There are several reasons for the ability 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

**S1117W / S1117Z**

Range:	-50°C to +50°C
Accuracy:	0.1°C over full range
Time Constant:	5.0 seconds
Cable:	15 ft. - SJO neoprene