

Temperature Sensor

063

The Model 063 Temperature Sensor will directly measure air, water and soil temperature with its precision, extended range thermistor sensor. The thermistor sensor is encapsulated in a silicone oil filled stainless steel jacket.

Features

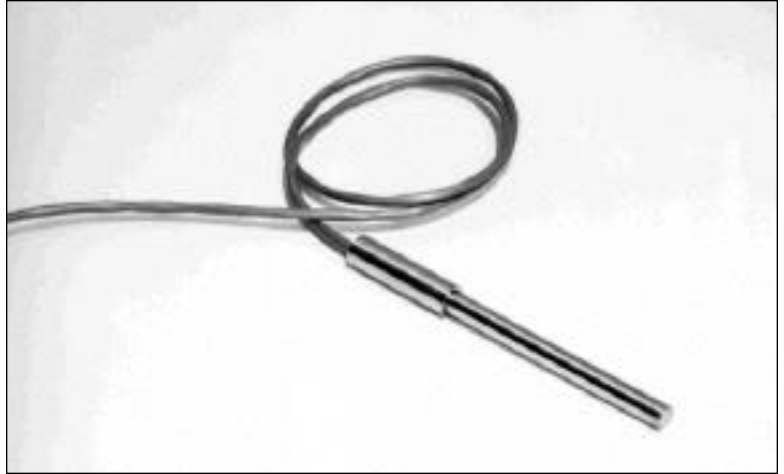
- Stainless steel jacket allows direct measurements of air, water and soil
- High resistance values to minimize signal line resistance
- Interchangeable within described accuracy without calibration
- Several ranges available for exact customer requirements

The sensor is particularly well suited for field applications, as it exhibits a very high resistance sensitivity. Problems associated with line lead length, noisy environments and poor connections are virtually eliminated. Sensors may be interchanged without requiring system recalibration.

Operation

The solid state thermistor produces a large resistance change per degree of temperature change, allowing the use of normal signal voltages without self-heating of the sensor.

The Model 063 is ideally suited for direct input to a variety of dataloggers and translators.



The Model 063 Temperature Sensor

Construction

The sensor housing is composed of two stainless steel tubes. The smaller one contains the sensor and silicone oil; the larger one secures and seals the cable. In addition to

providing a uniform temperature environment, the oil also provides a strain free mounting for the thermistor sensor. A weatherproof epoxy is used to provide a positive bond for cabling and assembly.

Performance

	Maximum Range	Linearity	Accuracy
Model 063-1:	-50°C to +50°C	±0.15°C	±0.1°C
Model 063-2:	0°C to 100°C	±0.21°C	±0.15°C
Self-heating:	None		
Time Constant:	60 seconds		

Physical Characteristics

Cable Length:	Supplied with 50 ft of cable, terminating in pigtail. Additional cable may be supplied.
Mounting:	May mount in Model 073B Radiation Shields for air temperature. Mounts directly in soil or water for soil or water temperature.
Diameter:	0.54 in (13.7 mm)
Length:	6 in (152.4 mm)



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