

SOIL TEMPERATURE SENSOR

For optimum growth of plants continuous monitoring of soil temperature is important.

UTILITY AREA

- Agriculture
- Soil Monitoring
- Environment Monitoring
- Irrigation



Soil temperature affects the speed of plant growth and soil processes. Soil temperature is influenced by climate, season, aspect, water levels, plant cover and soil depth. The temperature in a soil will determine the speed of chemical and biological activity.

IST01 is a low cost easy to use sensor for measuring soil temperature. The rugged and accurate probe is specially suited for harsh and corrosive environment. Stainless steel enclosure and completely water proof design is suitable for continuous outdoor use. IST01 is a precision integrated circuit based sensor with an output Voltage linearly Proportional to the Centigrade temperature.

The low output impedance, linear output, and precise inherent calibration of the LM35 make interfacing to readout or control circuitry especially easy.

SPECIFICATION

Temperature range: -55°C to 150°C
Accuracy: 0.5°C
Supply Voltage: 0-30V
Output Voltage: -1 to 6V
Power: 110µA @ 5 V
Scale Factor: +10mV/°C
Impedance: 0.1Ω for 1mA Load