

Part No. **TS-LM-212****Temperature Sensor****Sensor Features:**

- 2 Inch Stainless Steel Probe
- Water Proof Enclosure
- Wide Operating Range
- Analog Output Voltage
- Directly Calibrated in Kelvin
- Single Cable for Power and Output Signals
- Powered from the Receiver (no additional power needed)

Sensor Description:

The sensor has a small, rugged probe which consists of an LM335A temperature sensor from National Semiconductor and two additional resistors inserted into a waterproof stainless steel tube. It is designed for outdoor and indoor applications. Operating as a 2-terminal zener, the LM335A has a voltage directly proportional to absolute temperature at 10 mV/1°K. The temperature sensor has a single RJ45 shielded cable with 4 pins for both the power and output signals.

Sensor Outputs:

The relationship between temperature and output voltage is equal to 10 mV/1°K. Since this relationship is linear, dividing the voltage by 0.010 will yield the output temperature. The sensor has two different output configurations: A single-ended output (between RJ45 pins 3 and 7) which provides 2.33 to 3.73 volts analog output with respect to ground. At room temp the output is 2.98V ($K = 100 * \text{Output Voltage}$). And a differential output (between RJ45 pins 3 and 5) which provides - 0.14 to 1.26 volts with respect to a reference voltage of 2.47V. At room temperature the output is 0.51 volts ($K = 100 * \text{Output Voltage} + 247$).

Sensor Specifications:

Temperature Range	-40 to 100 °C
Accuracy	+/- 2 °C @ 25 °C
Supply Current	2 Milliamps Max
Supply Voltage	5 Volts DC
Reference Voltage	2.47 Volts
Temperature Probe	Stainless Steel
Temperature Sensor	LM335A
Dimensions (Length)	2.0" Inches
Dimensions (Diameter)	0.25" Inches
Cable Length	10 ft
Cable Connector Type	RJ45 Male

Contact Us:

To purchase sensors, please contact our Sales Department at 800-818-3463, sales@softstuf.com

Hours: Monday - Friday, 9:00 a.m. to 6:00 p.m. EST
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