

# LM35 temperature sensor



## Introduction.

LM35 is a kind of temperature sensor created by national semiconductor. Its output voltage bears a linear relation to output voltage and Celsius temperature scale. Each 10mV increase in output voltage will lead to 1°C rise in temperature. There are various packaging types for LM35. Under normal temperature, LM35 can reach  $\pm 1/4^\circ\text{C}$  precision without additional calibration. It has two kinds of power supply modes, namely single power and Positive and negative dual power supply, and the positive and negative dual power supply supports the measurement of negative temperature; The static current of these two connection modes - the self heating effect is quite low (0.08 C) in the static temperature(0.08°C); the static current of single power supply under 25°C is about 50  $\mu\text{A}$ ; working voltage is quite wide. It can work properly under a voltage range of 4—20V with the least power consumption. In addition, as for LM35D temperature sensor, its output is in direct proportion to centigrade temperature. Its sensitivity stands at 10mV/°C;

Working temperature range : 0°C-100°C;

Working voltage : 4-30V;

Accuracy :  $\pm 1^\circ\text{C}$ .

The maximum linear error:  $\pm 0.5^\circ\text{C}$ ;

Quiescent current : 80uA.

The greatest characteristic of the temperature sensor is that is can be used without periphery components or adjustment or calibration. It can become a thermodetector by connecting to a 1V header(such as pointer multimeter or digital multimeter).

Shipping list:

1 knock sensor module \*1

2. 3PIN DuPont line \*1