

LM35

The **LM35** is a precision **temperature sensor** that provides an **analog voltage output** proportional to temperature in **degrees Celsius**. It operates over a typical range of **-55°C to +150°C** and has a sensitivity of **10 mV/°C**, meaning for every 1°C change in temperature, the output voltage changes by 10 mV.

Key Features:

- **High Accuracy:** $\pm 0.5^{\circ}\text{C}$ (typical) at 25°C
- **No External Calibration Required**
- **Low Power Consumption**
- **Linear Output:** $0^{\circ}\text{C} = 0\text{V}$, $100^{\circ}\text{C} = 1\text{V}$
- **Operates from 4V to 30V Supply**
- **Low Self-Heating**

Common Applications:

- Temperature monitoring in **electronics and industrial systems**
- HVAC (Heating, Ventilation, and Air Conditioning) systems
- Battery temperature monitoring
- Weather stations