

The Integrated Circuit temperature sensor offers a linear voltage or current output signal that is directly proportional to the ambient temperature. This output signal is scaled to meet the end users requirements.

The LMx34 IC sensor family features both a current and a voltage output signal and is factory calibrated to output either 10 mV/° C or 1 µA/° C. The LMx35 IC sensor family features a voltage output signal and is factory calibrated to output 10 mV/° C .

A precision metal film load resistor is included in the circuit to convert the current signal to the output voltage signal. The PCB includes three connections, a "V+" for the power supply connection, a "COM" for the common connection and a "SIG" for the signal output.

To use the sensor in 2-wire current mode connect the power supply to the "V+" terminal and the output signal (1 µA/° C) will be available on the "SIG" terminal. In current mode the common is not used. To connect the sensor in 3-wire voltage mode, connect the power supply positive to the "V+" terminal, the power supply and signal common to the "COM" terminal and measure the output signal (10 mV/° C) at the "SIG" terminal with respect to common.

Power supply selection is typically 10 Vdc but can vary from 5 - 25 Vdc with no effect on the output signal.

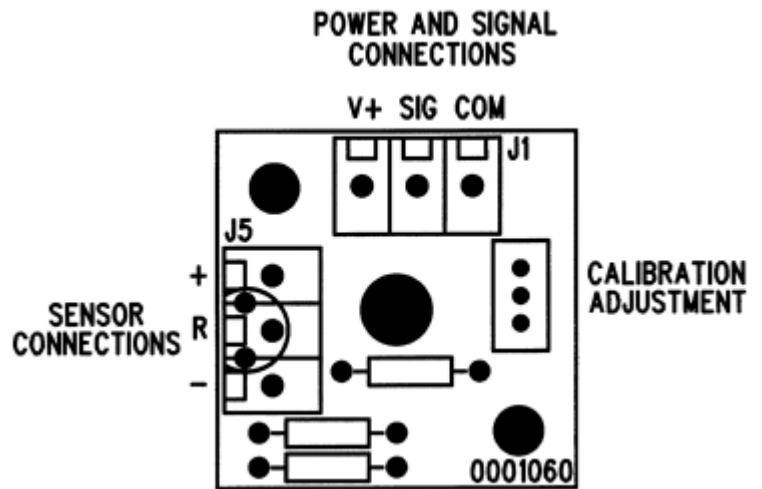
The sensors are calibrated for a 2.982 Vdc output at 25° C (298.2 µA) and the output is linear to 0 Vdc out at -273.2° C (0° K).

Wiring

- V+ Supply (See Below)
- SIG Signal Out
- COM Common (Voltage Mode Only)

Note: The type 21 sensor (LM335) can be used as a 2-wire device if the BAS is designed with a resistor on the supply to the sensor. In this case the supply is connected to SIG and the common to COM.

- + RED or ORANGE
- R GREEN or WHITE
- BLACK or BLUE



Specifications

	LM134	LM234	LM334	LM135	LM235	LM335
SUPPLY VOLTAGE	5 – 25 Vdc			10 – 25 Vdc		
OUTPUT VOLTAGE/° C	10mV/° C			10mV/° C		
OUTPUT VOLTAGE @ 25° C	2.982 Vdc			2.982 Vdc		
OUTPUT CURRENT/° C	1µA/° C			N/A		
OUTPUT CURRENT @ 25° C	298.16µA			N/A		
OPERATING TEMP. (MIN)	-55° C	-25° C	0° C	-55° C	-40° C	-40° C
OPERATING TEMP. (MAX)	125° C	100° C	70° C	150° C	125° C	100° C