

### Product Description

The L02-03-0114 Temperature and RH sensor converts a resistance to a linear 0 to 10 VDC output.

The Advanced Ceramic Technology design overcomes the limitations of other resistance-based humidity sensors that utilize water soluble polymer coatings. The Advanced Ceramic Technology enables these sensors to fully recover from condensation. This allows the sensor to maintain its accuracy over a longer period of time. Despite its accuracy, the Advanced Ceramic Technology sensor and related circuitry is economical.

Field calibration is achieved by toggling either the increment or decrement dip switch. Each toggle will allow for a +/- 0.5% RH increase or decrease.

Accuracy is maintained over the operating range, using a thermistor for temperature compensation. Precision production tolerances maintain sensor interchangeability to within +/- 3% nominal without recalibration.

Each L02-03-0114 humidity sensor is calibrated at 3 different points, using an NIST Traceable Temperature/Humidity chamber.

This unit is offered as a room temperature sensor with Set Point configuration. The set point is a linear 10K slide potentiometer that is Direct Acting, with a 55 to 85 indication sticker.

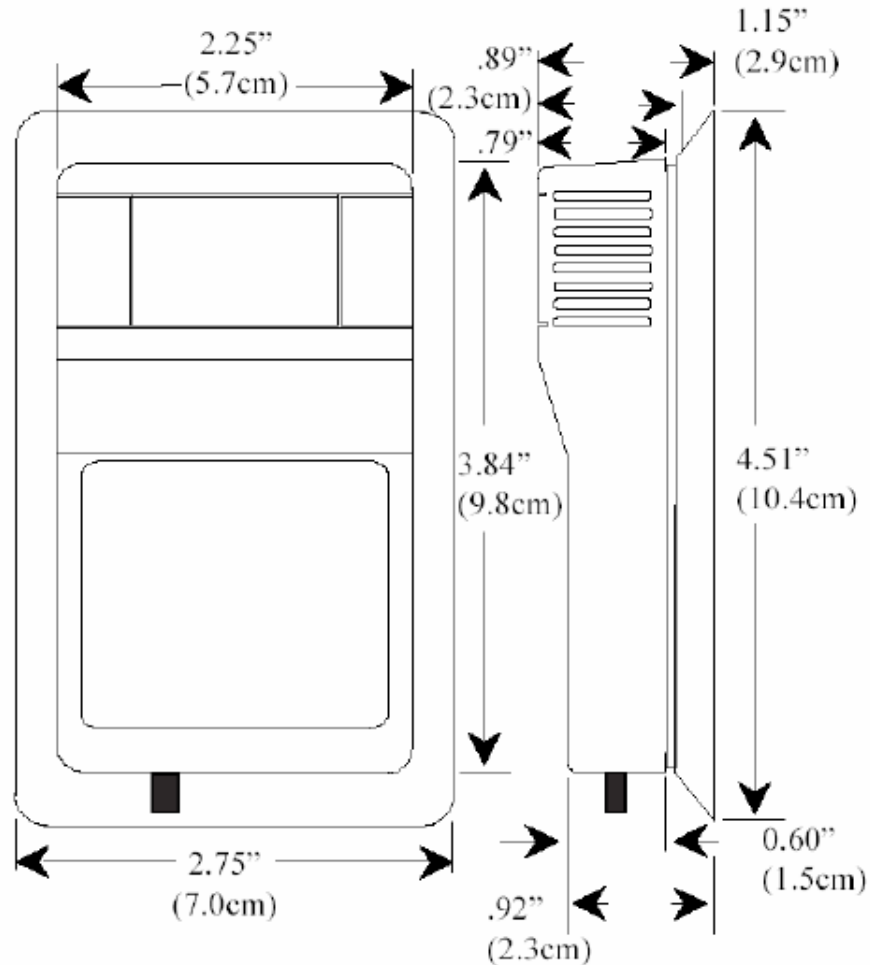
The thermistors higher resistance relative to Platinum RTD's, creates a larger signal with the same measuring current, negating most lead wire resistance problems and eliminating the need for signal conditioners.



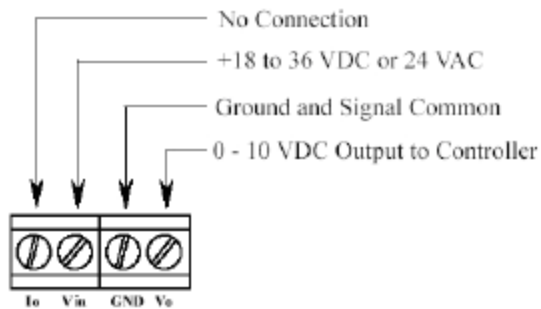
### Technical Data

<b>Supply Voltage</b>	• 500 Ohm Load: +17 to 36 VDC / 24 VAC
<b>Operating Temp</b>	• -10 to 160oF (-23.3 to 71oC)
<b>Operating RH</b>	• 0 to 100% RH
<b>Output</b>	• 0-10 VDC
<b>Interchangeability</b>	• +/- 3% RH
<b>Long Term Stability</b>	• Less than 2% RH Drift / 5 Years
<b>Accuracy @ 77oF</b>	• < +/- 3% from 20 to 95% RH
<b>Response Time</b>	• 30 seconds for 63% Step
<b>Saturated Response Time</b>	• 10 minutes for 63% Step
<b>Sensitivity</b>	• 0.1% RH
<b>Repeatability</b>	• 0.5% RH
<b>Hysteresis</b>	• Less than 0.4% RH
<b>Temp Sensor Output</b>	• 10K Ohms @ 25oC (77oF) Type III
<b>Temp Sensor Accuracy</b>	• +/- 0.2oC (0-70oC)
<b>Setpoint Indication</b>	• 55 to 85
<b>Setpoint Pot Action</b>	• Direct Acting
<b>Setpoint Range</b>	• 0 to 10K Ohms +/- 10%

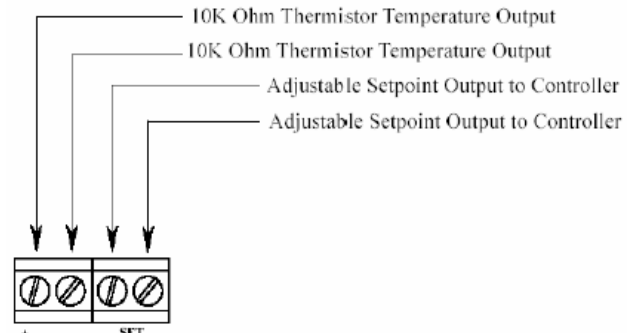
### Device Detail



**RH Wiring Diagram**



**Wiring Diagram**



### Ordering Information

Model #	Description
L02-03-0114	RH Wall Mount Sensor with 10K Ohm Thermistor and Temperature Setpoint