



## L02-03-0102 – Duct Mounted Temperature & RH Sensor

### Product Description

The L02-03-0102 Duct Mounted Humidity and Temperature sensor uses a Resistive type RH sensor with a 10K Ohm (Type III) thermistor for measuring the temperature.

The L02-03-0102 can be used to measure both the supply and return air temperature and humidity in ducts and plenums.

The Advanced Ceramic Technology design overcomes the limitations of other resistancebased 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 L02-03-0102 humidity transmitter is calibrated at 3 different points, using an NIST Traceable Temperature/Humidity chamber.



### Technical Data

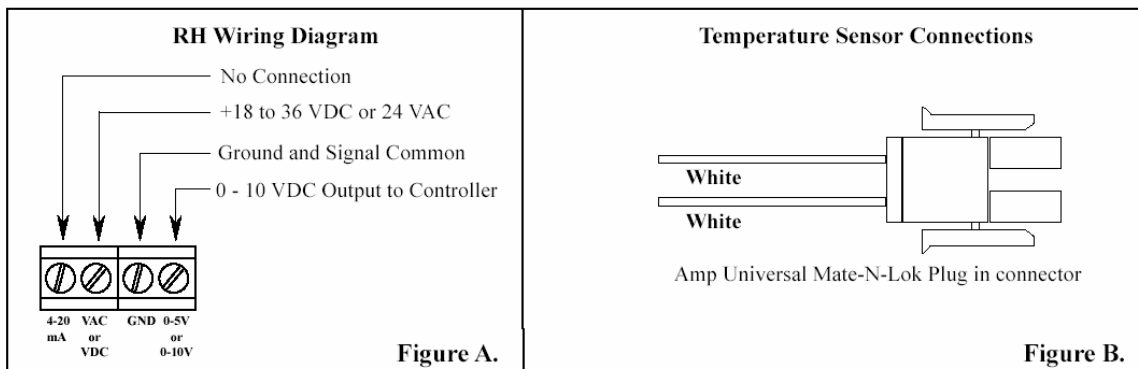
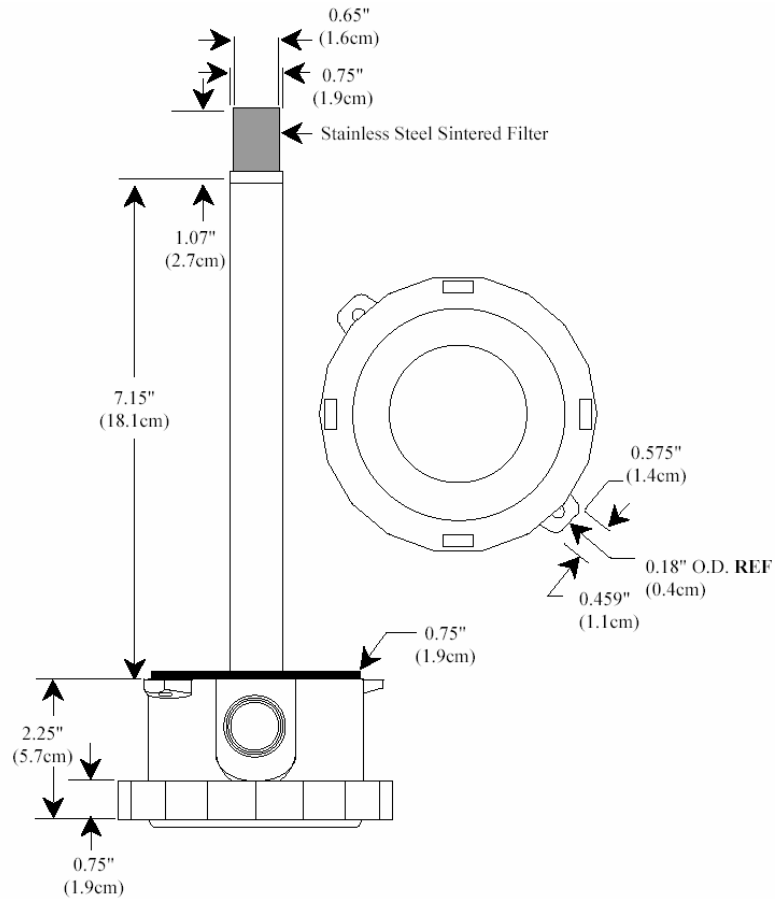
<b>Supply Voltage</b>	• +18 to 36 VDC / 24 VAC
<b>Response Time</b>	• 30 seconds for 63% Step
<b>Operating Temp</b>	• -10 to 160oF (-23.3 to 71oC)
<b>Operating RH</b>	• 0 to 100% RH
<b>RH Output</b>	• 0-10 VDC
<b>RH Accuracy @ 77oF</b>	• < +/- 3% RH nominal
<b>Interchangeability</b>	• Less than 2% RH Drift / 5 Years
<b>Long Term Stability</b>	• +/- 3% from 20-95% RH
<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>Temperature Output</b>	• 10K Ohms @ 25oC (77oF)
<b>Temp. Sensor Accuracy</b>	• +/- 0.2oC from 0-70oC (32-158oF)
<b>Temp. Sensor Wire Colors</b>	• White / White
<b>Temp. Sensor Connections</b>	• Mate N Lock 2 pin Connector



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## Device Detail

### Dimensions



## Ordering Information

Model #	Description
L02-03-0102	RH Duct Humidity with a 10K Ohm Type III Thermistor