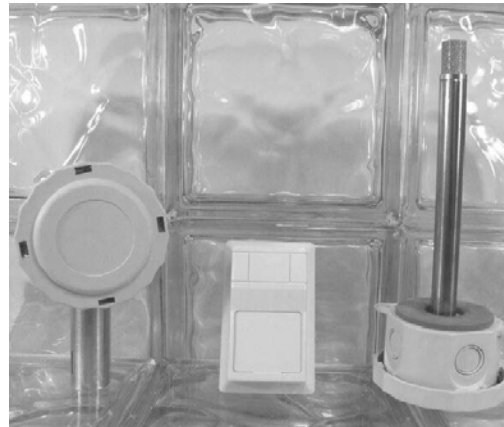


# TVI-RH3-TT100 TEMPERATURE AND HUMIDITY TRANSMITTER



## Product Description

The TVI-RH Series Relative Humidity transmitters convert a resistance to a linear 4 to 20 mA, 0 to 5 VDC, or 0 to 10 VDC output. The current signal may be transmitted over long distances on unshielded twisted-pair wire. The current signal will not be affected by lead wire resistance or electrical noise.

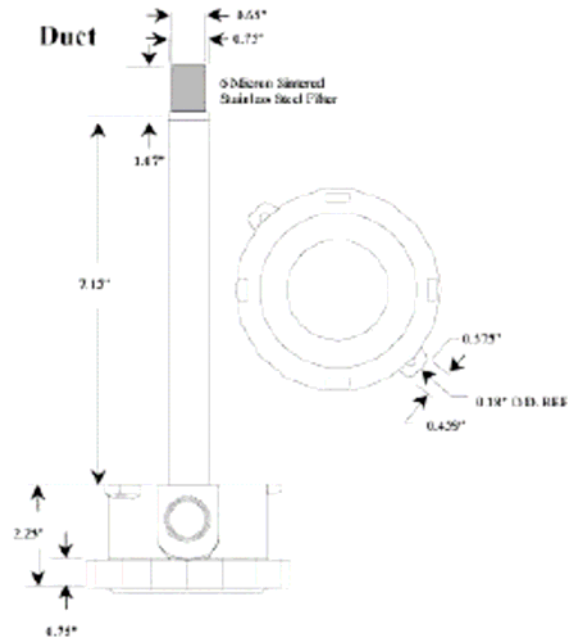
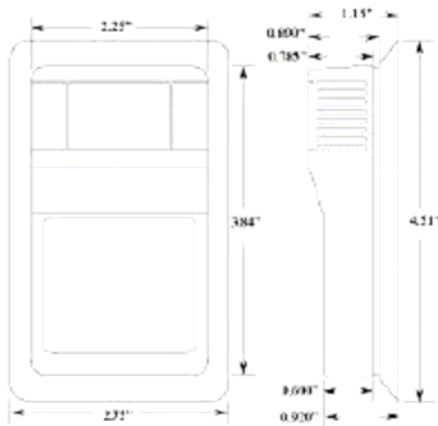
The Advanced Ceramic Technology design overcomes the limitations of other resistance based humidity sensors that utilize water soluble polymer coatings. The Advanced Ceramic Technology enables these sensors to fully recover from condensation. This allows the sensor to maintain its accuracy over a longer 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. Calibration of the 4-20mA transmitter can be done using the Zero and Span potentiometers. 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 TVI-RH-TT Series humidity transmitter is calibrated at 3 different points, using a NIST Traceable Temperature/Humidity chamber.

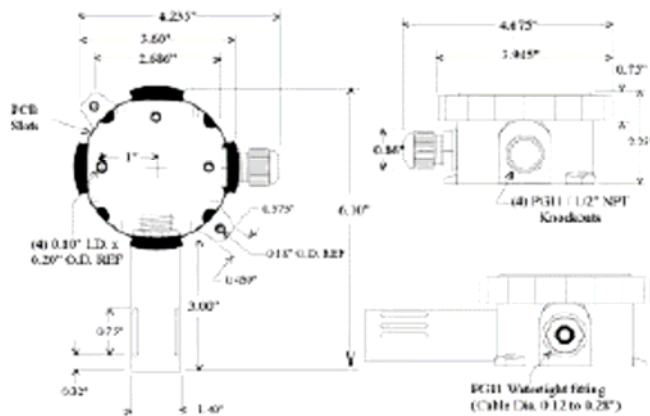
## Product Specifications

<b>Supply Voltage</b>	250 ohm Load: +15 to 36VDC /24VAC 500 ohm Load: +18 to 36VDC /24VAC	<b>Response Time</b>	30 seconds for 63% Step
<b>Operating Temp</b>	-10 to 160 °F (-23 to 71°C)	<b>Saturation Response</b>	10 minutes for 63% Step
<b>Operating RH</b>	0 to 100% RH	<b>Sensitivity</b>	0.1%RH
<b>Output</b>	2-wire, 4 to 20 mA or 3-wire, 0-5VDC, 0-10 VDC or 4-20mA (24VAC)	<b>Repeatability</b>	0.5% RH
<b>RH Accuracy @ 77°F (25°C)</b>	+/-1% over 20% span between 20 to 95% RH +/-2, 3 or 5% RH from 20 to 95%	<b>Interchangeability</b>	< +/- 3%RH nominal
		<b>Hysteresis</b>	Less than 0.4% RH
<b>Long Term Stability</b>	Less than 2% RH drift / 5 year	<b>Temp. Supply Volt.</b>	+8 to 35 VDC
<b>Temperature Output</b>	4-20mA, +1-5VDC or +2-10VDC	<b>Temp. Sensor</b>	100 or 1K ohm PRTD
<b>Temp. Accuracy</b>	+/-0.1% of span	<b>Temp. Sensor Acc.</b>	+/-0.06% Class A

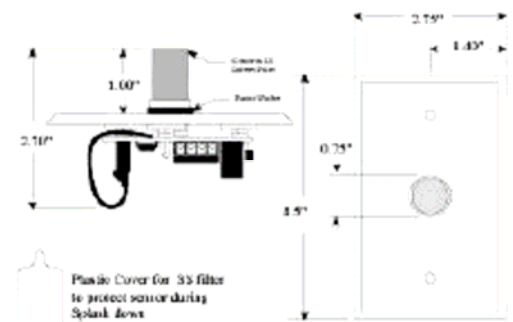
## Dimensions Room



## Outside



## Stainless Plate



## Ordering Specification

TVI- [ ] -[ ] -[ ] -[ ] -[ ]  
 RH3 (+/-3%) -TT100(temp) Temp range -R (room)  
 -D (duct)  
 -O (outside)

**Example:** TVI-RH3-TT100-(15 to 35deg C)-R