

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 and 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 technology also 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.

Accuracy is maintained over the operating range using a thermistor for temperature compensation.

Precision production tolerances maintain sensor interchangeability to within +/- 3%.

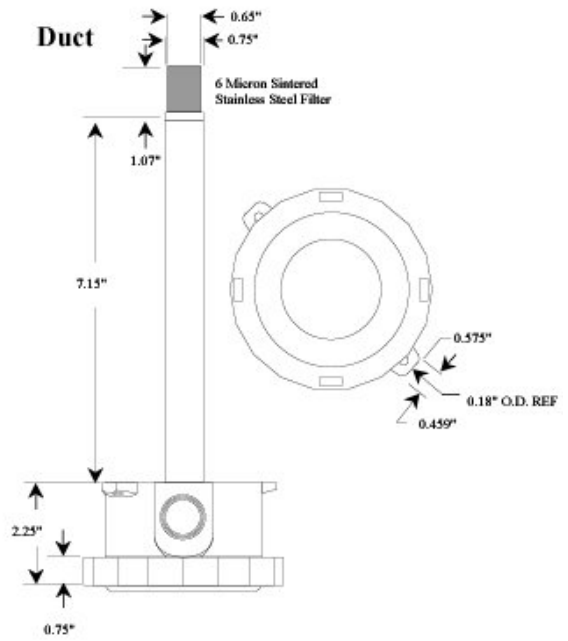
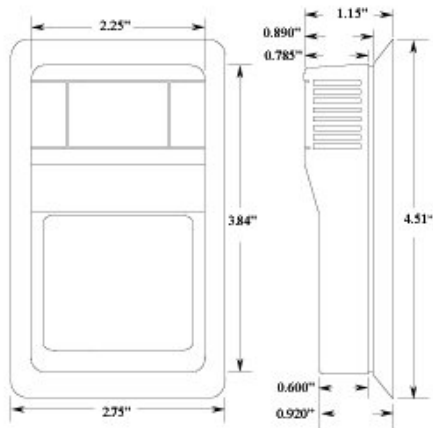
The TVI-RH transmitter is extremely versatile using on board dip switches to select both the supply voltage and output signal range. Field calibration can also be done by using the on board increment and decrement dip switches. Each toggle will allow for a +/- 0.5% RH increase or decrease. Calibration of the 4-20mA transmitter can also be done using the Zero and Span potentiometers.

The additional benefits of this technology can be employed for less than many inferior types of sensors. Each TVI-RH Series humidity transmitter is calibrated at 3 different points, using a NIST Traceable Temperature/Humidity Chamber.

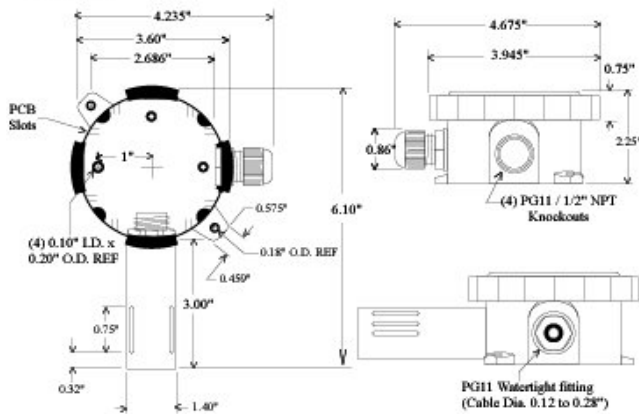
Product Specifications

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

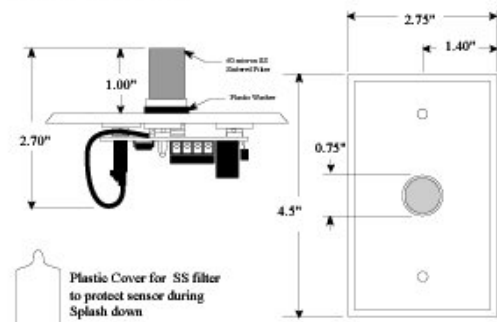
Dimensions Room



Outside



Stainless Plate



Ordering Information

	Accuracy	Configuration
TVI-	[]	- []
	RH3 (+/-3%)	(R) Room
		(D) Duct
		(O) Outdoor Air
		(SP) Stainless Plate

Example: TVI-RH3 – R or TVI-RH3 – D or TVI-RH3 – O

Note: 1% (over a 20% span), 2% and 5% accuracy are available upon request.