

Relative Humidity/Temperature Combinations



**I/RH-TEMP
Series**



Product Description

The I/RH-T 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 the 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 recover fully 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.

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

The additional benefits of this technology can be employed for less than many inferior types of sensors.

Each I/RH-T Series humidity transmitters are calibrated at 3 different points, using an NIST Traceable Humidity Chamber.

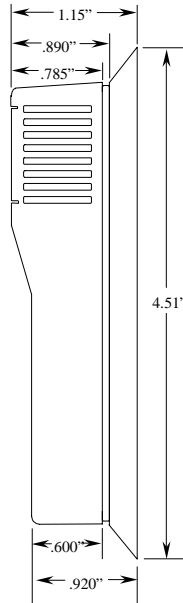
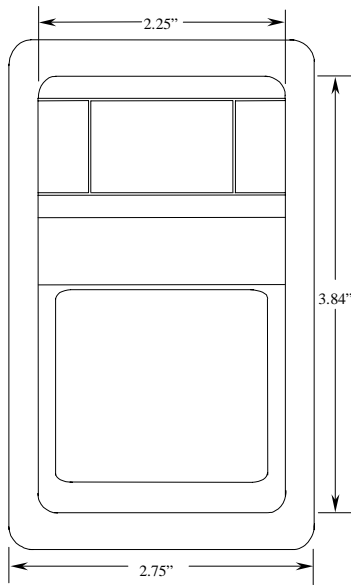
Any thermistor, RTD, or temperature transmitter may be ordered with the I/RH transmitter. All RHT-TT Room combination units, will have a board mounted on the back of the enclosure.

Product Specifications

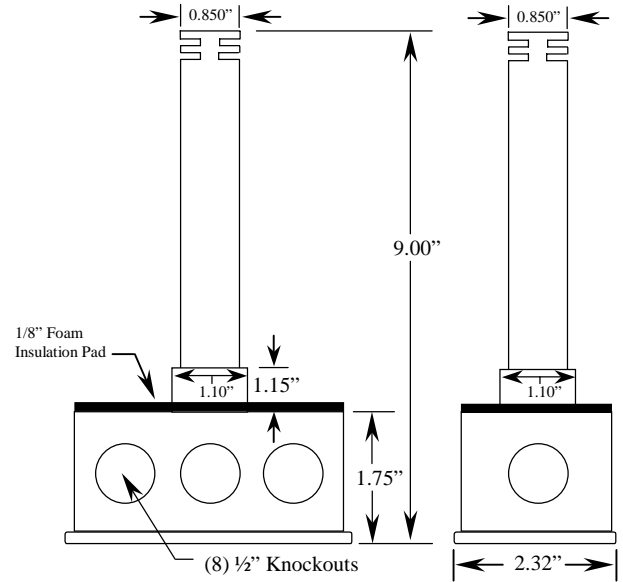
Supply Voltage	250 Ohm Load: +15 to 36 VDC / 24 VAC 500 Ohm Load: +17 to 36 VDC / 24 VAC	Response Time	30 seconds for 63% Step
Operating Range	-10 to 160°F (-23.3 to 71°C)	Saturated Response Time	10 minutes for 63% Step
Operating RH	0 to 100% RH	Sensitivity	0.1% RH
Output	2-wire, 4 to 20 mA or 3-wire 0-5, 0-10 VDC	Repeatability	0.5% RH
Accuracy	+/- 2, 3, or 5% from 20 to 95% RH	Interchangeability	< +/- 3% RH
Long Term Stability	Less than 2% RH Drift / 5 Years	Hysteresis	Less than 0.4% RH

Dimensions

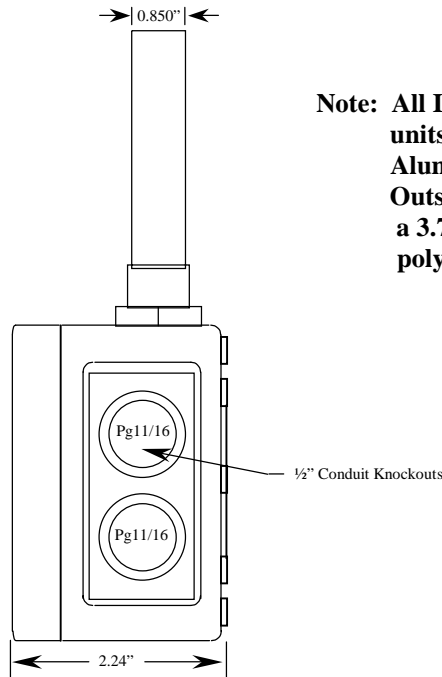
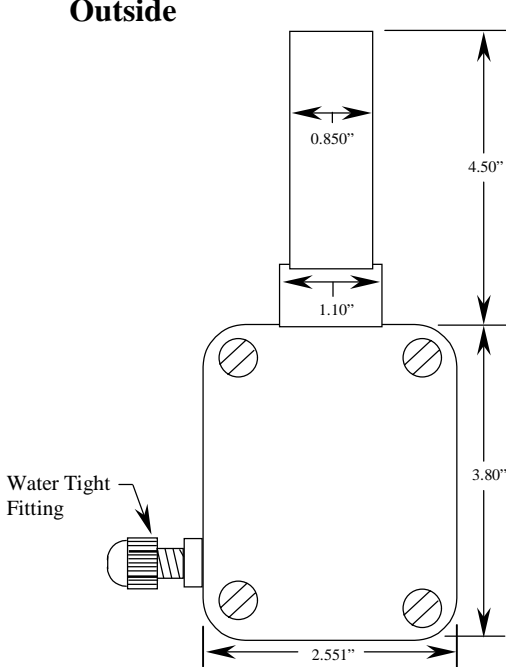
Room



Duct



Outside



Note: All I/RHT-TT Duct style combination units come in a 4.7" x 4.7", 2 Gang Aluminum Bell Box and all I/RHT-TT Outside style combination units come in a 3.7" x 3.7", 2 Gang NEMA 4X polystyrene enclosure.

Ordering Information

I /	Accuracy []	Temp Sensor []	Span []	Configuration []
	↑	↑	↑	↑
	RH2 (2%)	Please Specify	If TT Sensor ordered only!	(R) Room
	RH3 (3%)			(D) Duct
	RH5 (5%)			(O) Outside Air

Example: I/RH3 -AN -R or I/RH5 -TT1K -(0 to 100°F) -D