

Relative Humidity/Temperature Combinations



**ACI/RH-TT
Series**



Product Description

The ACI/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 ACI/RH Series humidity transmitter is calibrated at 3 different points, using a NIST Traceable Temperature/Humidity chamber.

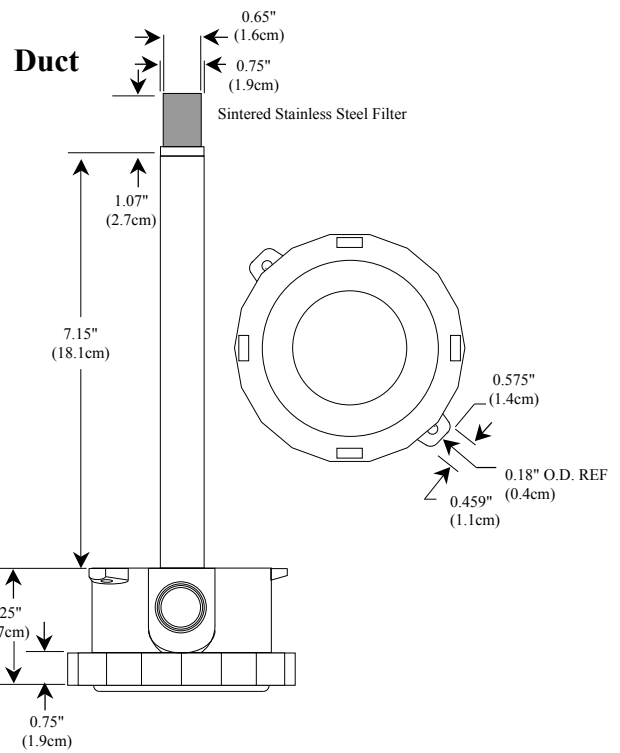
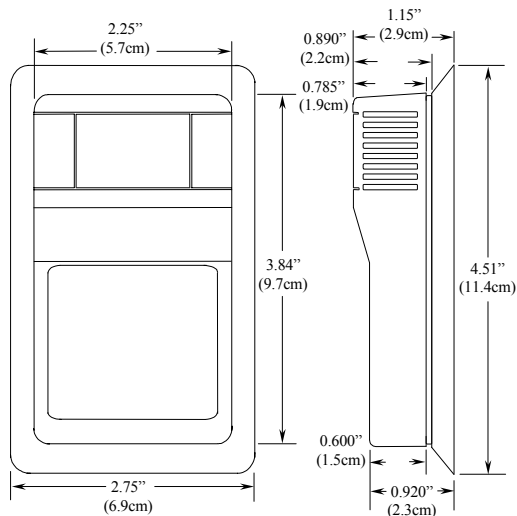
Any ACI/TT, ACI/TTU or ACI/TTM series may be ordered with the ACI/RH transmitter.

All ACI/RH-TT Series transmitters come with a two year factory warranty. Please contact ACI for more information regarding any of these products.

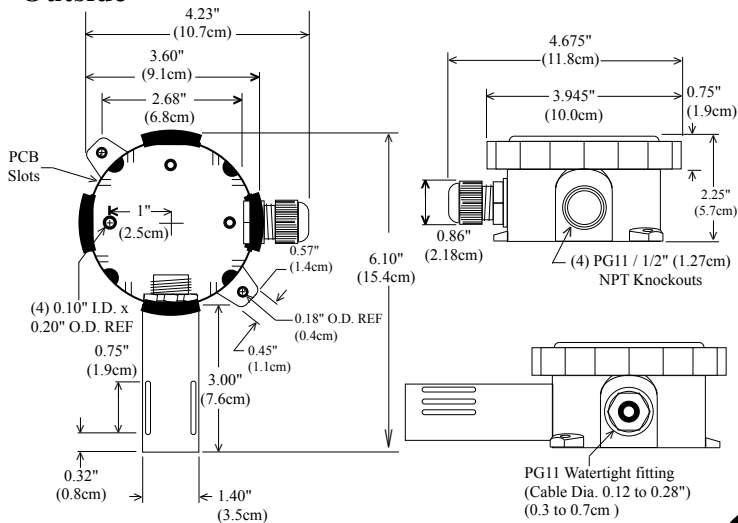
Product Specifications

Supply Voltage	250 Ohm Load: +15 to 36 VDC / 24 VAC 500 Ohm Load: +18 to 36 VDC / 24 VAC	Response Time	30 seconds for 63% Step
Operating Temp 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 or 4-20 mA(24VAC)	Repeatability	0.5% RH
RH Accuracy @ 77°F	+/- 1% over 20% Span between 20-95% RH +/- 2, 3 or 5% from 20 - 95% RH	Interchangeability	< +/- 3% RH nominal
		Hysteresis	Less than 0.4% RH
Long Term Stability	Less than 2% RH Drift / 5 Years	Temp. Supply Voltage	+8 to 35 VDC
Temperature Output	4 to 20mA, +1 to 5 VDC, or +2 to 10VDC	Temp. Sensor	100 or 1K Ohm PRTD
Temperature Accuracy	+/- 0.1% of Span	Temp. Sensor Accuracy	+/- 0.06% Class A

Dimensions Room



Outside



For CE compliance, sensor leads must be no longer than 3 meters in length. Additionally, certain product variations may not be CE compliant. Contact ACI for further details

Ordering Information

A/	Accuracy	Range if 1%	Temp. Sensor	Temp. Span	Configuration
	[]	[]	[]	[]	[]
	↑	↑	↑	↑	↑
	RH1 (+/- 1%)	Specify a 20 % Range	TT100	(1) 40 to 90°	(R) Room
	RH2 (+/- 2%)		TT1K	(2) 30 to 100°	(D) Duct
	RH3 (+/- 3%)		TTU100	(3) 20 to 120°	(O) Outdoor Air
	RH5 (+/- 5%)		TTU1K	(4) 40 to 140°	
			TTM100	(5) 40 to 240°	
			TTM1K	(6) -30 to 130°	
				(7) 0 to 150°	
				(8) Specify	

Example: A/RH3-TT100-1-R or A/RH5-TT1K-5-O or A/RH1-(40 to 60)-TTM1K-3-D

2305 Pleasant View Rd. Middleton Industrial Park Middleton, WI 53562

RH-6

PH: (608) 831-2585 FAX: (608) 831-7407