



Product Data

A/RH Series Relative Humidity Transmitters

Product Description

The A/RH Series Relative Humidity transmitters convert a resistance to a proportional 4 to 20 mA, 0 to 5 VDC, or 0 to 10 VDC output. Accuracy is maintained over the entire operating range using a thermistor for temperature compensation. This series is offered in accuracies of 5%, 3%, 2% and 1% and in mounting configurations of room, duct, outside, and wall plate.

The A/RH Series uses an Advanced Ceramic Technology design which 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 also allows the sensor to maintain its accuracy over a longer period of time. Despite its high accuracy, the Advanced Ceramic Technology sensor and related circuitry is economical.

Each A/RH Series humidity transmitter is calibrated using a NIST Traceable Temperature /Humidity Chamber. Three and five point NIST certificates are available for both 1% and 2% RH accuracies but must be ordered separately.

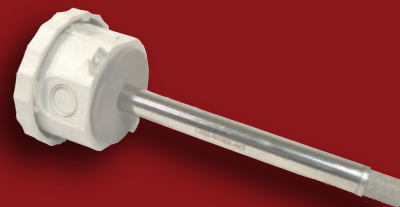
The A/RH Series is covered by ACI's Five (5) Year Limited Warranty, which Limited Warranty is located in the front of ACI'S SENSORS & TRANSMITTERS CATALOG or can be found on ACI's Website, which is: www.workaci.com.

Product Specifications

Supply Voltage	4 to 20mA (250 Ohm Load): 15 to 40 VDC / 18 to 28 VAC 4 to 20mA (500 Ohm Load): 18 to 40 VDC / 18 to 28 VAC 0-5 VDC: 12 to 40 VDC / 18 to 28 VAC (4K Load Min.) 0-10 VDC: 18 to 40 VDC / 18 to 28 VAC (4K Load Min.)
Supply Current (Voltage Output) Supply Current (Current Output)	8 mA Max. 24 mA Max.
RH Measurement Range	0 to 100%
RH Output	2-wire, 4 to 20mA (Factory Standard) 3-wire, 0-5, 0-10 VDC or 4 to 20mA
Accuracy @ 77°F (25°C)	+/- 1% over 20% span (between 20 to 90%) +/- 2%, 3%, or 5% from 20 to 95%
Long Term Stability	Less than 2% drift / 5 years
Hysteresis	Less than 0.4% RH
Repeatability	0.5% RH
Sensitivity	0.1 % RH
Response Time	110 seconds for 63% Step
Saturation Response Time	10 minutes for 63% Step
Operating Humidity Range	0 to 95 % RH non-condensing
Operating Temperature Range	Duct / Outside: -10 to 122°F Room: 32 to 122°F

Wiring Diagrams available at www.workaci.com/instructions.htm

Relative Humidity



Attributes:

- Single point Field Calibration
- Field selectable output signals
- 1%, 2%, 3%, and 5% Accuracies
- Low Drift
- Highly Repeatable
- Calibration Certificates Available
- RoH's Compliant

Applications:

- Building Automation Systems
- Light Industrial
- Pharmaceutical
- Humidity Chambers
- Data acquisition
- OEM



Made in the USA

Automation Components, Inc.
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FAX: (608) 831-7407

DISPLAYS

TEMPERATURE

RELATIVE HUMIDITY

PRESSURE

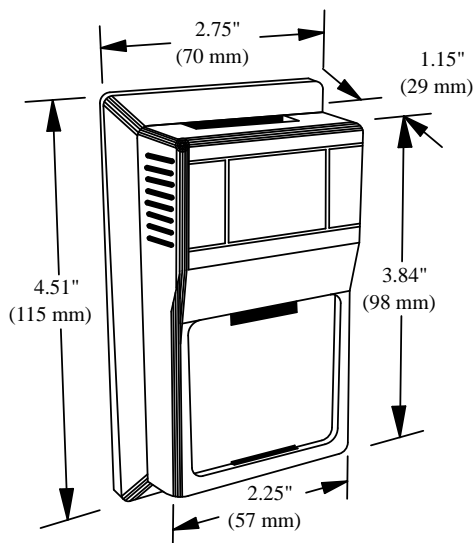
CURRENT

AIR QUALITY

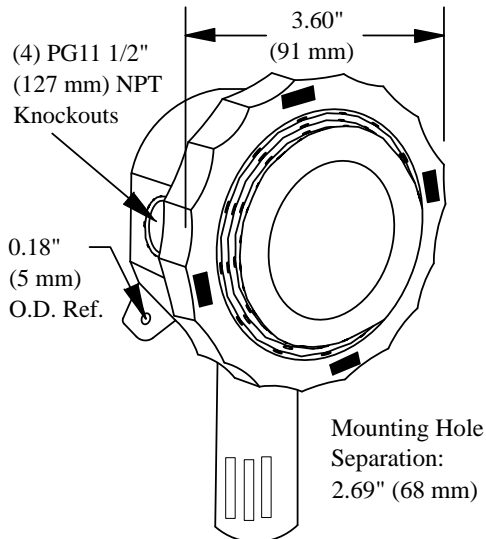
ACCESSORIES

Dimensions

Room

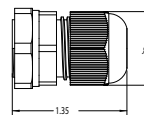
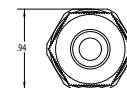


Outside

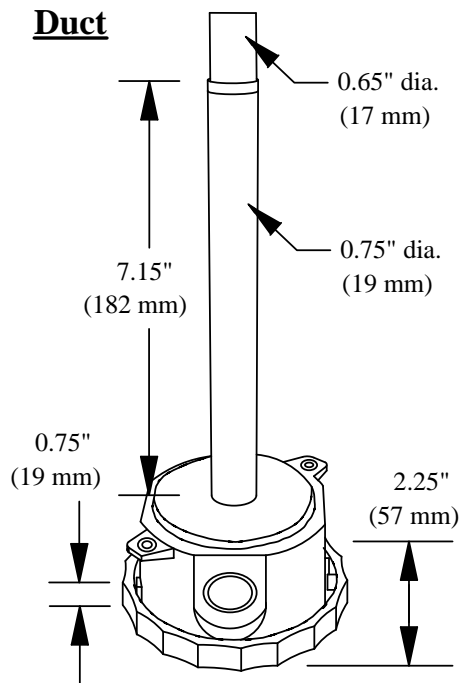


Water Tight Fitting

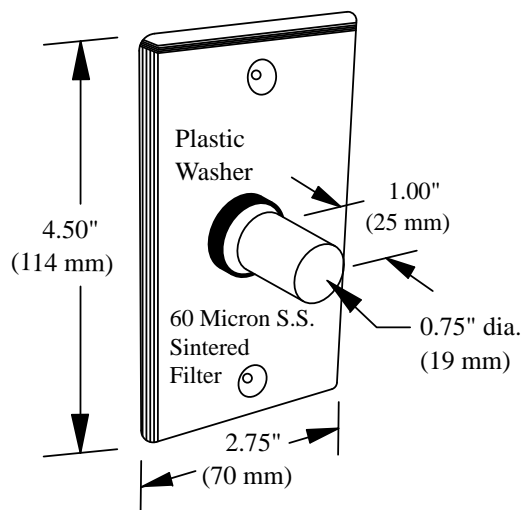
Included with Outside



Duct



Stainless Plate



ACI's RH series have field selectable outputs and they are preset to 4 to 20 mA by default. However, you can have them factory preset to 0 to 5 or 0 to 10 VDC by adding a (-5) or (-10), respectively, to the end of the part number.

Ordering Information

A/	Accuracy []	Range if 1% -[]	Configuration -[]	Optional LCD (Available on Room units only) -[]
	↑	↑	↑	↑
	RH1 (+/- 1%)	Please Specify	(R) Room	(LCD) LCD Display (Not available on 1%)
	RH2 (+/- 2%)	a 20% Span	(D) Duct	
	RH3 (+/- 3%)	(i.e. 40-60%)	(O) Outdoor Air	
	RH5 (+/- 5%)		(SP) Stainless Plate	
	3 PT NIST Certificate (3 point Calibration Certificate @ 20, 50 and 80% RH)			
	5 PT NIST Certificate (5 point Calibration Certificate w/standard points chosen by ACI)			

Example: A/RH3-R or A/RH5-D or A/RH2-O or A/RH1-(40 to 60%)-SP

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