



Product Data

A/RH-TEMP Series

Relative Humidity/
Temperature Combinations

Product Description

The A/RH-TEMP 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 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.

Each A/RH-TEMP Series humidity transmitter is calibrated using an NIST Traceable Temperature and Humidity Chamber.

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

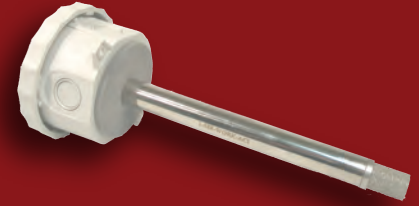
The A/RH-TEMP Series is covered by ACI's Five (5) Year Limited Warranty, which is located in the front of ACI'S SENSORS & TRANSMITTERS CATALOG or can be found on ACI's web site, which is: www.workaci.com.

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 (10K Load Min.) 0-10 VDC: 18 to 40 VDC / 18 to 28 VAC (10K Load Min.)
Supply Current (Voltage Output)	8 mA Max.
Supply Current (Current Output)	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

RH-TEMP



Attributes:

- Low drift
- Highly repeatable
- Temperature sensor output
- Field selectable output signals
- Single point field calibration using DIP switches
- Lowers inventory costs
- RoH's compliant
- CE approved except for Temp. Transmitter models

Applications:

- Light industrial
- Pharmaceutical
- Humidity chambers
- Pool environments
- Process control



Made in the USA

Automation Components, Inc.

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TEMPERATURE

RELATIVE HUMIDITY

PRESSURE

CURRENT

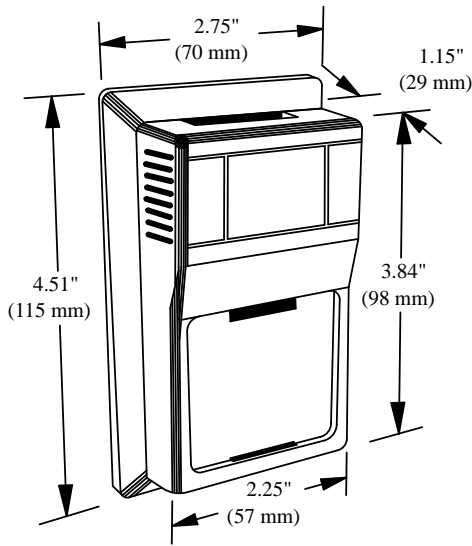
GAS SENSORS

ACCESSORIES

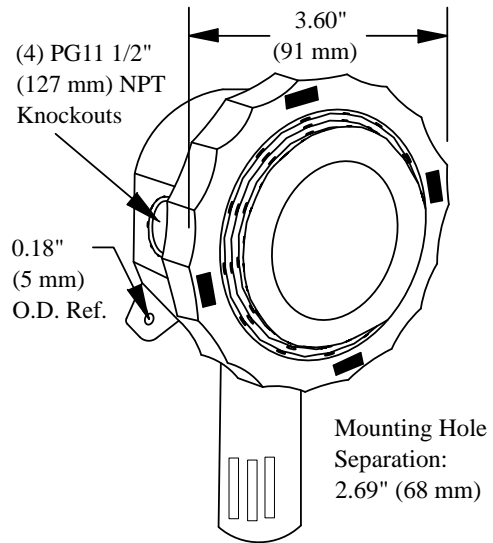
INTERFACE DEVICES

Dimensions

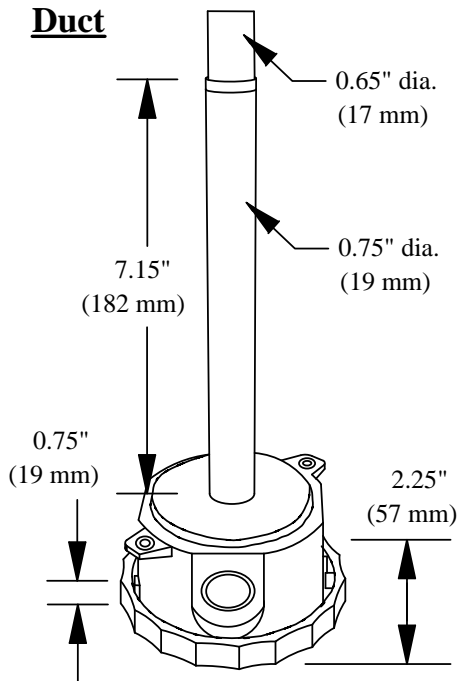
Room



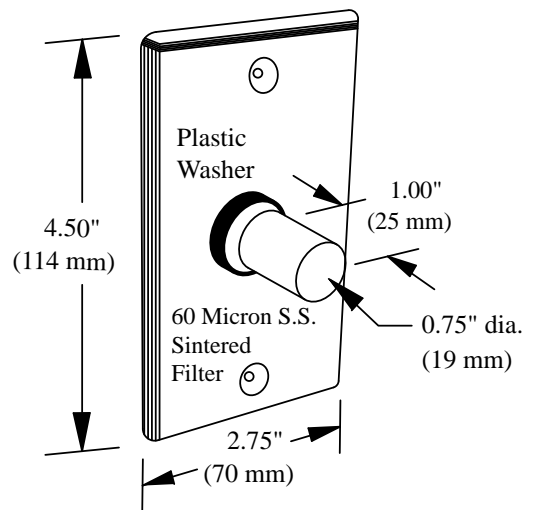
Outside



Duct



Stainless Plate



Ordering Information

Accuracy A/ []	Temp Sensor []
RH1 (+/- 1%)*	100, 1K , (Platinum RTDs)
RH2 (+/- 2%)	1K-NI (Nickel RTDs)
RH3 (+/- 3%)	3K, 10KS, 100KS
RH5 (+/- 5%)	AN (10K Type III) CP (10K Type II) CSI (10K), 20K, 1.8K TT1K** , TT100** TTM1K** , TTM100**

Configuration []	Temp Transmitter Output (if needed) []
(R) Room	(4) 4 to 20mA Output
(RO) Room w/Override	(1) 1-5 VDC Output
(RS) Room w/Setpoint*	(2) 2-10VDC Output
(RSO) Room w/Setpoint &Override*	
(D) Duct	
(O) Outdoor Air	
(SP) Stainless Plate (Not available on 1%)	

*Specify a 20 % RH Range when ordering an A/RH1%

**Specify a Temperature span for TT and TTM Units plus the (SP) Stainless Plate configuration is not available for these units

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