



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. All A/RH-Temp Series transmitters have a limited five year warranty.

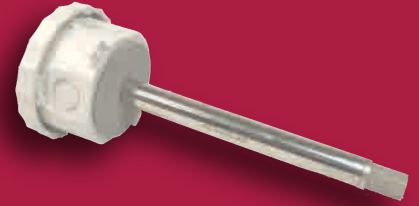
Product Specifications

Supply Voltage	250 Ohm Load: +15 to 36 VDC / 24 VAC 500 Ohm Load: +18 to 36 VDC / 24 VAC
Power Consumption	1 VA max.
RH Measurement Range	0 to 100% RH
RH Output Signal	2-wire, 4-20mA, 3-wire 0-5 or 0-10 VDC
Temperature Sensor Output	2-Wire Resistive, or 2-wire uA Output
Temperature Transmitter Output	2-wire, 4 to 20mA, or 3-wire, 1-5, 2-10 VDC
Accuracy @ 77°F (25°C)	+/- 1% over 20% Span between 20-95% RH +/- 2, 3, or 5% from 20 to 95% RH
Repeatability	0.5% RH
Hysteresis	Less than 0.4% RH
Long Term Stability	Less than 2% RH Drift / 5 Years
Response Time	110 seconds for 63% Step
Saturated Response Time	10 minutes for 63% Step
Operating Temp. Range	-10 to 122°F (-23.3 to 50°C)
Operating RH Range	0 to 100% RH

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

C0000106 Rev 2.pdf

RH-TEMP



Attributes:

- Low Drift
- Highly Repeatabile
- Temperature Sensor Output
- Field Selectable Output Signals
- Single Point Field Calibration using DIP Switches
- Lowers Inventory Cost

Applications:

- Light Industrial
- Pharmaceutical
- Humidity Chambers
- Pool Environments
- Process Control



Made in the USA

Automation Components, Inc.

2305 Pleasant View Rd.

Middleton, WI 53562

PH: (608) 831-2585

FAX: (608) 831-7407

DISPLAYS

TEMPERATURE

RELATIVE HUMIDITY

PRESSURE

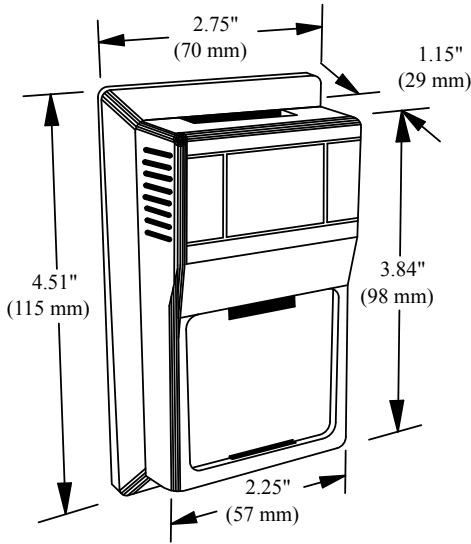
CURRENT

AIR QUALITY

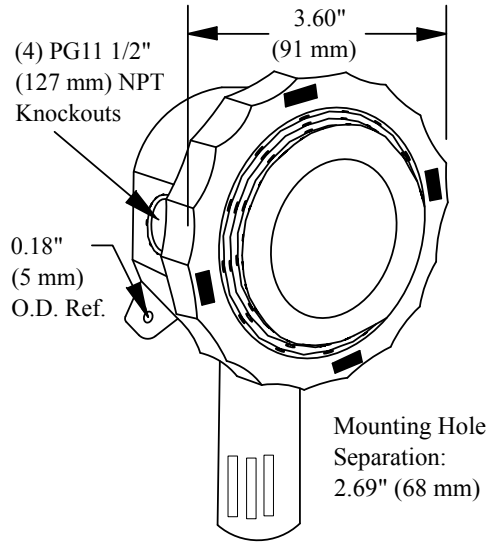
ACCESSORIES

Dimensions

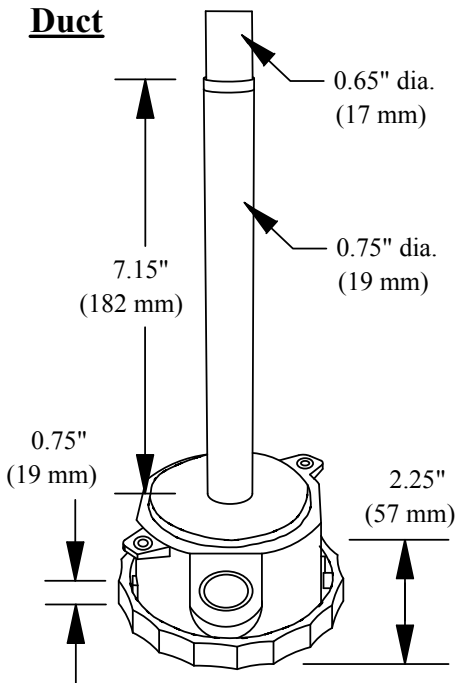
Room



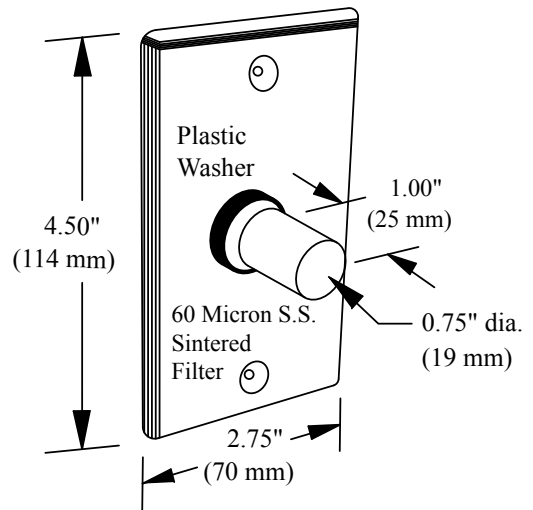
Outside



Duct



Stainless Plate



Ordering Information

Accuracy A/ []	Temp Sensor []	Configuration []	Temp Transmitter Output (if needed) []
RH1 (+/- 1%)*	100 1K 1.8K	(R) Room	(4) 4 to 20mA Output
RH2 (+/- 2%)*	2.2K ASI 3K	(RO) Room w/Override	(1) 1-5 VDC Output
RH3 (+/- 3%)*	AN(10K Type III)	(RS) Room w/Set Point*	(2) 2-10VDC Output
RH5 (+/- 5%)*	CP(10K Type II)	(RSO) Room w/Set Point	
	CSI(10K) 20K 100K	&Override*	
	1K Nickel 10KS (10K)	(D) Duct	
	TT1K** TT100**	(O) Outdoor Air	
	TTM1K** TTM100**	(SP) Stainless Plate	

*Specify a 20 % RH Range when ordering an A/RH1% **Specify a Temperature span for TT and TTM Units.

The (SP) Stainless Plate configuration is not available for these units

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