



Product Data

A/RH-TEMP Series Relative Humidity/ Temperature Combinations

Product Description

The A/RH-TEMP Series relative humidity transmitters utilize a capacitive sensing element to deliver 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 stainless steel wall plate (Please note that stainless wall plate models are not available in 1% accuracies).

The A/RH-TEMP Series has on board DIP switches which allow the user to select the desired output signal and can be powered by AC or DC power sources. In addition, field calibration can be performed by using the on board increment and decrement DIP switches. These enhancements provide increased flexibility and outstanding long-term performance.

Each A/RH-TEMP Series humidity transmitter is calibrated using a NIST Traceable Temperature/Humidity Chamber. Any ACI thermistor, RTD, or temperature transmitter may be ordered with the A/RH transmitter (see order grid). 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

RH Supply Voltage (for temperature supply voltage and additional specs, see corresponding temperature spec sheets)	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) (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 10 to 95%	
Long Term Stability	Less than 2% drift / 5 years	
Repeatability	0.5% RH	
Sensitivity	0.1 % RH	
Operating Environment	Duct / Outside: 0 to 100 % RH -40 to 140°F (-40 to 60° C)	Room: 0 to 95% RH (non-condensing) 32 to 122°F (0 to 50°C)
RH Sensor Type	Capacitive	
Approvals	*CE, RoHS *TT Series transmitters are not CE compliant	

Wiring Diagrams available at www.workaci.com

RH-TEMP



Attributes:

- Low drift
- High repeatability
- Temperature sensor output
- Field selectable output signals
- Single point field calibration
- Increased resistance against chemical vapors such as: isopropyl, benzene, ammonia and common cleaning agents.

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

TEMPERATURE

RELATIVE HUMIDITY

PRESSURE

CURRENT

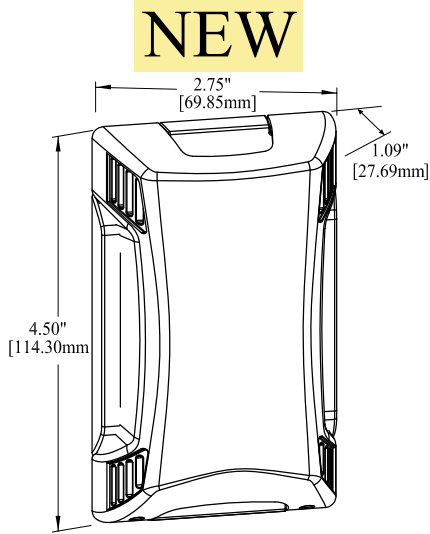
GAS SENSORS

ACCESSORIES

INTERFACE DEVICES

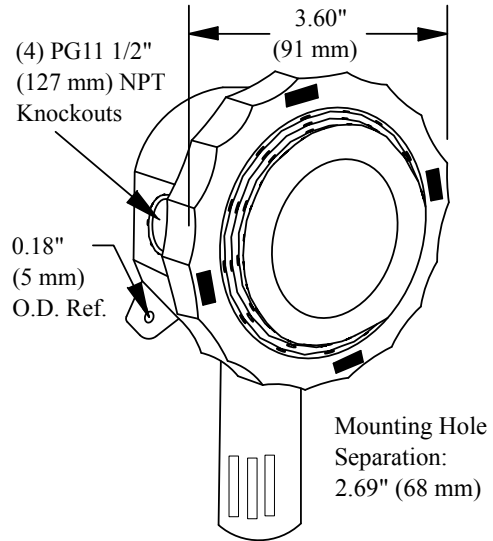
Dimensions

Room

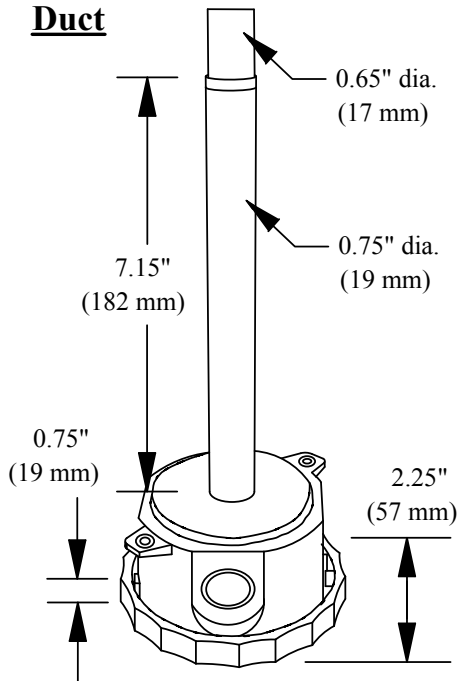


R2= New Aries Enclosure OR R= Previous Infinity Enclosure

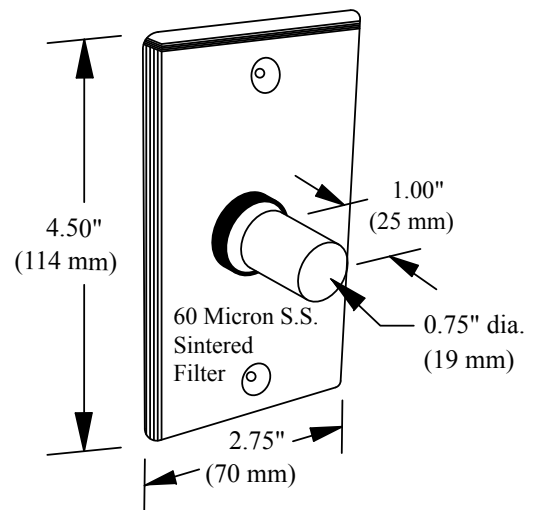
Outside



Duct



Stainless Plate



(Configurations shown are based on having resistive temperature sensors)

Ordering Information

Accuracy	Temp Sensor
A/ []	- []
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
Temperature Transmitters	TT1K**, TT100**
	TTM1K**, TTM100**

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

Configuration	TT100, TT1k, TTM100, and TTM1K model outputs
- []	- []
(R2) Room	(4) 4 to 20mA Output
(R2O) Room w/Override	(1) 1-5 VDC Output
(R2S) Room w/Setpoint***	(2) 2-10VDC Output
(R2SO) Room w/Setpoint & Override***	***See Temperature cut sheet for setpoint specifications
(D) Duct	
(O) Outdoor Air	
(SP) Stainless Plate (Not available with the TT series or in 1% accuracy)	

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

2305 Pleasant View Road Middleton, WI 53562

PH: (888) 967-5224 www.workaci.com

TEMPERATURE
RELATIVE HUMIDITY
PRESSURE
CURRENT
GAS SENSORS
ACCESSORIES
INTERFACE DEVICES