



# REMOTE PROBE

## *Humidity Transmitter with Remote Sensor*

The ACI RH Remote Series option gives mounting flexibility for your remote sensing applications. They utilize a capacitive sensing element to deliver a proportional relative humidity analog output and are also offered in conjunction with a temperature output (analog or resistive). The remote probe wiring harness comes in lengths of 3, 6, 10, or 20 feet. Single point RH field calibration can be done by using the increment and decrement dip switches. Each toggle will allow for a  $\pm 0.5\%$  RH increase or decrease. Calibration of the RH 4-20 mA transmitter can also be done using both the Zero & Span potentiometers. All models feature conformally coated circuit boards for moisture resistance. Enclosure options include either a weather resistant Euro enclosure (RH only and Resistive Temperature combinations), or a moisture and corrosion resistant NEMA 4X enclosure (Analog Temperature combinations).

The A/RH Remote Probe Series is covered by ACI's Five (5) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's web site, [www.workaci.com](http://www.workaci.com).



## SPECIFICATIONS

|                                          |                                                                                            |                                     |
|------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------|
| <b>RH Supply Voltage (4 to 20 mA)</b>    | 250 Ohm Load: 15 to 40 VDC/18 to 28 VAC (For Temperature Supply Voltage see TT datasheet ) |                                     |
| <b>RH Supply Voltage (4 to 20 mA)</b>    | 500 Ohm Load: 18 to 40 VDC/18 to 28 VAC                                                    |                                     |
| <b>RH Supply Voltage (0-5 VDC)</b>       | 12 to 40 VDC/18 to 28 VAC (4K Load minimum)                                                |                                     |
| <b>RH Supply Voltage (0-10 VDC)</b>      | 18 to 40 VDC/18 to 28 VAC (4K Load minimum)                                                |                                     |
| <b>Supply Current</b>                    | Voltage Output: 8 mA maximum                                                               | Current Output: 24 mA maximum       |
| <b>RH Measurement Range</b>              | 0-100%                                                                                     |                                     |
| <b>RH Output</b>                         | 2-wire: 4 to 20 mA (standard)                                                              | 3-wire: 0-5, 0-10 VDC or 4 to 20 mA |
| <b>Accuracy @ 77°F (25°C)</b>            | +/- 2% from 10 to 100%                                                                     |                                     |
| <b>Long Term Stability</b>               | Less than 2% drift/5 years                                                                 |                                     |
| <b>RH Sensor Type</b>                    | Capacitive                                                                                 |                                     |
| <b>Repeatability</b>                     | 0.5% RH                                                                                    |                                     |
| <b>Sensitivity</b>                       | 0.1% RH                                                                                    |                                     |
| <b>Operating Environment</b>             | 0 to 100% RH (non-condensing)                                                              | -40 to 140°F (-40 to 60°C)          |
| <b>Temperature Transmitter Accuracy</b>  | +/- 0.2% spans > 100°F; +/- 0.5% span <100°F                                               |                                     |
| <b>Calibrated Temp Transmitter Range</b> | 50°F (28°C) minimum/1000°F (550°C) maximum                                                 |                                     |
| <b>Product Dimensions (Euro)</b>         | Enclosure: (DIA) 4.00" (H) 2.25" Probe: (L) 5.21"                                          |                                     |
| <b>Product Dimensions (NEMA 4X)</b>      | Enclosure: (L) 3.71" (W) 3.71" (D) 2.13" Probe: (L) 5.21"                                  |                                     |

## ORDERING

Please select an Accuracy (A), Temperature Sensor (B), Configuration (C), RH Output (D) & one TT Model Output (E). Please note that RH model is defaulted to a 4 to 20 mA output. For the TT output of (1 to 5 VDC) or (2 to 10 VDC), the RH would have an output of either (0 to 5 VDC) or (0 to 10 VDC), respectively. You can change your RH output in the field between 4 to 20 mA, 0 to 5 VDC, or 0 to 10 VDC, as well. Please indicate the required temperature calibration span at the time of your order.

|                                                                            |                                                                                                                                                             |                                                                                                                                                                                          |                                                                                                                     |                                                                                                                                                              |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A</b> Accuracy                                                          | <b>B</b> Temperature Sensor                                                                                                                                 | <b>C</b> Configuration                                                                                                                                                                   | <b>D</b> RH Output                                                                                                  | <b>E</b> TT Model Output                                                                                                                                     |
| <input type="radio"/> A/RH2 (+/-2%)<br><input type="radio"/> A/RH3 (+/-3%) | <input type="radio"/> ---- (None) (Complete B, C & D)<br><input type="radio"/> TTM1K (Complete B, C & E)<br><input type="radio"/> 1K-2W (Complete B, C & D) | <input type="radio"/> RP-3' (3 Foot Cable)<br><input type="radio"/> RP-6' (6 Foot Cable)<br><input type="radio"/> RP-10' (10 Foot Cable)<br><input type="radio"/> RP-20' (20 Foot Cable) | <input type="radio"/> ---- (4 to 20 mA)<br><input type="radio"/> 5 (0-5 VDC)<br><input type="radio"/> 10 (0-10 VDC) | <input type="radio"/> 4 (4 to 20 mA) (Specify Span)<br><input type="radio"/> 1 (1-5 VDC) (Specify Span)<br><input type="radio"/> 2 (2-10 VDC) (Specify Span) |

## BUILD PART NUMBER

After completing (A), (B), (C), (D) & (E) from the above table, fill in the Part Number Table below. An example part number is offered.

|          |          |          |          |          |
|----------|----------|----------|----------|----------|
|          |          |          |          |          |
| <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> |

EXAMPLE: A/RH2 - TTM1K - RP-10' - 4

The Euro enclosure has a UL94-V0 flammability rating.

