

Quick start...

Set the meter to the 200 mVDC range and read relative humidity % or temperature °F directly.

Introduction...

The Fieldpiece Model ARH2 converts relative humidity or temperature °F to a DC voltage easily measured by most DMM's. To get an accurate reading, time must be allowed for the relative humidity sensor to come to equilibrium. The bigger the change, the longer the time. This time can be shortened by waving the head or blowing air by it. The ARH2 does not need to be connected to the meter to come to equilibrium.

The model ARH2 converts relative humidity % to voltage at a rate of 1 RH% to 1mV (1000 to 1) or temperature °F at a rate of 1°F to 1mV (1000 to 1).

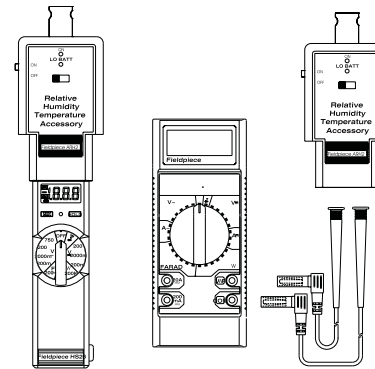
The ARH2 was designed to snap directly onto the Fieldpiece HS Series DMM. To use with the Fieldpiece HB70 series, or any DMM that has the industry standard "Fluke"

style input jacks, use the deluxe test leads (ADL2). The meter must have at least a 200mVDC range to display 0.1 RH% or 0.1°F and 2V to display 1 RH% or 1°F.

The ARH2 converts any HS20 series stick meter to a convenient one piece digital relative humidity meter that reads RH% directly, without requiring the user to perform the calculations required of wet bulb/dry bulb systems. The ARH2 can also convert a stick meter into a temperature meter to read °F directly.

Operating instructions:

1. Connect the ARH2 relative humidity Head to digital multimeter V-W and COM terminals. For the stick meter, snap over top of meter. For other meters, use ADL2 deluxe test leads.
2. Set the multimeter to mVDC range.
3. Bring sensor to equilibrium. This may take a few minutes.
4. Directly read RH% or °F indicated on the display (multiply by 1000 if using the 2V range).

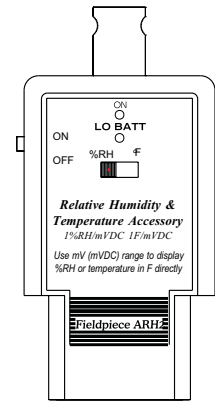


Fieldpiece Instruments, Inc.
580 W. Central Ave., Suite A
Brea, CA 92821
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ARH2OPMAN060297

Fieldpiece

RELATIVE HUMIDITY HEAD Model ARH2



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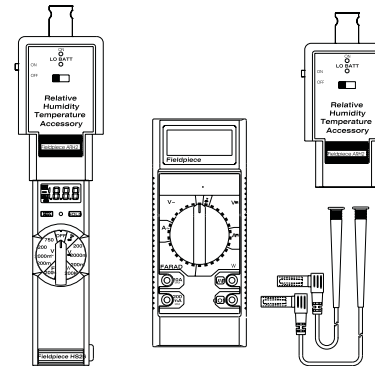
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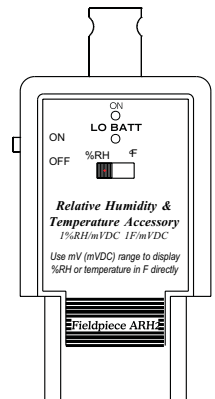


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RELATIVE HUMIDITY HEAD Model ARH2



Relative Humidity Head

Model ARH2

Converts relative humidity % or temperature °F to mVDC. Meter set on 200mVDC range displays RH% directly at 0.1 %RH or °F directly at 0.1°F resolution.

Measurements range: 10% to 95% RH/ 32°F to 122°F

Operating temp: 32°F to 100°F

Storage temperature: -13°F to 140°F

Temperature coefficient: 0.1%/°F

Accuracy: ±3% RH/ ±1°F

Hysteresis: Less than 2% RH (10% to 90% to 10%)

Response time: (to 90% of indicated RH at 77°F in circulating air): 2 to 3 minutes from 10% to 50%RH, 3 to 5 minutes from 50% to 90%RH

Sensor type: Temperature: thermistor

Relative humidity: polymer capacitor

Standard 9V battery lasts 500 hours.

Red LED indicates low battery.

Green LED indicates "On".

Dimensions: 6.2"H x 2.5"W x 1.1"D

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Wet bulb

Some equipment setup procedures require the "wet bulb" temperature. The chart on the back of the ARH2 enables calculation of "wet bulb" from the ambient temperature ("dry bulb") and the relative humidity. Measure ambient using almost any thermometer. Measure relative humidity with the ARH2. Then, lookup "wet bulb" using the chart.

Maintenance:

For the relative humidity head to operate properly, the sensor must be clean and dry.

Service:

There are no user serviceable parts inside.

The warranty statement for Fieldpiece ARH2 relative humidity head is in the back of this manual. Read it carefully before requesting warranty service. Any ARH2 claimed to be defective should be returned

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to Fieldpiece Instruments for warranty service along with proof of purchase.

Warranty service will typically be made within 24 hours after receipt of defective unit. Any non-working out-of-warranty product may be sent to Fieldpiece Instruments for service. Send the ARH2 along with a check or money order for \$40.00 to

Fieldpiece Instruments
231 E. Imperial Highway Suite 250
Fullerton, CA 92835

Your repaired or replaced ARH2 will be returned to you with a 6 month warranty.

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WARRANTY :

The ARH2 is warranted to the original purchaser against defects in material or workmanship for a period of two (2) years from the date of purchase. During the warranty period, Fieldpiece Instruments will, at its option, replace or repair the defective unit.

This warranty does not apply to defects resulting from abuse, neglect, accident, unauthorized repair, alteration, or unreasonable use of the instrument. Any implied warranty arising out of the sale of Fieldpiece's products including but not limited to implied warranties of merchantability, and fitness for purpose, are limited to the above. Fieldpiece shall not be liable for incidental or consequential damages.

State laws vary, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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