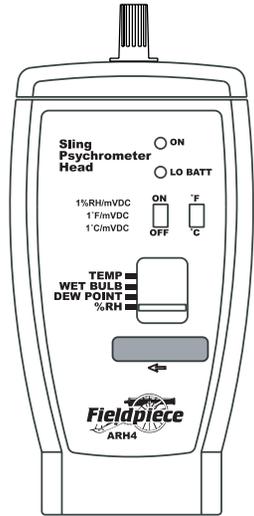


Fieldpiece

RELATIVE HUMIDITY HEAD

Models:
ARH3
ARH4



Introduction

The Fieldpiece models ARH3 and ARH4 measure both relative humidity and ambient air temperature. The ARH4 also calculates dew point and wet bulb temperatures.

These heads convert RH%, ambient temperature, dew point temperature (ARH4), and wet bulb temperature (ARH4) to a voltage at a rate of 1 RH% or degree to 1mVDC. Set the meter to mVDC to display RH% or temperature directly.

The ARH3 and ARH4 snaps directly onto the Fieldpiece HS series DMM. For other meters, use Fieldpiece ADL2 test leads or AHDL1 handle adapter.

To get an accurate reading, allow enough time for the sensors to come to equilibrium. The bigger the change, the longer the time. The heads do not need to be on or attached to a DMM.

Auto off

The accessory head turns off automatically after approximately 10 minutes to lengthen battery life. To disable "Auto off" function, remove rubber cover on front and slide switch to right.

Temperature ARH3

Sensor: thermister temperature sensor
Range: 32°F to 140°F (0°C to 60°C)
Resolution:
Accuracy:

±1°F	50°F to 113°F
±4°F	113°F to 140°F
±4°F	32°F to 50°F

±0.5°C	10°C to 45°C
±2°C	45°C to 60°C
±2°C	0°C to 10°C

Output: 1mV/°C, 1mV/°F

Temperature ARH4

Sensor: thermister temperature sensor
Range: -4°F to 140°F (-20°C to 60°C)
Resolution: 0.1°C / 0.1°F
Accuracy:

±1°F	32°F to 113°F
±2°F	-4°F to 32°F, 113°F to 140°F

±0.5°C	0°C to 45°C
±1°C	-20°C to 0°C, 45°C to 60°C

Output: 1mV/°C, 1mV/°F

Dew point and wet bulb

The "dew point" is the temperature at which water vapor condenses forming fog or dew. Wet bulb is the temperature measured after cooling by evaporation of water. If you know temperature and relative humidity, dew point and wet bulb temperatures can be calculated.

The ARH3 and ARH4 measure both relative humidity and ambient temperature. The ARH4 calculates wet bulb and dew point temperatures. The chart on the back of the accessory head can be used to estimate wet bulb temperature if you know RH% and ambient temperature (dry bulb).

Operating instructions

1. Remove cap covering sensor at the top.
2. Connect to COM and Volts jacks. To use with any Fieldpiece "stick" meter, slide the head over the meter. For most other meters, use the Fieldpiece ADL2 test leads or AHDL1 adapter handle.
3. Select parameter on accessory head.
4. Select mVDC range on meter and read parameter directly on meter.

Relative Humidity

Sensor: Capacitive humidity sensor
Range: 0% to 100%RH
Accuracy:

±2.5% @ 77°F (25°C), 10% to 90% RH
±5% @ 77°F (25°C), <10%RH, >90%RH

Output: 1mV/%RH

Sensor Response Time for 90% of total
Range: 60sec typical

Sensor Hysteresis (excursion of 10% to 90% to 10% RH): ±1%RH typical

Service

There are no user serviceable parts inside. Send any defective ARH3 or ARH4 to Fieldpiece Instruments for warranty service along with proof of purchase.

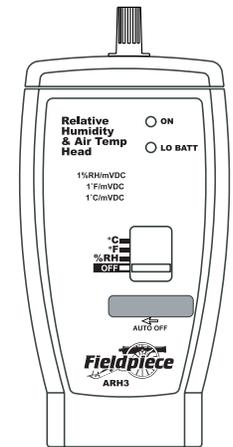
Warranty service will typically be made within 24 hours after receipt of defective unit. Any non-working out-of-warranty product may be sent to Fieldpiece Instruments for service. Send the ARH3 or ARH4 along with a check or money order for \$40.00 to Fieldpiece Instruments. Your repaired or replaced ARH3 or ARH4 will be returned to you with a 12 month warranty.

Warranty

The ARH3 and ARH4 are warranted to the original purchaser against defects in material or workmanship for a period of one (1) year 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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Features:

- ARH3:
-Fast and accurate
-Measurement of ambient air temperature and RH%
- ARH4:
-Measures Temp and RH%
-Calculates wet bulb and dew point temperatures

Specifications:

- Low battery indication: Red LED is lit when the voltage drops below the operating level.
- Output impedance: 500Ω approx
- Operating environment: 32°F to 120°F (0°C to 50°C) at <95%RH.
- Storage temperature: -4°F to 140°F (-20°C to 60°C) <80%RH with battery removed.
- Accuracy: Stated accuracy at 73°F ±10°F (23°C ±5°C), <95%RH.
- Battery: 9V.
- Dimensions: 146mm(H) x 67mm(W) x 32mm(D).
- Weight: approx. 180g including battery