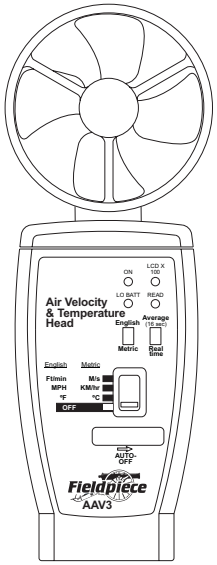
Fieldpiece

Air Velocity and Air Temperature Accessory Head Model: AAV3



Fieldpiece

OPERATOR'S MANUAL

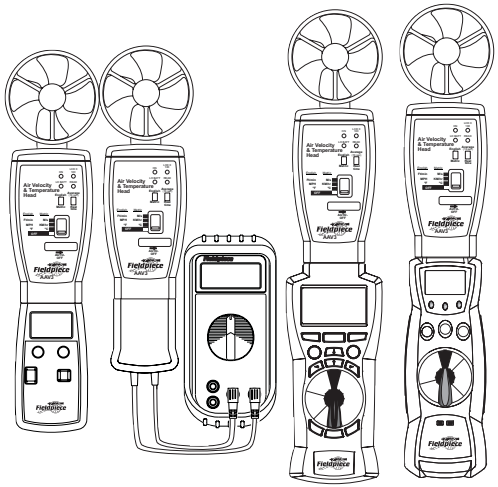
Description

The model AAV3 accessory head is designed to measure air velocity and air temperature. It can be used to estimate CFM (cubic feet/minute). You can measure air velocity in feet/minute, miles/hour, meters/second, or kilometers/hour. The AAV3 also measures temperature in ºC or ºF.

How to use

1. Connect to COM and Volts jack. Slide AAV3 air velocity and temperature accessory head onto Fieldpiece "stick" meter, data logger, electronic handle or connect to most other meters using Fieldpiece ADLS2 deluxe test leads.
2. Set meter to 200mVDC or 2000mVDC range.
3. Power on the AAV3 and select **English** or **metric** along with desired unit of measure.
4. Select display mode. **Average** shows a steady, average of the last 16 seconds of readings. **Real time** shows every reading and will change immediately if there is a change in air velocity. (Note: temperature readings are always in real time regardless of the setting.)
5. If the green "LCD x 100" LED lights up on the AAV3, you must multiply the LCD reading by 100 to get the true value.

Use it your way



EHDL1 **AHDL1 w/ Meter** **DL2** **HS30**

Specifications

Range (wind velocity): 60-5900 Ft/min, 0.7-67.0 mph, 0.3-30.0 M/s, 1-108 KM/hr
Accuracy (wind velocity): ±3% + 1digit @ 73ºF±5ºF, <95% relative humidity
Range (temperature): -20ºC to 60ºC, -4ºF to 140ºF
Accuracy (temperature):
±0.5ºC at 0ºC to 45ºC;
±1ºC at -20ºC to 0ºC, 45ºC to 60ºC;
±1ºF at 32ºF to 113ºF;
±2ºF at -4ºF to 32ºF, 113ºF to 140ºF
Resolution: ±0.1ºF
Operating temperature: 32 to 120 ºF
Operating relative humidity: <95%RH
Storage temperature: -4ºF to 140ºF, 0 to 80% R.H. with battery removed from meter.
Sensor type: Thermistor temperature sensor
Battery life: 200 hours typical. No measurable current draw when in "off" position.
Low battery indication: Red LED
Battery: 9V
Auto off: Approx. 10 minutes.

CFM = (air velocity) x (free area)

There is no substitute to using a hood to measure cubic feet per minute (CFM). The AAV3 can, however, be used to estimate CFM. CFM equals air velocity (in feet/minute) multiplied by the free area (in square feet). The AAV3 measures air velocity. Then all you need is the size of the opening or "free area" to find CFM.

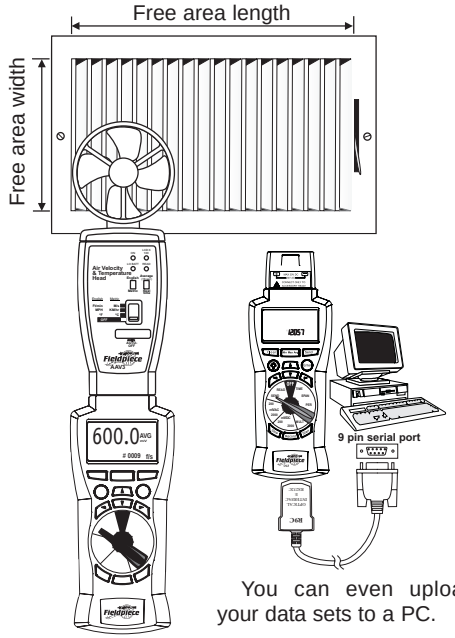
Air velocity- Because the air velocity is different at different points of the register, it may be best to estimate the average air velocity by averaging the readings from several spots. A common method is to take readings from nine different spots and average them. The DL2 data logger can make finding the average very easy. Just take several data points by pressing a button on the data logger then read the average from the LCD.

Free area- Free area is the area of the register that air can move through. You can estimate free area by measuring the open area of the register in feet (including the fins, excluding the border).

CFM- Multiply the free area by the air velocity to get CFM. For example a register that has an open area that is 12 inches (one foot) by 6 inches (one half foot) has a free area of 1ft x 1/2ft = 1/2 ft^2. If the average air velocity is 600 ft/min, then the CFM is 600 ft/min x 1/2 ft^2 = 300 CFM.

Make it easy with the data logger

Use your AAV3 with the DL2 data logger. Press the RECORD button a few times on the DL2 data logger to log a few readings and then just press AVG to find your average air velocity.



You can even upload your data sets to a PC.

One year limited warranty

This head is warranted to the original purchaser against defects in material and workmanship for a period of one year from the date of purchase. During the warranty period, Fieldpiece will replace or repair the defective unit, subject to verification of the defect.

Any damage to the sensor from dirt, mechanical abuse, or overexposure to damaging chemicals, including overexposure to carbon monoxide, are not covered under this warranty. Also not covered are defects resulting from abuse, neglect, accident, unauthorized repair, alteration, or unreasonable use.

ANY IMPLIED WARRANTIES ARISING OUT OF THE SALE OF A FIELDPIECE INSTRUMENT PRODUCT, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE ABOVE. FIELDPIECE SHALL NOT BE LIABLE FOR LOSS OF USE OF THE INSTRUMENT OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES, EXPENSES, OR ECONOMIC LOSS, OR FOR ANY CLAIM OR CLAIMS FOR SUCH DAMAGE, EXPENSES, OR ECONOMIC LOSS.

Local laws vary. 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 by location.

Obtaining service

Call Fieldpiece for an RMA# and send freight prepaid to Fieldpiece.

For warranty service, include proof of purchase date. For out of warranty service, include a check or money order for $45. We will pick up the shipping to you using the same method used to send it to us.

Fieldpiece

Fieldpiece Instruments, Inc.
580 West Central Ave. Suite A
Brea, CA 92821
Phone: (714) 257-9060 Fax: (714) 257-9069
www.fieldpiece.com