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WARRANTY



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HHF82 **Mini Digital Airflow Meter**



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MINI DIGITAL FLOW METER

USER'S MANUAL



HHF82

Please read this manual carefully and thoroughly before using this product

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INTRODUCTION

Thank you for purchasing OMEGA's HHF82 Mini Digital Airflow Meter. Please read this user's manual carefully and thoroughly before using the product.

The HHF82 is an inexpensive one-piece vane anemometer that can accurately measure airflow speeds in ducts and at input and output grilles of HVAC/R systems.

KEY FEATURES

- Five available air velocity units: ft./min, m/sec, kmph, mph, knots
- Low-friction ball vane wheels provide high accuracy at all air speeds
- Min/max memory + data hold
- 10-minute Auto Power Off (disabled during Min/Max recording sessions)

- Small and light enough for one-handed operation
- Includes wrist strap
- CE and RoHS approved
- 1 year limited warranty

WHAT'S IN THE BOX

The meter comes in a white box along with this user's manual.

PRODUCT OVERVIEW

The figure below shows all controls and components on the front of the meter as well as the location of the battery compartment, which is accessible from the back of the unit.



- A. Vane sensor
- B. LCD
- C. **Power** button
- D. **Hold** button
- E. **Max./Min.** button
- F. **Unit** button
- G. Wrist strap
- H. Battery compartment
(on back)

SETUP INSTRUCTIONS

INSTALL BATTERY

To open the battery compartment, turn the meter over and use a small Phillips-head screwdriver to loosen and remove the single screw securing the battery compartment cover. Plug a “9V” battery into the wired socket inside the compartment. The terminals of the battery and the socket mate in only one way, with the smaller male terminal plugging into the larger female terminal.

Secure the battery compartment by replacing its cover and reinstalling and tightening the Phillips-head screw.

Complete setup by carefully removing the plastic film protecting the LCD.

OPERATING INSTRUCTIONS

MEASURING REAL-TIME AIR SPEEDS

To begin, press the front-panel **Power** button. The meter will respond by sounding a single beep. Then press the **Unit** button below it one or more times to choose from among five widely used air speed units. The options are (in the button-press sequence):

- **Km/h** (kilometers per hour)—the factory default unit
- **M/S** (meters per second)
- **fpm** (feet per minute)
- **mph** (miles per hour)
- **Knot** (knots)

The meter will “remember” your last selection when it is powered off and will resume using that unit upon restart. So if you always use the same unit, you will never have to press the **Unit** button again.

To extend battery life, when operating in real-time mode the HHF82 will automatically power itself off following any 10-minute period in which no front-panel button is pressed. The meter will sound two beeps twice when this Auto

Power Off (APO) function is activated. The APO function is disabled when operating in Min/Max recording mode (see next section).

To make a measurement, position the vane at the top of the meter perpendicular to the source of air or wind. Allow time for the reading to stabilize. It makes no difference whether the front or back of the vane faces the wind or air flow.

To hold any reading (“freeze” the display), press the **Hold** button. To release the hold and resume displaying real-time values, press the **Hold** button again. This function is very useful for making measurements in low light or when the source of air or wind is above your head, below your knees or around a corner. You can make a measurement, hold it, and then read the display up to 10 minutes later after positioning the LCD at eye level.

RECORDING AND DISPLAYING MAXIMUM AND MINIMUM SPEEDS

The HHF82 can record the maximum and minimum (fastest and slowest) air speed values measured over a user-selectable period of time. The Min/Max recording function is handy for noting fluctuations in the output of a fan over time.

During these recording sessions, the meter’s Auto Power Off function is disabled to enable recording for longer than 10 minutes. The only limit on recording duration is remaining battery life.

To begin recording Max and Min readings, first position the vane in the flow of air or wind and then press the **Max./Min.** button on the right side of the front panel. If you begin recording before positioning the vane, your Min. reading will always be recorded as **0.0** (zero).

Pressing the **Max./Min.** button will cause the term **REC** to appear at the top left of the LCD. The meter will continue to record Max and Min values—but display real-time values—until you press the **Max./Min.** button again.

To display the maximum air speed measured during the current recording session, briefly press the **Max./Min.** button. (**Do not** press and hold the button; this will stop recording). The LCD will display the maximum value below the term **Max** on the top line.

To display the minimum air speed measured during the current recording session, briefly press the **Max./Min.** button again. (Again, do not press and hold the button.) The LCD will now display the minimum value below the term **Min** on the top line.


Once you have pressed the **Max./Min.** button with **REC** on the top line, you cannot resume displaying real-time readings without ending the recording session.

To end the recording session, press and hold the **Max./Min.** button. This will cause the **REC** term to disappear. The meter will then resume displaying real-time air speed measurements.

SPECIFICATIONS

| | |
|----------------------------|---|
| Measurement Ranges | 1.4 to 108 km/hr, 0.4 to 30m/sec, 80 to 5910 fpm, 0.9 to 67 mph, 0.8 to 58.3 knots |
| Measurement Accuracy | ±3% of full-scale value below 20m/sec; ±4% of full-scale value above 20m/sec |
| Measurement Resolutions | 0.1 km/hr, 0.1m/sec, 1 fpm, 0.1 mph, 0.1 knots |
| Display Size | 1.3 in. (33mm) diagonal |
| Digit Height | 3/8 in. (10mm) |
| Auto Power Off Trigger | 10 minutes of front-panel inactivity (disabled in Min/Max recording mode) |
| Current Consumption | 17mADC |
| Dimensions | 6.15 x 2.36 x 1.29 in. (156 x 60 x 33mm) |
| Weight (including battery) | 5.6 oz. (159g) |
| Power Source | 1 “9V” battery |

MAINTENANCE TIPS

When the  icon appears in the upper left corner of the LCD, it's time to change the meter's "9V" battery (although measurements will remain valid for several hours after the icon first appears). To change the battery, follow the Setup Instructions on p. 4.

Remove the battery if you do not expect to use the meter for an extended period of time (months or years).

Do not drop or disassemble the meter or immerse it in water.

To clean the housing or LCD, use a dry or damp cloth. Avoid using chemical cleaners.

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's Warranty adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

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RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence. The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

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