

## INSTRUCTIONS

AV90

## THERMO ANEMOMETER


**MARTINDALE**  
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## SPECIFICATIONS AND FEATURES

- A. Portable digital Thermo-Anemometer.
- B. Simultaneous display of both temperature and air speed.
- C. Memory of maximum, minimum and average record for both temperature and wind speed.
- D. Air velocity average for multiple points.
- E. Auto power off function.
- F. 2 meter coiled cable and mounting nut for long extension.

## GENERAL

Low battery indication: The "  " is displayed when the battery voltage drops below the operating level

**Accuracy:** Stated accuracy at 23°C ± 5°C, <80% relative humidity

**Operating environment:** 0°C to 50°C at <75% relative humidity

**Storage environment:** -20°C to 55°C at <80% relative humidity

**Battery:** Standard 9V battery (NEDA 1604, IEC 6F22 006P)

**Battery Life:** 200 hours typical with carbon zinc battery

**Dimensions:** 770(H) x 65.5(W) x 35mm(D)

**Weight:** 390g including battery and probe

### MAX MIN Record Mode

Press MIN/MAX button to enter the MIN MAX Recording mode. In this mode, the automatic power off feature, °C/°F button & UNIT buttons are disabled, and the measurement period will be set to 2 seconds.

Push MIN MAX key to cycle through the MAX (maximum), MIN (minimum), MAX-MIN (maximum minus minimum) and AVG (average) readings. In this

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mode, press the HOLD key to stop the recording of readings, all values are frozen, press again to restart recording. Press and hold down the MIN MAX button for 2 seconds, or press the RESET button to exit and erase recorded readings.

### 2 sec. / 16 sec. Average Mode

Pressing the 2sec/16sec button sets the measurement period to 2 seconds. "AVG 2" is displayed in the lower left hand side corner of the display. The first reading will hold for two seconds and flash "2" on the display, and then update every two seconds with average for the last two seconds. The default setting for the measuring period is 2 seconds. Pressing the 2sec/16sec button again sets the measurement period to 16 seconds. "AVG 16" is displayed in the lower left hand side corner of the display. The first reading will hold for sixteen seconds and flash "16" on the display, and then update every two seconds with average for the last sixteen seconds.

### Multi Point Average Mode

1. Place the probe head in the area where air velocity is to be measured. Press the HOLD button to take the measurement and enter the data hold mode. The anemometer holds the reading.
2. Press the MAX MIN button. The second display will show a count. This number represents the point that is being recorded.
3. Repeat this process until all desired points have been measured and recorded.
4. Press the MULTI POINT button. This will display the average air velocity reading and number of points measured. The anemometer can recorded a total of 8 points at one time, and calculate the average for the last 8 points.
5. Press and hold down the MULTI POINT button or press the RESET button for 2 seconds to exit and erase recorded readings, or press "HOLD" button to exit but not erase recorded readings.

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## TEMPERATURE

**Temperature Scale:** Celsius or Fahrenheit user-selectable

**Temperature Sensor:** NTC

**Measurement Range:** -20°C to 60°C / -4°F to 140°F

**Measurement rate:** 1 times per second.

Resolution: 0.1°C/°

Accuracy: ±1.0°C	on	-20°C to 0°C, 45°C to 60°C
±0.5°C	on	0°C to 45°C
±2.0°F	on	-4°F to 32°F, 113°F to 140°
±1.0°F	on	32°F to 113°F

### Air Velocity

**Mounting Nut:** 1/4" x 20

**Operating Temperature:**

Meter: 0°C to 50°C (32°F to 122°F)

Vane: 0°C to 60°C (32°F to 140°F)

### WIND VELOCITY

Units	Resolution	Threshold	Range
m/s	0.01	0.3	0.0-30.0
ft/min	1	60	0.0-5900
knots	0.1	0.6	0.0-58.0
mph	0.1	0.7	0.0-67.0
Km/h	0.1	1.1	0.0-108.0

Accuracy: ±3%FS

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## OPERATING INSTRUCTIONS

### Power Switch

Slide power switch to APO position. "APO" will be indicated on the display. The Auto-Power-Off mode turns the meter off automatically when it is not used for 10 minutes. When auto power-off happens, turn the switch to OFF. Slide the power switch to APO position to turn on the power again.

### Back-Light

Press "☀" button to turn the Back-Light on. To turn the Back-Light off press again.

### DATA HOLD

Press the HOLD key to enter the Data Hold mode, the "H" indicator is displayed. When DATA HOLD mode is selected, the anemometer holds the present readings and stops all further measurements. Pressing the HOLD key again cancels DATA HOLD mode, causing hygrometer to resume taking measurements.

### °C/°F Scale and Imperial/Metric Unit Change

The default setting for measurements is metric units. The temperature scale is displayed in either degrees Celsius (°C) or degrees Fahrenheit (°F). To change the temperature scale, press the °C/°F button.

Air velocity is displayed in either metric or imperial measurements.

To change the air velocity scale, press the UNIT button. In degrees Celsius (°C), press UNIT button to cycle between m/s (meters per second), Km/h (Kilometers per hour) and Knots.

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In degrees Fahrenheit (°F), press the UNIT button to cycle between ft/m (feet per minute), mph (miles per hour) and Knots.

## MAINTENANCE

### Battery Replacement

1. Power is supplied by 9V (NEDA 1604, IEC 6F22) battery.
2. The "🔋" appears on the LCD display when a replacement is needed. To replace the battery, remove the two screws from the back of the meter and lift off the battery cover.
3. Remove the battery from the contacts.
4. Remove battery when the unit is to be stored or unused for long periods.
5. Do not store unit where it may be subjected to high levels of temperature or humidity.

### Cleaning

Periodically wipe the case with a damp cloth. Do not use abrasives or solvents.

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Martindale Electric will carry out routine calibration (on a chargeable basis) if the instrument is returned, carriage paid, to the address on the final page of this document. Alternatively, a chargeable collection and return service is available.

### Repair & Service

There are no user serviceable parts in this unit. Return to Martindale Electric Company Ltd if faulty. Our service department will promptly quote to repair any faults that occur outside the warranty period.

### Storage Conditions

The unit should be kept in warm, dry conditions away from direct sources of heat or sunlight, with the battery removed and in such a manner as to preserve the working life of the unit. It is strongly advised that the unit is not kept in a tool box where other tools may damage it.

### Warranty

Faults in manufacture and materials are fully guaranteed for 2 years from date of invoice and will be rectified by us free of charge, provided the unit has not been tampered with and is returned to us with its housing unopened. Damage due to dropping, abuse or misuse is not covered by the guarantee. Nothing in these instructions reduces your statutory rights.

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### Martindale Electric Company Limited

Metrohm House, Imperial Park, Imperial Way, Watford,  
Hertfordshire, WD24 4PP, UK  
Tel: +44 (0)1923 441717 Fax: +44 (0)1923 446900  
E-mail: sales@martindale-electric.co.uk  
Website: www.martindale-electric.co.uk

