

+Temperature

ANEMOMETER

AKTAKOM Model : ATE-1002



Your purchase of this ANEMOMETER marks a step forward for you into the field of precision measurement. Although this METER is a complex and delicate instrument, its durable structure developed. Please read the following instructions carefully and always keep this manual within easy reach.

OPERATION MANUAL

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TABLE OF CONTENTS

1. FEATURES.....	1
2. SPECIFICATIONS.....	2
2-1 General Specifications.....	2
2-2 Electrical Specifications.....	2
A. Air velocity.....	2
B. Temperature.....	3
3. FRONT PANEL DESCRIPTION.....	4
3-1 Display.....	4
3-2 Off/On/Hold Switch.....	4
3-3 Function (ANEMOMETER, °C, °F) Switch.....	4
3-4 Range (m/s, km/h, ft/min, knots/Temp) Switch.....	4
3-5 Battery Compartment/Cover.....	4
3-6 Vane Probe Head.....	4
3-7 Vane Probe Handle.....	4
4. MEASURING PROCEDURE.....	5
4-1 Air velocity measurement.....	5
4-2 Temperature measurement.....	5
5. REPLACEMENT of BATTERY.....	5

1. FEATURES

- * The portable anemometer provides fast, accurate readings, with digital readability and the convenience of a remote sensor separately.
- * Multi-functions for air flow measurement: m/s, km/h, ft/min, knots.
- * Build in temperature °C, °F measurement.
- * Thermistor sensor for fast temp. response time.
- * Low-friction ball-bearing design allows free vane movement, resulting in accuracy at both high & low velocities.
- * A sensitive balanced vane wheel rotates freely in response to air flow.
- * Conventional twisted vane arms, always a source of unreliability have been eliminated.
- * DATA HOLD function for stored the desired value on display. Large LCD display, easy to read.
- * LCD display for low power consumption & clear read-out even in bright ambient light condition.
- * Used the durable, long-lasting components, including a strong, light weight ABS-plastic housing case.
- * Compact housing cabinet, easy to carry out.
- * Built-in low battery indicator.
- * Wide applications: use this anemometer to check air conditioning & heating systems, measure air velocities, wind speeds, temperature...etc.

2. SPECIFICATIONS

2-1 General Specifications

Display	18mm (0.7") LCD (Liquid Crystal Display), 3 1/2 digits.	
Measurement	m/s (meters per second), km/h (kilometers per hour), ft/min (feet/per minute), knots (nautical miles per hour), Temp. - °C, °F, Data hold.	
Operating Temperature	0 °C to 50 °C (32 °F to 122 °F).	
Operating Humidity	Less than 80 % RH.	
Air Velocity Sensor Structure	Conventional twisted vane arms and low-friction ball-bearing design.	
Temp. Sensor	Precision thermistor sensor.	
Power Supply	006P DC 9V battery (heavy duty type).	
Power Consumption	Approx. DC 9 mA.	
Weight	325 g/0.72 lb (including battery).	
Dimension	Instrument	168 x 80 x 35mm (6.6 x 3.2 x 1.2 inch)
	Sensor Head	Round, 72 mm Dia.
Standard Accessories	Instruction Manual.....	1 PC.
	Sensor probe.....	1 PC.
	Carrying case.....	1 PC.

2-2 Electrical Specifications (23 ± 5 °C)

A. Air velocity

Measurement	Range	Resolution	Accuracy
m/s	0.4 - 30.0 m/s	0.1 m/s	± (2%+0.2m/s)
km/h	1.4 - 108.0 km/h	0.1 km/h	± (2%+0.8km/h)
knots	0.8 - 58.3 knots	0.1 knots	± (2%+0.4knots)
ft/min	80 - 5901 ft/min	10 ft/min	± (2%+40 ft/min)

m/s - meters per second km/h - kilometers per hour
ft/min - feet/per minute knots - nautical miles per hour
mph - miles per hour (international knot)

B. Temperature

Measuring Range	0 °C to 60 °C/32 °F to 140 °F
Resolution	0.1 °C/0.1 °F
Accuracy	± 0.8 °C/1.5 °F

Remark :

Above specification are tested under the environment RF Field Strength less than 3 V/M & frequency less than the 30 MHz only.

3. FRONT PANEL DESCRIPTION

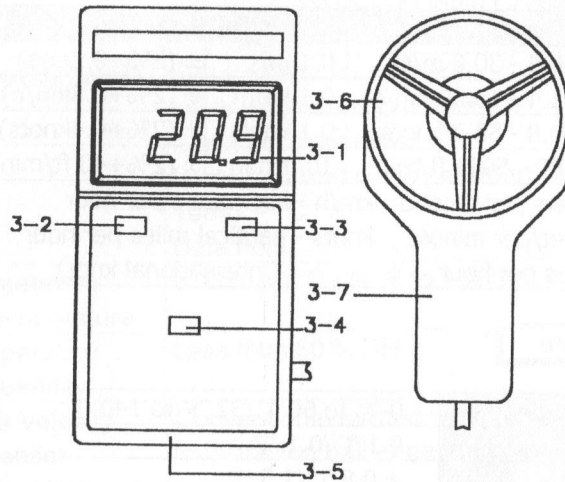


Fig. 1

- 3-1 Display
- 3-2 Off/On/Hold Switch
- 3-3 Function Switch
(ANEMOMETER, °C, °F)
- 3-4 Range (m/s, km/h, ft/min,
knots/Temp) Switch
- 3-5 Battery Compartment/Cover
- 3-6 Vane Probe Head
- 3-7 Vane Probe Handle

4. MEASURING PROCEDURE

4-1 Air velocity measurement

- 1) Select the " Off/On/Hold Switch " (3-2, Fig. 1) to the " On " position.
- 2) Select the " Function Switch " (3-3, Fig. 1) to the " ANEMOMETER " position.
- 3) Select the " Range Switch " (3-4, Fig. 1) to the " m/s ", " km/h ", " ft/min " or " knots " position according to the measuring requirement.
- 4) Hold the " Vane Probe Handle " (3-7, fig. 1) by hand & let the " Vane Probe Head " (3-6, Fig. 1) is opposite to the measuring air flow source, then the " Display " (3-1, Fig. 1) will show air velocities directly.

Measuring Consideration :

The yellow dot mark on the sensor head indicates the " yellow dot mark " need to face against the direction of air flow.

- 5) During the measurement, it will hold the display values if select the " Off/On/Hold Switch " (3-2, Fig. 1) to the " Hold " position.

4-2 Temperature measurement

- 1) Select the " Off/On/Hold Switch " (3-2, Fig. 1) to the " On " position.
- 2) Select the " Function Switch " (3-3, Fig. 1) to the " °C " or " °F " position.
Select the " Range Switch " (3-4, Fig. 1) to the " Temp " position.

- 3) The meter is designed intend to measure the environment air temperature. There is built one temp. sensor (precision thermistor) into the center of the " Sensor Head " (3-6, Fig. 1).

When do the temperature measurement, it is necessary to hold the Sensor Handle (3-7, Fig. 1) by hand & let the Sensor Head is opposite to the measuring air source, then the display will show air temperature directly.

- 4) During the measurement, it will hold the display values, if slide the " Off/On/Hold " selector (3-2, Fig. 1) to the " Hold " position.

5. REPLACEMENT OF BATTERY

- 1) When the left corner of LCD display show " BAT ", it is necessary to replace the battery. However, in-spec. measurement may still be made for several hours after low battery indicator appears before the instrument become inaccurate.
- 2) Loose the " Battery Cover Screw " (3-5, Fig. 1), slide the battery cover away from the instrument and remove the battery.
- 3) Replace with 9V battery (heavy duty type) and reinstate the cover.
- 4) Make sure the battery cover is secured with the screw after changing battery.