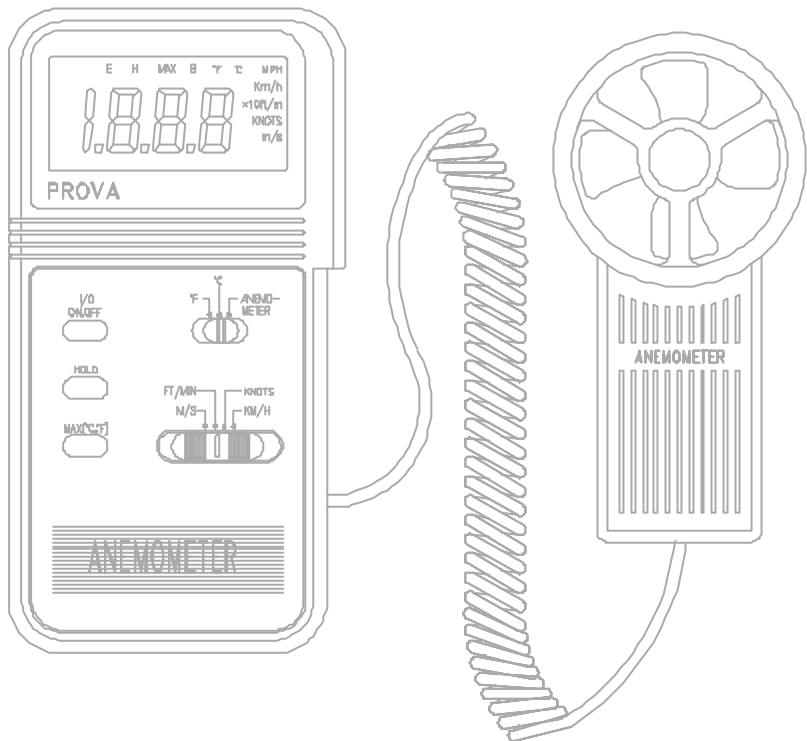


# THERMO ANEMOMETER

AVM-01/AVM-03

## USERS MANUAL



**PROVA INSTRUMENTS INC.**

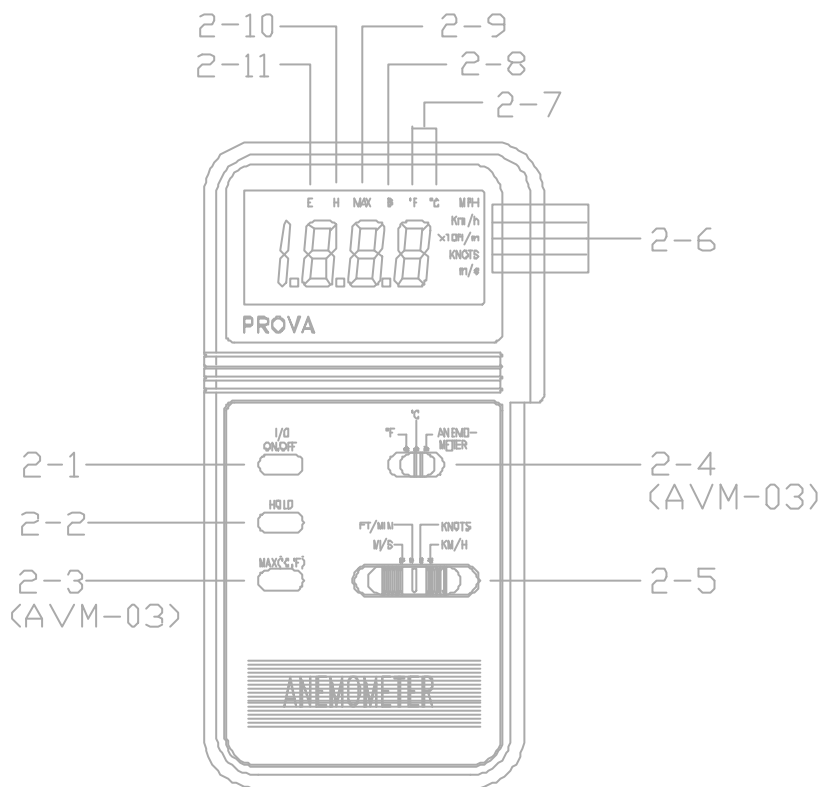
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## **I. Features**

- Sensitive and Accurate (ultra low friction jewel bearing)
- Ergonomic and easy-to-use design
- Read while measuring (detached vane)
- Large 17mm 3 ½digits LCD (Liquid Crystal Display)
- 2 meters coiled cable and mounting nut for long extension
- Low power consumption
- Data/Max hold function
- Build-in low battery indicator

## II. Front Panel Description



**Figure 1**

2-1 On/Off Push Button  
 2-2 Data Hold Button  
 2-3 Max. Hold Button (Temp.)  
 2-4 Function Selection Switch  
 2-5 Units Selection Switch  
 2-6 Units Symbols of Velocity

2-7 Units Symbols  
 2-8 Battery Low Symbol  
 2-9 Max. Hold Symbol for Temp.  
 2-10 Data Hold Symbol  
 2-11 Error Symbol

III. Operation Instruction

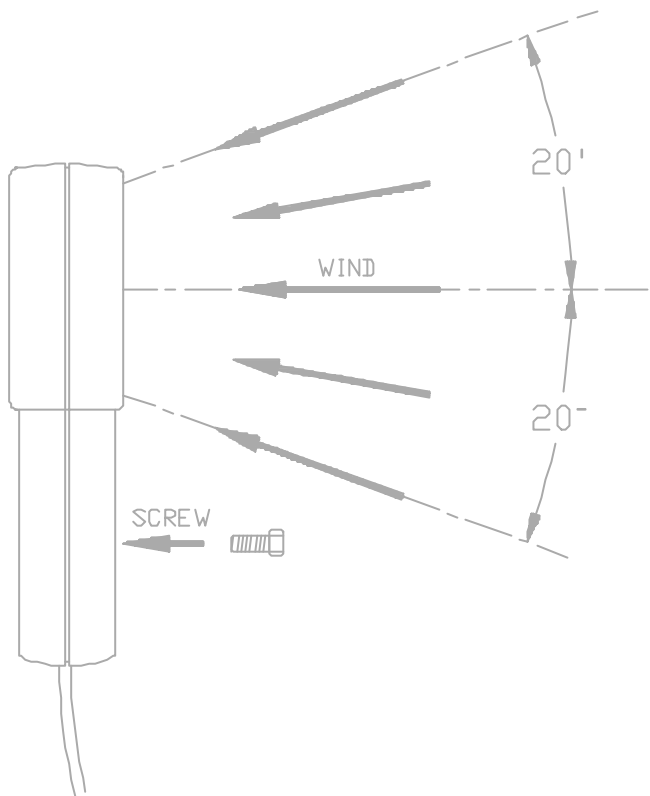


Figure 2

A. Measurement of Wind Velocity (refer to figure 2)

1. Press the on/off button to turn on the anemometer.
2. Select anemometer function by moving the function switch
3. Select the desired units by moving the unit selection switch
4. Determine the approximate wind direction.
5. Hold the anemometer so that the air flow will pass through the vane from the back to the front (the back: where the mounting nut is; the front: where engraving of ANEMOMETER is).
6. Wait for 4 seconds for a stabilized reading
7. For more accurate results, try to keep the axis of the vane within  $20^{\circ}$  of the wind direction.

B. Measurement of Wind/Air Temperature (AVM-03)

1. Press the on/off button to turn on the thermo anemometer
2. Select  $^{\circ}\text{C}$  or  $^{\circ}\text{F}$  by moving the function switch
3. Let the wind pass through the vane ( A thermocouple is built into the center of the vane).
4. Read the reading from LCD.

C. Holding the Reading

Press the hold button to hold the reading of wind velocity or temperature.

D. Finding the Maximum Temperature (AVM-03)

Press the max button, the maximum temperature measured during the measurement shall be displayed and updated on LCD.

## IV. Specifications (23±5°C)

Range of Wind Velocity:

Units	Range	Resolution	Threshold	Accuracy
m/s	0.0 - 45.0	0.1	0.3	±3% ± 0.1
ft/min	0 - 8800	10	60	±3% ± 10
knots	0.0 - 88.0	0.1	0.6	±3% ± 0.1
Km/hr	0.0 - 140.0	0.1	1.0	±3% ± 0.1
mph (optional)	0.0 - 100.0	0.1	0.7	±3% ± 0.1

m/s: meter per second          ft/min: feet per minute

knots: nautical miles per hour Km/hr: kilometers per hour

mph: miles per hour

Unit Conversion table:

	m/s	ft/min	knots	Km/hr	mph
1 m/s	1	196.87	1.944	3.60	2.24
1 ft/min	0.00508	1	0.00987	0.01829	0.01138
1 knot	0.5144	101.27	1	1.8519	1.1523
1 Km/hr	0.2778	54.69	0.54	1	0.6222
1 mph	0.4464	87.89	0.8679	1.6071	1

Range of Temperature:

	Range	Resolution	Accuracy
° C	0 - 60.0	0.1	±0.8
° F	32.0 - 140.0	0.1	±1.5

Bearing:	Sapphire jewel bearing
Temperature sensor:	K-type thermocouple
Mounting Nut:	1/4" x 20
Operating Temperature:	Meter: 0 °C ~ 50°C (32 °F ~ 122°F)
	Vane: 0°C ~ 60°C (32 °F ~ 140°F)
Operating Humidity:	Less than 80% RH
Operating Pressure:	500 mB ~ 2 Bar
Storage Temperature:	-40°C ~ 60°C (-40°F ~ 140°F)
Power Consumption:	Approx. 6 mA
Battery Type:	9V
Battery Life:	50 hours ( for 300mA-hrs battery)
Averaging Period for Wind Speed Measurement:	
m/s	0.6 sec.(approx.)
ft/min	1.2 sec.(approx.)
knots	1.2 sec.(approx.)
km/hr	2.2 sec.(approx.)
Dimension:	
Meter	3.46"x 6.61"x 1.03"(88x 168 x 26.2mm)
Vane	2.60"x 5.22"x 1.15"(66x 132 x 29.2mm)
Weight:	12.34oz. (battery included)
	(350g)
Accessories:	Carrying case x 1
	Users manual x 1
	9V Battery x 1

## V. Battery Replacement

When the low battery symbol is displayed on LCD, follow the following procedures to replace the battery.

- A. Turn off the anemometer by pushing the On/Off button.
- B. Remove the screw of the battery compartment cover and remove the battery compartment cover.
- C. Replace the old 9V battery with a new 9V battery.
- D. Replace the battery compartment cover and fasten the screw.