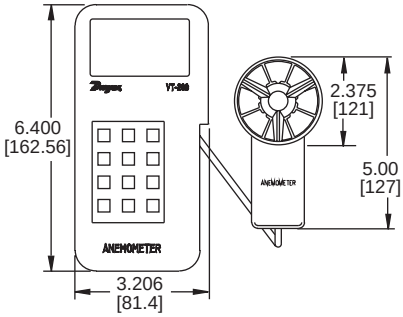
Model VT-200 Vane Thermo-Anemometer

Specifications– Installation and Operating Instructions



DESCRIPTION

Model VT-200 Vane Thermo-Anemometer is ideal for balancing air conditioning and heating ducts or checking the operation of fans and blowers. Model VT-200 measures air volume in cubic feet per minute and cubic meters per minute. Air velocity measurements can be viewed in ft/min, m/s, knots, km/hr, and mph with ±3% accuracy. The multifunction LCD can simultaneously display air velocity and temperature in selectable units or air flow and air area. Built-in datalogger can store up to 1000 measurements or transfer the data to a PC via RS-232 communication. Additional features include data hold and record/recall minimum, maximum and average readings. Model VT-200 includes RS-232 interface, PC Windows software, cable, 9V battery, carrying case, and instruction manual.

DISPLAY DESCRIPTIONS

AVE: When selected from the OPTION menu, this indicates method of average.
MAX: This symbol will appear when MIN/MAX button is pressed once. This will indicate maximum value of measured air velocity or air flow.
MIN: When MIN/MAX button is pressed twice, this symbol will appear. It indicates the minimum value of measured air velocity or air flow.
2/3V: When selected by the OPTION button, this will be displayed with MAX symbol.
VEL: When VEL/FLOW button is pressed once, this symbol will appear indicating unit is measuring air velocity.
FLOW: When VEL/FLOW button is pressed twice, this symbol will appear indicating the unit is measuring air flow.
READ: This symbol will appear when READ function is enabled. This allows user to read recorded data.
REC: When unit is recording data, this symbol will appear.
RS-232: When the RS-232 function is enabled, this symbol will appear.
ft^2: This will appear in the FLOW function indicating the unit is measuring in square feet.
m^2: This will appear in the FLOW function indicating the unit is measuring in square meters.
CFM: This symbol indicates units measured in cubic feet per minute.
CMM: This symbol indicates units measured in cubic meters per minute.
m/s: This symbol indicates units are measured in meters per second.
ft/min: This indicates units are measured in feet per minute.
Km/h: This units are measured in kilometers per hour.
x100: This indicates the actual value is multiplied by 100.
x10: This indicates the actual value is multiplied by 10.

PHYSICAL DATA

Air Velocity Ranges: 80 to 4925 ft/m, 1.4 to 90.0 kph, 0.9 to 55.9 mph, 0.4 to 25.0 m/s, 1.9 to 38.8 knots.
Temperature Range: 32 to 140°F (0 to 60°C).
Resolution: 10 ft/m, 0.1 kph, 0.1 mph, 0.1 m/s, 0.1 knots, 0.1°F, 0.1°C.
Accuracy: Air Velocity: ±2% + 1 digit, Temperature: 1.5°F (0.8°C).
Temp. Sensor: Thermistor.
Operating Temperature: 32 to 122°F (0 to 50°C) max 80% RH.
Output: RS232 serial interface via 3.5 mm terminal.
Power Supply: One 9 V battery.
Power Current: Approx. 8.3 mA.
Housing: ABS plastic.
Weight: 0.84 lb (381 g).

HOW TO MEASURE WIND/ AIR VELOCITY

1. Press the ON/OFF button to turn on the anemometer.
2. To select anemometer function, press the VEL/FLOW button (Number 4).
3. Choose which option is needed, either VEL (Air Velocity) or FLOW (air flow) The VEL or the FLOW symbol will appear in the upper left corner of the LCD.
4. Press the UNIT button (Number 3) to select desired unit of measurement. The selected unit of measure will be displayed at the top of the LCD.
5. Determine the approximate wind direction.
6. Hold the anemometer vane so that the air flow will pass through from the back to the front. (**NOTE:** *The back of the vane has a place for a mounting screw and the front has "ANEMOMETER" engraved on the handle.)* Make sure the air is flowing in the direction of the arrows on the inside of the vane. .
7. Wait for two seconds in order to obtain a stabilized reading.

HOW TO MEASURE WIND/AIR TEMPERATURE

(**NOTE:** *Temperature and wind velocity are measured simultaneously.*)

1. Select either °C or °F by pressing °C/°F button (Number 6).
2. Let wind pass through center of vane. (A thermocouple is built into the center of the vane.)
3. Obtain temperature reading on LCD.

HOW TO MEASURE WIND/AIR FLOW

1. Press the ON/OFF button to turn on anemometer.
2. Press the VEL/FLOW button (Number 4) to select FLOW function. The FLOW symbol will appear in the upper left corner of the LCD.
3. Press the UNIT button (Number 3) to select desired unit of measurement. (CFM or CMM)

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