

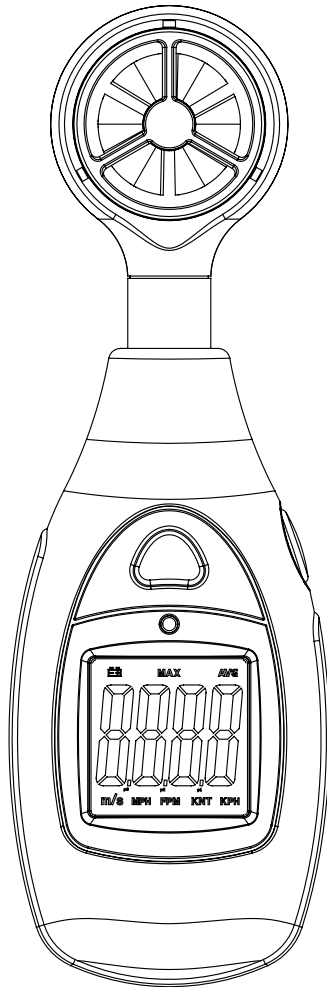
User Manual



Compact Vane Anemometer

with NIST-Traceable Calibration

Model 20250-23



Introduction

The Digi-Sense Compact Vane Anemometer (Model 20250-23) measures air velocity in units of m/s, MPH, FPM, KNT, and KPH. Advanced features include an automatic backlight, MAX/AVG readings, and automatic power-off. The instrument is fully tested and calibrated to NIST-traceable standards. Careful use of this meter will provide years of reliable service.

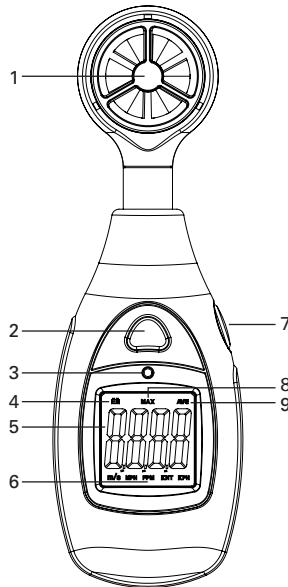
Unpacking

Check individual parts against the list of items below. If anything is missing or damaged, please contact your instrument supplier immediately.

1. Meter
2. One 9 V battery
3. User manual
4. NIST-traceable calibration report with data

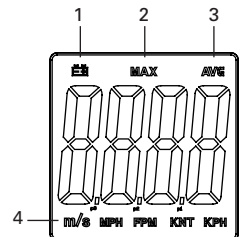
Meter Description

1. Vane sensor
2. Power ON/OFF button
3. Auto backlight sensor
4. Low-battery indicator
5. Figure display
6. Units display
7. MAX/AVG button
8. MAX display
9. AVG display



Display Layout

1. Low-battery indicator
2. **MAX**: Max Hold function engaged for the air velocity function
3. **AVG**: Air averaging mode
4. **m/s, MPH, FPM, KNT, KPH**: Air velocity units of measure



Setup and Operation

Taking measurements

1. Turn on the meter using the **Power On/Off** button.
2. Press the **MAX/AVG** button for three seconds to select the desired unit of measure. **Note:** At power-up the meter will display the unit of measure previously selected.
3. Hold the vane sensor in the area to be tested. Ensure that the airflow enters the vane from the front of the meter and at a 90° angle to the fan.
4. Allow adequate time for readings to stabilize. View readings on the LCD.
5. Press the **MAX/AVG** button once to display the maximum measurement reading.
6. Press the **MAX/AVG** button twice to enter the measurement averaging mode.

Automatic backlight

The automatic backlight sensor is activated by low-light conditions, eliminating the need for the user to manually switch the backlight on.

Automatic power-off

To conserve battery life, the meter automatically turns off after 15 minutes.

Battery replacement

When the **low-battery** icon appears on the LCD, the 9 V battery must be replaced. To replace the battery, remove the battery cover on the back of the instrument by applying a sliding force in the downward direction with your thumb. With the battery cover removed, disconnect the old battery and snap in the new battery. Slide the battery cover back into place.

Specifications

Air velocity	Range	Resolution	Accuracy
m/s (meters per second)	1.1 to 30.00 m/s	0.01 m/s	±(3% + 0.20 m/s)
MPH (miles per hour)	0.9 to 67.0 MPH	0.1 MPH	±(3% + 0.4 MPH)
FPM (feet per minute)	80 to 5900 FPM	1 FPM	±(3% + 40 FPM)
KNT (knots: nautical MPH)	0.8 to 58.0 KNT	0.1 KNT	±(3% + 0.4 KNT)
KPH (kilometers per hour)	0.8 to 108.0 KPH	0.1 KPH	±(3% + 1.0 KPH)

Specifications (continued)

Sampling rate	Approximately 1 reading per second
Sensors	Conventional angled arms with low-friction ball bearing
Auto power-off	Unit shuts off automatically after 15 min to preserve battery life
Operating temperature	32 to 122°F (0 to 50°C)
Operating humidity	<80% RH
Storage temperature	14 to 140°F (-10 to 60°C)
Storage humidity	<80% RH
Weight	4.9 oz (139 g) including battery and probe
Dimensions	6½" x 2½" x 1⅜" (16.5 x 5.4 x 3.4 cm)
Power	One 9 V battery
Battery life	Typically 100 hrs. Battery life will be reduced significantly if the automatic backlight is used continuously.
Battery current	Approximately 6.5 mA DC

Maintenance, Recalibration, and Repair

It is recommended that Digi-Sense products are calibrated annually to ensure proper function and accurate measurements; however, your quality system or regulatory body may require more frequent calibrations. To schedule your recalibration, please contact InnoCal, an ISO 17025 calibration laboratory accredited by A2LA.

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