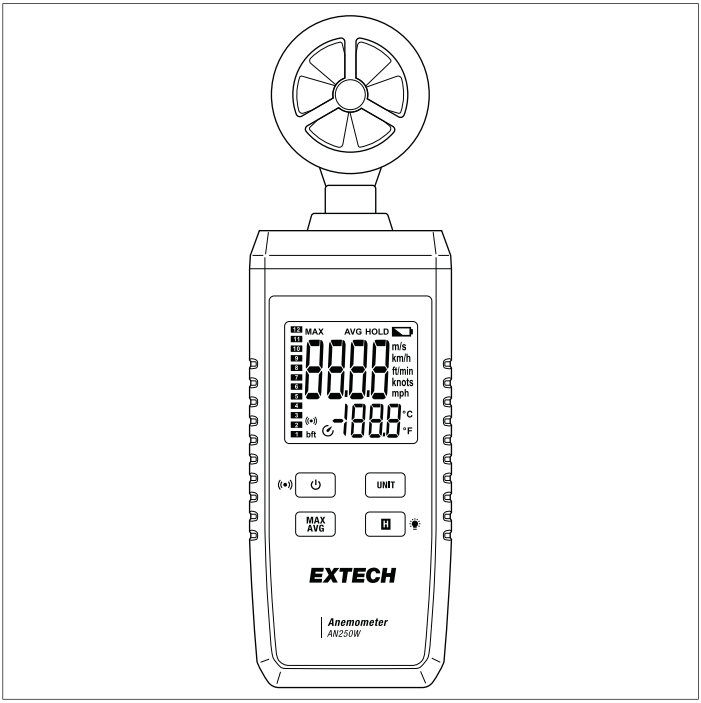
EXTECH®

User Manual

AN250W Anemometer

Bluetooth® Connectivity with the ExView® Mobile App



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1 Introduction

Thank you for selecting the Extech AN250W Anemometer. This meter measures air velocity and temperature. The vane, situated at the top of the meter, measures the velocity of moving air and includes a sensor that measure air temperature.

The air velocity and temperature readings are shown on the top and bottom rows of the LCD, respectively. The AN250W also displays air velocity in the Beaufort scale (1 to 12).

The meter includes Bluetooth connectivity, MAX/AVG memory, selectable units of measure, auto power off, data hold, backlit LCD, and a tripod mount.

Using the Extech ExView mobile app, you can pair your smart devices with the meter using Bluetooth. The app and the W Series meters were developed together for seamless integration. Download the free app from the App Store (iOS®) or from Google Play (Android™).

This quality instrument is designed to provide years of reliable service, high accuracy and simple operation. Please visit the Extech website for additional information and world-class support.

2 Safety

Please read all safety information before using this device

CAUTION

- Check for damage to the device's housing, sensor, display, and battery compartment before use. If obvious damage or abnormalities are noticed, please discontinue use and return the device for service.
- Do not attempt to open the meter housing or access the sensor module. There are no user-serviceable components in this device.
- Replace the batteries immediately after the low battery symbol appears. If the device is to be stored for a period of months, please remove the batteries and store separately.
- Do not store the device in high temperature or humidity environments, in flammable or combustible areas, or where a strong electromagnetic field is present.
- This device is CE certified.

3 FCC Compliance

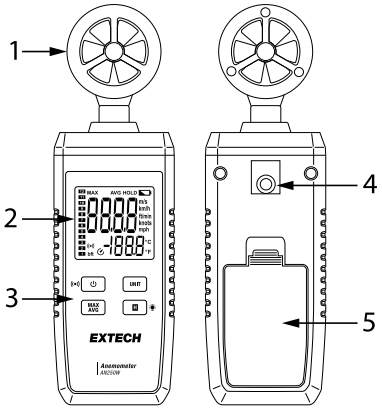
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

⚠ **WARNING**
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

4 Product Description

4.1 Meter Description



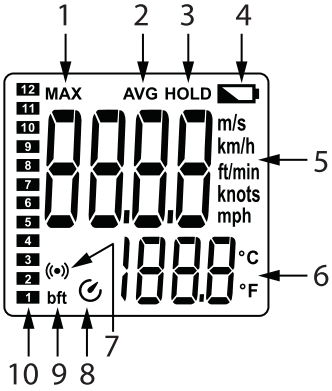
1. Vane anemometer with temperature sensor
2. Backlit LCD (detailed below)
3. Function buttons (detailed below)
4. Tripod mount
5. Battery compartment

4.2 Function Buttons

	**Power / Bluetooth button** Long press to switch the device on. Short press to switch off. With the meter powered, long press to switch Bluetooth on/off. Short press to switch the meter off directly from the Bluetooth mode.
	**MAX/AVG button** Short press to cycle through MAX/AVG readings. MAX/AVG memories are cleared each time meter power is cycled.
	**Data Hold / Backlight button** Short press to freeze/unfreeze the displayed reading. *HOLD* will display when data hold is active. Long press to switch the LCD backlight on/off.

UNIT	**Unit of Measure button** Short press to select air velocity units: m/s, km/h, ft/min, mph, knots. Long press to toggle the temperature units: ℃ / ℉.
APO ON/OFF	With the meter on, long press the power and (*H*) buttons to switch APO on/off. The APO symbol is displayed when APO is enabled. APO is reset each time the meter power is cycled.

4.3 Display Symbols



1. Maximum reading
2. Average reading
3. Data Hold mode
4. Low battery symbol
5. Air Velocity measurement and units
6. Temperature reading and units
7. Bluetooth active
8. Auto Power Off (APO) symbol
9. Beaufort scale abbreviation
10. Beaufort measurement scale (1 to 12)

5 Operation

5.1 Powering the Meter

The meter operates on three (3) 1.5 V (AAA) batteries, installed in the rear compartment.

Long press the power button ⏻ to switch the meter on. Short press the power button to switch the meter off. If the meter does not switch on, check the batteries for proper orientation.

When the low battery symbol ▭ appears on the display, replace the batteries immediately to ensure accurate readings.

5.2 Auto Power Off (APO)

The meter switches off automatically five (5) minutes after the last button press.

The default mode for APO is ON (the APO symbol ⏲ on the display indicates that APO is enabled).

To switch the APO function off, with the meter switched on, long press the power ⏻ and data hold (*H*) buttons. The APO symbol will switch off, indicating that the function is disabled. APO is reset each time the meter's power is cycled.

Repeat this process to switch APO back on manually.

5.3 Taking Measurements

1. Long press the power button ⏻ to switch the meter on.
2. Hold the meter with the vane positioned in the flow of air. Allow the air to enter the vane from the back of the meter. The meter can also be tripod mounted.
3. Read the velocity measurement on the top row of the LCD. The air temperature reading is shown on the bottom row.
4. The Beaufort scale readings (1 to 12), are represented in the text boxes on the left side of the LCD.
5. If an air velocity or air temperature measurement is outside the specified range, *OL* will appear on the display in place of a typical reading.
6. Short press the power button to switch the meter off.

⚠ CAUTION
Do not touch or otherwise obstruct the sensor area.
Do not allow liquids to come in contact with the sensor.
Avoid overly dusty environments.
Magnetic induction can affect the sensor's ability to operate correctly. Keep the sensor away from magnetic fields.

5.4 Changing Measurement Units

To step through the air velocity units menu, short press the *UNIT* button. The air velocity units are m/s (meters per second), km/h (kilometres per hour), ft/min (feet per minute), mph (miles per hour), and knots.

Long press the *UNIT* button to toggle the displayed temperature units ℃ / ℉.

5.5 Data Hold Function

Short press the Data Hold (*H*) button to freeze/unfreeze the displayed readings. While Data Hold is active, *HOLD* will appear on the LCD.

5.6 LCD Backlight

Long press the backlight button to switch the display backlight on or off. Excessive use of the backlight will shorten battery life.

5.7 MAX/AVG Readings

When the device is switched on, it begins tracking the highest (MAX) and average (AVG) readings.

Short press the *MAX/AVG* button to step through the MAX/AVG memories. *MAX* is shown when the maximum reading is displayed and *AVG* is shown when the Average reading is displayed. The memories are cleared each time the meter power is cycled.

Press the *MAX/AVG* button again to exit this mode (*MAX* and *AVG* symbols are both off when you exit).

5.8 Bluetooth Operation

Long press the Bluetooth button ((•)) with the meter on, to switch Bluetooth on or off. This communication symbol ((•)) is shown when Bluetooth is on.

The Bluetooth utility allows you to remotely monitor readings on an iOS or Android smart device using the Extech ExView mobile app designed for use with this meter.

Download the mobile app from the App Store for iOS devices or from Google Play for Android devices. Instructions for mobile app use are available from the ExView product page on the Extech website (link below).

http://www.extech.com

Switch APO off when using Bluetooth by pressing and holding the power ⏻ and *H* buttons for 2 seconds (the APO symbol will switch off). This will prevent the meter from automatically switching off while you are logging data or monitoring readings in real time on your smart device.

6 Maintenance

CAUTION

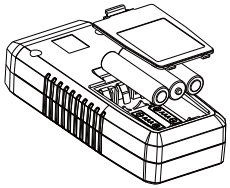
Warning: Do not open the housing or sensor module. Service should only be performed by factory personnel, there are no user-serviceable components in this device.

6.1 General Cleaning

Wipe the housing with a dry cloth as necessary to clean. Do not use abrasives or solvents to clean this device.

6.2 Battery Replacement

This device is powered by three (3) 1.5 V (AAA) batteries. When the low battery symbol appears, replace the batteries immediately, as explained below.



1. Switch the meter off and remove the rear battery compartment cover.
2. Replace the batteries, observing correct polarity. Always use batteries of the same type.
3. Secure the battery compartment before use.

Do not dispose of used batteries or rechargeable batteries in household waste.

7 Specifications

7.1 General Specifications

Display	4 digit (9999) backlit multifunction LCD
Over range indication	*OL* is displayed when air velocity or air temperature measurements exceed the specified measurement range
Low battery indication	Battery symbol appears when batteries are low
Reading update rate	Two readings per second
Sensor types	Magnetic induction wind speed sensor and NTC (negative temperature coefficient) sensor
Meter power	Three (3) 1.5 V (AAA) batteries
Dimensions	6.4 x 2.2 x 1.1 in. (163 x 55 x 28 mm)
Weight	4.2 oz. (118 g)

7.2 Measurement Specifications

Accuracy specifications apply for the following conditions: Temperature: 73.4°F ± 9°F (23°C ± 5°C); Relative Humidity: ≦ 80 %

Air Velocity ranges	Resolution	Accuracy (% of reading)
1.5 to 30 m/s (meters per second)	0.1 m/s	± (5% + 0.5 digits) m/s
5.4 to 108 km/h (kilometres per hour)	0.1 km/h	± (5% + 15 digits) km/h
2.9 to 58 knots	0.1 knots	± (5% + 10 digits) knots
3.3 to 67 mph (miles per hour)	0.1 mph	± (5% + 10 digits) mph
295.2 to 5905 ft/min (feet per minute)	0.1 ft/min*	± (5% + 180 digits) ft/min
1 to 12 Beaufort scale (bft)	1 bft	± 1 bft
	*up to 999.9	
Note: m/s is the standard unit. All other units are calculated from the m/s value.		
Air Temperature range	Resolution	Accuracy
14 to 122°F (-10 to 50°C)	0.2°F (0.1°C)	± 4°F (± 2°C)

7.3 Environmental Specifications

For indoor use only

Altitude	6562 ft. (2000 m) maximum
Pollution degree	2
Operating conditions	32 to 104°F (0 to 40°C); ≦ 80% RH
Storage conditions	-4 to 140°F (-20 to 60°C); ≦ 75% RH
Drop-proof rating	3.3 ft. (1 m)

7.4 Connectivity Specifications

Connectivity	Bluetooth (with ExView app)
ExView app compatibility	iOS 13.0 and Android 9.0 or higher
Transmission distance	Up to 295.3 ft. (90 m) with no line-of-sight obstruction

8 Two-year Warranty

FLIR Systems, Inc. warrants this Extech brand instrument *to be free of defects in parts and workmanship for* ***two years*** *from date of shipment (a six-month limited warranty applies to sensors and cables). To view the full warranty text please visit: http://www.extech.com/support/warranties.*

8.1 Calibration and Repair Services

FLIR Systems, Inc. offers calibration and repair services for the Extech brand products we sell. We offer NIST traceable calibration for most of our products. Contact us for information on calibration and repair availability, refer to the contact information below. Annual calibrations should be performed to verify meter performance and accuracy. Product specifications are subject to change without notice. Please visit our website for the most up-to-date product information: www.extech.com.

8.2 Contact Customer Support

Customer Support Telephone List: https://support.flir.com/contact

Calibration, Repair, and Returns e-mail: repair@extech.com

Technical Support: https://support.flir.com

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Website
http://www.flir.com

Customer support
http://support.flir.com

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