WiFi-500 Sensor Series

Getting Started

Contents

MEASUREMENT COMPUTING.

System requirements and recommendations

- PC or laptop with WiFi capability running Windows® 8/7/ Vista®/XP, 32- and 64-bit
- 802.11b-compliant router or access point running one of the following supported security protocols:
  - WEP 64 bit (Passkey only)
  - WEP 128 bit (Passkey only)
  - WPA-PSK
  - WPA2-PSK
- Micro-USB cable (shipped with sensor)
- Microsoft mouse or compatible pointing device
- Adobe Reader 5.0 or later required to read help file
- Microsoft Excel® 2000 or greater (optional)

Requirements for Cloud storage

A FilesThruTheAir™ Cloud account (link available in WiFi-500 Sensor Series software to create an account).

Cloud accounts are web-based and can be accessed at https://www.wifisensorcloud.com/ using a browser on a phone, tablet, PC, or Mac®.

Note: Your WiFi-500 Sensor Series device may also require a firmware update in order to access the Cloud. Refer to *Updating firmware* in the *WiFi-500 Sensor Series User's Guide* for instructions about updating the device firmware. Click 🛈 on the main window to open the user's guide.

Installing the software

Visit www.mccdaq.com/software.aspx to download and install the free WiFi Sensor Software. Allow any security access highlighted by your firewall or antivirus program if you are prompted.

Checking the WiFi connection on your computer

Before you connect the WiFi-500 Sensor Series device, make sure that the computer running the WiFi Sensor software is connected to the router either wirelessly or by Ethernet cable, and has an active connection to a WiFi network.

If your computer has access to more than one network, check which network it is connected to before setting up the sensor. The device must be connected to the same WiFi network as the computer.

Starting a Data Logging Session

Complete the following steps to run the WiFi Sensor Software, connect a WiFi-500 Sensor Series device to a WiFi network, and start a new logging session on either the PC or on the Cloud:

1. Make sure the host PC is connected to a WiFi network.

2. Click the **WiFi Sensor Software** icon (🔴) on the Start menu to run the software.

Allow any security access highlighted by your firewall or antivirus program if you are prompted.

Note: Click 🛈 in the main **WiFi Sensor Software** window to open the *WiFi-500 Sensor Series User's Guide*.

3. Choose whether to store data locally on your PC or remotely on the Cloud.

Click **Set-Up Device»On This PC** to set up the device to store data locally on your PC or local network.

- To create a Cloud account, click `Sign Up`.
- To log in to an existing Cloud account, click `Sign In`
Click **Set-Up Device»On The Cloud** to set up the device to store data on the Cloud.

With Cloud data storage, all data is transferred through the internet and stored remotely on secure servers. Data is accessible from anywhere through a web browser on any internet-enabled device.

4. Remove the rubber plug that protects the USB connector on the bottom of the sensor and connect the sensor to the computer using the Micro-USB cable.

If a **NOT CONNECTED** message displays, disconnect and then reconnect the USB cable and the software automatically scans for the device again.

A **CONNECTED** message displays when the software has detected the sensor.

When a **FINISHED** message displays, the software has detected one or more WiFi networks.

Note: If the software fails to detect any WiFi networks, click **Refresh Connections** to continue searching for WiFi networks. Refer to the *Tips and Troubleshooting* chapter in the *WiFi-500 Sensor Series User's Guide*.
Click 🛈 on the main window to open the user's guide.

5. Select a network from the list, enter the network password, and click **Next**. This must be the same network that is connected to the host computer.

If you need to configure additional network settings such as a static IP address, select the **Enter Advanced Network Options Next** checkbox.

Note: Select the **Enter Advanced Network Options Next** checkbox if you need to enter additional network information. Enter the IP address, subnet mask, and default gateway to configure the device. To lock the device so that it only connects to one wireless access point, select the **Lock this Device to an Access Point** option and enter the MAC address of the access point.

When a **CONNECTED** message displays, the sensor has connected to the selected WiFi network.

The device configuration instructions differ depending on whether you are storing data on the PC (Setting up the Sensor on the PC below) or on the cloud (Setting Up the Sensor for the Cloud on page 8).

Setting up the device on the PC

Complete the following steps to set up a WiFi-500 Sensor Series device to store data on a PC:

1. Configure the device name logging settings on the **GENERAL SETTINGS** dialog box and click **Next**.

2. Configure the **TEMPERATURE ALARMS** settings.

If you are setting up a device that supports thermocouple probes, select your probe type.
Refer to the label attached to the probe cable for the probe number.
Selecting an incorrect probe type can cause inaccurate measurements.

Figure 1: Probe type label

3. Click **Next**.

4. If your WiFi-500 Sensor Series device measures humidity, configure the **HUMIDITY ALARMS** settings and click **Next**.

5. Disconnect the USB cable from the device and click **Next** in the **Set-Up Complete** dialog box.

6. Click **Finish** and place the device in the location you want to monitor (refer to Positioning the device on page 12)

Viewing data on the PC

To view data for a specific logging session on the PC, complete the following steps:

1. Click **View Devices»On The PC** in the main window.

2. To turn off the audible alarm, click **Mute Alarm** at the bottom of the **Existing devices** dialog box.

3. Select your WiFi-500 Sensor Series device and click **View Data** at the bottom of the **Existing devices** dialog box.

Note: Refer to *Configuring a device wirelessly from the PC* in the *WiFi-500 Sensor Series User's Guide* for more information on the **Existing devices** dialog box.
Click 🛈 on the main window to open the user's guide.

By default, all logging sessions for the current month are listed on the dialog box. You can change the date range by moving the date sliders.

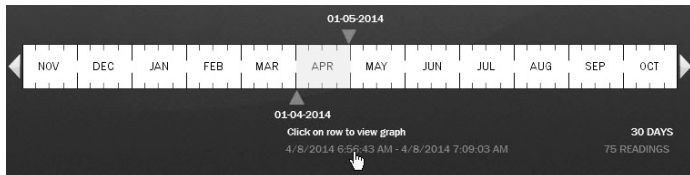**4.** Click on the logging session you want to view.

Figure 2: Selecting a logging session

5. A graph displays with checkboxes to show temperature readings, relative humidity readings, temperature alarm readings, relative humidity alarm readings, and calculated dew point values.
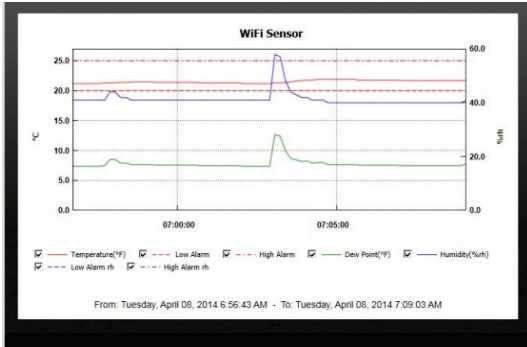

Figure 3: WiFi-500 sensor View Data graph (temperature/humidity)

6. To export data to a .csv or .pdf, the graph to a .jpg or .pdf, or both the data and graph to an Excel® spreadsheet, click **Export** and select the file format.

The exported file opens automatically. An example of data and a graph exported to Excel is shown in Figure 4.
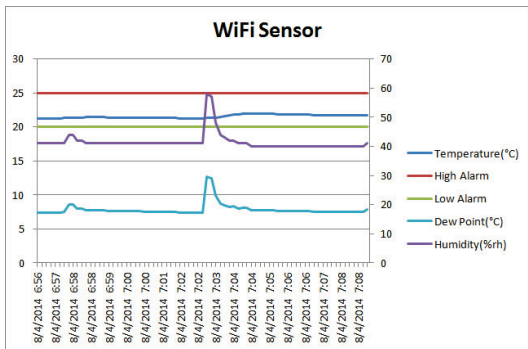
Figure 4: WiFi-500 Data/Graph Excel example

Setting up the device for the Cloud

The first time you set up a WiFi-500 Sensor Series device on the Cloud, the only setting you can change is the device name. All others settings are kept at their current values.

1. Enter `WiFi Sensor` as the device name and then click **Next**.

2. Disconnect the USB cable from the sensor and click **Next** in the **Set-Up Complete** dialog box.

3. Place the sensor in the location you want to monitor (refer to Positioning the device on page 12)

Once a WiFi-500 Sensor Series device is set up for the Cloud, you can change its configuration from the Cloud.

Cloud configuration includes setting up email alerts to notify you of data and device events. This feature is only available from the Cloud.

> **Note:** Refer to *Changing device logging settings from the Cloud* in the *WiFi-500 Sensor Series User's Guide*. Click 🛈 on the main window to open the user's guide.

Viewing data on the Cloud

To view data for a specific logging session on the Cloud, complete the following steps:

1. Click **View Devices»On The Cloud** in the main window.

Each device listing represents an individual logging session for that device.

> **Note:** If you have a Professional-level account, you may need to click on **NEW DEVICES** in the **Device Locations** pane to view your device.
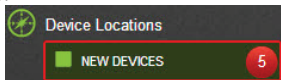

Figure 5: Device Location pane

> **Note:** Refer to www.wifisensorcloud.com/accountdifferences.aspx for a comparison of Free, Personal, and Professional Cloud account features.

2. Select the logging session you want to view and then click **View Data** at the bottom of the page.

3. A graph displays on the **Sensor Session Data** page plotting temperature and relative humidity readings (if supported by the device).

4. To export an image of the graph to a `.pdf` file for immediate display, click **Export**. (not available with Free Cloud accounts).

The file automatically opens in the browser, showing an image of the graph.

Viewing data on the WiFi-500 Sensor Series display

You can also view basic data on the display of a WiFi-500 Sensor Series device.
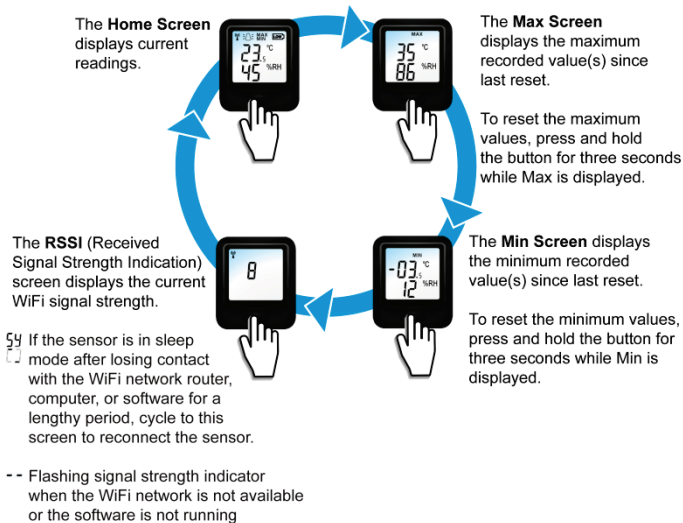

Figure 6: WiFi-500 sensor components

1	Temperature reading	5	Battery charge indicator
2	Humidity reading (if supported by device)	6	Min/Max value indicator
3	Screen cycle button (refer to Figure 7)	7	Alarm indicator
4	Temperature unit	8	Signal strength indicator

Press the screen cycle button to cycle through the different sensor displays.

Figure 7: WiFi-500 sensor display cycle

The **Home Screen** displays current readings.

The **Max Screen** displays the maximum recorded value(s) since last reset.

To reset the maximum values, press and hold the button for three seconds while Max is displayed.

The **Min Screen** displays the minimum recorded value(s) since last reset.

To reset the minimum values, press and hold the button for three seconds while Min is displayed.

The **RSSI** (Received Signal Strength Indication) screen displays the current WiFi signal strength.

If the sensor is in sleep mode after losing contact with the WiFi network router, computer, or software for a lengthy period, cycle to this screen to reconnect the sensor.

Flashing signal strength indicator when the WiFi network is not available or the software is not running

Positioning the device

Avoid placing a device near sources of heat and radio emission. Physical obstructions between the router and sensor can affect the range of the sensor. You can use WiFi extenders to improve the range of the device.

The sensor signal strength displays on the sensor screen as a number between 1 (weak signal) and 10 (strong signal).

The WiFi signal indicator (📶) has three states:

- Not displayed – the sensor has not yet been set-up and configured to a WiFi network
- Flashing – not communicating with the software
- Solid – successful communication with the software

Recharging the sensor

Each WiFi-500 Sensor Series device is shipped partly charged with enough power for the initial set up and use of the device.

For optimum performance, charge the device for 24 hours before regular use.

The battery life depends on the regularity of sensor transmissions. The battery charge indicator displays the battery charge status.

Battery Charge Indicator	Battery Charge Status
🔋 (not displayed)	Battery charge sufficient
LOW	Battery charge low – recharge by connecting sensor to a computer using the Micro-USB cable provided
🔋	Battery recharging

If you have a critical process or do not wish to recharge sensors, you can keep them plugged in to a USB charger continuously.