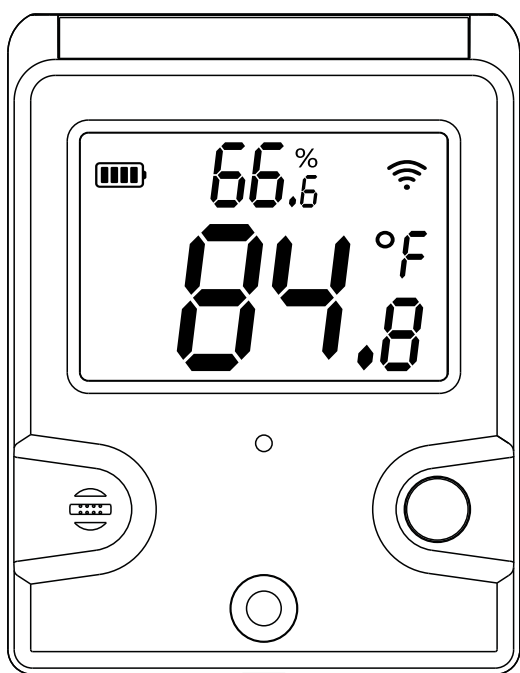




Solar Thermometer Hygrometer

YS8002-UC



Installation & User Guide

Revision Jun. 02, 2026

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A Welcome

Thank you for purchasing YoLink products! We appreciate you trusting YoLink for your smart home & automation needs. Your 100% satisfaction is our goal. If you experience any problems with your installation, with our products or if you have any questions that this manual does not answer, please contact us right away. See the Contact Us section for more info.

Thank you!

YoLink Customer Support

User Guide Conventions

The following icons are used in this guide to convey specific types of information:



Very important information
(can save you time!)



Good to know info but may not
apply to you

B Before You Begin

Visit our Solar Thermometer Hygrometer support page on our website, for the latest installation guides, additional resources, information and videos by visiting:

<https://www.yosmart.com/support/YS8002-UC>

Or by scanning the QR code:



Download the most current version of the user guide by scanning the QR code:

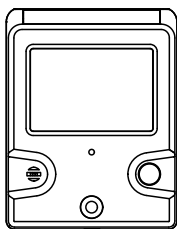


B Before You Begin, Continued

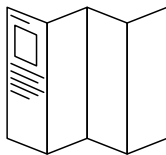


Your Solar Thermometer Hygrometer connects to the internet via a YoLink hub, and it does not connect directly to your WiFi or local network. In order for remote access to the device from the app, and for full functionality, a hub is required. This guide assumes the YoLink app has been installed on your smartphone, and a YoLink hub is installed and online (or your location, apartment, condo, etcetera, is already served by a YoLink wireless network).

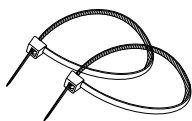
C In the Box



Solar Thermometer Hygrometer



Quick Start Guide



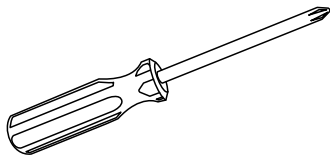
Cable Tie (2)



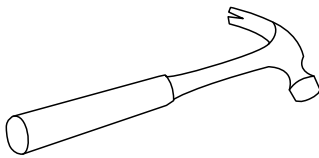
Self-tapping Screw (2)

D Required Items

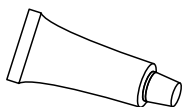
You may require these items:



Small and/or Medium Phillips
Screwdriver



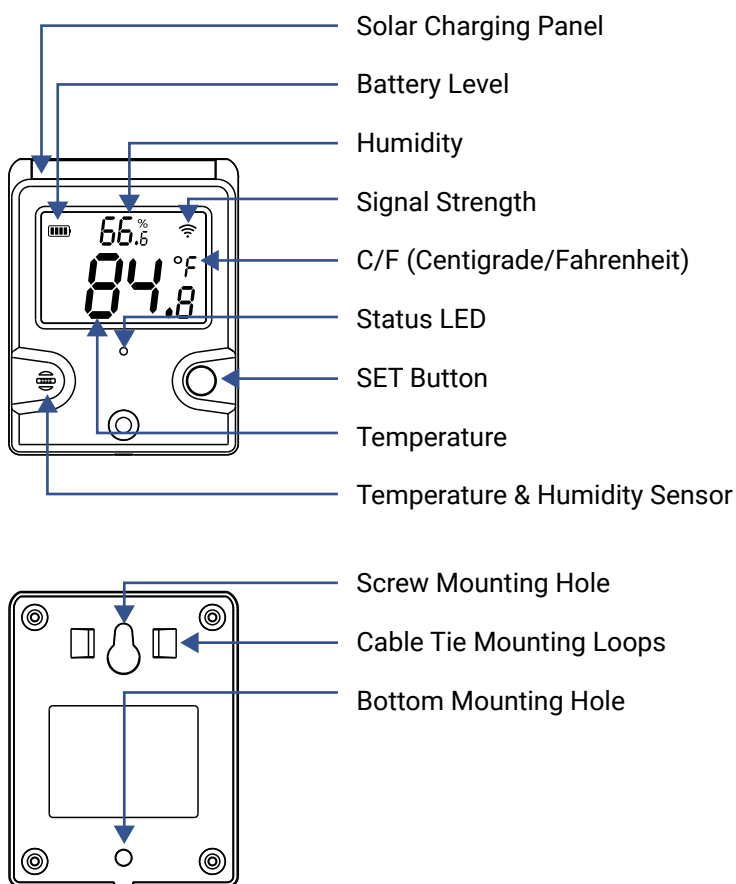
Hammer



Mounting Adhesive

E

Get to Know Your Sensor



LED Behaviors



Blinking Red Once, then Green Once
Device Start-Up



Blinking Red And Green Alternately
Restoring to Factory Defaults



Blinking Green
Connecting to Cloud or Functioning Normally



Slow Blinking Green
Updating



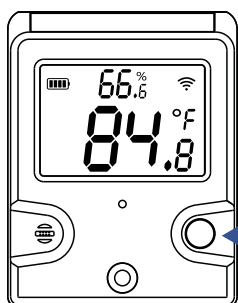
Blinking Red Once
Device Alerts



Fast Blinking Red 5 Times when pressing the SET Button
Battery Power Is Low; Please Place the Device in Direct Sunlight to Recharge via the Solar Panel

F Power Up

Before you can use your Solar Thermometer Hygrometer, it must be turned on. Press the SET button briefly, until the LED flashes red then green (which indicates it has turned on and connected to a hub and the cloud).



SET Button



Install the App

If you are new to YoLink, please install the app on your phone or tablet, if you have not already. Otherwise, please proceed to the next section.

Scan the appropriate QR code below or find the “YoLink app” on the appropriate app store.



Apple phone/tablet
iOS 9.0 or higher



Android phone/tablet
6.0 or higher

Open the app and tap **Sign up for an account**. You will be required to provide a username and a password. Follow the instructions, to set up a new account. Allow notifications, when prompted.

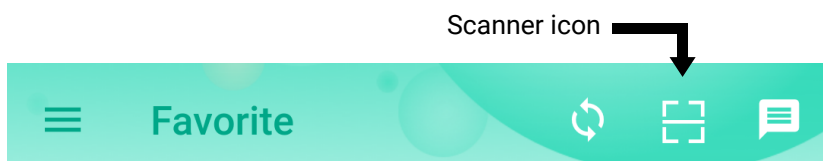
You will immediately receive a welcome email from no-reply@yosmart.com with some helpful information. Please mark the yosmart.com domain as safe, to ensure you receive important messages in the future.

Log in to the app using your new username and password.

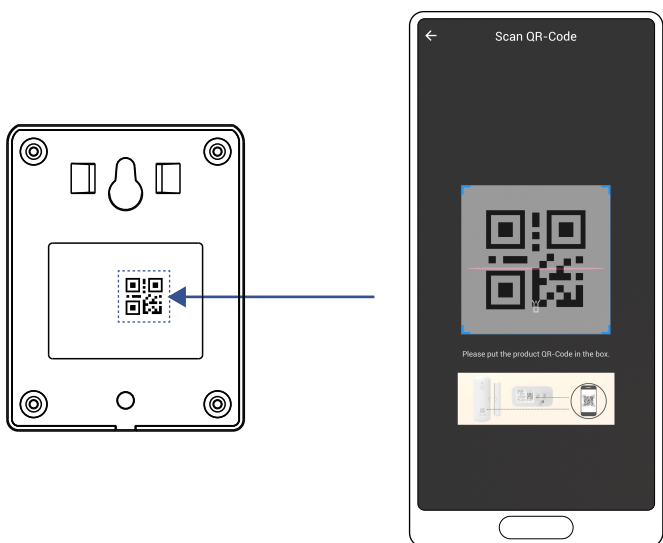
The app opens to the **Favorite** screen. This is where your favorite devices and scenes will be shown. You can organize your devices by room, in the **Rooms** screen, later.

H Add Your Sensor to the App

1. Tap **Add Device** (if shown) or tap the scanner icon:



2. Approve access to your phone's camera, if requested. A viewfinder will be shown on the app.



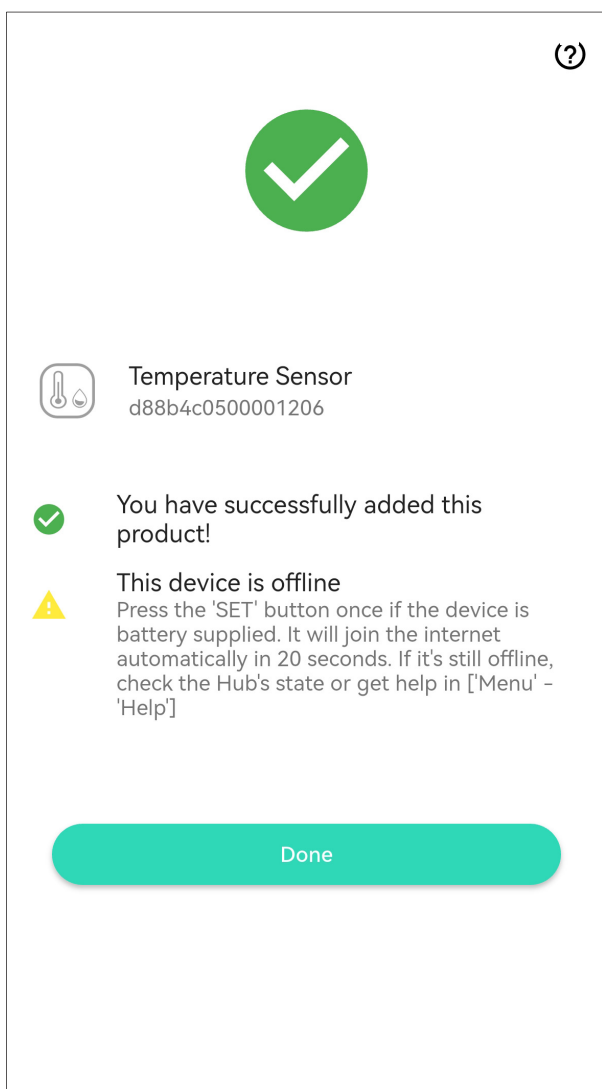
3. Hold the phone over the QR code so that the code appears in the viewfinder. If successful, the **Add Device** screen will be displayed.



Add Your Sensor to the App, Continued

4. You can change the device name and assign it to a room later. Tap **Bind device**.

5. If successful, the screen will appear as shown. Tap **Done**.





Installation

Solar Thermometer Hygrometer Basics

Before installing your sensor, it is important to understand where to place it for the most accurate environmental data and consistent power.

Installation Requirements

- **Mounting Access:** The device can be secured via a top keyhole (rear), cable tie loops (rear), an exposed bottom screw hole, or by using an outdoor-rated adhesive on the back surface.
- **Initial Setup:** Before permanent mounting, ensure the device is added to the YoLink app and shows as "Online."



Installation, Continued

Sensor Location Considerations

- **Outdoor Use Only:** This sensor is intended for outdoor installation.
- **Solar Power Requirements:** To maintain a continuous charge, the top-mounted solar panel must be placed in an environment that receives at least 1000 lux.
- **Recommended Placement:** Mount the sensor in a shaded area with good airflow (such as under an eave, porch roof, or joist). This allows for ambient light charging while protecting the sensor from overheating in direct sun.
- **Avoid Heat Sources:** Stay away from localized heat or cold sources, such as AC exhaust fans, vents, or dark surfaces (like metal or asphalt) that radiate heat.



Installation, Continued

Pre-installing & Testing

Before permanent mounting, it is recommended a "dry run" to ensure signal strength and connectivity.

- **Temporary Positioning:** Hold the sensor in the proposed location (or use painter's tape to hold it temporarily).
- **Verify Connection:** Check the YoLink app to ensure the sensor status is "Online" and the readings are updating from that specific spot.

Installation Options

Once you are satisfied with the placement, choose the mounting method that best suits your surface.

1. Screw Mounting (Included)

Best for wood posts, siding, or flat surfaces.

- **Top Keyhole:** Use the keyhole notch on the rear at the top to hang the sensor from a screw or nail.
- **Bottom Mounting Hole:** For maximum stability, use the exposed mounting hole at the bottom of the sensor to drive a second screw directly into the surface. This model does not have a bottom cover; the hole is ready for use.



Installation, Continued

2. Cable Tie Mounting (Included)

Best for poles, railings, or chain-link fences.

Thread the provided cable ties through the mounting loops on the rear of the sensor body. Wrap them around the post and pull tight. Trim the excess tie for a clean finish.

3. Mounting Adhesive (Optional / Not Included)

Best for metal, glass, or stone where drilling is not preferred.

- Use a high-quality outdoor-rated mounting tape or adhesive.
- Prep: Ensure the mounting surface is clean and dry (rubbing alcohol is recommended) before applying to ensure a strong bond.



Note: Due to the short shelf life of industrial adhesives, we do not include this in the package. If choosing this method, ensure the surface is clean and dry, and follow the adhesive instructions regarding cure time before operating the gate.

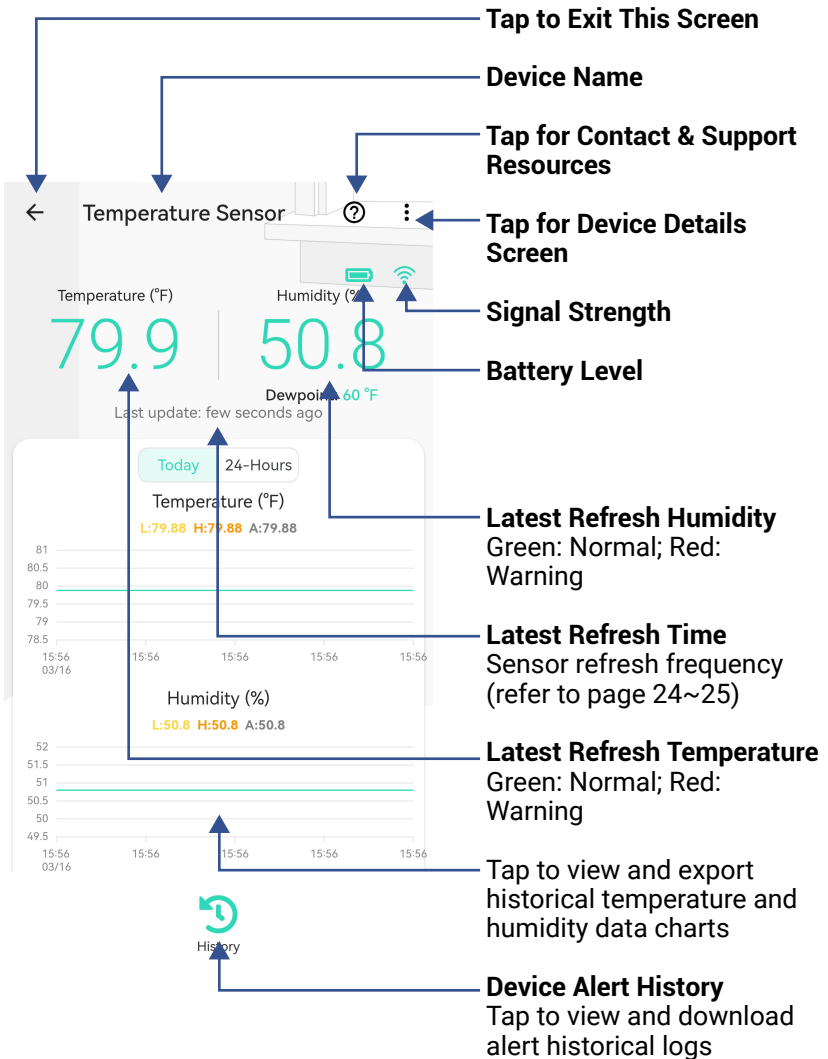
Final Verification

- **Clean the Panel:** Periodically wipe the solar panel with a damp cloth to remove dust or debris.



App Functions: Device Screen

In the app, tap on your Solar Thermometer Hygrometer icon. Your Solar Thermometer Hygrometer main screen should be similar to the one shown below.





App Functions: Device Details Screen

Tap the three dots (in the upper right corner) to open the Solar Thermometer Hygrometer **Details** screen. Your Solar Thermometer Hygrometer screen should be similar to the one shown below.

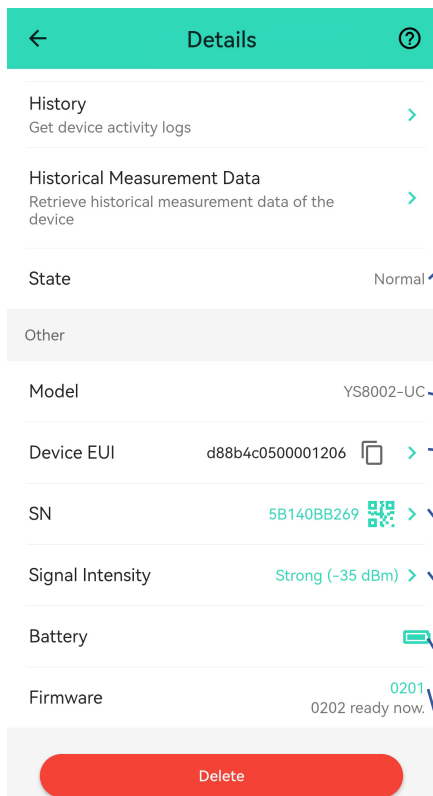
The screenshot shows the 'Details' screen of the Solar Thermometer Hygrometer app. The screen has a teal header with a back arrow, the title 'Details', and a help icon. Below the header is a list of settings, each with a label on the left and a value or action on the right. Annotations with blue lines point to specific elements:

- Device Type**: Points to the 'Type' field, which shows 'Temperature Sensor'.
- Device Name**: Points to the 'Name' field, which shows 'Temperature Sensor' with a right arrow. Text below: (Tap to Edit)
- Room**: Points to the 'Room' field, which shows 'Not Set' with a right arrow. Text below: (Tap to Edit)
- Alert**: Points to the 'Alert' field, which has a right arrow. Text below: Tap to edit Alert Settings (see Alert Settings)
- Calibration**: Points to the 'Calibration' field, which has a right arrow. Text below: Tap to calibrate the sensor (see page 22~23)
- Recording Interval**: Points to the 'Recording Interval' field, which shows '15 minutes' with a right arrow. Text below: Sampling frequency. Standard device offers range from 10 to 60 minutes. For more frequent sampling options, consider subscribing to our Standard Plan.
- Auto Screen-Off**: Points to the 'Auto Screen Off' field, which shows 'Disabled' with a right arrow. Text below: Tap to set the duration after which the display will turn off
- Favorite**: Points to the 'Favorite' field, which shows 'Will show in favorite screen' and a heart icon. Text below: (Red if Favorite, Tap to Edit)
- History**: Points to the 'History' field, which shows 'Get device activity logs' with a right arrow. Text below: Tap to view device history

The bottom of the screen shows the 'State' field with the value 'Normal'.



App Functions: Device Details Screen, Continued



Status

General status of the device (Normal, Offline, Warning, etc.)

Model Number

Device EUI

Unique Identifier Number (Unique)

Device Serial Number

Signal Intensity

(From YoLink Hub)

Battery

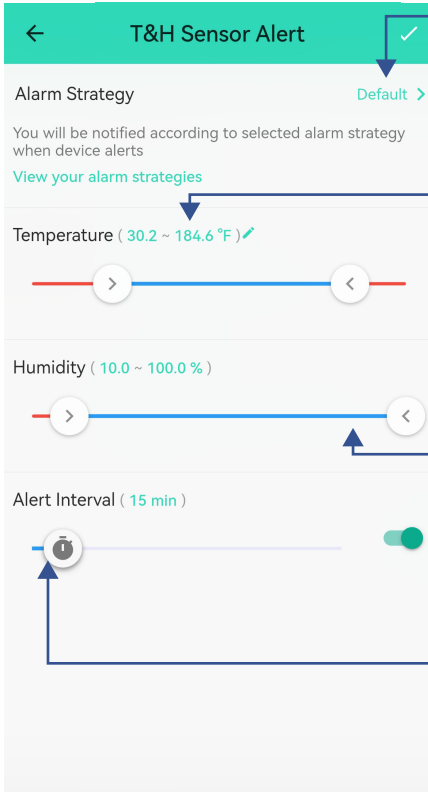
Battery level indicator. Please Place the Device in Direct Sunlight to Recharge via the Solar Panel

Firmware Revision

(Refer to page 32)



App Functions: Alert Settings Screen



Alarm Strategy

Tap to edit the sensor's Alarm Strategy

Tap here to open the digital temperature alert settings

Tap the slider control and adjust the high or low alert value. The "normal" range will be displayed in green text as a low alert value, to the high alert value.

Alert interval

Choose how often you want to be reminded after an alert.
The default is every 5 minutes.



App Functions: Chart Screen



8002



Real-Time Hourly

2/18 12:00 AM ~ 2/18 9:19 AM

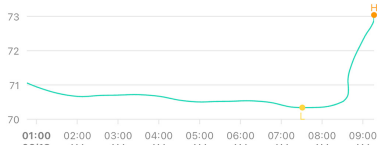


Tap to select real-tim or hourly data

Tap to select time range

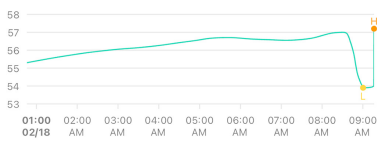
Temperature (°F)

L:70.34 H:73.04 A:71.3



Humidity (%)

L:53.9 H:57.2 A:56.03



Export

Tap to export data



App Functions: Alarm Strategy Screen

You can set up notifications in Alarm Strategy settings, make sure you have enabled App, Email, SMS notification from the app->Menu->Settings->Account Settings->Advanced Settings, and verified your email address and added your phone number in the app.

The screenshot shows the 'Alarm Strategy' settings screen. The header is green with a back arrow, a question mark icon, and the title 'Alarm Strategy'. Below the header, there are several sections: 'Name' with a value of 'Always' and a chevron; 'Related Devices' with a value of '1' and a chevron; 'Enable Device Alarm' with a toggle switch that is turned on; 'Do Not Disturb' with a toggle switch that is turned off; 'Send App Notification' with a value of 'Admin' and a dropdown arrow, followed by a link 'Notification Settings ...' and a description 'Will send App Notification to the administrator of this home when device alerts'; 'Send Email' with a value of 'None' and a dropdown arrow, followed by the text 'Will not send Email when device alerts'; 'Send SMS' with a value of 'None' and a dropdown arrow, followed by the text 'Will not send SMS when device alerts'; and 'Trigger Action' with a value of 'None' and a chevron, followed by the text 'Have not set any action'. At the bottom is a green 'Save' button. Annotations with arrows point to the question mark icon, the 'Always' value, the '1' value, the 'Enable Device Alarm' toggle, and the 'Do Not Disturb' toggle.

Strategy Name
Tap to edit the name

Related Devices
Tap to add more devices (that can alert) to this strategy, a device can be related to only one strategy

Tap to Enable or Disable The Strategy

Tap to Set Up Dnd (Do Not Disturb)



App Functions: Alarm Strategy Screen, Continued

The screenshot shows the 'Alarm Strategy' screen with a teal header. Below the header are several settings sections. Callout arrows point from text boxes on the right to specific elements: 'Send App Notification' points to the 'Admin' dropdown; 'Notification Settings (iOS only)' points to the 'Notification Settings' section header; 'Send Email' points to the 'None' dropdown; 'Send SMS' points to the 'None' dropdown; and 'Trigger Action' points to the 'None' dropdown. A 'Save' button is at the bottom.

< Alarm Strategy ?

Name Always >

Related Devices 1 >

Enable Device Alarm ☒

Do Not Disturb

Do Not Disturb ☐

Send App Notification Admin >

Notification Settings ▼
Will send App Notification to the administrator of this home when device alerts

Send Email None >

Will not send Email when device alerts

Send SMS None >

Will not send SMS when device alerts

Trigger Action None >

Have not set any action

Save

Send App Notification

Tap to select Admin to enable App push, select All, if desired for all members

Notification Settings (iOS only)

Tap to change notification tone, if desired

Send Email

Tap to select Admin to enable email notification, select All, if desired to send to all members

Send SMS

Tap to select Admin to enable limited text messages, select All (subscribe required-starter or standard plan), if desired to send to all members

Trigger Action

Tap to choose trigger actions (YoLink sirens, YoLink SpeakerHubs, scene)



App Functions: Automation

The X3 Temperature & Humidity Sensor can be set up as a condition in an automation. For example, you can automatically turn on a fan if the sensor detects a high temperature. This example is shown below. The automation also sends a custom notification (via app push notification, email SMS, or SpeakerHub broadcast) reminding you the sensor detects high or low temperature or humidity.

<

Automation

>

Name

High temp turn on fan

21/64

When

Temp Humidity Sensor

High temperature alert

Then

Behavior



Fan

Turn ON

Working Time

Always Working

>

Delete

21



Sensor Calibration

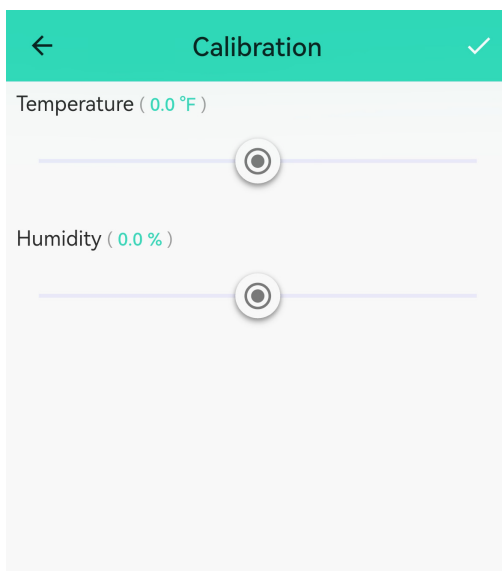
Your Solar Thermometer Hygrometer has a high-accuracy digital sensor that has been calibrated at the time of manufacture. Your sensor readings should always be accurate, but if you believe the sensor is not accurate and/or if you have a thermometer or trusted sensor, etc. that displays a different reading, you can adjust the humidity and temperature readings with a plus or minus offset of your choice. For example, if a calibrated or trusted thermometer reads 0.5 degrees higher than your sensor, you can adjust, or calibrate, the sensor reading to be 0.5 degrees higher than it normally displays.



Sensor Calibration, Continued

How to Calibrate Your Sensor:

1. Open the sensor's **Details** screen and tap Calibration.
2. The Calibration screen is displayed, as shown below. To calibrate the temperature or humidity, tap and hold the associated slider bar control, then slide the control to the right, for a positive offset, or to the left, for a negative offset. The offset will be displayed with a "+" or "-" number. For example, to adjust the humidity plus 1.5 percent, tap and hold the Humidity control, and slide it slowly to the right, until "+1.5%" is displayed.

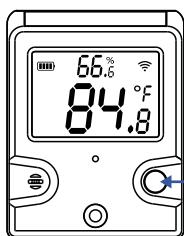


3. Tap the checkmark, to save your settings.



Sensor Refresh Frequency

Both temperature and humidity values refresh when one of the following conditions are met:



SET Button

a. The SET button has been pressed

b.

- When temp is over 32°F(0°C), at least 1.8°F (1°C) change over a period longer than 1 minute;
- When temp is between 14°F(-10°C) and 32°F(0°C), at least 2.7°F (1.5°C) change over a period longer than 1 minute;
- When temp is between 5°F(-15°C) and 14°F(-10°C), at least 3.6°F (2°C) change over a period longer than 1 minute;
- When temp is below 5°F(-15°C), at least 9°F (5°C) change over a period longer than 1 minute.





Sensor Refresh Frequency



c. At least 3.6°F (2°C) change within 1 minute



d. At least 10% change over a period longer than 1 minute



e. Device alert level reached or restored to normal range

d. Otherwise, the values will be refreshed automatically once an hour

3rd-Party Services

The YoLink Solar Thermometer Hygrometer works with several voice assistants, including Alexa and Google, and it works with other automation platforms such as IFTTT.

To set up voice assistant integrations, in the app, go to Settings, Third-Party Services, and follow the instructions.

Please note, IFTTT supports Solar Thermometer Hygrometer as a trigger action (High Temp, Low Temp, High Humidity, or Low Humidity) in the routine.

Alexa now includes the capability to query the temperature of a device and utilizes the Solar Thermometer Hygrometer for initiating trigger actions, based on high or low temperature (note that humidity-triggered actions are not supported).

Notably, in the Alexa interface, these temperature conditions are represented as motion sensors. For instance, when setting up a routine in Alexa, you can select "Sunroom Temp Humidity | High Temperature - Motion Detected" as the condition under the "when" section to initiate the routine.



3rd-Party Services, Continued

Google only supports querying the temperature or humidity of the devices.

For example, edit the name of the device in Alexa or Google to "Sunroom", then you can ask: "Echo, what is the sunroom temperature?"

You can also try, "Alexa, what is the temperature of the Sunroom sensor?"



Specifications

Power:	Hybrid Layer Capacitor + Solar Charging
--------	--

Operating Environment:	Outdoor Use Only
------------------------	------------------

Device Current Draw:	$\leq 135\text{mA}$ (operating) $\leq 20\mu\text{A}$ (standby)
----------------------	---

Sensor Types:	Temperature, Humidity
---------------	-----------------------

Temperature Value Accuracy:	0.1 ($^{\circ}\text{F}/^{\circ}\text{C}$)
-----------------------------	---

Humidity value Accuracy:	0.1%
--------------------------	------

Dimensions:	$3.15 \times 2.44 \times 0.94$ inches ($80 \times 62 \times 24$ millimeters, LxWxD)
-------------	--

Temperature Error (Typical):	-22 $^{\circ}\text{F}$ - -4 $^{\circ}\text{F}$, $\pm 0.9^{\circ}\text{F}$ (-30 $^{\circ}\text{C}$ - -20 $^{\circ}\text{C}$, $\pm 0.5^{\circ}\text{C}$) -4 $^{\circ}\text{F}$ -32 $^{\circ}\text{F}$, $\pm 0.72^{\circ}\text{F}$ (-20 $^{\circ}\text{C}$ -0 $^{\circ}\text{C}$, $\pm 0.4^{\circ}\text{C}$) 32 $^{\circ}\text{F}$ -140 $^{\circ}\text{F}$, $\pm 0.36^{\circ}\text{F}$ (0 $^{\circ}\text{C}$ -60 $^{\circ}\text{C}$, $\pm 0.2^{\circ}\text{C}$)
------------------------------	--



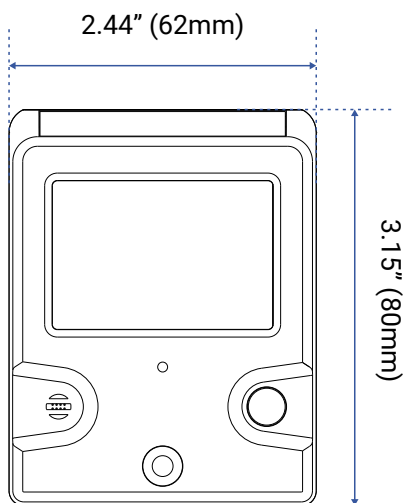
Specifications, Continued

Humidity Error (Typical,@77°F/25°C):	10%-90%, $\pm 2\%$ 0%-10%/90%-100%, $\pm 3\%$
---	---

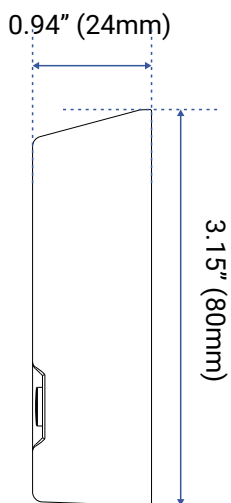
Environment:	Working Temperature: -22°F -140°F (-30°C - 60°C) Working Humidity: ≤ 0 -100% (non-condensing)
--------------	---

IP Rating:	IP 65
------------	-------

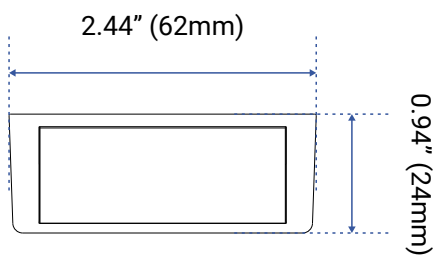
S Specifications, Continued



FRONT



SIDE

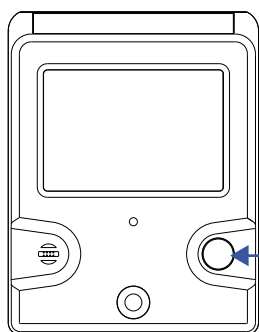


TOP

T Factory Reset

When directed by customer support, and/or as an attempt to resolve a problem with your Solar Thermometer Hygrometer, it may be necessary to perform a factory reset. Factory resetting your sensor returns it to the factory default programming and settings. This is a simple process:

Hold the SET Button for 20 to 30 seconds, until the LED blinks red and green alternately, then release the button.



SET Button
Press for 20 to 30 Seconds

Factory reset is complete when the LED stops flashing.



Only deleting a device from the app will remove it from your account



Firmware Updates

Your YoLink products are constantly being improved, with new features added. It is periodically necessary to make changes to your device's firmware. For optimal performance of your system, and to give you access to all available features for your devices, these firmware updates should be installed when they become available.

In the Detail screen of each device, at the bottom, you will see the Firmware section, as shown in the image below. A firmware update is available for your device if it says "#### ready now"

Signal Intensity

Strong (-32 dBm)

Firmware

0203

Delete

Tap in this area to start the update.

The device will update automatically, indicating progress by percentage-complete. You may use your device during the update, as the update is performed "in the background". The LED will slowly blink green during the update, and the update may continue for several minutes beyond the LED turning off.

V Warnings

- Please install, operate, and maintain the Sensor only as outlined in this manual. Improper use may damage the unit and/or void the warranty.
- Environmental Limits: Do not install or use the sensor outside of the temperature and humidity range listed in the Specifications section of this manual.
- Solar Charging Requirement: This device is designed for outdoor use where it has access to ambient or direct light. Do not install the sensor in dark, indoor, or windowless environments, as the internal power source will not recharge, leading to device failure.
- Cleaning & Maintenance: If your Sensor gets dirty, please clean it by wiping it down with a clean, dry cloth. Do not use strong chemicals, detergents, or abrasive cleaners, which may discolor or damage the exterior, cloud the solar panel, or damage the internal electronics, voiding the warranty.
- Physical Protection: Do not install or use this device where it will be subjected to physical impacts and/or strong vibration. Physical damage is not covered by the warranty.



Warnings, Continued

- **Weather Precautions:** While the unit is rated for outdoor use, do not install it in low-lying areas or "pockets" where it may be submerged in standing water during heavy rain.
- **Unauthorized Service:** Please contact Customer Service before attempting to repair, disassemble, or modify the device. Any unauthorized tampering, disassembly, or modification can void the warranty and permanently damage the device.
- **Magnet Safety:** Keep the magnet out of reach of children to avoid choking hazards. Keep the magnet away from sensitive electronic equipment (such as magnetic storage media) to prevent damage.



Warranty

2 Year Limited Electrical Warranty

YoSmart Inc. warrants to the original user ("customer") of this product that it will be free from defects in materials and workmanship, under normal use, for 2 years from the date of purchase. This warranty does not apply to devices that have been improperly installed, modified, put to a use other than designed, or subjected to acts of God (such as floods, lightning, earthquakes, etc.). This warranty does not cover neglected or abused products. This warranty is limited to the repair or replacement of the device, only, at YoSmart's sole discretion. YoSmart will NOT be liable for the cost of installing, removing, nor reinstalling this product, nor direct, indirect, or consequential damages to persons or property resulting from the use of this product. This warranty only covers the cost of replacement parts or replacement units, it does not cover shipping & handling fees. The customer must provide proof of purchase, in the form of the original purchase invoice or order number. The purchase must have been made from an authorized seller.

To implement this warranty please contact us by one of the methods listed on the Contact Us page of this user guide.



FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: 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:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.



FCC Statement, Continued

- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

PRODUCT NAME:

Solar Thermometer Hygrometer

PARTY:

YOSMART, INC.

TELEPHONE:

831-292-4831

MODEL NUMBER:

YS8002-UC

ADDRESS:

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Contact Us

We are here for you, if you ever need any assistance installing, setting up or using a YoLink app or product!

Need help? For fastest service, please email us 24/7 at service@yosmart.com

Or call us at **831-292-4831** (US phone support hours: **Monday - Friday, 9AM to 5PM** Pacific)

You can also find additional support and ways to contact us at:

www.yosmart.com/support-and-service

Or scan the QR code:



Support Home Page

Finally, if you have any feedback or suggestions for us, please email us at feedback@yosmart.com

Thank you for trusting YoLink!

YoLink Customer Support



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