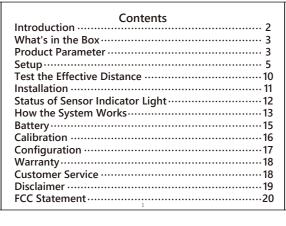
MOCIEO®

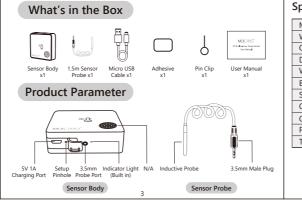
ST10 Ultra-Low Temp Sensor User Manual



Introduction

The ST10 temperature Sensor is specifically engineered for the purpose of monitoring extremely low temperatures, enabling precise measurement within the range of -328°F to 392°F. It is widely used in medical laboratory research, industrial monitoring and control, and chain logistics etc.

- Detectable Temperature Range: -328°F ~ 392°F. • Three Alarm Methods: E-Mail Alert, App Push Notification,
- Hub Beeping. • Online Data Viewing: MOCREO App provides a real-time graphs view of temperature changes over time, providing an intuitive view of temperature trends.
- Data Export: Support 6 months free data storage and export to CSV tables for in-depth analysis and research.



Specifications

Model	ST10	Search "MOCREO So the QR Code below and register a MOC Sensors, Please ensu If you have not setu to setup the Hub.
Wireless Connection	Bluetooth	
Communication Range	131ft/40m (No Obstacles)	
Dimensions	2.4 x 2.4 x 0.7inch (L x W x H)	
Weight (Including probe)	2.9 Ounces	
Battery (Rechargeable)	3.7V 1800mAh Lithium Battery	
Size of Stainless Steel Shell	6 mm in diameter	
Cable Length	4.9ft	
Cable Cross Section	4mm x 1.3mm	
Probe Measuring Rage	-328°F ~ 392°F (-200°C ~ 200°C)	
Temperature Accuracy	±1.8°F (In the range of -328°F to 392°F)	

thernet to transmit data from the MOCREO Sensors

o view your device data from anywhere in the world.

Download MOCREO App Search "MOCREO Sensor" on Google Play/App Store or scan the QR Code below to download the MOCREO Sensor App and register a MOCREO account on the App Before adding Sensors, Please ensure that the Hub is successfully bound. If you have not setup a Hub, please consult the Hub Manual







2 Setup Tutorial



3 Turn on the Bluetooth Make sure the Bluetooth is ON during the whole setup process.



4 Sensor Joins the Hub

Tap the [+] Button at the upper right of the MOCREO Home Page and select 'Temp Sensor-ST10' (Please ensure that the Hub is successfully bound).



• Please make sure the Bluetooth of your mobile device (smart phone/ tablet) is enabled during the whole setup process. • The Bluetooth and GPS can be turned off after the Sensor setup is complete.

5 Select the Hub



6 Poke the Sensor

Poke the Sensor pinhole with a pin for 1s and release, then the indicator light of Sensor will flash (Please complete this operation within 60 seconds, and you can add up to 10 Sensors at a time).



Select the Sensor you want to add and click on the "Add Button" (up to 10 devices can be added at a time). When the \bigcirc appears on the Sensor card, it means the Sensor is successfully added. Please wait until all Sensors status to become complete.

Add the Sensor

Disclaimer



Test the Effectve Distance

• Place the paired ST10 Sensor in the location you want to monitor. The suggested distance between the Hub and Sensor is within 67ft (Indoor environment).

Poke the Sensor pinhole for 1s and release.

3. Using a laboratory freezer as an example, tape the • After 20~30 seconds, tap the corresponding Sensor Sensor data logger to the outside of the freezer door card on the App to reach the Sensor Settings Page and and place the probe at the location inside the freezer view the signal value, signal value stronger than 20% is



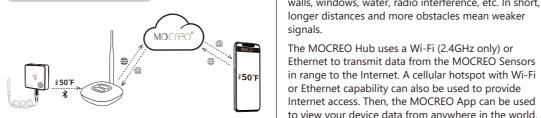
- 1. Please place the Hub at a relatively high position. 2. Please make sure the Sensor probe was inserted firmly (Note: ST10 probe is waterproof but the Sensor Body



Status of Sensor Indicator Light

- Slow Blue Light Blinking (Every 0.5 seconds): This appears when poking the Sensor with the pin, at this time the Sensor is in setup mode, after 60 seconds the indicator light will automatically turn off.
- Fast Blue Light Blinking (Every 0.2 seconds): If there is a loose probe connection, poor probe contact, or the ambient temperature is outside the Sensor's measurement range (-328°F ~ 392°F), the Sensor's indicator light will continue to flash until the problem is resolved and normalcy is restored.

How the System Works



the Hub. Therefore, the distance are limited to a Bluetooth range centered on the Hub (e.g., around the



The ST10 Sensors use Bluetooth LE to communicate with

This range is affected by distance and obstacles such as walls, windows, water, radio interference, etc. In short,

- ST10 Sensor built- in 1800mAh rechargeable lithium battery. • The battery can last up to 1 year before it needs to be charged
- Please charge the Sensor with a Micro USB Cable and a 5V 1A power adapter
- The battery percentage can be checked on the App: Sensor Settings Page>Battery Level (Please do not check the battery level while the device is charging).
- When charging, the red indicator light will stay on and when the red indicator light goes off it means charging is complete.
- Low battery alert will be triggered when the battery is below 10% (Including Email alerts and App notification).

Calibration

- When the Sensor was taken to or from the refrigerator/freezer the ST10 Sensor will spend some time calibrating the reading, and it would take about 10 minutes for the ST10 to measure to proper ambient temperature
- The ST10 has a built-in German Heraeus thin-film RTD platinum resistor, which is a strictly calibrated industrial-grade chip and is more accurate than ordinary consumer chips.
- To ensure the accuracy and reliability of the ST10 Sensor, it is Model > Save recommended that it be calibrated every six months. To calibrate, please place the Sensor probe in a constant temperature environment (E.g. a thermostat) and allow it to stabilize for approximately ten minutes or more. Then, select 'Temp Compensation' on the Configuration page of the specific Sensor card in the App to calibrate the Sensor.

Configuration

[Name the Sensor] Tap Sensor Card > Button on the Upper Right > Alias Name > Save

[Name the Hub] Tap = Button on the Upper Left > Hubs > Click Button on the Hub Card > Name > Save

【Export Data】 Tap Sensor Card > ♠ Button on the Upper Right > Export Historical Data > Choose Time Period > Export

Warranty

MOCREO products enjoy a 12-Month limited warranty start from the date when customer receives the product which applies only to hardware components of the device that are not subject to accident, misuse, neglect, fire, or other external causes, alterations, repair.

Customer Service

https://mocreo.com/doc/manual/support/faq.html



earch [MOCREO Sensor] on YouTube to watch the setup video tutorials.

The contents about how to use the product and the

actual situation for specific application. If there is

This product is for detecting and monitoring only,

or other consequences of the use of this product.

MOCREO is not responsible for any property damage

App guidance are only for reference, please refer to the

something differs from the instruction during using the

product, please contact MOCREO Support for updates.

FCC Statement

FCC ID (Sensor): 2A36D-ST4 FCC ID (Hub): 2A36D-H1 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.

(2) This device must accept any interference received, including interference that may cause undesired operation

Warning: 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, 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:

- Connect the equipment into an outlet on a circuit

Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and
- different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.