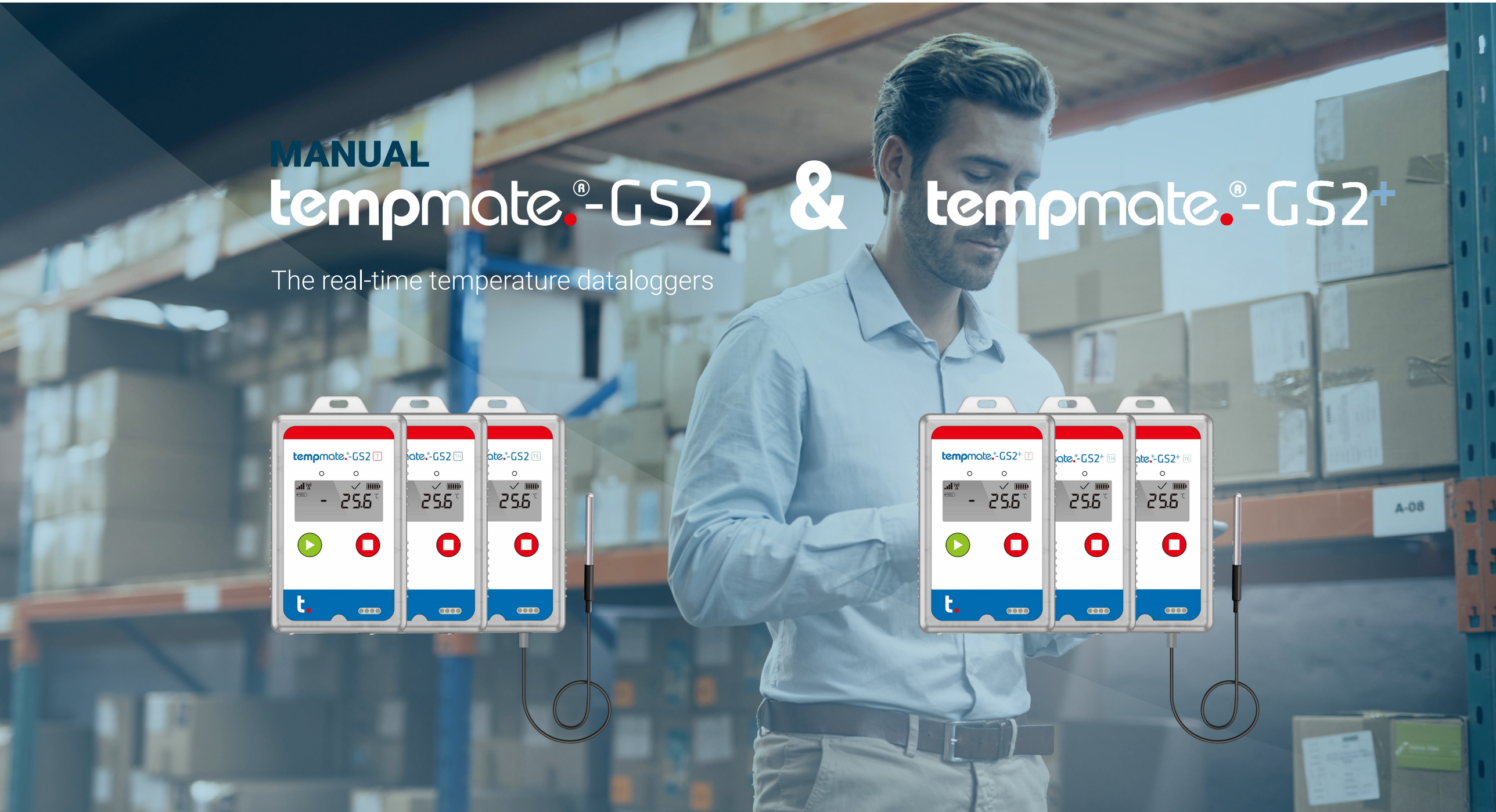
tempmate.®

MANUAL

tempmate.®-GS2 & tempmate.®-GS2+

The real-time temperature dataloggers



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1. Intended Use & Important Information

The tempmate-GS2 and -GS2+ are easy-to-use data cloud-based loggers that records all relevant data during its usage.
Information and details about temperature, humidity, light, shock, tilt and geo-location are automatically sent to the tempmate-Cloud service and can be viewed, evaluated, archived and shared by the user and account holder.
The tempmate-GS2 and -GS2+ can be used for all kinds of applications where monitoring, recording and viewing details about a transport are necessary.
Each tempmate-GS2 and -GS2+unit is fully managed through the tempmate-Cloud service, which can be accessed via https://web.tempmate.cloud/

Quick Notes & Important Information:

The tempmate-GS2 and -GS2+ are available as pure temperature data logger (T) and as temperature & humidity combination (TH); all models additionally record geo-location, light, shock and tilt.

Additionally, the tempmate-GS2 and -GS2+are available with a built-in external temperature sensor (no humidity and light measurement); this model also records geo-location, shock and tilt.(TE)

The tempmate-GS2 and -GS2+are semi single-use data loggers with a total recording and running time of 120 days after the first start. Within this time frame, the loggers can be started again twice – in total it can be started 3 times.

The data loggers runs for up to 120 days with its default configuration and if kept under optimal storage conditions (room temperatures) before. During the activity, they measure temperature between -30°C and +70°C (-22°F to 158°F) every 10 minutes and with an upload interval of every 240 minutes.

All data is uploaded to the tempmate-Cloud service, if a GSM-connection is given. If the data logger cannot send any data, it will record all details internally and push them into the cloud-service, once the connection is given again.

Important: The tempmate-GM2 and -GS2+ use an internal ring-buffer and automatically overwrites the oldest entries once the internal memory capacity is reached!

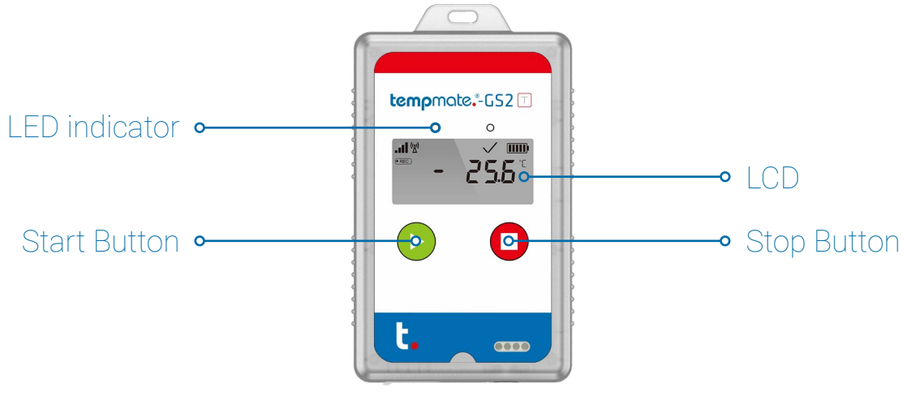
The expiry date of each unit is printed on the back label; it is recommended to use the data logger as soon as possible and only within the shelf life.

2. Disposal Instructions

The tempmate-GS2 and -GS2+ have built-in Lithium-Ion batteries / Nickel-Metal batteries next to electronic parts and raw materials, and therefore requires the data logger to be disposed of by a waste or recycling service provider.

The follwing images and descriptions are representative of all device versions.

3. Device Description



LED Indication

Descriptions:

- Start/Stop Button: used to start and stop the data logger and switch through display pages
- LED Indicator: confirm start / stop, show current status and activity on request
- LCD: display shows current temperature, status, battery level, etc.

LED-Indications and display:

The built-in display on the front informs the user about every activity and status of the data logger; a single short click on the green START button activates the display.
The LEDs additionally confirm Sleep Mode, Start and Stop during each process.

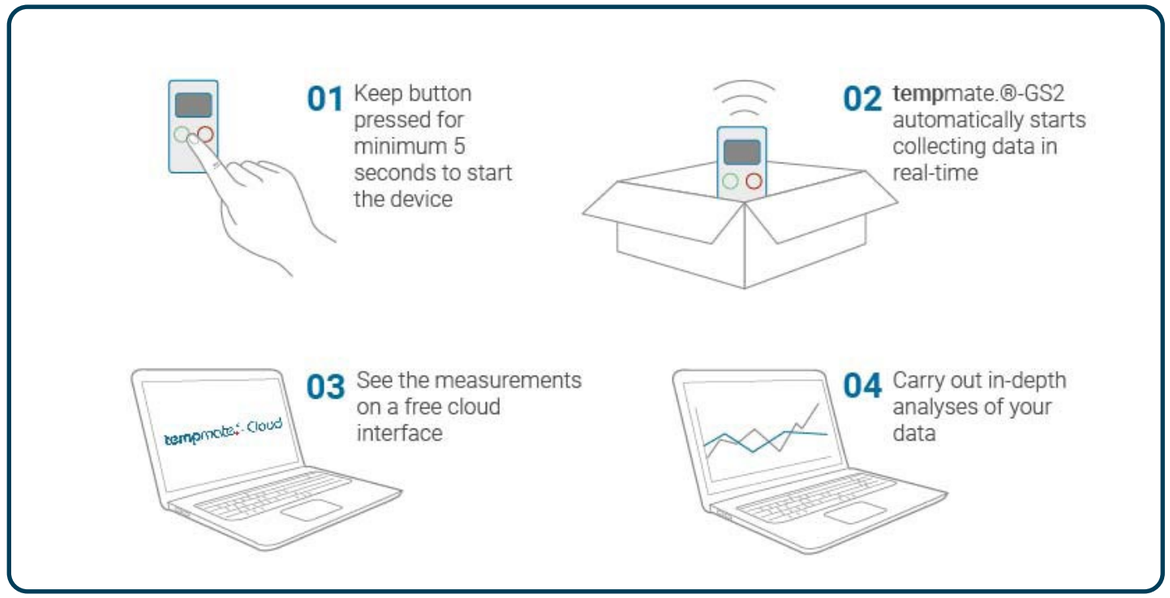
4. Equipment & Software

The tempmate-GS2 and -GS2+ are provided as un-configured measurement devices, requiring registration and configuration through the tempmate-Cloud service upfront.

Once started, the tempmate-GS2 and -GS2+ will automatically connect to the tempmate-Cloud service and receive the user-defined configuration and other necessary information. Until then, they cannot record or push any information into the tempmate-Cloud.

The tempmate-Cloud service can be accessed via https://web.tempmate.cloud/ and requires an internet connection and modern Browser (Firefox, Chrome, Edge).

5. Quick Start Guide



1. Make sure the data logger is assigned to your cloud-account

2. To start, keep the green start button pushed for 5 seconds minimum, until the display shows "START" and "R"

Long press → StArt

3. Place the data logger and record all near relevant data

4. To stop, keep the red stop button pushed for 5 seconds minimum, until the display shows "88888" and "R" disappears

Long press → 88888

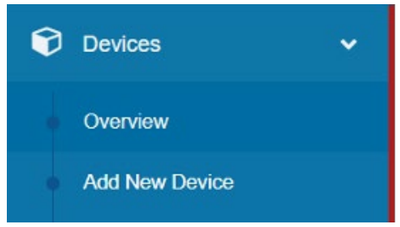
5. Access the tempmate-Cloud service and evaluate all recorded data

6. Operation Instructions

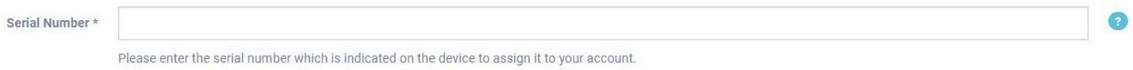
1st STEP PREPARATION

Each tempmate-GS2 and -GS2+ come as un-registered and un-configured devices and requires both processes before it can be used:

- Log-in to the tempmate-Cloud service
- Switch to "Devices"
- Followed by "Add New Device"



- The Cloud-system guides the user through each step. Required fields are marked with "*", and a description of each field can be accessed by clicking on "?" next to them



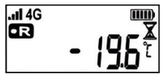
2nd STEP START, USAGE, STOP

Starting the data logger

- To start the data logger, keep the green Start Button pushed for a minimum of 5 seconds

- A successful start is indicated by the by the display showing "Start" and "R"
  Additionally, the blue LED will blink 8 times to confirm a successful start

- The data logger is now activated and will first try to receive the configuration and necessary information from the cloud-service
- Once finished, it will record the near ambient and relevant data in the set measurement interval
- The data will be uploaded into the tempmate-Cloud with each upload interval
- If no connection to the GSM-network is given, the data will be saved in the device's internal memory; once the GSM-connection is given again, they will be pushed into the tempmate-Cloud with the next upload interval
- If no start delay was set, the first temperature data point will be saved after the data logger is started
- If a start delay was set, the first data point will be recorded after the delay is due, and then follow by the set measurement interval; additionally, the display will show an hourglass symbol while the delay is active

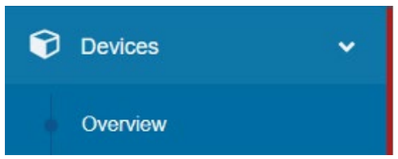


- The data logger should be placed as close as possible to the place of use; it should not be placed in-between or under heavy storages
- To fix the data logger on a surface, a strong glue spot on the back of each unit can be used

Usage while active

- Once the data logger was started and the first data package was uploaded into the tempmate-Cloud system, it can be checked and evaluated within the user's cloud-account

1. Log-in to https://web.tempmate.cloud/
2. Switch to Devices, followed by Overview



3. Click on View next to the relevant unit

Stopping the data logger

- To stop the data logger, keep the red Stop Button pushed for a minimum of 5 seconds

- A successful stop is indicated by the display showing "88888", the "R" symbol disappears and the red LED blinks 8 times
- The data logger is now stopped

Important: for the following usages it is strongly recommended to check the battery level and charge the device, if necessary, before the next start. The configuration can optionally be changed between each usage.

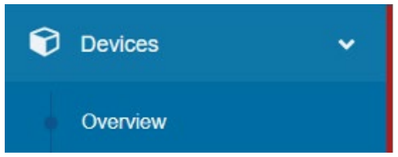
3rd STEP EVALUATION

Primarily, all recorded data is evaluated within the tempmate-Cloud service. Additionally, details in the form of MIN and MAX temperature as well as set time (on device level) can be checked directly on the display after the device has been stopped.

Evaluation on cloud level

All recorded relevant data is automatically uploaded, saved and archived within each user cloud-account and can easily be accessed. This data is saved without any limit (time and storage).

1. Log-in to https://web.tempmate.cloud/
2. Switch to Devices, followed by Overview



3. Click on View next to the relevant unit

A full list and description of all functions can be found and accessed within the cloud portal:

Evaluation on device level

To see MIN and MAX temperature or the set time (on device level), push the green START button once.

Different details can be accessed by shortly pushing the green START button again.

7. FAQ – Frequently Asked Questions

Q: There is no connection to the GSM network available, how can I access the data?

A: The tempmate-GS2 (-GS2+) has an internal memory capacity of 24.200 data points (temperature, humidity, light) and keeps this information saved until the GSM connection is given again. If no connection is possible, the data can be accessed via USB connection.

Important: The GSM-network is available worldwide; for a full coverage list, please contact our team.

Important: The connection to the GSM network can be impeded by shielding such as containers, cooling cells, cellars, etc. We recommend checking the signal strength indicator on the display.

Q: Are there any additional expenses for the usage?

A: All expenses for hardware, software and data transfer are included in the price of the data logger, there are no additional costs or contracts.

Q: How often and how long can I use the tempmate-GS2 (-GS2+) ?

A: The tempmate-GS2 (-GS2+) is a semi single-use data logger with a total recording and running time of 120 days after the first start, 90 days for the non-Lithium version. Within this time frame, the tempmate.-GS2 (-GS2+) can be started again twice – in total it can be started 3 times.

Q: The battery level is very low but there is still running time available, how can it be recharged?

A: The battery can be recharged via mini-USB (USB-cable is not included).

Important: recharging the battery does not extend the total running time.

Q: The expiry date is very near; when exactly is it due and can the data logger be used?

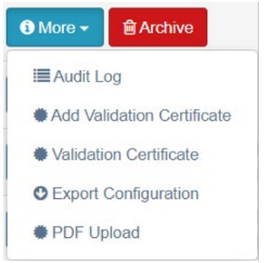
A: The printed expiry date starts the first day of the shown month and year; a start shortly before the EXP is due does not prolong the shelf life or the guaranteed functionality.

Q: Can the running time be prolonged by setting a higher measurement or upload interval?

A: The maximum run-time of the tempmate.-GS2 (-GS2+) is 120 days, this running time cannot be extended.

Q: I need the calibration certificate of this data logger, where can I receive it?

A: As batch-calibrated device each data logger comes with a permanently online stored validation certificate in PDF format, which informs about the calibration process during the production and can be accessed within the tempmate-Cloud.



Q: Can I extend the temperature range with an external sensor?

A: The tempmate-GS2 (-GS2+) can be purchased with a built-in external PT100 temperature sensor (TE-Model). The external temperature sensor is not available separately.

Q: Where and how is my data stored and what is the security level for this sensitive information?

A: the tempmate-Cloud (main- and backup server) is hosted by a Germany based service provider, which guarantees a full and strict compliance to German data security laws and regulations ("DSGVO").

Q: How can I delete my tempmate-Cloud account and all related personal information?

A: In this case, please direct your request for a full deletion to support@tempmate.com.

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sales@tempmate.com
www.tempmate.com

PLEASE, contact us for further questions.

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.

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.
- 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 mobile exposure condition without restriction.

To maintain compliance with FCC' s RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.