

MANUAL

tempmate.®-GM2

How to use the cloud-based multi-use datalogger



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1. Intended Use & Important Information

The tempmate-GM2 is an easy-to-use, cloud-based multi-use data logger 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-GM2 can be used for all kinds of applications where monitoring, recording and viewing details about a transport or stationary environment are necessary.

Each tempmate-GM2 unit is fully managed through the tempmate-Cloud service, which can be accessed via <https://web.tempmate.cloud/>

Quick Notes & Important Information:

- For the data transfer, an active and assigned cloud-token is mandatory
- An additional wall-mounting bracket with or without a built-in external sensor is optionally available
- Fully charged, the data logger runs for up to 120 days with its default configuration and if kept under optimal storage conditions (room temperatures) before.
- During the activity, it measures temperature between -30°C and +70°C (-22°F to 158°F) every 10 minutes and with an upload interval of every 120 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 store all details internally and push them into the cloud-service, once the connection is given again.
 - Important: The tempmate-GM2 uses an internal ring buffer and automatically overwrites the oldest entries once the internal memory capacity is reached!

2. Disposal Instructions

The tempmate-GM2 has built-in Lithium-Ion 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.

3. Device Description & LED Indications



Descriptions

- Start/Stop Button: used to start and stop the data logger and switch through display pages
- Part No./Serial No: Model number and unique serial number
- Summary: used to show further recorded data (MIN, MAX values)
- Display: shows all relevant recorded data and device information
- Return Info: no functionality yet, planned for future releases.

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 built-in LED informs the user about the alarm status.

4. Equipment & Software

The tempmate-GM2 is provided as an un-configured measurement device, requiring registration and configuration through the tempmate-Cloud service upfront.

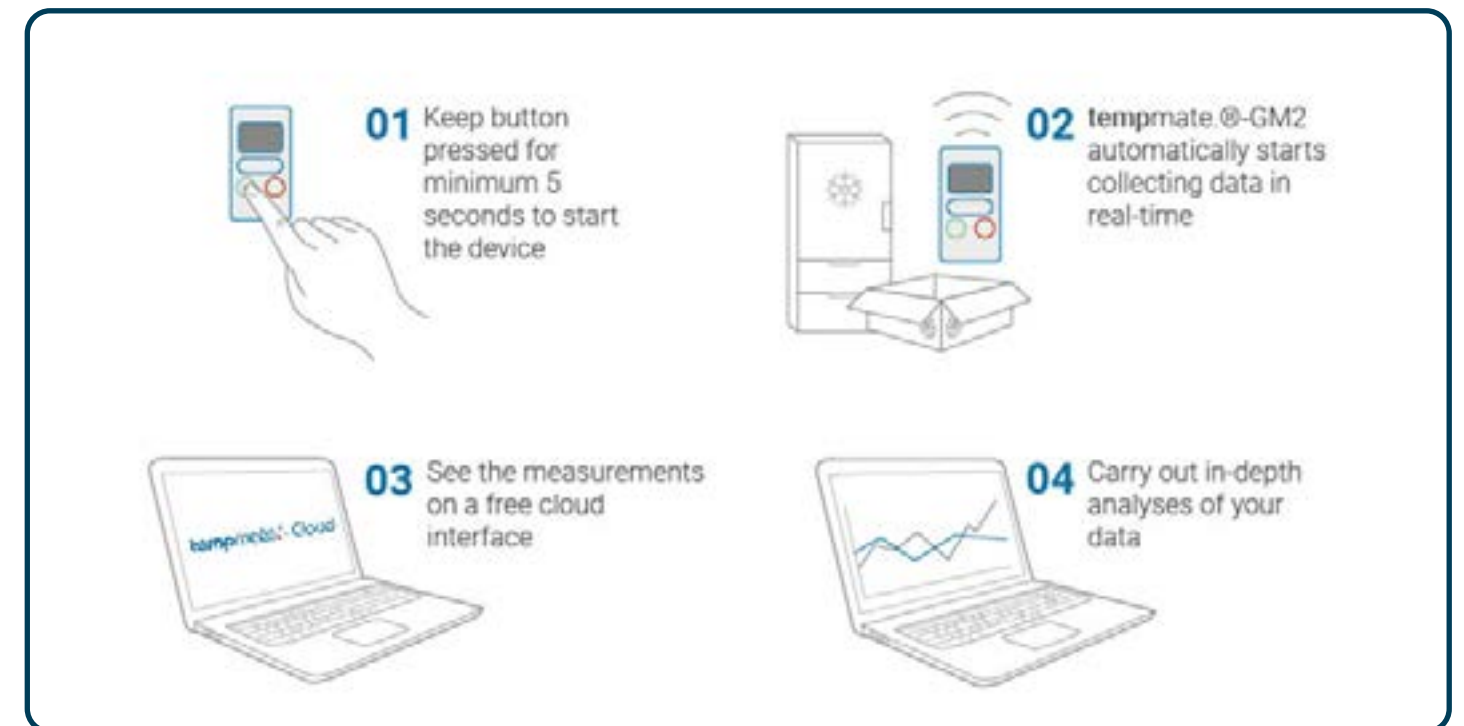
For the data transfer, a cloud-token must be purchased and assigned to each device used.

Once started and a valid token is assigned, the tempmate-GM2 will automatically connect to the tempmate-Cloud service and receive the user-defined configuration and other necessary information. Until then, it cannot record or push any information into the tempmate-Cloud.

If no valid Cloud token is assigned, the data logger will cancel the start automatically.

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

5. Quick Start Guide



- 1.** Make sure the data logger is assigned to your cloud-account, and the token is assigned to the data logger
- 2.** By default, the tempmate-GM2 is deactivated ("SLEEP") and must be activated by keeping the green START button pushed for a minimum of 5 seconds
-> the display will then show "activated"
- 3.** To start recording, keep the green start button pushed again for 5 seconds minimum, until the display shows "Rec"
- 4.** Place the data logger and record all near relevant data
- 5.** To stop, keep the red stop button pushed for 5 seconds minimum, until "Rec" disappears
- 6.** Access the tempmate-Cloud service and evaluate all recorded data

6. Operation Instructions

1st STEP PREPARATION

Each tempmate-GM2 comes as an un-registered and un-configured device.
A data transfer cloud-token must be assigned to each device.

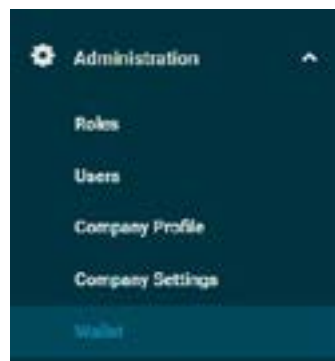
- Log-in to the tempmate-Cloud service
- Switch to "Devices"
- Followed by "Add New Device"



- 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



- Switch to "Administration", followed by "Wallet"



- Click on "Redeem Token Item"
- Followed by "Assign To Device"

2nd STEP START, USAGE, STOP

Starting the data logger

- Make sure the data logger is assigned to your cloud-account, and the token is assigned to the data logger
- By default, the tempmate-GM2 is deactivated ("SLEEP") and must be activated by keeping the green START button pushed for a minimum of 5 seconds
-> the display will then show "activated"
- To start recording, keep the green start button pushed again for 5 seconds minimum, until the display shows "Rec"
- 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
- 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 wall-mounting bracket 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
 - Log-in to <https://web.tempmate.cloud/>
 - Switch to Devices, followed by Overview



- 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 „Rec” disappearing from the display
- 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 and further information can be accessed by clicking on "Summary"

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



- 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 and further information, push the "Summary" button.



Different details can be accessed by shortly pushing the "Summary" 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-GM2 has an internal memory capacity of 50.000 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: What is a token?

A: The cloud-token is a unique line of code, assigned to each device and used to enable data transfer from the GM2 into the tempmate-Cloud within a pre-defined run time.

Q: What happens if my assigned token runs out while the GM2 is actively running?

A: After the cloud-token validity is due, please contact us to re-enable access to all recorded data.

Important: no data is lost even without a valid token!

Q: How often and how long can I use the tempmate-GM2?

A: The tempmate-GM2 is a multi-use device that can be used without limit (with active cloud-token). The data logger can run for up to 120 days in its default configuration.

Q: The battery level is very low, can it be re-charged?

A: The battery can be recharged via mini-USB (USB-cable is included).

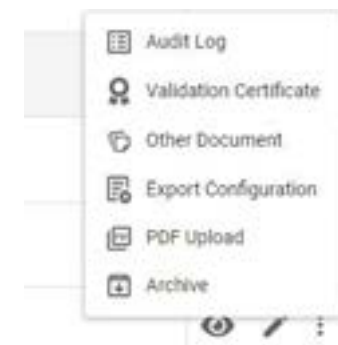
Important: while the data logger is being charged and actively records data, it is strongly recommended to use an external sensor due to increasing heat development.

Q: Does the GM2 have an expiry date of shelf-life?

A: As multi-use device, the GM2 does not have an expiry date. The related validation certificate is valid for 12 months after its production date.

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 the GM2 be re-calibrated?

A: After the confirmed validation time (see validation certificate) is due, we recommend a re-calibration through an ISO-certified calibration laboratory.

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

A: The tempmate-GM2 can be installed into a wall-mounting bracket with built-in external sensor. This allows an extension of the temperature range and a dual measurement with the internal and external sensor in combination (temperature only).

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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PLEASE, contact us for further questions.