

MANUAL

tempmate.®-XS

The affordable single-use temperature datalogger



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1. Intended Use & Important Information

The tempmate-M1 is an easy-to-use data logger that records all relevant temperature data during its usage. This information can then easily be read out as comprehensive and detailed PDF- or CSV-report without requiring any additional hard- or software.

The tempmate-M1 can be used for all kinds of applications where monitoring and recording temperature is required.

The data logger is provided ready-to-use in a default configuration and offers further possibilities through its free configuration software tempbase-2 (available on www.tempmate.com)

Quick Notes & Important Information:

The tempmate-M1 is a multi-use data logger; as such, it can be started and stopped without limitation.

The internal storage allows a total of 32.000 data points; once stopped and re-started, the storage will automatically be deleted.

The installed lithium battery allows a total run-time of ca. 90 days with the default configuration and if kept under optimal storage conditions (room temperatures) before; once depleted, the battery can easily be replaced.

During the activity it measures temperature between -30°C and +70°C (-22°F to 158°F) every 15 minutes.

The user can optionally configure the tempmate-M1 (through tempbase-2) before the logger was started. Start, stop, activity and status are indicated by the built-in display, which allows a fast and easy evaluation.

A full data report will be created once the data logger has been stopped and plugged in through USB. It is possible to create a temporary report while the data logger is active; while the data logger is connected, no data points are recorded.

The tempmate-M1 has no shelf-life; information on the added Validation Certificate is applicable for 2 years.

The built-in analog temperature sensor should be re-calibrated regularly / as per requirement.

2. Disposal Instructions

The tempmate-M1 has an installed CR2032 Lithium metal button cell 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 Indication

The built-in LEDs on the front inform the user about every activity of the data logger; the status can always be requested by pushing the start/stop button once (one short click). Depending on the status, the LEDs blink in a certain way.

 5 sec.	Start Logger Stop Logger	 	 1 time	Not started Low battery Recording-OK Recording-Alarm Stopped-OK Stopped-Alarm Delay Start	      
 2 times	Set Mark Mark limit full	 			

A successful Start, Stop, or set Mark are confirmed by the LEDs during the process, and while the data logger is actively recording, the RECORD LED will flash every 5 seconds automatically.

4. Equipment & Software

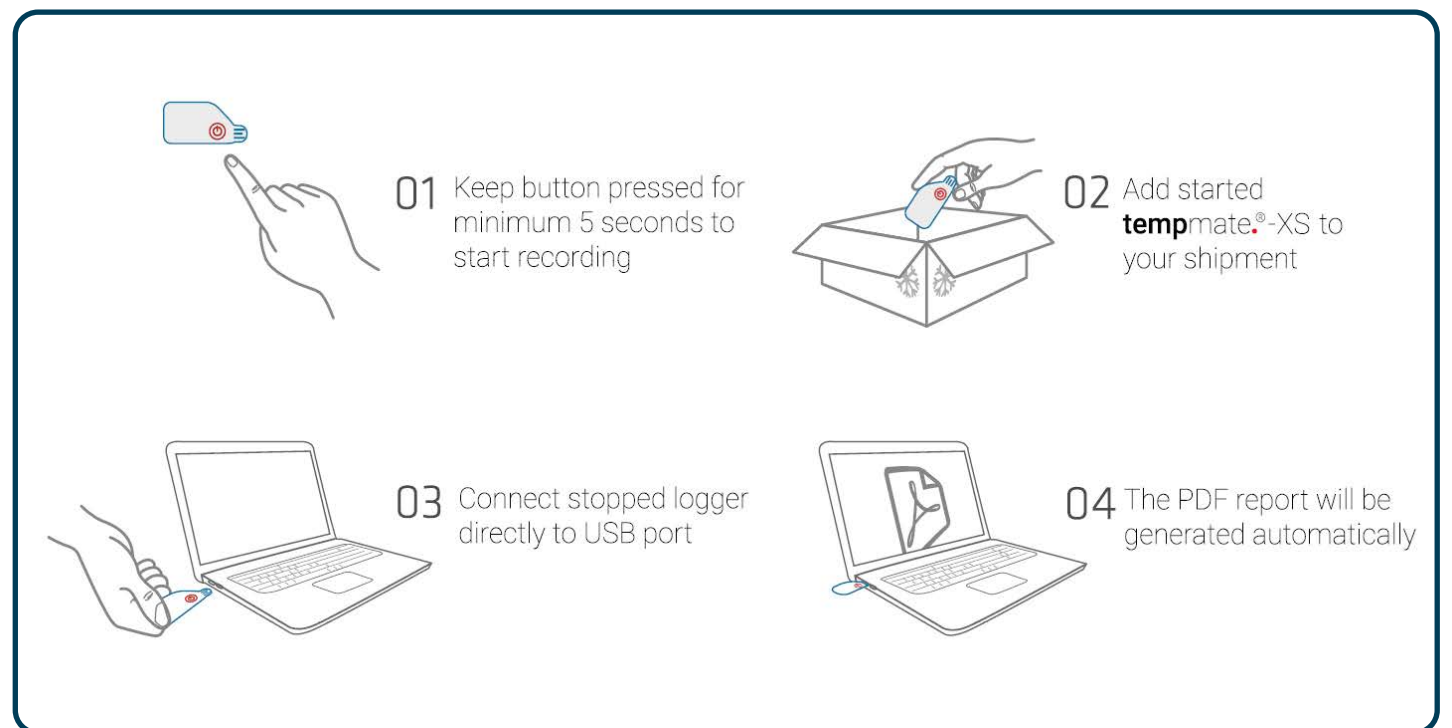
The tempmate-XS comes ready-to-use in packing units of 20 single units (if not sold otherwise), including one Validation Certificate valid for all devices of the same box.

Further external equipment is not available.

Optionally, the tempmate-XS can be configured and evaluated through tempbase-2, which allows the user to change every setting and adapt it to their application as well as comprehensive possibilities to archive and work with recorded data.

tempbase-2 Software can be downloaded for free on www.tempmate.com

5. Quick Start Guide



1. To start, keep the Start/Stop Button pushed for minimum 5 seconds, until the green LED blinks 10 times
2. Place the data logger and record the ambient temperature
3. To stop, keep the Start/Stop Button pushed for minimum 5 seconds, until the red LED blinks 10 times
4. Plug-in the data logger via USB and receive the full report as PDF file

6. Operation Instructions

1st STEP PREPARATION

- no further preparation is necessary, as the data logger is provided ready-to-use;
- optionally, the user can configure the data logger through tempbase-2 before it is started;
- the tempmate-XS can be kept outside of room temperature conditions (~21°C / 70°F), but this can potentially have an impact on the shelf-life;the tempmate-M1 can be kept outside of room temperature conditions (~21°C / 70°F), but this can potentially have an impact on the installed battery.

We recommend conditioning the data logger only shortly before the usage.

2nd STEP START, USAGE, STOP

Starting the data logger

- To start the data logger, keep the Start/Stop Button  pushed for a minimum of 5 seconds
- A successful start is indicated by the LEDs on the front side, the green LED will blink 10 times in a row

- The data logger is now activated and will record the near ambient temperature
- If no Start Delay was set, the first temperature data point will be saved immediately 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 the set-up measurement interval
- The label with the printed serial number can be detached optionally

Important: if the red LED flashes for 3 seconds while the data logger is started, a problem with the installed battery is indicated and the unit should not be used.

Usage while active

- Once the data logger is started, the green LED will blink every 5 seconds to indicate its activity.
- The data logger should be placed as close as possible to the place of use; it should not be placed in between heavy storage.

Status Request:

While the data logger is running, its status can be requested by pushing the Start/Stop Button one short time.

The built-in green and red LEDs will blink in a certain way depending on the device's status:

- Data logger was not started:
Green LED + red LED flash 1 time the display will confirm the de-activated pause



- Data logger was started, but Start Delay is still active:
First green LED, then red LED flash 1 time alternately



- Data logger is recording, and no alarm was triggered:
Green LED flashes 1 time



- Data logger is recording, and one alarm threshold was triggered:
Red LED flashes 1 time



- Data logger was stopped, and no alarm was triggered:
Green LED flashes 2 times



- Data Logger was stopped, and one alarm threshold was triggered:
Red LED flashes 2 times



Stopping the data logger

- To stop the data logger, keep the Start/Stop Button  pushed for a minimum of 5 seconds
- A successful stop is indicated by the LEDs on the front side, the red red LED will blink 10 times in a row


Important:

- Once stopped, the data logger cannot be started anymore
- Even if the battery is depleted, the data logger can receive energy through USB

3rd STEP EVALUATION
Evaluation on device level

Per status request (see "Usage") the user can check if an alarm threshold has been breached during the recording:

If no alarm has been triggered, the green LED will blink 2 times.
If an alarm has been triggered, the red LED will blink 2 times.

This gives an easy first information about the status of the whole recording.

Creating PDF or CSV report

The recorded data are primarily presented as PDF report, which lists all important information about the measurement.

- Plug-in the data logger via USB
- Once plugged in, the green and red LED will start blinking alternately; during this, all recorded data is processed into a readable format and depending on the number of data points, this process can take up to 2 minutes.
- Please do not unplug the data logger during this process!
- Once all data is processed, the data logger will be recognized as flash-drive and will list all available files, including the report as PDF file.

- The report can be saved locally via drag & drop, or by opening the file and save it through their application (Adobe Acrobat Reader recommended)

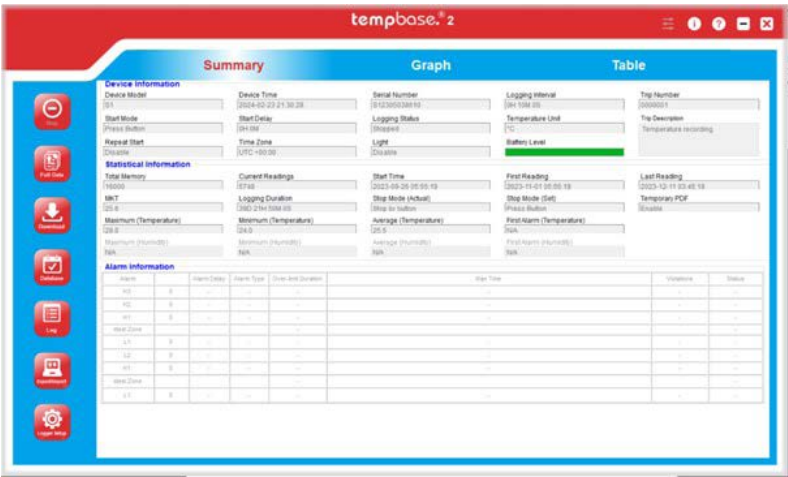
Important:

- the PDF report is only created momentarily; once the data logger is unplugged, it must be created again
- The PDF report by default consists of the general overview of the measurement, device information and temperature graph; it is possible to export a full PDF report through tempbase-2, including a full list of temperature points and time stamps.
- the files on the data logger cannot be deleted completely, and deletion is not recommended; if they were deleted by the user on the device, they could be re-created by plugging them in to USB again

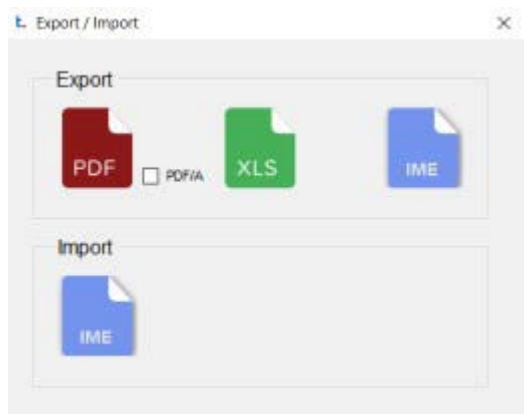
Evaluation on software level

Optionally or additionally to the PDF report, the recorded data can also be loaded into tempbase-2. This gives the user the ability to see the data of plugged-in devices, export them into different formats, create an archive of already installed devices, and more.

- Plug-in data logger via USB and wait until all data is processed
- Start tempbase-2
- tempbase-2 will load all data from the installed unit into its database and will open the "Summary"
- Graph will show the temperature process as graph
- Table will show all recorded data as list



- all data can optionally be exported as PDF or XLS file



Important: if the PDF report is exported from this menu, it will include the recorded data as an additional list at the bottom of the report.

- each data logger plugged in will automatically create an entry in the local Database and can be accessed later.

[1]	Status	Data ID	Start Time	Current Readings	S1 (Max)	S1 (Min)	S2 (Max)	S2 (Min)
	✓	M2T231000137_20240223122917	2024-02-08 09:40:49	2171	25.9 °C	21.8 °C	N/A	N/A
	✓	M2T231000137_20240222150134	2024-02-08 09:40:49	2043	25.9 °C	21.8 °C	N/A	N/A
✓	✓	S12305038610_20240220094513	2023-09-26 05:55:19	5748	26.0 °C	24.0 °C	N/A	N/A
	✓	S12305038610_20240220093633	2023-09-26 05:55:19	5663	44.9 °C	11.2 °C	N/A	N/A
	✓	M2T231000137_20240214110349	2024-02-08 09:40:49	867	25.5 °C	22.1 °C	N/A	N/A
	✓	S2T2301029002_20240202114812	2023-12-15 12:09:23	553	9.0 °C	5.0 °C	N/A	N/A
	✓	S2T2211024310_20240202114642	2024-01-25 07:26:48	12	21.1 °C	20.9 °C	N/A	N/A
	✓	S2T2301029001_20240202114332	2023-12-15 12:09:42	553	8.4 °C	5.0 °C	N/A	N/A
	✓	S12308008120_20240131102312	2023-10-05 07:14:20	16000	25.4 °C	17.7 °C	N/A	N/A
	✓	TMM230400666_20240130113258	2024-01-02 14:14:50	8044	27.9 °C	18.7 °C	N/A	N/A
	✓	TMM230400666_20240130113242	2024-01-02 14:14:50	8044	27.9 °C	18.7 °C	N/A	N/A
	✓	TMM230400666_20240130112815	2024-01-02 14:14:50	8043	27.9 °C	18.7 °C	N/A	N/A
	✓	TMM230400666_20240130110519	2024-01-02 14:14:50	8038	27.9 °C	18.7 °C	N/A	N/A

- Please refer to the tempbase-2 manual for a full description of each function

4. FAQ – Frequently Asked Questions

Q: How can I restart the tempmate-XS?

A: As a single-use device this data logger cannot be started again once it has been stopped; recorded data can always be accessed via USB connection.

Q: Why does the PDF report not show a full list of all recorded data points?

A: The PDF report by default consists of the general overview of the measurement, device information and temperature graph; it is possible to export a full PDF report through tempbase-2, including a full list of temperature points and time stamps.

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: Does the M1 have an expiry date?

A: The tempmate-M1 does not have an expiry date or shelf-life.

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 stored validation certificate in PDF format, which informs about the calibration process during the production. The validation certificate valid for 2 years after production date.



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PLEASE, contact us for further questions.