NanoTemp125

High Temperature Data Logger

Product User Guide

Product Overview

The NanoTemp125 is a compact, high-precision temperature data logger specifically designed for autoclave validations and challenging environments. Crafted from durable stainless steel, this fully submersible device operates in temperatures ranging from -20 °C to +125 °C (-4 °F to +257 °F) with an impressive accuracy of up to ±0.1 °C (±0.18 °F).

Capable of storing up to 32,000 readings, the NanoTemp125 ensures reliable performance even under intense conditions. Its robust, submersible design delivers precise temperature measurements, making it ideal for both wet and dry applications. Equipped with non-volatile solid-state memory, the NanoTemp125 retains data even if the battery is depleted, offering peace of mind and consistent results. Designed to thrive in compact spaces, it's the perfect tool for precise, reliable temperature monitoring in demanding sterilization processes.

Installation Guide

IFC406

IFC400 with Adapter

Installing the Software

Follow the instructions provided in the Installation Wizard.

Installing the Docking Station

IFC400 or IFC406 (sold separately) — Follow the instructions provided in the Installation Wizard to install the USB Interface Drivers.

Device Operation

Connecting the Data Logger

1. Once the software is installed and running, plug the interface cable into the docking station.
2. Connect the USB end of the interface cable into an open USB port on the computer.
3. The NanoTemp125 is compatible with the IFC400 and IFC406 interface cables, but it requires an additional adapter for proper connection. To install the adapter:

1

Position the Adapter:

Ensure the opening in the adapter is facing towards the back of the IFC. This alignment allows the NanoTemp125 to connect with the communication contacts. Ensure the Adapter is secure

2

Connect the NanoTemp125:

Insert the NanoTemp125 into the adapter.
The device should fit snugly and align with the communication contacts for a reliable connection.

Starting the Data Logger

1. In MadgeTech 4, the data logger will automatically appear under **Connected Devices** within the software.
2. For most applications, select **Custom Start** from the menu bar and choose the desired start method, reading rate and other parameters appropriate for the data logging application and click **Start.** (**Quick Start** applies the most recent custom start options, **Batch Start** is used for managing multiple loggers at once, **Real Time Start** stores the dataset as it records while connected to the logger.)
3. The status of the device will change to **Running** or **Waiting to Start**, depending upon your start method.
4. Disconnect the data logger from the interface cable and place it in the environment to measure.

Note: *The device will stop recording data when the end of memory is reached or the device is stopped, unless user selectable memory wrap is enabled. At this point the device cannot be restarted until it has been re-armed by the computer.*

Downloading Data from a Data Logger

1. Place the logger into the docking station.
2. Highlight the data logger in the **Connected Devices** list. Click **Stop** on the menu bar.
3. Once the data logger is stopped, with the logger highlighted, click **Download**.
4. Downloading will offload and save all the recorded data to the PC.

Set Password

To password protect the device so that others cannot start, stop or reset the device:

1. In the **Connected Devices** panel, click the device desired.
2. On the **Device** Tab, in the **Information** Group, click **Properties**. Or, right-click the device and select **Properties** in the context menu.
3. On the **General** Tab, click **Set Password**.
4. Enter and confirm the password in the box that appears, then select **OK**.

Device Maintenance

Battery Replacement

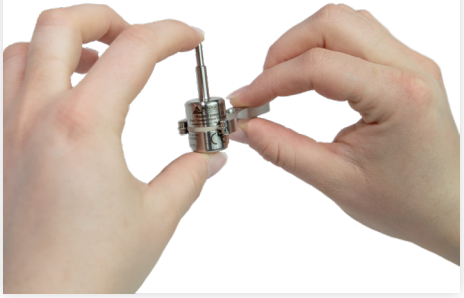
Materials: BAT-BR1225A-00

Follow these steps to safely and effectively replace the batteries in your NanoTemp125. Ensure you have the appropriate replacement batteries on hand before beginning.

1

Secure the Wrench:

Align the wrench with the grooves on the isolator segment of the NanoTemp125. Firmly secure the wrench until you feel it click into place.



2

Rotate & Remove End Cap:

Using the bottom of the IFC Adapter for stability, rotate the end cap of the NanoTemp125 until you feel it click into place.

Turn the IFC adapter counterclockwise to unscrew the end cap and remove it.

3

Remove the Old Batteries:

Carefully lift the battery board to access and remove the old batteries

4

Insert the New Batteries:

Place the new batteries into the compartment, noting the polarity of the battery. Failure to insert the battery accurately could result in product inoperability or potential explosion if exposed to high temperatures.

5

Reassemble the Logger:

Replace the battery board carefully, ensuring it is properly seated. Then, reattach and tighten the endcap by rotating it clockwise until secure.

6

Once the replacement is complete, verify the NanoTemp125's functionality by connecting it to the IFC docking station.

Note: This product is rated for use up to 125 °C (257 °F). Please heed the battery warning. The product will explode if exposed to temperatures above 125 °C (257 °F).

Need Help?

MadgeTech 4 Software Support

- Refer to the built-in help section of the MadgeTech 4 Software.

Ordering Information

NANOTEMP125-1	PN 902459-00	Miniature High Temperature Data Logger with 1 in Probe
NANOTEMP125-2	PN 902460-00	Miniature High Temperature Data Logger with 2 in Probe
NANOTEMP125-5.25	PN 902461-00	Miniature High Temperature Data Logger with 5.25 in Probe
IFC400	PN 900319-00	Docking station with USB cable
IFC406	PN 900325-00	6 Port, Multiplexer docking station with USB cable
NANOTEMP125 COMMUNICATION KIT	PN 902677-00	Includes IFC adapter and Wrench
BAT-BR1225A-00	PN 902678-00	Replacement Battery for the NanoTemp125 (2-Pack)