MADGETECH
WE BUILD DATA LOGGERS

Product Information Card

Temp1000

Description	Temp1000
Temperature Sensor	Internal semiconductor
Temperature Range	–40 °C to +80 °C
Temperature Resolution	0.1 °C
Calibrated Accuracy	±0.5 °C
Memory	32,767
Sample Rate	2 seconds up to 12 hours
Required Interface Package	IFC110 or IFC200
Baud Rate	2,400
Typical Battery Life	1 year
Operating Environment	-40 °C to +80 °C, 0 to 100 %RH
Material	Available in anodized aluminum or 303 stainless steel
Dimensions	4.3 in x 1.0 in dia. (110mm x 26mm dia.)
Weight (Aluminum)	4 oz (110 g)
Weight (Stainless)	8 oz (230 g)
Approvals	CE
Submergible	Fully Submergible (IP68)

Temp1000
Rugged Temperature Data Logger with Aluminum Enclosure

Temp1000-SS
Rugged Temperature Data Logger with Stainless Steel Enclosure

Battery Warning

WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, CHARGE, FORCE OVER DISCHARGE, DISASSEMBLE, CRUSH, PENETRATE OR INCINERATE. BATTERY MAY LEAK OR EXPLODE IF HEATED ABOVE 80 °C (176 °F).

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Product Notes

Getting Started

To access the COM Port for the interface cable, unscrew the key-ring end cap. Screw the end cap onto the data logger until the o-ring cannot be seen, before deploying it.

Submergibility

The Temp1000 is fully submergible and is rated IP68. It can be placed in environments with up to 150 feet (45 m) of water.

O-Rings

O-ring maintenance is a key factor when properly caring for the Temp1000. The o-rings ensure a tight seal and prevent liquid from entering the inside of the device.
Please refer to the application note "O-Rings 101: Protecting Your Data", found on the MadgeTech website, for information on how to prevent O-ring failure.

Installation Guide

Installing the Interface cable

- IFC200
  Insert the device into a USB port. The drivers will install automatically.
- IFC110
  Plug the serial cable into the port and verify it is secure.

Installing the software

Insert the Software USB Stick in an open USB port. If the autorun does not appear, locate the drive on the computer and double click on **Autorun.exe**. Follow the instructions provided in the Wizard.

Device Operation

Connecting and Starting the data logger

- Once the software is installed and running, plug the interface cable into the data logger.
- Connect the USB end of the interface cable into an open USB port on the computer.
- The device will appear in the Connected Devices list, highlight the desired data logger.
- 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.*)
- The status of the device will change to "**Running**", "**Waiting to Start**" or "**Waiting to Manual Start**", depending upon your start method.
- 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. At this point the device cannot be restarted until it has been re-armed by the computer.

Downloading data from a data logger

- Highlight the data logger in the Connected Devices list. Click "**Stop**" on the menu bar.
- Once the data logger is stopped, with the logger highlighted, click "**Download**". You will be prompted to name your report.
- Downloading will offload and save all the recorded data to the PC.

Device Maintenance

Battery Replacement

Materials:
Small Needle Nose Pliers
Replacement Battery (TLH-5902)

- Carefully unscrew the communications end cap.
- Using a small pair of needle nose pliers, remove the snap-ring by carefully pinching the gold retaining ring together.
- Press gently on the white disk to force one end up and pull the electronics out.
- The battery is the purple cylinder on the circuit board. Gently remove the old battery.
- Insert the new battery one lead at a time, using pliers to fully push the leads into the sockets. *Note: The battery should be flat against the circuit board, and the positive lead should be closest to the communications jack.*
- Ensure the circuit board is inserted into the white plastic bushing. The sensor cable should not be twisted, or kinked. From the connection to the circuit board, it should run up towards the battery, then down to the sensor.
- Insert the electronics back into the tube, gently push the board back into the tube and push the white disk back around the communication jack. and screw the cap back on.

Recalibration

The Temp1000 standard calibration is one point at 25 °C.