MicroTemp100

Miniature Submersible
Temperature Data Logger

PRODUCT
USER GUIDE

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Product Overview

The MicroTemp100 is a miniature data logger built to withstand temperatures up to 100 °C (212 °F). Only 2.6 inch (66 mm) tall and 0.7 inch (18 mm) in diameter, this data logger can easily fit into the smallest spaces.

Don't let its tiny size fool you, the MicroTemp100 measures and records temperatures ranging from –40 °C to +100 °C (-40 °F to +212 °F). The MicroTemp100 has a storage capacity of 32,767 readings and is equipped with an LED alarm to warn when user-specified high/low temperature limits are breached.

Water Resistance

The MicroTemp100 is fully submersible and is rated IP68. It can be placed in environments with up to 230 feet (70 m) of water.

Installation Guide

Installing the Software

The Software can be downloaded from the MadgeTech website at **madgetech.com**. Follow the instructions provided in the Installation Wizard.

Installing the Interface Cable

IFC202 (sold separately) — Connect the device to a USB port with the interface cable.

Ordering Information

- 902239-00 — MicroTemp100
- 900309-00 — IFC202
- 900097-00 — ER14250MR-145

Device Operation

Connecting and Starting the Data Logger

1. Once the software is installed and running, plug the interface cable into the data logger.

2. Connect the USB end of the interface cable into an open USB port on the computer.

3. The data logger will automatically appear under **Connected Devices** within the software.

4. 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.)*

5. The status of the device will change to **Running** or **Waiting to Start**, depending upon your start method.

6. 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. Connect the data logger to the computer with the interface cable.

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.

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Device Operation (cont'd)

Alarm Settings

To change the settings for the alarm:

1. Select **Alarm Settings** from the **Device Menu** in the MadgeTech Software. A window will appear allowing to set the high and low alarms and warning alarms.

2. Press **Change** to edit the values.

3. Check **Enable Alarm Settings** to enable the feature and check each high and low, warn and alarm box to activate it. The values can be entered in the field manually or by using the scroll bars.

4. Click **Save** to save the changes. To clear an active alarm or warn, press the **Clear Alarm** or **Clear Warn** button.

5. To set an alarm delay, enter the duration of time into the **Alarm Delay** box in which the readings can be outside of the alarm parameters.

LEDs

Once started, the LED will flash at the selected reading rate to indicate that the device is running. The LED will flash in one second intervals if there is an alarm condition.

Device Maintenance

Battery Replacement

Materials: ER14250MR-145 Battery, Large Flat Head Screwdriver

1. Use the screwdriver to unscrew the bottom cap from the enclosure.

2. Tip the battery out of the enclosure tube.

3. Insert the new battery into the enclosure tube, positive (+) terminal first.

4. Screw the bottom cap back in place.

O-Rings

O-Ring maintenance is a key factor when properly caring for the MicroTemp100. 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 at **madgetech.com**, for information on how to prevent O-ring failure.

Recalibration

MadgeTech recommends annual recalibration. To send devices back for calibration, visit www.pacificsensortech.com.au

> *Note: This product is rated for use up to 100 °C (212 °F), operating above this temperature will permanently damage the device and may cause bodily harm.*
>
> *Please heed the battery warning:*
> *WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, CHARGE, FORCE OVER DISCHARGE, CRUSH, PENETRATE, OR INCINERATE. BATTERY MAY LEAK OR EXPLODE IF HEATED ABOVE 150ºC (302ºF)*

NEED HELP?

Product Support & Troubleshooting

- Visit our Resource Library online at www.pacificsensortech.com.au
- Contact our friendly Customer Support Team at 1300 662 720 | sales@pacificsensortech.com.au

MadgeTech 4 Software Support

- Refer to the built-in help section of the MadgeTech 4 Software.
- Download the MadgeTech 4 Software Manual at www.pacificsensortech.com.au
- Contact our friendly Customer Support Team at 1300 662 720 | sales@pacificsensortech.com.au

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