HITEMP140-PT

High Temperature Data Logger with 24 inch Bendable Stainless Steel Probe

PRODUCT USER GUIDE

IFC406 (Sold Separately)

IFC400 (Sold Separately)

1 inch and 5 inch probes available

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Product Overview

The HiTemp140-PT is a submersible, temperature data logger that can operate from -20 °C (-4 °F) up to 140 °C (284 °F) and has an accuracy of +/-0.1 °C (0.18 °F). The device features a 24 inch bendable stainless steel probe for measuring extended temperatures up to 350 °C (662 °F). The probe is durable and can be spiraled, bent or angled in any direction, making it easy to log temperatures within bottles, vials or other hard to reach places.

Water Resistance

The HiTemp140-PT is fully submersible and is rated IP68. It can be placed in environments with up to 230 feet (70 m) of water.

Bend Radius

The flexible probe on the HiTemp140-PT can be bent to a .25 inch bend radius. The probe should not be bent within 1 inch of either weld joint.

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 Docking Station

IFC400 or IFC406 (sold separately) — Connect the device into a USB port with the interface cable and install the drivers.

Device Operation

Connecting and Starting 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. Place the data logger into the docking station.
4. The data logger will automatically appear under **Connected Devices** within the software.
5. 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.)*
6. The status of the device will change to **Running**, **Waiting to Start** or **Waiting to Manual Start**, depending upon your start method.
7. 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

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**. You will be prompted to name your report.
4. Downloading will offload and save all the recorded data to the PC.

PRODUCT USER GUIDE

Device Operation (cont'd)

Trigger Settings

The device can be programmed to only record based off user configured trigger settings.

1. In the **Connected devices** panel, select the intended device to change the settings.
2. On the **Device** tab, in the **Information** group, click **Properties**. Users can also right-click on the device and select **Properties** in the context menu.
3. Click **Trigger** and configure the Trigger settings. Trigger formats are available in Window and Two Point (bi-level) mode. Window mode allows for one range of temperature monitoring and two point mode allows for two ranges.

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

O-Rings

O-ring maintenance is a key factor when properly caring for the HiTemp140-PT. 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.

Battery Replacement

Materials: ER14250MR-145 Battery

1. Unscrew the bottom of the logger and remove the battery.
2. Place the new battery into the logger. Note the polarity of the battery. It is important to insert the battery with positive polarity pointing upward towards the probe. Failure to do so could result in product inoperability or potential explosion if exposed to high temperatures.
3. Screw the cover back onto the logger.

Recalibration

MadgeTech recommends annual recalibration. To send devices back for calibration, visit **madgetech.com**.

***Note:** This product is rated for use up to 140 °C (284 °F). Please heed the battery warning. The product will explode if exposed to temperatures above 140 °C (284 °F).*

NEED HELP?

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Published specifications can be used to determine maximum allowable exposure times for the HiTemp140 with Thermal Shield at different temperatures beyond the normal operating range of the logger. Both the data logger and Thermal Shield must be at ambient temperature (approximately 25 °C) before being placed in the extreme temperature environment.

Immediately following exposure to high temperature, the data logger should be removed from the thermal shield (using appropriate precautions, as it could be VERY hot) OR the data logger and shield should be placed in a water bath (approximately 25 °C) for at least 15 minutes to allow it to cool. Failing to do this may allow heat trapped in the Thermal Shield to continue to heat the data logger to potentially unsafe levels.

If your application involves a ramp up to a temperature above 140 °C and/or any complex temperature profile that isn't simply a constant temperature, please contact MadgeTech to determine whether the HiTemp140 with Thermal Shield is suitable.

Please provide MadgeTech with a detailed description of your temperature profile, including temperatures, durations, ramp times, and process media (air, steam, oil, water, etc.) If MadgeTech is unable to definitively calculate the suitability of our product for your application, we can provide a test unit outfitted with a high temperature indicator sticker. This sticker has an indicator dot which will turn black if exposed to temperatures above 143 °C. Apply the sticker to the bottom of the data logger itself (not the thermal shield), remove the battery for safety, place the data logger into the thermal shield and run the assembly through the proposed temperature program. The first indicator dot on the sticker will turn black at 143 °C. If that happens, the HiTemp140 with thermal shield is not appropriate for the application and we will work to find a solution that is.

Product Support & Troubleshooting

- Visit our Resources online at **madgetech.com/resources**.
- Contact our friendly Customer Support Team at 01929 459 459 or support@wpls.co.uk

MadgeTech 4 Software Support

- Refer to the built-in help section of the MadgeTech 4 Software.
- Download the MadgeTech 4 Software Manual at **madgetech.com**.
- Contact our friendly Customer Support Team at 01929 459 459 or **support@wpls.co.uk**

DOC-1236035-00 | REV 5 2020.04.07

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