HiTemp140X2 Series

High Temperature Dual Probe Data Logger Series

Product User Guide

To view the full MadgeTech product line, visit our website at **madgetech.com**.

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Product Overview

The HiTemp140X2 Series of dual probe high temperature data loggers are comprised of a stainless steel data logger body and feature either two remote temperature probes or one ambient and one remote temperature probe combination. This data logger series offers extreme flexibility for high temperature monitoring applications.

The dual probes of the HiTemp140X2 Series allow for simultaneous temperature monitoring and are ideal for applications such as oven mapping, surface temperature monitoring, autoclave validation, food processing, sterilization processes and much more.

The HiTemp140X2-TD data logger models feature a 2 inch rigid, fast response, transitional diameter probe to measure ambient temperature, combined with a second stainless steel bendable or flexible RTD probe option.

The HiTemp140X2-FP data logger models feature a 6 inch,12 inch, 36 inch or 72 inch, lightweight flexible RTD probe with stainless steel tip, combined with a second stainless steel bendable probe or a second flexible RTD probe.

Water Resistance

The HiTemp140X2 Series data loggers are rated IP68 and are fully submersible. They can be placed in environments up to 230 ft (70 m) of water.

Bend Radius

The bendable RTD probe on the HiTemp140X2 Series data loggers can be bent to a 0.25 inch bend radius. The probe should not be bent within 1 inch of either weld joint.

Temperature Channels

All HiTemp140X2 Series data loggers feature two temperature channels. The channel number for each probe is identified on the top of the logger as shown to the right.

Rigid Transitional Diameter Probe (TD)

Flexible RTD Probe (FP)

Stainless Steel Bendable RTD Probe (PT)

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) — Follow the instructions provided in the Installation Wizard to install the USB Interface Drivers. Drivers can also be downloaded from the MadgeTech website at **madgetech.com.**

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. 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** or **Waiting to 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**.
4. Downloading will offload and save all the recorded data to the PC.

Trigger Settings

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. Select **Trigger** in the Properties window.
4. Trigger formats are available in **Window** or **Two Point Mode**. Window mode allows a high and/or low trigger set point, and a trigger sample count or “window” of time recorded when set points are exceeded to be defined. Two point allows for different Start and Stop setpoints to be defined for both the high and low triggers.

Refer to the **Trigger Settings - MadgeTech 4 Data Logger Software** video on **madgetech.com** for instructions on how to configure Trigger Settings.

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 HiTemp140X2 Series data loggers. 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 **madgetech.com**.

Battery Replacement

Materials: ER14250-01 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.

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?

Product Support & Troubleshooting

- Visit our Resource Library online at **madgetech.com/resources**.
- Contact our friendly Customer Support Team at (603) 456-2011 or **support@madgetech.com**.

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 (603) 456-2011 or **support@madgetech.com**.

Ordering Information

HITEMP140X2-FPST-6	PN 902335-00	High Temperature dual probe data logger with two 6 inch flexible probes with stainless steel tips
HITEMP140X2-FPST-12	PN 902331-00	High Temperature dual probe data logger with two 12 inch flexible probes with stainless steel tips
HITEMP140X2-FPST-24	PN 902333-00	High Temperature dual probe data logger with two 24 inch flexible probes with stainless steel tips
HITEMP140X2-FPST-36	PN 902318-00	High Temperature dual probe data logger with two 36 inch flexible probes with stainless steel tips
HITEMP140X2-FPST-72	PN 902321-00	High Temperature dual probe data logger with two 72 inch flexible probes with stainless steel tips
HITEMP140X2-FPST-6-FPST-12	PN 902334-00	High Temperature dual probe data logger with a 6 inch flexible probe and 12 inch flexible probe with stainless steel tips
HITEMP140X2-FPST-6-FPST-36	PN 902328-00	High Temperature dual probe data logger with a 6 inch flexible probe and 36 inch flexible probe with stainless steel tips
HITEMP140X2-FPST-12-PT-1	PN 902332-00	High Temperature dual probe data logger with a 12 inch flexible probe with stainless steel tip and 24 inch bendable probe with a 1 inch piercing tip
HITEMP140X2-FPST-36-PT-1	PN 902319-00	High Temperature dual probe data logger with a 36 inch flexible probe with stainless steel tip and 24 inch bendable probe with a 1 inch piercing tip
HITEMP140X2-FPST-72-PT-1	PN 902322-00	High Temperature dual probe data logger with a 72 inch flexible probe with stainless steel tip and 24 inch bendable probe with a 1 inch piercing tip
HITEMP140X2-FPST-36-PT-5	PN 902320-00	High Temperature dual probe data logger with a 36 inch flexible probe with stainless steel tip and 24 inch bendable probe with a 5 inch piercing tip
HITEMP140X2-FPST-72-PT-5	PN 902323-00	High Temperature dual probe data logger with a 72 inch flexible probe with stainless steel tip and 24 inch bendable probe with a 5 inch piercing tip
HITEMP140X2-TD-FPST-6	PN 902338-00	High Temperature dual probe data logger with 2 inch transitional diameter probe and 6 inch flexible probe with stainless steel tip
HITEMP140X2-TD-FPST-12	PN 902329-00	High Temperature dual probe data logger with 2 inch transitional diameter probe and 12 inch flexible probe with stainless steel tip
HITEMP140X2-TD-FPST-36	PN 902324-00	High Temperature dual probe data logger with 2 inch transitional diameter probe and 36 inch flexible probe with stainless steel tip
HITEMP140X2-TD-FPST-72	PN 902325-00	High Temperature dual probe data logger with 2 inch transitional diameter probe and 72 inch flexible probe with stainless steel tip
HITEMP140X2-TD-PT-1	PN 900281-00	High Temperature dual probe data logger with 2 inch transitional diameter probe and 24 inch bendable probe with a 1 inch piercing tip
HITEMP140X2-TD-PT-5	PN 900283-00	High Temperature dual probe data logger with 2 inch transitional diameter probe and 24 inch bendable probe with a 5 inch piercing tip
IFC400	PN 900319-00	Docking station with USB cable
IFC406	PN 900325-00	6 Port, Multiplexer docking station with USB cable
ER14250-01	PN 900097-00	Replacement battery for the HiTemp140X2

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