Description	HiTemp140-FP
Temperature Sensor	Flexible RTD Probe
Probe Range	-60 °C to +260 °C (-76 °F to +500 °F)
Temperature Resolution	0.01 °C (0.02 °F)
Calibrated Accuracy	±0.1 °C (0.18 °F)
Memory	32,767 readings
Number of Readings in Trigger Settings Mode	10,922 readings
Reading Rate	1 reading every 0.25 seconds up to 1 reading every 24 hours
Required Interface Package	IFC400 or IFC406 USB docking station required
Baud Rate	125,000 baud
Typical Battery Life	1 year typical (1 minute reading rate at 25 °C/ 77 °F)
Operating System Compatibility	XP SP3/Vista/Windows 7/Windows 8
MadgeTech Software Compatibility	MadgeTech Standard Software version 4.2.1.1 MadgeTech Secure Software version 4.2.0.1 or later
Operating Environment	-40 °C to +140 °C (-40 °F to +284 °F) 0 %RH to 100 %RH
Material	Body: 316 Stainless Steel Probe: PFA Insulated Cable
Dimensions (Body)	2.95 in x 0.97 in x 0.97 in (75 mm x 24.6 mm x 24.6 mm)
Weight	85 g (3 oz)
Submersible	Yes (IP68)
Approvals	CE
Model Number	**Dimensions (Probe)**
HiTemp140-FP-36	36 in x 0.10 in (914 mm x 2.5 mm)
HiTemp140-FP-72	72 in x 0.10 in (1829 mm x 2.5 mm)

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 150 °C (302 °F).

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HiTemp140-FP
High Temperature Data Logger with Flexible RTD Probe

Product Notes

The HiTemp140-FP is a durable, user friendly high temperature data logger featuring a long, flexible RTD probe with a narrow diameter, making it ideal for use in steam sterilization and lyophilization processes.

Commonly used for mapping, validation and monitoring of high temperature surfaces, this stainless steel data logger is available in two models, the HiTemp140-FP-36 and the HiTemp140-FP-72, which feature either 36 inch or 72 inch flexible probe lengths, respectively. The flexible probe is coated with PFA insulation and can withstand temperatures up to 260 °C with an accuracy of ±0.1 °C

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

Bend Radius
The probe should not be bent within 1 inch where the probe meets the logger or less than 1 inch from the probe tip.

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

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

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.

Installation Guide

Installing the Interface cable
 - IFC400 or IFC406
   Refer to the "Quick Start Guide" included in the package.

Installing the software
Insert the MadgeTech 4 Software Flash Drive into an open USB port on the PC. If the autorun does not appear, locate the drive on the computer and double click on **Autorun.exe**. Follow the instructions provided in the Installation Wizard to install the MadgeTech Software. Software can also be downloaded from the MadgeTech website at the following link: www.madgetech.com/software-download.

Device Operation

Connecting and Starting the data logger
- Once the software is installed and running, plug the interface cable into the docking station.
- Connect the USB end of the interface cable into an open USB port on the computer.
- Place the data logger into the docking station.
- The data logger will automatically appear under **Connected Devices** within the software.
- 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 docking station 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
- Place the logger into the docking station.
- 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:
ER1425S-HT Battery
- Unscrew the bottom of the logger and remove the battery.
- Place the new battery into the logger. Note the polarity of the battery.
- Screw the cover back onto the logger.

Recalibration
The HiTemp140-FP standard calibrations are two points at +30 °C and +140 °C.