

# HiTemp140X2

## High Temperature Dual Probe Data Loggers with Two Remote Temperature Probes

The HiTemp140X2 series of dual probe high temperature data loggers are comprised of a stainless steel data logger body and offers multiple combinations of a 2 inch rigid transitional diameter probe to measure ambient temperature, a flexible probe or a bendable stainless steel probe.

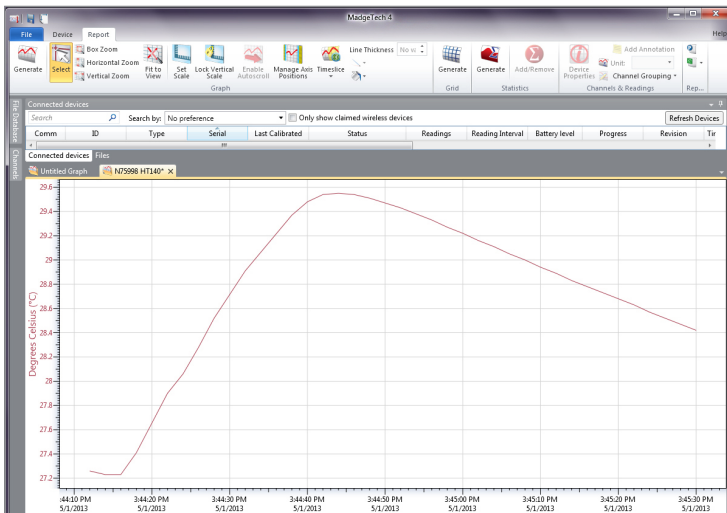
The FP models offer lightweight, flexible RTD probes coated with PFA insulation and come in 6 inch, 12 inch, 36 inch and 72 inch lengths and can be combined with a bendable probe or rigid probe.

The PT models combine a flexible probe or rigid probe with a 24 inch bendable probe made of stainless steel with either a 1 inch or 5 inch probe sheath at the tip. The TD models combine the 2 inch rigid transitional diameter probe with either the flexible probe or bendable probe.

Using the latest MadgeTech Software, starting, stopping and downloading the HiTemp140X2 data is simple and easy. To use, simply place the HiTemp140X2 in the IFC400 or IFC406 docking station (sold separately). Using the software, an immediate or delay start can be chosen, as well as the reading interval. Start the data logger, remove it from the docking station and the device is ready to be deployed. Graphical, tabular and summary data is provided for analysis and data can be viewed in °C, °F, K or °R. The data can also be automatically exported to Excel® for further calculations.

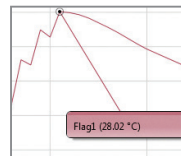


## MadgeTech 4 Software Features

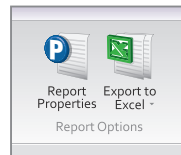


Graph View

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Summary view



Cooling Flags

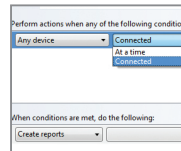


Export to Excel

The screenshot shows a 'Tabular Data View' window displaying a table of data. The table has columns for 'Time', 'Time Zone', and 'Delta'. The data rows show time intervals and corresponding delta values.

Time	Time Zone	Delta
1:13:37 PM	0400	-00:00:00
1:14:37 PM	0400	-00:01:00
1:15:37 PM	0400	-00:02:00
1:16:37 PM	0400	-00:03:00
1:17:37 PM	0400	-00:04:00
1:18:37 PM	0400	-00:05:00
1:19:37 PM	0400	-00:06:00
1:20:37 PM	0400	-00:07:00
1:21:37 PM	0400	-00:08:00
1:22:37 PM	0400	-00:09:00
1:23:37 PM	0400	-00:10:00
1:24:37 PM	0400	-00:11:00
1:25:37 PM	0400	-00:12:00

Tabular Data View



Automation

## Features

- ±0.1 °C (±0.18 °F) Accuracy (+20 °C to +140 °C)
- Rigid Probe Measurement Range -200 °C to +260 °C (-328 °F to +500 °F)
- Flexible Probe Measurement Range -200 °C to +260 °C (-328 °F to +500 °F)
- Bendable Probe Measurement Range -200 °C to +350 °C (-328 °F to +662 °F)
- Operating Environment -40 °C to +140 °C
- Submersible (IP68)
- User Replaceable Battery
- Trigger Settings
- Programmable Start and Stop Time
- Battery life indicator

## Benefits

- Simple Setup and Installation
- Minimal Long-Term Maintenance
- Long-Term Field Deployment

## Applications

- Autoclave Verification
- Implement HACCP Programs
- Food Preparation and Processing
- Environmental Studies
- Well Monitoring
- Washer Disinfectors
- Pasteurization

## SPECIFICATIONS

Specifications are subject to change without notice. Specific warranty remedy limitations apply. Call (603) 456-2011 or go to [madgetech.com](http://madgetech.com) for details.

TEMPERATURE	
Temperature Sensor	<b>HiTemp140X2- FPST:</b> Two Flexible RTD Probes <b>HiTemp140X2- FPST-PT:</b> Flexible RTD Probe and Bendable RTD Probe <b>HiTemp140X2-TD-PT:</b> Rigid RTD Probe with a Bendable RTD Probe <b>HiTemp140X2-TD-FPST:</b> Rigid RTD Probe with a Flexible RTD Probe
Probe Measurement Range	<b>Rigid Probe:</b> -200 °C to +260 °C (-328 °F to +500 °F) <b>Bendable Probe:</b> -200 °C to +350 °C (-328 °F to +662 °F) <b>Flexible Probe:</b> -200 °C to +260 °C (-328 °F to +500 °F) <b>*BODY OF LOGGER CANNOT EXCEED 140 °C</b>
Temperature Resolution	0.01 °C (0.02 °F)
Calibrated Accuracy	±0.1 °C (+20 °C to +140 °C); 0.18 °F (+68 °F to +284 °F) ±0.3 °C (-20 °C to 19.99 °C); 0.54 °F (-4 °F to +67.98 °F) ±0.4 °C (-40 °C to -20.01 °C); 0.72 °F (-40 °F to +68.018 °F)

GENERAL	
Start Modes	Software programmable immediate start Delay start up to 18 months in advance
Stop Modes	Manual or Timed (specific date and time)
Trigger Settings	High and Low limits may be set. Once data meets or exceed sets limits, the device will record to memory. Bi-level start and stop triggers can also be programmed. Users can specify the number of readings to take after the device triggers. <i>(Triggering on channel #1 only)</i>
Memory	16,128 readings
Readings in Trigger Settings Mode	5,376 readings
Real Time Recording	May be used with PC to monitor and record data in real time
Password Protection	An optional password may be programmed into the device to restrict access to configuration options. Data may be read out without the password
Wrap Around	Yes
Reading Rate	1 reading every second up to 1 reading every 24 hours
Calibration	Digital calibration through software
Calibration Date	Automatically recorded within device
Battery Type	3.6 V high-temperature lithium battery included; user replaceable

Battery Life	1 year typical (1 minute reading rate at 25 °C/ 77 °F)
Data Format	Date and time stamped °C, K, °F or °R
Time Accuracy	±1 minute/month at 25 °C (77 °F) Extended Operation: ±20 minutes/month at 140 °C (±450 ppm)
Computer Interface	IFC400 OR IFC406 USB docking station required; 125,000 baud
Operating System Compatibility	Windows XP SP3 or later
Software Compatibility	MadgeTech Standard Software version 4.2.1.0 or later MadgeTech Secure Software version 4.2.0.0 or later
Operating Environment	-40 °C to +140 °C (-40 °F to +284 °F) 0 %RH to 100 %RH, 0.002 PSIA to 100 PSIA
IP Rating	IP68
Dimensions (Body)	1.89 in x 0.97 in x 0.97 in (48 mm x 24.6 mm x 24.6 mm)
Dimensions (Probe)	<b>6 inch Flexible Probe:</b> 6 in x 0.13 in (152 mm x 3.2 mm) <b>12 inch Flexible Probe:</b> 12 in x 0.13 in (305 mm x 3.2 mm) <b>36 inch Flexible Probe:</b> 36 in x 0.13 in (914.4 mm x 3.2 mm) <b>72 inch Flexible Probe:</b> 72 in x 0.13 in (1829 mm x 3.2 mm) <b>1 Inch PT Bendable Probe:</b> <b>Probe tip:</b> 1.7 in x 0.125 in dia. (42 mm x 3.2 mm dia.) <b>Bendable portion:</b> 22 in x 0.062 in dia. (559 mm x 1.6 mm dia.) <b>5 Inch PT Bendable Probe:</b> <b>Probe tip:</b> 4.8 in x 0.125 in dia. with 1 in x 0.188 in dia. handle (121 mm x 3.2 mm dia. with 25 mm x 4.8 mm dia. handle) <b>Bendable portion:</b> 22 in x 0.062 in dia. (559 mm x 1.6 mm dia.) <b>TD Rigid Probe:</b> 2.0 in x 0.125 in dia. (0.188 in transitional dia.) 51 mm x 3.2 mm dia. (4.8 mm transitional dia.)
Weight	<b>HiTemp140X2-FPST:</b> 4.1 oz (115 g) <b>HiTemp140X2-FPST-PT:</b> 3.9 oz (110 g) <b>HiTemp140X2-TD-PT:</b> 3.0 oz (85 g) <b>HiTemp140X2-TD-FPST:</b> 3.5 oz (100 g)
Material	<b>Body:</b> 316 Stainless Steel, Radel <b>Bendable Probe:</b> 316 Stainless Steel <b>Flexible Probe:</b> PFA Insulated Cable with Stainless Steel Tip
Approvals	CE

**BATTERY 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).

## Ordering Information

<b>HITEMP140X2-FPST-6</b>	PN 902335-00	High Temperature dual probe data logger with two 6 inch flexible probes with stainless steel tips
<b>HITEMP140X2-FPST-12</b>	PN 902331-00	High Temperature dual probe data logger with two 12 inch flexible probes with stainless steel tips
<b>HITEMP140X2-FPST-24</b>	PN 902333-00	High Temperature dual probe data logger with two 24 inch flexible probes with stainless steel tips
<b>HITEMP140X2-FPST-36</b>	PN 902318-00	High Temperature dual probe data logger with two 36 inch flexible probes with stainless steel tips
<b>HITEMP140X2-FPST-72</b>	PN 902321-00	High Temperature dual probe data logger with two 72 inch flexible probes with stainless steel tips
<b>HITEMP140X2-FPST-6-FPST-12</b>	PN 902334-00	High Temperature dual probe data logger with a 6 inch flexible probe and 12 inch flexible probe with stainless steel tips
<b>HITEMP140X2-FPST-6-FPST-36</b>	PN 902328-00	High Temperature dual probe data logger with a 6 inch flexible probe and 36 inch flexible probe with stainless steel tips
<b>HITEMP140X2-FPST-12-PT-1</b>	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
<b>HITEMP140X2-FPST-36-PT-1</b>	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
<b>HITEMP140X2-FPST-72-PT-1</b>	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
<b>HITEMP140X2-FPST-36-PT-5</b>	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
<b>HITEMP140X2-FPST-72-PT-5</b>	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
<b>HITEMP140X2-TD-FPST-6</b>	PN 902338-00	High Temperature dual probe data logger with 2 inch transitional diameter probe and 6 inch flexible probe with stainless steel tip
<b>HITEMP140X2-TD-FPST-12</b>	PN 902329-00	High Temperature dual probe data logger with 2 inch transitional diameter probe and 12 inch flexible probe with stainless steel tip
<b>HITEMP140X2-TD-FPST-36</b>	PN 902324-00	High Temperature dual probe data logger with 2 inch transitional diameter probe and 36 inch flexible probe with stainless steel tip
<b>HITEMP140X2-TD-FPST-72</b>	PN 902325-00	High Temperature dual probe data logger with 2 inch transitional diameter probe and 72 inch flexible probe with stainless steel tip
<b>HITEMP140X2-TD-PT-1</b>	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
<b>HITEMP140X2-TD-PT-5</b>	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
<b>IFC400</b>	PN 900319-00	Docking station with USB cable
<b>IFC406</b>	PN 900325-00	6 Port, Multiplexer docking station with USB cable
<b>ER14250-SM</b> Formerly ER14250MR-145	PN 900097-00	Replacement battery for the HiTemp140X2

For Quantity Discounts call (603) 456-2011 or email [sales@madgetech.com](mailto:sales@madgetech.com)