



# HiTemp140-FP

## High Temperature Data Logger with a Flexible RTD Probe

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 and environments, this stainless steel data logger is available in several models. The flexible probe is coated with PFA insulation and can withstand temperatures up to 260 °C. The body of the logger cannot exceed 140 °C. The HiTemp140-FP probe design is narrow and lightweight making it ideal for placement within small vials, tubing, test tube and other small diameter or delicate applications.

Using the latest MadgeTech Software, starting, stopping and downloading the HiTemp140-FP is simple and easy. To use, simply place the HiTemp140-FP 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.

### FEATURES

- ±0.1 °C (± 0.18 °F) Accuracy
- Probe Measurement Range -200 °C to +260 °C (-328 °F to +500 °F)
- Operating Environment -40 °C to +140 °C
- Submersible (IP68)
- User-Replaceable Battery
- Durable
- Programmable Start and Stop Time
- Five probe lengths: 6, 12, 24, 36 and 72 inches
- Battery life indicator

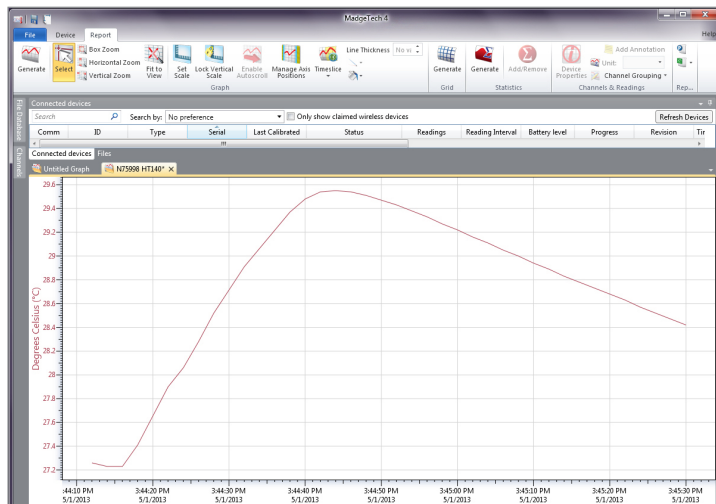
### BENEFITS

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

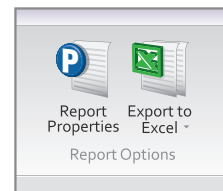
### APPLICATIONS

- Autoclave Verification and Mapping
- Lyophilization
- Monitoring High-Temperature Surfaces
- Container Mapping
- Measurements Inside Small Vials and Tubing

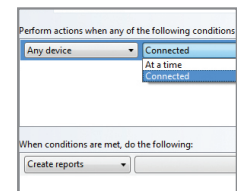
## MadgeTech 4 Software Features



- 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



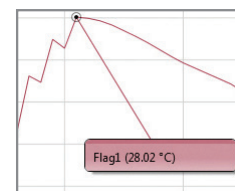
Export to Excel



Automation

Time	Time Zone	Delta
11:37 PM	-04:00	-00:00:00
11:43 PM	-04:00	+00:01:00
11:57 PM	-04:00	+00:03:00
11:57 PM	-04:00	+00:03:00
11:57 PM	-04:00	+00:04:00
11:57 PM	-04:00	+00:05:00
12:03 PM	-04:00	+00:07:00
12:13 PM	-04:00	+00:08:00
12:23 PM	-04:00	+00:09:00
12:37 PM	-04:00	+00:10:00
12:43 PM	-04:00	+00:11:00
12:53 PM	-04:00	+00:12:00
1:26:37 PM	-04:00	+00:13:00
1:27:37 PM	-04:00	+00:14:00
1:28:37 PM	-04:00	+00:15:00

Tabular Data View



Cooling Flags

# 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.

GENERAL	
<b>Start Modes</b>	Software programmable immediate start Delay start up to 18 months in advance
<b>Stop Modes</b>	Manual or Timed (specific date and time)
<b>Data Logger Response Time</b>	<b>In Air</b>
	<b>In Water</b>
	(hours : minutes : seconds : fractions of a second)
	t60 - 00:00:30:00      t60 - 00:00:03:50 t90 - 00:01:10:00      t90 - 00:00:06:50
<b>Trigger Settings</b>	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
<b>Memory</b>	32,512 readings
<b>Readings in Trigger Settings Mode</b>	6,502 readings
<b>Real Time Recording</b>	May be used with PC to monitor and record data in real time
<b>Password Protection</b>	An optional password may be programmed into the device to restrict access to configuration options. Data may be read out without the password
<b>Wrap Around</b>	Yes
<b>Reading Rate</b>	4 readings per second up to 1 reading every 24 hours
<b>Calibration</b>	Digital calibration through software
<b>Calibration Date</b>	Automatically recorded within device
<b>Battery Type</b>	3.6V high-temperature lithium battery included; user replaceable
<b>Battery Life</b>	1 year typical (1 minute reading rate at 25 °C/ 77 °F)
<b>Data Format</b>	Date and time stamped °C, K, °F or °R
<b>Time Accuracy</b>	±1 minute/month at 25 °C Extended Operation: ±20 minutes/month at 140 °C (±450 ppm)
<b>Computer Interface</b>	IFC400 or IFC406 USB docking station required; 125,000 baud

<b>Operating System Compatibility</b>	Windows XP SP3 or later
<b>Software Compatibility</b>	MadgeTech Standard Software version 4.2.1.1 or later MadgeTech Secure Software version 4.2.0.1 or later
<b>Operating Environment</b>	-40 °C to +140 °C (-40 °F to +284 °F) 0 %RH to 100 %RH, 0.002 PSIA to 100 PSIA
<b>IP Rating</b>	IP68
<b>Dimensions (Body)</b>	2.95 in x 0.97 in x 0.97 in (75 mm x 24.6 mm x 24.6 mm)
<b>Dimensions (Probe)</b>	<b>HiTemp140-FPST-6:</b> 6 in x 0.13 in (152 mm x 3.2 mm) <b>HiTemp140-FPST-12:</b> 12 in x 0.13 in (305 mm x 3.2mm) <b>HiTemp140-FPST-24:</b> 24 in x 0.13 in (609 mm x 3.2mm) <b>HiTemp140-FPST-36:</b> 36 in x 0.13 in (914 mm x 3.2mm) <b>HiTemp140-FPST-72:</b> 72 in x 0.13 in (1829 mm x 3.2 mm)
<b>Weight</b>	3 oz (85 g)
<b>Material</b>	<b>Body:</b> 316 Stainless Steel, Radel <b>Probe:</b> PFA Insulated Cable with Stainless Steel Tip
<b>Approvals</b>	CE

TEMPERATURE	
<b>Temperature Sensor</b>	Flexible RTD Probe
<b>Probe Measurement Range</b>	-200 °C to +260 °C (-328 °F to +500 °F) <b>BODY OF LOGGER CANNOT EXCEED 140 °C</b>
<b>Temperature Resolution</b>	0.01 °C (0.02 °F)
<b>Calibrated Accuracy</b>	±0.1 °C from +20 °C to +140 °C ±0.3 °C from -20 °C to +19.99 °C ±0.4 °C from -40 °C to -20.01 °C

**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>HiTemp140-FPST-6</b>	PN 902330-00	High Temperature Data Logger with a 6 inch Flexible Probe and Stainless Steel Tip
<b>HiTemp140-FPST-12</b>	PN 902312-00	High Temperature Data Logger with a 12 inch Flexible Probe and Stainless Steel Tip
<b>HiTemp140-FPST-24</b>	PN 902364-00	High Temperature Data Logger with a 24 inch Flexible Probe and Stainless Steel Tip
<b>HiTemp140-FPST-36</b>	PN 902313-00	High Temperature Data Logger with a 36 inch Flexible Probe and Stainless Steel Tip
<b>HiTemp140-FPST-72</b>	PN 902316-00	High Temperature Data Logger with a 72 inch Flexible Probe and Stainless Steel Tip
<b>HiTemp140-FPST-6-KR</b>	PN 902339-00	High Temperature Data logger with a 6 inch Flexible Probe and Stainless Steel Tip with Key Ring
<b>HiTemp140-FPST-36-KR</b>	PN 902336-00	High Temperature Data logger with a 36 inch Flexible Probe and Stainless Steel Tip with Key Ring
<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 HiTemp140-FP



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