

# HITEMP140X2-FP

## HIGH TEMPERATURE DUAL PROBE DATA LOGGERS WITH TWO REMOTE TEMPERATURE PROBES



### Features

- $\pm 0.1^{\circ}\text{C}$  ( $\pm 0.18^{\circ}\text{F}$ ) Accuracy
- Flexible Probe Measures from  $-60^{\circ}\text{C}$  to  $+260^{\circ}\text{C}$  ( $-76^{\circ}\text{F}$  to  $+500^{\circ}\text{F}$ )
- Bendable Probe Measures from  $-200^{\circ}\text{C}$  to  $+350^{\circ}\text{C}$  ( $-328^{\circ}\text{F}$  to  $+662^{\circ}\text{F}$ )
- Submersible (IP68)
- NIST Traceable
- 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 & Processing
- Environmental Studies
- Well Monitoring
- Washer Disinfectors
- Pasteurization



The HiTemp140X2-FP series of dual probe high temperature data loggers are comprised of a stainless steel data logger body and feature two 36 inch or 72 inch flexible FP probes or are available with one flexible probe and a stainless steel bendable PT probe combination.

The dual probes of this HiTemp140X2 series allow for simultaneous temperature monitoring and provide flexibility in applications such as oven mapping, surface temperature monitoring, autoclave validation and sterilization processes.

The HiTemp140X2-FP model offers two 36 inch or 72 inch long, lightweight, flexible RTD probes coated with PFA insulation. The FP probe design allows the probe to be easily maneuvered and is ideal for temperature monitoring inside test tubes, small vials, and other delicate applications. The narrow thermistor probe tip is compatible for use with the MicroDisc probe attachment allowing for precise surface temperature monitoring of shelving and more.

The HiTemp140X2-FP-PT-1 and HiTemp140X2-FP-PT-5 models feature a 24 inch stainless steel bendable probe with the option of either a 1 inch or 5 inch probe tip (*sheath*). The stainless steel probe can be bent, angled, and coiled in any direction and formed into position as needed. The sharp probe tip allows for easy insertion and has an extended measurement range of  $-200^{\circ}\text{C}$  to  $+350^{\circ}\text{C}$ .

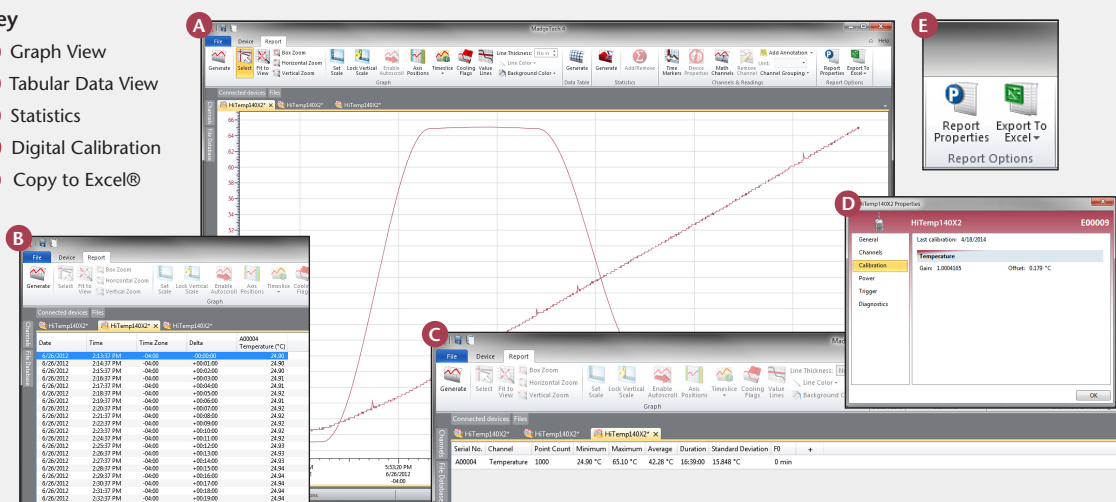
The body of the HiTemp140X2-FP is capable of operating in temperatures from  $-40^{\circ}\text{C}$  to  $140^{\circ}\text{C}$ . All models have the capacity to store up to 32,700 time and date stamped readings and feature non-volatile solid state memory that will retain data even if the battery becomes discharged.

Using the latest version of MadgeTech Data Logger Software, the device can be started, stopped, and data can be downloaded quickly and easily. Once in the software, the data can be reviewed in graphic, tabular, or summary form as well as exported to Excel® for further analysis and calculations.

## MADGETECH DATA LOGGER SOFTWARE

### Key

- A** Graph View
- B** Tabular Data View
- C** Statistics
- D** Digital Calibration
- E** Copy to Excel®



### 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
- Data table view
- Automatic report generation
- Summary view
- Multilingual

# HITEMP140X2-FP SPECIFICATIONS\*

\*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY REMEDY LIMITATIONS APPLY. GO TO [WWW.MADGETECH.CO.NZ](http://WWW.MADGETECH.CO.NZ) FOR DETAILS.

## Temperature

Temperature Sensor:	<ul style="list-style-type: none"> <li>HiTemp140X2-FP: Flexible RTD Probe</li> <li>HiTemp140X2-FP-PT: Flexible RTD Probe &amp; Bendable RTD Probe</li> </ul>
Probe Measurement Range:	<ul style="list-style-type: none"> <li>Flexible Probe: -60 °C to +260 °C (-76 °F to +500 °F)</li> <li>Bendable Probe: -200 °C to +350 °C (-328 °F to +662 °F)</li> </ul>
Temperature Resolution:	0.01 °C (0.02 °F)
Calibrated Accuracy:	±0.1 °C (±0.18 °F)

## General

Reading Rate:	1 reading every second up to 1 reading every 24 hours
Memory:	32,767 readings
Start Modes:	<ul style="list-style-type: none"> <li>Software programmable immediate start</li> <li>Delay start up to 18 months in advance</li> </ul>
Stop Modes:	Manual or Timed ( <i>specific date and time</i> )
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.
Readings in Trigger Settings Mode:	16,383 readings
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> )
Wrap Around:	Yes
Battery Type:	3.6V high-temperature lithium battery included; <b>user replaceable</b>
Battery Life:	1 year typical (1 minute reading rate at 25 °C/77 °F)

Calibration:	Digital calibration through software
Calibration Date:	Automatically recorded within device
Data Format:	Date and time stamped °C, °F, °R, K,
Time Accuracy:	<ul style="list-style-type: none"> <li>1 minute/month at 25 °C (77 °F)</li> <li>Extended Operation: ±20 minutes/month at 140 °C (±450 ppm)</li> </ul>
Computer Interface:	IFC400 or IFC406 USB docking station required; 125,000 baud
Operating System Compatibility:	XP SP3/Vista/Windows 7/Windows 8
MadgeTech Software Compatibility:	<ul style="list-style-type: none"> <li>MadgeTech Standard Software version 4.2.1.0 or later</li> <li>MadgeTech Secure Software version 4.2.0.0 or later</li> </ul>
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):	<ul style="list-style-type: none"> <li>HiTemp140X2-FP: Flexible Probe: 36 in x 0.10 in (914.4 mm x 2.5 mm) Flexible Probe: 72 in x 0.10 in (1829 mm x 2.5 mm)</li> <li>HiTemp140X2-FP-PT 1 Inch Bendable Probe: Probe tip: 1.7 in x 0.125 in dia. (42 mm x 3.2 mm dia.) Bendable portion: 22 in x 0.062 in dia. (559 mm x 1.6 mm dia.)</li> <li>HiTemp140X2-FP-PT 5 Inch Bendable Probe: Probe tip: 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) Bendable portion: 22 in x 0.062 in dia. (559 mm x 1.6 mm dia.)</li> </ul>
Weight:	<ul style="list-style-type: none"> <li>HiTemp140X2-FP: 4.1 oz (115 g)</li> <li>HiTemp140X2-FP-PT: 3.9 oz (110 g)</li> </ul>
Materials:	<ul style="list-style-type: none"> <li>Body: 316 Stainless Steel, PEEK</li> <li>Bendable Probe: 316 Stainless Steel</li> <li>Flexible Probe: PFA Insulated Cable</li> </ul>
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

MODEL	DESCRIPTION
HiTemp140X2-FP	High temperature dual probe data logger with two 36 inch flexible RTD probes, two 72 inch flexible RTD probes or one of each length.
HiTemp140X2-FP-PT-1	High temperature dual probe data logger with one 36 inch or 72 inch flexible RTD probe and one 24 inch bendable probe with a 1 inch probe sheath.
HiTemp140X2-FP-PT-5	High temperature dual probe data logger with one 36 inch or 72 inch flexible RTD probe and one 24 inch bendable probe with a 5 inch probe sheath.
IFC400	Docking station with USB cable, software and manual.
IFC406	6 Port, Multiplexer docking station with USB cable, software and manual.
ER1425S-HT	Replacement battery for the HiTemp140X2-FP Series
*NIST	NIST Calibration Certificate.

ASK ABOUT  
OUR OTHER  
DATA  
LOGGERS

Temperature  
Humidity  
Pressure  
pH  
Level  
Shock  
LCD Display  
Pulse/Event/State  
Current  
Voltage  
Wireless  
Intrinsically Safe  
Spectral Vibration  
Motion

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