

# HITEMP140X2-TD

## HIGH TEMPERATURE DUAL PROBE DATA LOGGERS WITH AMBIENT & REMOTE TEMPERATURE PROBES



### Features

- $\pm 0.1\text{ }^{\circ}\text{C}$  ( $\pm 0.18\text{ }^{\circ}\text{F}$ ) Accuracy
- Rigid Probe Measures from  $-200\text{ }^{\circ}\text{C}$  to  $+260\text{ }^{\circ}\text{C}$  ( $-328\text{ }^{\circ}\text{F}$  to  $+500\text{ }^{\circ}\text{F}$ )
- Bendable Probe Measures from  $-200\text{ }^{\circ}\text{C}$  to  $+350\text{ }^{\circ}\text{C}$  ( $-328\text{ }^{\circ}\text{F}$  to  $+662\text{ }^{\circ}\text{F}$ )
- Flexible Probe Measures from  $-60\text{ }^{\circ}\text{C}$  to  $+260\text{ }^{\circ}\text{C}$  ( $-76\text{ }^{\circ}\text{F}$  to  $+500\text{ }^{\circ}\text{F}$ )
- 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-TD series of dual probe data loggers offer extreme flexibility for high temperature monitoring applications. These models all feature a 2 inch rigid transitional diameter probe to measure ambient temperature, combined with a second bendable or flexible probe option.

The rigid 2 inch TD probe is made of stainless steel, offers a fast response time and is suitable for the harshest environments.

The HiTemp140X2-TD-PT-1 and the HiTemp140X2-TD-PT-5 models combine the 2 inch TD 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 stainless steel PT probe options provide the ability to retain shape when bent into position and offer an extremely high measurement range of up to  $350\text{ }^{\circ}\text{C}$ .

The HiTemp140X2-TD-FP combines the 2 inch TD probe with a 36 inch or 72 inch RTD lightweight flexible FP probe, designed for easy placement. The flexible FP probe option is very pliable and coated with PFA insulation making it ideal for use inside small vials and test tubes. This probe style has a narrow diameter, high accuracy and is ideal for steam sterilization and lyophilization. The FP probe is also compatible with the MicroDisc probe attachment, used for the surface temperature monitoring of shelving and more.

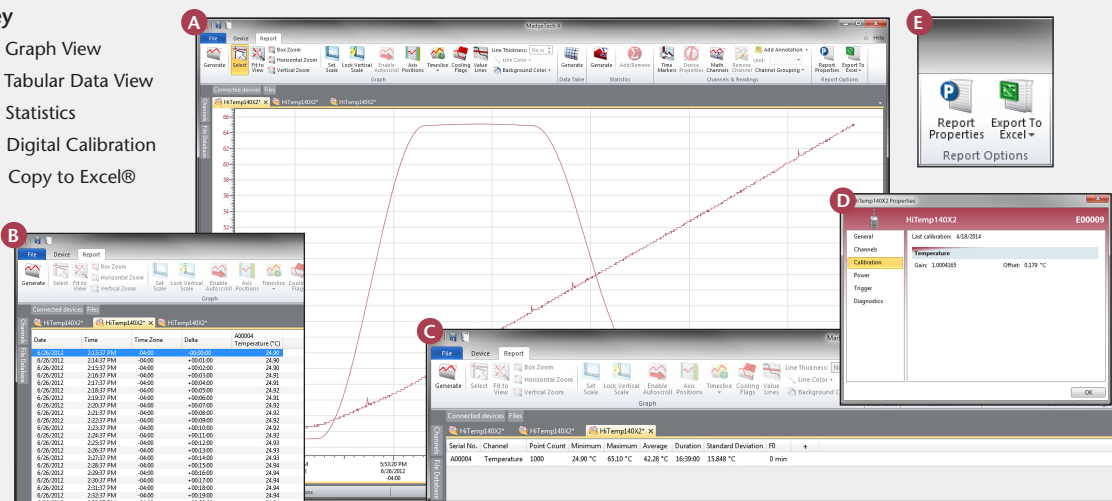
The temperature operating range for the data logger body is  $-40\text{ }^{\circ}\text{C}$  to  $140\text{ }^{\circ}\text{C}$ . Because of the simultaneous ambient and remote temperature recording, the HiTemp140X2-TD series is ideal for use in autoclave mapping, food processing applications, and much more.

The HiTemp140X2-TD series is compatible with the latest version of the MadgeTech Software. This allows for simple starting, stopping and downloading of collected data. The devices are able to store up to 32,700 time and date stamped readings in non-volatile solid state memory. Once the readings have been downloaded to the software, it can be viewed in graphic, tabular, and summary form for easy analysis, as well as the potential to be exported into Excel for further 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 (FO, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Data table view
- Automatic report generation
- Summary view
- Multilingual

# HITEMP140X2-TD SPECIFICATIONS\*

\*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY REMEDY LIMITATIONS APPLY. CALL 1-603-456-2011 OR GO TO WWW.MADGETECH.COM FOR DETAILS.

## Temperature

Temperature Sensor:	<ul style="list-style-type: none"> <li>HiTemp140X2-TD-PT: Rigid RTD Probe with a Bendable RTD Probe</li> <li>HiTemp140X2-TD-FP: Rigid RTD Probe with a Flexible RTD Probe</li> </ul>
Probe Measurement Range:	<ul style="list-style-type: none"> <li>Rigid Probe: -200 °C to +260 °C (-328 °F to +500 °F)</li> <li>Bendable Probe: -200 °C to +350 °C (-328 °F to +662 °F)</li> <li>Flexible Probe: -60 °C to +260 °C (-76 °F to +500 °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; user replaceable
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-TD-PT Rigid Probe: 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.)</li> <li>HiTemp140X2-TD-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-TD-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> <li>HiTemp140X2-TD-FP-36 Flexible Probe: 36 in x 0.10 in (914.4 mm x 2.5 mm)</li> <li>HiTemp140X2-TD-FP-72 Flexible Probe: 72 in x 0.10 in (1829 mm x 2.5 mm)</li> </ul>
Weight:	<ul style="list-style-type: none"> <li>HiTemp140X2-TD-PT: 3.0 oz (85 g)</li> <li>HiTemp140X2-TD-FP: 3.5 oz (100 g)</li> </ul>
Materials:	<ul style="list-style-type: none"> <li>Body: 316 Stainless Steel, PEEK</li> <li>Rigid/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-TD-FP	High temperature dual probe data logger with one rigid transitional diameter probe and one flexible RTD probe.
HiTemp140X2-TD-PT-1	High temperature dual probe data logger with one rigid probe with a transitional diameter probe and one 24 inch bendable probe with a 1 inch probe sheath.
HiTemp140X2-TD-PT-5	High temperature dual probe data logger with one rigid probe with a transitional diameter 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-TD 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

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