

# HITEMP140-M12

## HIGH TEMPERATURE DATA LOGGER

### WITH BUILT IN M12 CONNECTOR



#### Features

- Measurement Range of -200 °C to +850 °C (-328 °F to +1562 °F)
- $\pm 0.05$  °C ( $\pm 0.09$  °F) Accuracy
- M12 Probe Connector
- NIST Traceable
- User Replaceable Battery
- Trigger Settings
- Programmable Start and Stop Time
- Battery Life Indicator

#### Benefits

- Interchangeable Probe Connector for Multipurpose Use
- Simple Setup and Installation
- Minimal Long-Term Maintenance

#### Applications

- Depyrogenation
- Autoclave Verification
- Food Preparation & Processing
- Environmental Studies
- Well Monitoring
- Washer Disinfectors
- Pasteurization
- Many More Applications (Probe Dependent)

The HiTemp140-M12 is a rugged and versatile high temperature data logger featuring an M12 probe connector. Compatible with a wide variety of M12 RTD probe styles, this data logger is capable of measuring up to 850 °C (1562 °F) (probe dependent).

All of MadgeTech's HiTemp140 data loggers have a water tight body enclosure made of food grade stainless steel and can be placed in environments with temperatures as high as 140 °C (284 °F). The operating range of the data logger body can be extended to higher temperatures when used with MadgeTech's thermal barrier options and suitable probe.

The HiTemp140-M12 records and stores up to 43,690 time stamped readings and is equipped with non-volatile solid state memory which retains data even if the battery becomes discharged.

A wide selection of compatible M12 probes are available on the market to choose from, making the HiTemp140-M12 the most dynamic data logger of its kind. With the ability to change probes as needed, this device satisfies a multitude of application needs with one powerful data logger versus the need for multiple loggers.

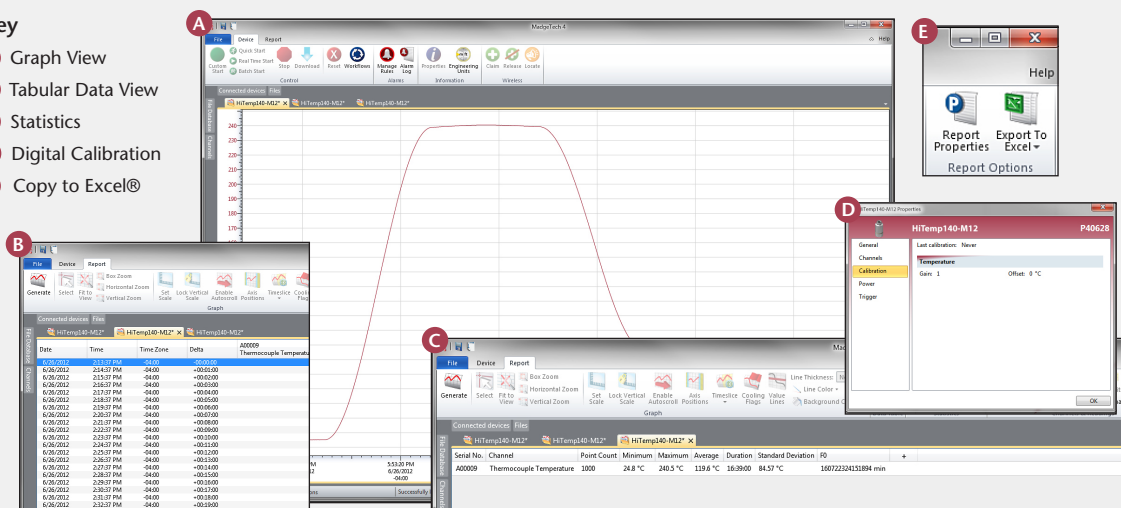


Closeup of the M12 Connector

## 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

# HITEMP140-M12 SPECIFICATIONS\*

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

## Temperature

<b>Temperature Sensor:</b>	Various RTD Probes with M12 Connector ( <i>Sold Separately</i> )
<b>Measurement Range:</b>	18 $\Omega$ to 400 $\Omega$ -200 $^{\circ}\text{C}$ to +850 $^{\circ}\text{C}$ (-328 $^{\circ}\text{F}$ to +1562 $^{\circ}\text{F}$ ) ( <i>Probe Dependent</i> )
<b>Temperature Resolution:</b>	0.0001 $\Omega$ 0.01 $^{\circ}\text{C}$ (0.018 $^{\circ}\text{F}$ ) ( <i>Probe Dependent</i> )
<b>Calibrated Accuracy:</b>	$\pm 0.015 \Omega$ $\pm 0.05 \text{ }^{\circ}\text{C}$ ( $\pm 0.09 \text{ }^{\circ}\text{F}$ ) ( <i>Probe Dependent</i> )
<b>*Calibrated Accuracy Range:</b>	18 $\Omega$ to 200 $\Omega$ -200 $^{\circ}\text{C}$ to +265 $^{\circ}\text{C}$ (-328 $^{\circ}\text{F}$ to +509 $^{\circ}\text{F}$ )
<b>Connector Type:</b>	M12 Female, 4 Pin

\*Calibrated accuracies based on standard MadgeTech calibrations for 0  $\Omega$  to 200  $\Omega$  range.

## General

<b>Reading Rate:</b>	4 readings per second up to 1 reading every 24 hours
<b>Memory:</b>	43,690 readings
<b>Start Modes:</b>	<ul style="list-style-type: none"> <li>Software programmable immediate start</li> <li>Delay start up to 18 months in advance</li> </ul>
<b>Stop Modes:</b>	Manual or Timed (specific date and time)
<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>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>Readings in Trigger Settings Mode:</b>	18,724 readings
<b>Memory Wrap Around:</b>	Yes

<b>Battery Type:</b>	3.6V high-temperature lithium battery included; <b>user replaceable</b>
<b>Battery Life:</b>	2 years typical (1 minute reading rate at 25 $^{\circ}\text{C}$ /77 $^{\circ}\text{F}$ )
<b>Calibration:</b>	Digital calibration through software
<b>Calibration Date:</b>	Automatically recorded within device
<b>Data Format:</b>	Date and time stamped $^{\circ}\text{C}$ , $^{\circ}\text{F}$ , $^{\circ}\text{R}$ , K,
<b>Time Accuracy:</b>	$\pm 1$ minute/month at 25 $^{\circ}\text{C}$ (77 $^{\circ}\text{F}$ )
<b>Computer Interface:</b>	IFC400 or IFC406 USB docking station required; 125,000 baud
<b>Operating System Compatibility:</b>	XP SP3/Vista/Windows 7/Windows 8
<b>MadgeTech Software Compatibility:</b>	<ul style="list-style-type: none"> <li>MadgeTech Standard Software version 4.2.5.0 or later</li> <li>MadgeTech Secure Software version 4.2.4.0 or later</li> </ul>
<b>Operating Environment:</b>	-40 $^{\circ}\text{C}$ to +140 $^{\circ}\text{C}$ (-40 $^{\circ}\text{F}$ to +284 $^{\circ}\text{F}$ ) 0 %RH to 100 %RH non-condensing, 0.002 PSIA to 60 PSIA
<b>IP Rating:</b>	IP40 - logger alone ( <i>with no probe connected</i> ) The logger will inherit IP rating of the attached probe ( <i>up to, and including IP68/IP69K</i> ).
<b>Dimensions (body):</b>	2.15 in x 0.97 in x 0.97 in (54.5 mm x 24.6 mm x 24.6 mm)
<b>Dimensions (probe):</b>	Probe dependent
<b>Weight:</b>	85 oz (3.0 g)
<b>Materials:</b>	Body: 316 Stainless Steel
<b>Approvals:</b>	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 $^{\circ}\text{C}$  (302 $^{\circ}\text{F}$ )

## ORDERING INFORMATION

MODEL	DESCRIPTION	PRICE (U.S.)
HiTemp140-M12	High temperature data logger with built in M12 probe connector.	\$799.00
IFC400	Docking station with USB cable, software and manual.	\$120.00
IFC406	6 Port, Multiplexer docking station with USB cable, software and manual.	\$549.00
ER1425S-HT	Replacement battery for the HiTemp140-M12	\$50.00
*NIST	NIST Calibration Certificate.	\$60.00

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)

\*To order the product with the NIST certificate add -CERT to the end of the part number and add \$60.00 to the price.