MADGETECH
WE BUILD DATA LOGGERS

HiTemp140-M12

High Temperature Data Logger with an M12 Probe Connector

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 500 °C (932 °F) (probe dependent).

All of MadgeTech's HiTemp140 data loggers are 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.

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.

Using the MadgeTech 4 Software, starting, stopping and downloading the HiTemp140-M12 is simple and easy. To use, simply place the HiTemp140-M12 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 rate. 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

- Measurement Range of -200 °C to +500 °C (-328 °F to +932 °F)
- ±0.1 °C (±0.18 °F) Accuracy
- M12 Probe Connector
- User Replaceable Battery
- Trigger Settings
- Programmable Start and Stop Time
- Battery Life Indicator

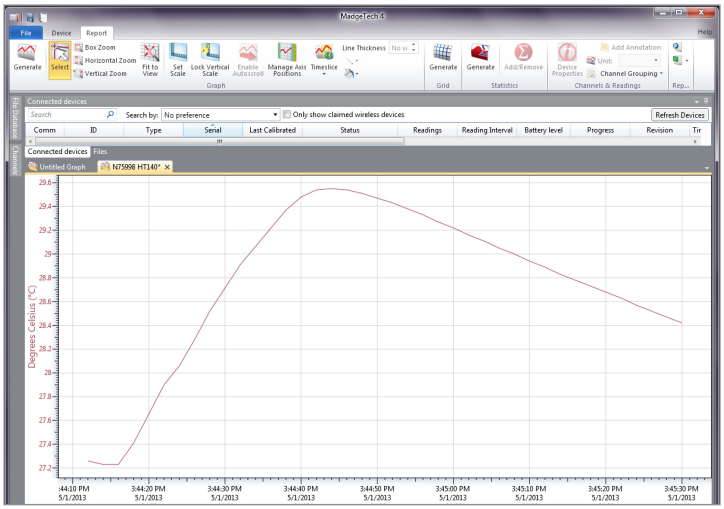
BENEFITS

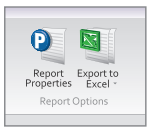
- Interchangeable Probe Connector for Multipurpose Use
- Simple Setup and Installation
- Minimal Long-Term Maintenance

APPLICATIONS

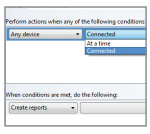
- Depyrogenation
- Autoclave Verification
- Food Preparation and Processing
- Environmental Studies
- Well Monitoring
- Washer-Disinfectors
- Pasteurization
- Many More Applications (Probe Dependent)

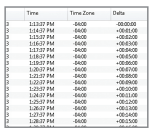
MadgeTech 4 Software Features





Export to Excel


Automation


Tabular Data View

Cooling Flags

- 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

Specifications

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

GENERAL

Start Modes	Software programmable immediate start Delay start up to 18 months in advance
Stop Modes	Manual or Timed (specific date and time)
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.
Memory	21,504 readings
Wrap Around	Yes
Reading Rate	4 readings per second up to 1 reading every 24 hours
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
Readings in Trigger Settings Mode	5,864 readings
Calibration	Digital calibration through software
Calibration Date	Automatically recorded within device
Battery Type	3.6V 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)
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 4.2.5.0 or later MadgeTech Secure Software version 4.2.4.0 or later

Operating Environment	-40 °C to +140 °C (-40 °F to +284 °F) 0 %RH to 100 %RH non-condensing, 0.002 PSIA to 60 PSIA
IP Rating	IP40 - logger alone (with no probe connected) The logger will inherit IP rating of the attached probe (up to, and including IP68/IP69K).
Dimensions (Body)	2.15 in x 0.97 in x 0.97 in (54.5 mm x 24.6 mm x 24.6 mm)
Dimensions (Probe)	Probe Dependent
Weight	3 oz (85 g)
Material	316 Stainless Steel, Radel
Approvals	CE

TEMPERATURE

Temperature Sensor	Various RTD Probes with M12 Connector (Sold Separately)
Measurement Range	18 Ω to 400 Ω, (-200 °C to +500 °C / -328 °F to +932 °F) (Probe Dependent) **BODY OF LOGGER CANNOT EXCEED 140 °C**
Temperature Resolution	0.0001 Ω, (0.01 °C / 0.018 °F) (Probe Dependent)
Calibrated Accuracy	±0.0462 Ω (18 Ω to 200 Ω) ±0.1 °C (-200 °C to +265 °C / -328 °F to +509 °F) ±0.1% of Reading (+265 °C to 500 °C / +509 °F to 932 °F) (Probe Dependent)
Connector Type	M12 Female, 4 Pin

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).

WP LS

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Solutions for High-tech Instrumentation
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LSTechnology
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Ordering Information

HITEMP140-M12	PN 900227-00	High Temperature Data Logger with built-in M12 probe connector
IFC400	PN 900319-00	Docking station with USB cable
IFC406	PN 900325-00	6 Port, Multiplexer docking station with USB cable
ER14250-SM *Formerly ER14250MR-145*	PN 900097-00	Replacement battery for the HiTemp140-M12