HiTemp140

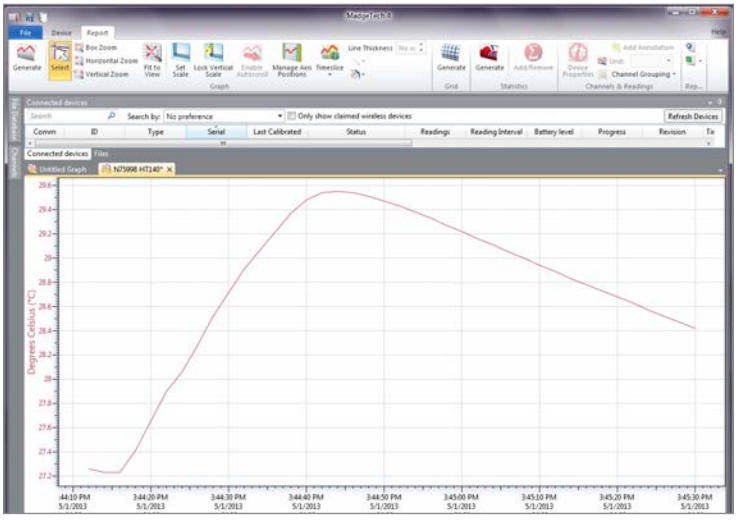
High Temperature Data Logger

The HiTemp140 is a rugged, high precision, temperature data logger that is built for use in harsh environments. This stainless steel device is submersible and can withstand temperatures up to 140 °C (284 °F). With the HiTemp140's standard calibration, an accuracy of ±0.1 °C (± 0.18 °F) can be achieved over a wide temperature range.

The HiTemp140 can store up to 32,512 readings, and features a rigid external probe capable of measuring extended temperatures, up to 260 °C (500 °F). Custom probe lengths are available up to 7 inches. The device records date and time stamped readings, and has non-volatile solid state memory which retains data even if the battery becomes discharged.

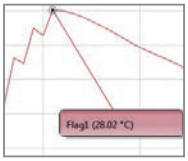
Using the MadgeTech 4 Software, starting, stopping and downloading the HiTemp140 is simple and easy. To use, simply place the HiTemp140 in the IFC400 or IFC406 docking station (sold separately). Using the software, an immediate or delay start can be chosen, as well as the reading rate. Start the data 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.

MadgeTech 4 Software Features

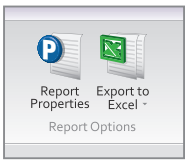


Graph View

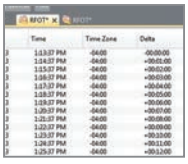
- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Summary view



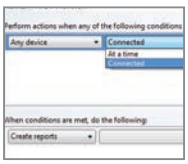
Cooling Flags



Export to Excel



Tabular Data View



Automation

Features

- ±0.1 °C (± 0.18 °F) Accuracy
- Operates up to 140 °C (284 °F)
- Submersible (IP68)
- User Replaceable Battery
- Rugged
- Programmable Start Time
- Programmable Stop Time
- Engraved Label
- Probe Lengths up to 7 inches
- Battery Life Indicator

Benefits

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

Applications

- Autoclave Verification
- Implement HACCP Programs
- Food Preparation and Processing
- Environmental Studies
- Well Monitoring
- Dishwasher Testing
- Pasteurization

SPECIFICATIONS

Specifications are subject to change without notice. Specific warranty remedy limitations apply. Call 1300 662 720 or go to pacificsensortech.com.au for details.

TEMPERATURE	
Temperature Sensor	100 Ω Platinum RTD
Probe Measurement Range	-200 °C to +260 °C (-328 °F to +500 °F) **BODY OF LOGGER CANNOT EXCEED 140 °C**
Temperature Resolution	0.01 °C (0.02 °F)
Calibrated Accuracy	±0.1 °C/±0.18 °F (20 °C to +140 °C/68 °F to +284 °F) ±0.3 °C/±0.54 °F (-20 °C to +19.99 °C/-4 °F to +67.98 °F) ±0.4 °C/±0.72 °F (-40 °C to –20.01 °C/-40 °F to -4.02 °F)

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	32,512 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.
Reading in Trigger Settings Mode	6,502 readings
Wrap Around	Yes
Reading Rate	1 reading every second up to 1 reading every 24 hours
Calibration	Digital calibration through software
Calibration Date	Automatically recorded within device

Battery Type	3.6V high-temperature lithium battery included; user replaceable
Battery Life	2 years typical (1 minute reading rate)
Data Format	Date and time stamped °C, K, °F or °R
Time Accuracy	±1 minute/month at 20 °C to 30 °C (68 °F to 86 °F) (Stand alone mode)
Computer Interface	IFC400 OR IFC406 USB docking station required; 125,000 baud
Operating System Compatibility	Windows XP SP3 or later
Software Compatibility	Standard Software version 2.03.06 or later Secure Software version 4.1.3.0 or later
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)	**HiTemp140-1:** 1.6 in x 0.970 in dia. (40 mm x 24.6 mm dia.) **HiTemp140-2, 5.25, 7:** 1.9 in x 0.970 in dia. (48 mm x 24.6 mm dia.)
Dimensions (Probe)	**HiTemp140-1:** 1.1 in x 0.125 in dia. (0.188 in transitional dia.) 27 mm x 3.2 mm dia. (4.8 mm transitional dia.) **HiTemp140-2:** 2.0 in x 0.188 in dia. (51 mm x 4.8 mm) **HiTemp140-2-TD:** 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.) **HiTemp140-5.25:** 5.25 in x 0.188 in dia. (133 mm x 4.8 mm dia.) **HiTemp140-5.25-TD:** 5.25 in x 0.125 in dia. (0.188 in transitional dia.) 133 mm x 3.2 mm dia. (4.8 mm transitional dia.) **HiTemp140-7:** 7.0 in x 0.188 in dia. (178 mm x 4.8 mm dia.)
Weight	4.2 oz (120 g)
Material	316 Stainless Steel, Radel
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

HITEMP140-1	PN 900140-00	High Temperature Data Logger with a 1 inch probe
HITEMP140-2	PN 900153-00	High Temperature Data Logger with a 2 inch probe
HITEMP140-2-TD	PN 900165-00	High Temperature Data Logger with a 2 inch transitional diameter probe
HITEMP140-5.25	PN 900173-00	High Temperature Data Logger with a 5.25 inch probe
HITEMP140-5.25-TD	PN 900180-00	High Temperature Data Logger with a 5.25 inch transitional diameter probe
HITEMP140-7	PN 900198-00	High Temperature Data Logger with a 7 inch probe
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

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