MADGETECH
WE BUILD DATA LOGGERS

Specification	HiTemp140	HiTemp140-PT
Temperature Sensor	100 Ω platinum RTD	
Probe Range	–200 °C to +260 °C	
Temperature Resolution	0.01 °C	
Temperature 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)	
Memory	32,700 readings	
Reading Rate	1 reading every second up to 1 reading every 24 hours	
Required Interface Package	IFC400 or IFC406	
Baud Rate	125,000	
Typical Battery Life	1 year (1 minute reading rate at 25 °C/77 °F)	
Operating Environment	–40 °C to +140 °C, 0 %RH to 100 %RH	
Material	316 Stainless Steel	
Dimensions (Body: HiTemp140-1)	1.6 in x 0.970 in dia. (40 mm x 24.6 mm dia.)	
Dimensions (Body: HiTemp140-2, HiTemp140-5.25, HiTemp140-7, PT's)	1.9 in x 0.970 in dia. (48 mm x 24.6 mm dia.)	
Weight	4.2 oz (120 g)	
Submersible	Yes	
Approvals	CE	

Model Number	Dimensions (Probe)
HiTemp140-1	1.1 in x 0.125 in dia. (0.188 in transitional diameter) 27 mm x 3.2 mm dia. (4.8 mm transitional diameter)
HiTemp140-2	2.0 in x 0.188 in dia. (51 mm x 4.8 mm dia.)
HiTemp140-2-TD	2.0 in x 0.125 in dia. (0.188 in transitional diameter) 51 mm x 3.2 mm dia. (4.8 mm transitional diameter)
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 diameter) 133 mm x 3.2 mm dia. (4.8 mm transitional diameter)
HiTemp140-7	7.0 in x 0.188 in dia. (178 mm x 4.8 mm dia.)
HiTemp140-PT-1	Probe Tip: 1.7 in x 0.125 in dia. (42 mm x 3.2 mm dia.) Flexible Portion: 22 in x 0.062 in dia. (559 mm x 1.6 mm dia.)
HiTemp140-PT-5	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) Flexible Portion: 22 in x 0.062 in dia. (559 mm x 1.6 mm dia.)

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Product Information Card

ATS

HiTemp140 Series and HiTemp140-PT Series

IFC400 (Sold Separately)

IFC406 (Sold Separately)

HiTemp140 Series
High Temperature Data Loggers
****Probe lengths up to 7" available upon request.*

HiTemp140-PT Series
High Temperature Data Loggers with 24" Flexible Stainless Steel Probes

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To view the full MadgeTech product line,
visit our website at www.madgetech.co.nz

Product Notes

The HiTemp140 and HiTemp140-PT can be used in both wet and dry applications up to 140 °C indefinitely.

Submergibility

The HiTemp140 and HiTemp140-PT are fully submersible and are rated IP68. They can be placed in environments with up to 230 feet (70 m) of water.

Bend Radius

The flexible probe on the HiTemp140-PT can be bent to a 1/4 inch bend radius. The probe should not be bent within 1 inch of either weld joint.

O-Rings

O-ring maintenance is a key factor when properly caring for the HiTemp140 and HiTemp140-PT. The O-rings ensure a tight seal and prevent liquid from entering the inside of the device. Please refer to the application note "O-Rings 101: Protecting Your Data", found on the MadgeTech website, for information on how to prevent O-ring failure.

Note: *This product is rated for use up to 140 °C. Please heed the battery warning. The product will explode if exposed to temperatures above 140 °C.*

Installation Guide

Installing the Interface cable

- IFC400 or IFC406

  Refer to the "Quick Start Guide" included in the package.

Installing the software

Insert the MadgeTech 4 Software Flash Drive into an open USB port on the PC. If the autorun does not appear, locate the drive on the computer and double click on **Autorun.exe**. Follow the instructions provided in the Installation Wizard to install the MadgeTech Software. Software can also be downloaded from the MadgeTech website at the following link: www.madgetech.com/software-download.

Device Operation

Connecting and Starting the data logger

- Once the software is installed and running, plug the interface cable into the docking station.
- Connect the USB end of the interface cable into an open USB port on the computer.
- Place the data logger into the docking station.
- The data logger will automatically appear under **Connected Devices** within the software.
- For most applications, select "**Custom Start**" from the menu bar and choose the desired start method, reading rate and other parameters appropriate for the data logging application and click "**Start**". (*"**Quick Start**" applies the most recent custom start options, "**Batch Start**" is used for managing multiple loggers at once, "**Real Time Start**" stores the dataset as it records while connected to the logger.*)
- The status of the device will change to "**Running**", "**Waiting to Start**" or "**Waiting to Manual Start**", depending upon your start method.
- Disconnect the data logger from the docking station and place it in the environment to measure.

Note: The device will stop recording data when the end of memory is reached or the device is stopped, unless user selectable memory wrap is enabled. At this point the device cannot be restarted until it has been re-armed by the computer.

Downloading data from a data logger

- Place the logger into the docking station.
- Highlight the data logger in the **Connected Devices** list. Click "**Stop**" on the menu bar.
- Once the data logger is stopped, with the logger highlighted, click "**Download**". You will be prompted to name your report.
- Downloading will offload and save all the recorded data to the PC.

Device Maintenance

Battery Replacement

Materials:

ER1425S-HT Battery

- Unscrew the bottom of the logger and remove the battery.
- Place the new battery into the logger. Note the polarity of the battery.
- Screw the cover back onto the logger.

Recalibration

The HiTemp140 and HiTemp140-PT standard calibrations are two points at 30 °C and 140 °C.

Battery Warning

WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, CHARGE, FORCE OVER DISCHARGE, DISASSEMBLE, CRUSH, PENETRATE OR INCINERATE. BATTERY MAY LEAK OR EXPLODE IF HEATED ABOVE 150 °C (302 °F).