

Description	AVS150		
Temperature Sensor	100Ω platinum RTD		
Temperature Range	-40 °C to +150 °C (-40 °F to +302 °F)		
Temperature Resolution	0.05 °C (0.09 °F)		
Temperature Accuracy	±0.5 °C (±0.9 °F)		
Memory	32,767		
Sample Rate	1 second up to 12 hours		
Required Interface Package	IFC110 or IFC200		
Baud Rate	2,400		
Typical Battery Life	1 year		
Operating Environment	-200 °C to +250 °C (-328 °F to +482 °F) (Time Limited), 0%RH to 100%RH		
Material	316 stainless steel		
Weight	HiTemp150: 8 oz (225 g) AVS150: 52.5 oz (3.28 lbs) AVS150-5: 126 oz (7.88 lbs)		
Dimensions	Body: 1.1" x 1.75" dia. (28 mm x 45 mm dia.)	Shield: 2.1" x 2.6" dia. (53.34 mm x 66 mm dia.)	Probe: 2.0" x 3/16" dia. (50 mm x 5 mm dia.)
Number of Data Loggers Included	AVS150 - 1 HiTemp150-TSK	AVS150-5 - 5 HiTemp150-TSK's	
Approvals	CE		

Ambient Temperature	Time in Air to Max Internal Temp (150 °C/302 °F)	Time in Liquid to Max Internal Temp (150 °C/302 °F)
-200 °C (-328 °F)	18 minutes	N/A
-180 °C (-292 °F)	19 minutes	N/A
-160 °C (-256 °F)	21 minutes	N/A
-140 °C (-220 °F)	24 minutes	N/A
-120 °C (-184 °F)	27 minutes	N/A
-100 °C (-148 °F)	32 minutes	N/A
-80 °C (-112 °F)	40 minutes	N/A
-60 °C (-76 °F)	55 minutes	25 minutes
-40 °C to +150 °C (-40 °F to +302 °F)	Indefinitely	Indefinitely
160 °C (320 °F)	75 minutes	34 minutes
170 °C (338 °F)	63 minutes	29 minutes
180 °C (356 °F)	55 minutes	26 minutes
190 °C (374 °F)	50 minutes	23 minutes
200 °C (392 °F)	45 minutes	21 minutes
210 °C (410 °F)	42 minutes	19 minutes
220 °C (428 °F)	39 minutes	18 minutes
230 °C (446 °F)	36 minutes	17 minutes
240 °C (464 °F)	34 minutes	16 minutes
250 °C (482 °F)	32 minutes	15 minutes

Battery Warning

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

Specifications subject to change.

See MadgeTech's terms and conditions at www.madgetech.com

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AVS150

Autoclave Validation System with 1 HiTemp150-TSK

AVS150-5

Autoclave Validation System with 5 HiTemp150-TSK's

Product Notes

The AVS150 is an autoclave validation system. The system includes the MadgeTech Secure Software which aids in compliance with Federal Register 21 CFR Part 11, IQ/OQ/PQ documentation for the software, HiTemp150 data logger(s) and high temperature thermal enclosures. The AVS150 comes with one HiTemp150 and thermal enclosure for monitoring a single location and the AVS150-5 includes five of each to monitor up to five different locations.

The HiTemp150 can be used as a standalone data logger. It can be used in both wet and dry applications up to 150 °C indefinitely. When used with the thermal enclosure the device can withstand higher temperatures for certain durations of time. The chart located on the back page, outlines the time versus temperature durations.

To start the logger, unscrew the thermal enclosure and separate the thermal enclosure lid, from the body of the data logger. Unscrew the knurled nut to access the communication port. Screw the knurled nut back on to ensure a waterproof fit.

The logger must be removed from the barrier immediately after removal from the heat environment. Be careful, the logger may be very hot.

Submergibility

The HiTemp150 is fully submergible and is rated IP68. It can be placed in environments with up to 345 feet (105m) of water.

O-Rings

O-ring maintenance is a key factor when properly caring for the HiTemp150. The o-rings ensure a tight seal and prevent liquid from entering 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 150°C. Please heed the battery warning. The product will explode if exposed to temperatures above 150°C.

Installation Guide

Installing the Interface cable

- IFC200

Insert the device into a USB port. The drivers will install automatically.

Installing the software

Insert the Software USB in an open USB port. If the autorun does not appear, locate the drive on the computer and double click on Autorun.exe. Follow the instructions provided in the Wizard.

Device Operation

Connecting and Starting the data logger

- Once the software is installed and running, plug the interface cable into the data logger.
- Connect the USB end of the interface cable into an open USB port on the computer.
- The device will appear in the **Connected Devices** list, highlight the desired data logger.
- 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 interface cable 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. At this point the device cannot be restarted until it has been re-armed by the computer.

Downloading data from a data logger

- Connect the logger to the interface cable.
- 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

The AVS150 must be sent to MadgeTech for battery replacement.

Recalibration

The AVS150 standard calibration is two points at 50 °C and 150 °C.

Pricing:

Recalibration traceable to NIST	\$70.00
Recalibration	\$40.00

Prices and specifications subject to change. See MadgeTech's terms and conditions at www.madgetech.com

To send the devices back, visit www.madgetech.com, select Services, then RMA Process.