

Description	Temp1000IS
Temperature Sensor	Resistance Temperature Detector (RTD)
Temperature Range	-40 °C to +80 °C (-40 °F to +176 °F)
Temperature Resolution	0.01 °C (0.018 °F)
Calibrated Accuracy	±0.5 °C (0 °C to ±50 °C), ±0.9 °F (32 °F to 122 °F)
Memory	32,767
Start Modes	Software programmable immediate or delay start, up to 2 years in advance
Real Time Recording	May be used with PC to monitor and record data in real time (PC interface not IS rated)
Reading Rate	1 reading every 2 seconds up to 1 reading every 12 hours
Lethality Equations	Sterilization Units and Pasteurization Units are available within software with a click of a button
Calibration	Digital calibration through software
Calibration Date	Automatically recorded within device and displayed in software
Battery Type	3.6V lithium battery included, user replaceable
Battery Life	2 years typical at 15 minute reading rate
Data Format	Date and time stamped °C, °F, K, °R
Time Accuracy	±1 minute/month at 20°C
Required Interface Package	IFC400 or IFC406
Operating System Compatibility	XP SP3/Vista/Windows 7/Windows 8/Windows 10
MadgeTech Software Compatibility	Standard Software version 4.1.0.2 or later Secure Software version 4.1.3.0 or later
Operating Environment	-40 °C to +80 °C, 0 %RH to 95 %RH (case properly sealed)
Dimensions	2.65 in x .97 in dia. (67.3 mm x 24.6 mm dia.)
Weight	3 oz (85 g)
Materials	316 Stainless Steel
IP Rating	Not Rated - <b>Caution:</b> Do not submerge this product to retain IS rating
Approvals	IS, CE

#### 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 80 °C (176 °F).**

Specifications subject to change. See MadgeTech's terms and conditions at [www.madgetech.com](http://www.madgetech.com)

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# Product User Guide

## Temp1000IS



### Temp1000IS

Intrinsically Safe Temperature Data Logger with Stainless Steel Enclosure

## Product Notes

### Intrinsically Safety Approval

The Temp1000IS has been certified by FM Approvals as Intrinsically Safe (IS) for use in Class I, Division 1, groups A, B, C, D, and Non-incendive (NI) for use in Class I, Division 2, groups A, B, C, D indoor and outdoor, Hazardous (Classified) Locations. The rating is listed as follows in the Factory Mutual approval guide:

- Temp1000IS. Temperature Data Logger.  
IS / I / 1 / ABCD T4A Ta = 80 °C; NI / I / 2 / ABCD / T4A Ta = 80 °C

These are the only safety ratings relevant to the use of this product. Use of this product in hazardous environments not specifically covered by this rating is prohibited, unless the user takes the appropriate steps to ensure the safety of the product and assumes full responsibility for its safe use.

## Installation Guide

### Installing the Software

The Software can also be downloaded from the MadgeTech website at the following link: [www.madgetech.com/software-download](http://www.madgetech.com/software-download). Double click the downloaded zipped file, then follow the steps to complete the download.

### Installing the Interface Cable

- IFC400 or IFC406:

Follow the instructions provided in the Installation Wizard to install the USB Interface Drivers. Drivers can also be downloaded from the MadgeTech website at the following link: [www.madgetech.com/software-download](http://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 device 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.*

### Stopping and Downloading Data from the Data Logger

- Connect the data logger via the IFC400 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: Replacement Battery (TL-2150/S)

- Carefully unscrew the data logger encasement to separate the top from the bottom of the device.
- The battery is the purple cylinder inside the data logger.
- Gently slip out the old battery.
- Insert the new battery.
- Reassemble the data logger encasement by screwing the sections back together, ensuring that the fit is tightly sealed.

### O-Rings

O-Ring maintenance is a key factor when properly caring for the Temp1000IS. 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: For more information refer to the Temp1000IS Intrinsic Safety user notice.*

### Recalibration

The Temp1000IS standard calibration is one point at 25 °C.

### Additional Services:

Custom calibration and verification point options available, please call for pricing.

*Call for custom calibration options to accommodate specific application needs.*

*Prices and specifications subject to change. See MadgeTech’s terms and conditions at [www.madgetech.com](http://www.madgetech.com)*

*To send devices to MadgeTech for calibration, service or repair, please use the MadgeTech RMA Process by visiting [www.madgetech.com](http://www.madgetech.com), then under the services tab, select RMA Process.*