



Scigiene SciTemp140-FR High Temperature Data Logger with 2 inch Fast Response Probe User Guide

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Scigiene SciTemp140-FR High Temperature Data Logger with 2 inch Fast Response Probe



Product Overview

The SciTemp140-FR is a high-temperature data logger with a 2-inch fast response probe. It features a trigger settings feature that allows users to configure high and low-temperature thresholds. When these thresholds are met or exceeded, the data logger will automatically start or stop recording data to memory. The device can store up to 32,256 date and time-stamped readings. It also features a nonvolatile solid-state memory which retains data even if the battery becomes discharged. The SciTemp140-FR is rated IP68 and is fully submersible, making it capable of being placed in environments up to 230 ft (70 m) of water.

product Installation Guide

Installing the Software: The software can be downloaded from the Scigiene website at www.Scigiene.com. Follow the instructions provided in the Installation Wizard.

Installing the Docking Station SD900319-00 or SD900325-00 (sold separately): Follow the instructions provided in the Installation Wizard to install the USB Interface Drivers. Drivers can also be downloaded from the Scigiene website at Scigiene.com.

Ordering Information

Part #	Description
SD900221-00	Docking station with USB cable
SD902025-00	6 Port, Multiplexer docking station with USB cable
SD902118-00	Replacement battery for the SciTemp140-FR
SD900319-00	Docking station with USB cable
SD900325-00	Docking station with USB cable
SD900097-00	

Device Operation

Connecting and Starting the Data Logger:

1. Once the software is installed and running, plug the interface cable into the docking station.
2. Connect the USB end of the interface cable into an open USB port on the computer.
3. Place the data logger into the docking station.
4. The data logger will automatically appear under Connected Devices within the software.
5. 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.)
6. The status of the device will change to Running or Waiting to Start, depending upon your start method.
7. 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:

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

Trigger Settings: The device can be programmed to only record based off user-configured trigger settings.

1. In the Connected devices panel, click the device desired.
2. On the Device tab, in the Information group, click Properties. Or, right-click the device and select Properties in the context menu.

Product Overview

Science has designed the SciTemp140-FR, a high-temperature data logger with an ultra-fast response time, to record temperature during rapidly changing thermal processes. This high-temperature data logger features a 2 in x 0.0625 in diameter probe and is capable of recording up to 4 Hz, which is 4 times faster than other data loggers in this class. This allows the temperature sensor to quickly adapt and accurately record temperature variations in changing environments. Applications include oven profiling, steam sterilization, chamber mapping, seafood processing, flash freezing and more. Scigiene's entire SciTemp140 data logger series is designed with food grade stainless steel. The device can be placed in environments up to 140 °C (284 °F) and the probe is capable of measuring from -200 °C to 260 °C (-328 °F to 500 °F). The SciTemp140-FR is also available with an optional thermal shield enclosure to extend the operating range of the data logger to -200 °C to 250 °C (-328 °F to 482 °F). The Trigger Settings feature of the SciTemp140-FR allows users to configure high and low-temperature thresholds that when met or exceeded, will automatically start or stop recording data to memory. This data logger is capable of storing up to 32,256 date and time-stamped readings and features a nonvolatile solid-state memory that retains data even if the battery becomes discharged.

Water Resistance

The SciTemp140-FR is rated IP68 and is fully submersible. It can be placed in environments up to 230 ft (70 m) of

water.

Installation Guide

Installing the Software

The Software can be downloaded from the Scigiene website at www.Scigiene.com. Follow the instructions provided in the Installation Wizard.

Installing the Docking Station

SD900319-00 or SD900325-00 (sold separately) — Follow the instructions provided in the Installation Wizard to install the USB Interface Drivers. Drivers can also be downloaded from the Scigiene website at Scigiene.com.

Ordering Information

Part #	Description
SD900221-00	SciTemp140-FR-2 – 140 °C Temperature Data Logger with a 2" fast response probe
SD902025-00	SciTemp140-FR-4 – 140 °C Temperature Data Logger with a 4" fast response probe
SD902118-00	SciTemp140-FR-2-KR – 140 °C Temperature Data Logger with a 2" fast response probe and Keyring End Cap
SD900319-00	Docking station with USB cable
SD900325-00	6 Port, Multiplexer docking station with USB cable
SD900097-00	Replacement battery for the SciTemp140-FR

Device Operation

Connecting and Starting the Data Logger

1. Once the software is installed and running, plug the interface cable into the docking station.
2. Connect the USB end of the interface cable into an open USB port on the computer.
3. Place the data logger into the docking station.
4. The data logger will automatically appear under Connected Devices within the software.
5. 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.)
6. The status of the device will change to Running or Waiting to Start, depending upon your start method.
7. 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

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

Device Operation (cont'd)

Trigger Settings

The device can be programmed to only record based off user configured trigger settings.

1. In the Connected Devices panel, click the device desired.
2. On the Device tab, in the Information group, click Properties. Or, right-click the device and select Properties in the context menu.
3. Select Trigger in the Properties window.
4. Trigger formats are available in Window or Two Point Mode. Window mode allows a high and/or low trigger set point, and a trigger sample count or "window" of time recorded when set points are exceeded to be defined. Two point allows for different Start and Stop setpoints

Set Password

To password-protect the device so that others cannot start, stop or reset the device:

Note: This product is rated for use up to 140 °C (284 °F). Please heed the battery warning. The product will explode if exposed to temperatures above 140 °C (284 °F).

1. In the Connected Devices panel, click the device desired.
2. On the Device Tab, in the Information Group, click Properties. Or, right-click the device and select Properties in the context menu.
3. On the General Tab, click Set Password.
4. Enter and confirm the password in the box that appears, then select OK.



Device Maintenance

O-Rings

O-ring maintenance is a key factor when properly caring for the SciTemp140-FR. The O-rings ensure a tight seal and prevent liquid from entering the inside of the device.

Battery Replacement

Materials: SD900097-00

1. Unscrew the bottom of the logger and remove the battery.
2. Place the new battery into the logger. Note the polarity of the battery. It is important to insert the battery with positive polarity pointing upward towards the probe. Failure to do so could result in product inoperability or potential explosion if exposed to high temperatures.
3. Screw the cover back onto the logger.

Recalibration

Scigiene recommends annual recalibration. To send devices back for calibration, contact Scigiene.

Disclaimer & Terms of Use

Published specifications can be used to determine maximum allowable exposure times for the SciTemp140 with Thermal Shield at different temperatures beyond the normal operating range of the logger. Both the data logger and Thermal Shield must be at ambient temperature (approximately 25 °C) before being placed in the extreme temperature environment. Immediately following exposure to high temperature, the data logger should be removed from the thermal shield (using appropriate precautions, as it could be VERY hot) OR the data logger and shield should be placed in a water bath (approximately 25 °C) for at least 15 minutes to allow it to cool. Failing to do this may allow heat trapped in the Thermal Shield to continue to heat the data logger to potentially unsafe levels.

If your application involves a ramp up to a temperature above 140 °C and/or any complex temperature profile that isn't simply a constant temperature, please contact Scigiene to determine whether the SciTemp140 with Thermal Shield is suitable. Please provide Scigiene with a detailed description of your temperature profile, including temperatures, durations, ramp times, and process media (air, steam, oil, water, etc.) If Scigiene is unable to definitively calculate the suitability of our product for your application, we can provide a test unit outfitted with a high temperature indicator sticker. This sticker has an indicator dot which will turn black if exposed to temperatures above 143 °C. Apply the sticker to the bottom of the data logger itself (not the thermal shield), remove the battery for safety, place the data logger into the thermal shield and run the assembly through the proposed temperature program. The first indicator dot on the sticker will turn black at 143 °C. If that happens, the SciTemp140 with thermal shield is not appropriate for the application and we will work to find a solution that is.

Product Support & Troubleshooting

- Contact us by phone (416) 261-4865 or support@scigiene.com.



SciTemp Software Support

- Refer to the built-in help section of the SciTemp Software.

- Refer to the SciTemp Software Manual
- Contact us by phone (416) 261-4865 or support@scigiene.com.





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Documents / Resources

 <p>PRODUCT USER GUIDE</p> 	<p>SciTemp140-FR High Temperature Data Logger with 2 inch Fast Response Probe [pdf] User Guide</p> <p>SciTemp140-FR High Temperature Data Logger with 2 inch Fast Response Probe, SciTemp140-FR, High Temperature Data Logger with 2 inch Fast Response Probe, High Temperature Data Logger, Temperature Data Logger, Data Logger, Logger</p>
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References

-  [SciTemp Corporation > Home](#)
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