

Signatrol.com

Data Logging Solutions

Autoclave Validation Quick Start Guide

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If you are using the USB interface, please ensure TempIT is installed before connecting the USB device to the computer

Introduction

As part of the TempIT-Pro functions, we provide a "time above temperature" function. This useful tool provides a go / no go test when validating autoclaves.

Software requirements

TempIT-Pro operating software.

If you have purchase the autoclave validation kit, you will have been supplied with the Pro version of the software in the way of a certificate inside the sleeve of the CD. If this is missing or you need to licence another computer, please contact your supplier or the signatrol sales office - telephone 01684 299 399 or email sales@signatrol.com

Installing the software

Insert the TempIT4 software disk into the CD drive, which will auto run and guide you through the installation procedure. If downloaded from the web site, use explorer to highlight the setup.exe file and double click on the file to run it.

The software will install as TempIT-lite. This can be converted to the TempIT-Pro software platform by inserting the appropriate enabling code.

To upgrade to the Pro version, start the software and go to "Help" then "Licence". You will ne shown the Unique Machine Key, it will look something like - GRZC-VG04-2SF1-34#2-S1- Note this down.

Using a web browser go to www.signatrol.com/tempit

Here you will be asked to enter the code supplied on the certificate with the cd, the unique machine key and your email address. Once these details have been entered you will be shown the unlock code.

Note this down. The unlock code will also be emailed to you.

Returning back to the TempIT software, enter the unlock code underneath the unique machine key. There should be four groups of characters. Any 0's are numbers not letters.

Once you have entered the unlock code, click on submit key on the right hand side.

TempIT will now close. The next time you start the software, it will be the Pro version.

The software contains a comprehensive 'HELP' function to help guide you through the functions.

Communicating with the SL55T data loggers.

The SL55T data loggers connect via the holder and cable to the USB port of a PC.

Plug the reader into a spare USB port and place the button into the holder.

Launch the TempIT software and ensure the correct device type and port are selected in the Device screen (Options>Configuration>Device)

Operating Procedure.

The standard button operation is a two stage procedure comprising of the issue, whereby all the relevant operating parameters are downloaded to the button and recording is initiated. The second stage is where the readings are downloaded from the data logger to the PC via the reader and are displayed within the TempIT software.

This is a rough guide to each function. Detailed information on how to configure the software for the autoclave validation is present later.

Issue

The relevant parameters are entered into the operating software such as sample rate, alarm parameters etc. Once configured as required, the issue button is then clicked which sends the configuration data to the button.

More details can be found in the Help within TempIT under the quick start guide.

WARNING: Issuing the data logger erases all data currently stored within the data logger, ensure it is saved prior to issuing.

Alarms

Two temperature alarms are provided, one high and one low. The alarm setpoint is entered prior to issue. The alarms are 'armed' when the first reading is taken unless delayed start is selected. If the delayed start function is selected the alarm becomes immediately active as soon as the future start Date/time is reached.

It is unlikely that the alarm feature will be required for this application.

Manifest

There are two manifest areas; owner and user. The owner manifest is only entered once, when the data logger is issued for the first time. The owner manifest remains within the logger for its entire life and cannot be modified. The owner manifest is normally used to record details of the owner and / or the date purchased. The user manifest can take up to 64 characters of manifest data which can be entered and stored within the logger and can be changed for every autoclave

test. Manifest data can be free typed at issue and may be used to record such things as the laboratory where the autoclave is located, serial number of the autoclave or person carrying out the test etc.

Data Download

readings are stored within the button and can be downloaded by clicking the Download Icon. More details can be found in the Help within TempIT under the quick start guide. Once readings are downloaded they are immediately presented on the screen as a graph. The readings are not saved at this point but if required data can be saved and printed using the appropriate icon down the left hand side. It is recommended that readings are always saved.

Battery Life

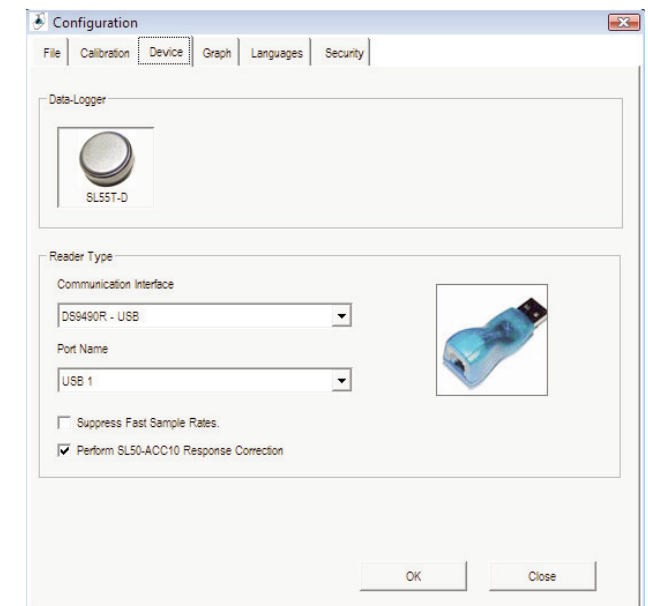
The SL55T data loggers are designed to record approximately 300 autoclave test cycles. Once the battery is dead, the button data logger should be discarded and a replacement purchased. The enclosure and USB interface lead will not need to be replaced.

Carrying Out A Validation Test

Start the TempIT software.

Place the SL55T data logger in the holder on the USB lead and connect it to the computer.

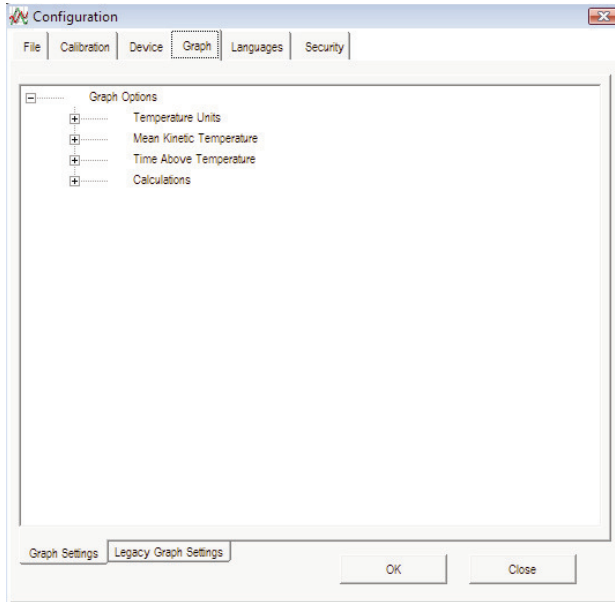
Go to "Options" then "Configuration and check the button type data loggers are selected and the correct interface as per the image below:



Make sure the tick box next to "Suppress Fast Sample Rates" is unchecked and "Perform SL50-ACC10 Response Correction" is checked as per the image above.

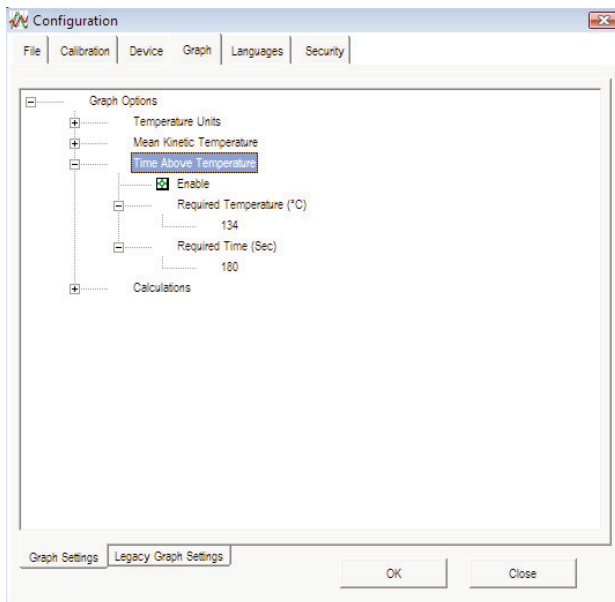
Click on the "Graph" tab

The following window will be shown:



Click on the + symbol next to "Time Above Temperature"

Tick the Enable box and set the required temperature and duration. In the example below, the temperature must exceed 134°C for 180 seconds (3 minutes) for the test to pass.

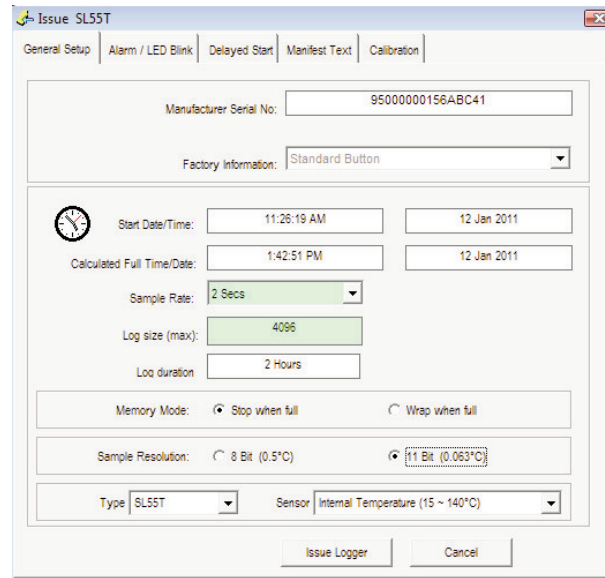


Click OK to close the configuration screen.

Click on the "Issue Logger" button:



The software will then download the current setup from the data logger, and present you with the first setup screen. Using the dropdown next to the sample rate, select 2 seconds. Make sure "stop When Full" is selected and "Sample Resolution" is set to 11 Bit:



You can then click on the "Manifest Text" tab and enter details to this specific autoclave test.

Once you have done this, click on the "Issue Logger" button. This will erase any previously stored tests and immediately start logging.

Place the logger in the anodised enclosure by removing the screw, pushing the logger in to the enclosure and then re-inserting the screw.

Place the enclosure on the support frame and place inside the autoclave.

Start the autoclave cycle.

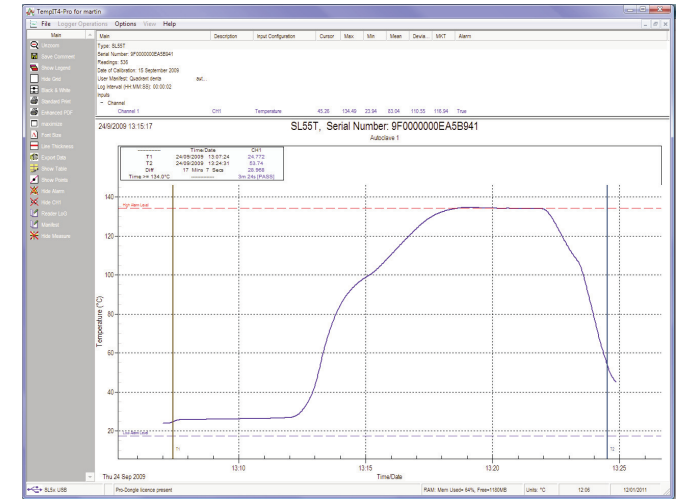
Once the cycle has finished, remove the enclosure and support frame, remove the screw from the enclosure and using a small screwdriver or other suitable implement, remove the data logger from the enclosure and place it back into the hold on the USB interface lead.

With the logger connected to the computer, start the TempIT software. Once the software has started, click on the "Download Logger" button:



The stored readings will then be transferred to the computer.

Once the readings have been downloaded from the data logger, they will be shown as a graph of temperature against time:



Clicking on the "Show Measure" at the bottom of the left hand menu will bring up the measure window. Ensure the Brown and blue vertical markers are either side of the test and the last row of the blue measure window will indicate if the test has passed or failed. In the example below, the test passed the parameters programmed:

	Time/Date	CH1
T1	24/09/2009 13:07:24	24.772
T2	24/09/2009 13:24:31	53.74
Diff	17 Mins 7 Secs	28.968
Time >= 134.0°C		3m 24s [PASS]

SL55T / SL55T-A / SL55T-D Specifications @ 25°C

Power Internal Battery: 300 Hours when used above 50°C
Temperature Range: +15°C to +140°C

SL55T-D Accuracy: ±0.5°C from +80°C to +140°C
±1.0°C from +15°C to +80°C

Resolution: 0.5 or 0.07°C
Number of Readings: 8192 or 4096 (mode dependant)
Sample Rate: 2* seconds to 24 Hours
Ingress Protection: Splash Resistant - IP55
Manifest Text: 64 Characters
Delayed Start: Yes
Case Material: 305 Stainless Steel
Calibration Interval: 12 months recommended
Warranty: 1 Year
Dimensions: 17mm Dia x 6mm Height

Specification subject to change without notice.