



# THERMO BUTTON – HYGRO BUTTON

The smallest temperature and humidity loggers in the world!

FOR ALL YOUR TEMPERATURE AND HUMIDITY CONTROLS, PRODUCT TRACKING, TRANSPORT, STORAGE CONTROLS, HACCP!

Small, rugged, it can survive any harsh environment, resistant to dust, to water. Collected data is stored with date and time in the protected memory.

## PRESENTATION

- Ø 16 mm, 6 mm thick
- Protected in stainless steel can
- Water-resistant, IP 65
- Unique serial number

## COMMON FEATURES

- Records date and time
- Programmable low and high alarm threshold with temporization parameters
- Start delay



## 4 DIFFERENT MODELS AVAILABLE

Features	Thermo Button 21G	Thermo Button 22L	Thermo Button 22T	Hygro Button 23
Temperature range	-40 / +85°C	-40 / +85°C	0 / +125°C	-20 / +85°C
Humidity Range	-	-	-	0 / 100%
Accuracy	± 1°C	± 0.5°C	± 0.5°C	± 0.5°C / 5%
Resolution	0.5 °C	0.1 or 0.5°C	0.1 or 0.5°C	0.1 or 0.5°C
Number of measurement	2048	4096 or 8192	4096 or 8192	4096 or 8192
Sample rate	1 to 255 min	1 sec to 273 h	1 sec to 273 h	1 sec to 273 h
Start upon temperature alarm trip point	No	Yes	Yes	Yes

## ACCESSORIES

- Color Key Fobs, Eyelets to fix on pallets or containers, PVC card (credit card size)
- Waterproof Capsule : Durable polyphenylene sulfide enclosure. Protection from moisture, solvents, and pressure, Waterproof to 10 meters



## THERMO TRACK SOFTWARE

Easy to use, Thermo Track software is designed to facilitate your job and to give you a maximum of information in a minimum of time.

Using your **PC** or being out using the **Handheld Flash Touch Pen**, Thermo Track software allows you to:

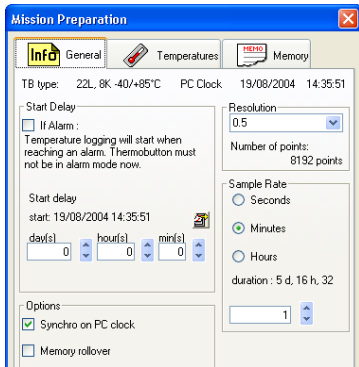


- ✓ Set up your Thermo Buttons,
- ✓ Collect data,
- ✓ Control alarms events,
- ✓ Display temperature list and graphs,
- ✓ Create powerful report and email them
- ✓ Print and save your graphs
- ✓ And much more ... (see details on next pages)



# Thermo Track PC PRO, CINCO and SOLO Software

*The complete PC solution that combines simplicity of use with integrity of information. Everything has been done to simplify your controls and analysis. 3 different versions. All have the same functions, but SOLO enables use of 1 button, CINCO enables 5 whereas PRO has no limit.*



## Set up your Thermo Buttons:

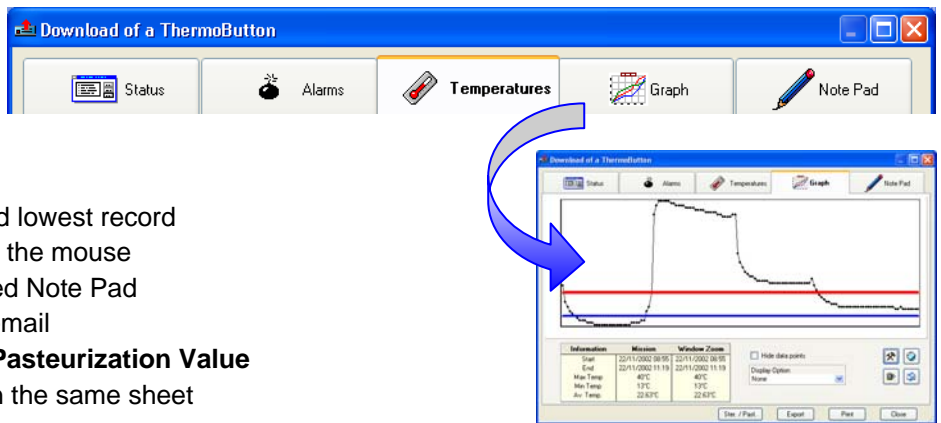
In a few seconds, you can define and program the mission of a Thermo Button or create mission profiles:

- Setup measurement frequency and time.
- Start delay or choice of the start date.
- Low and high alarm threshold levels with possibility of temporization.
- Entry of data in the Thermo Button memory (Identification, number of vehicle, etc). These data will directly appear at the time of your reading and will be automatically printed on the graph.

## Display graphs with a simple click and get many information at a glance:

When reading a Thermo Button, the graph is displayed directly. You can also obtain other information, for example;

- List of **Alarms**
- Average temperature, highest and lowest record
- Dynamic **zoom** on the graph with the mouse
- Powerful reports with an integrated Note Pad
- Print reports, send to PDF and E-mail
- Calculation of **Sterilization and Pasteurization Value**
- **Super-impose** several graphs on the same sheet
- Many other daily useful possibilities ...



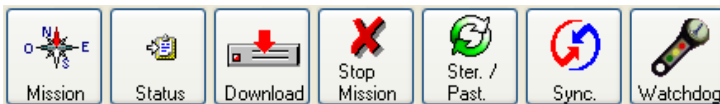
## The "watchdog" works for you:



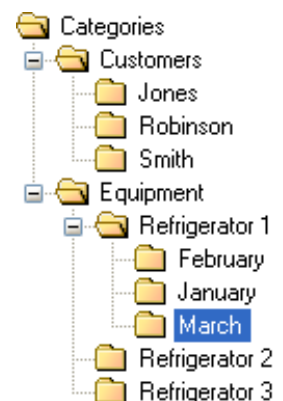
Without stopping your work on your PC, plug a Thermo Button on the reader. A three-colored light appears on the screen:

- **Green**, no alarm occurred.
  - **Orange**, the low or high temperature threshold level has been exceeded.
  - **Red**, the low or high temperature threshold level has been exceeded above temporization.
- ➔ Click on the three-colored light to launch Thermo Track and display the graph!

## Many more functions for even more simplicity:



- Automatically restarts the Thermo Button
- Share data with other PCs on your network and organize them in folders
- Synchronize data with your Flash Touch
- Standard mission profiles with predetermined parameters
- On-line help in the language of your choice
- Security with Password
- ...



# Thermo Track PC Controller, Recorder and Viewer

The **Thermo Track PC Controller** is the ideal solution for remote sites. It can read all types of Buttons and can re start the new mission, using the same mission parameters



**Thermo Track PC Recorder** has the same functions as Thermo Track PC Controller, but also enables to archive data, print the alarms and temperatures lists, graph and send them by email.

Users of Thermo Track PC Pro can download and install the free read-only program **Thermo track PC Viewer**. This software allows the Buttons to be read but not set up.

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## Thermo Track Mobile Flash Touch Pen

**Collect data from your Thermo Buttons (21G, 22L and 22T) and get it back to your PC**

The Flash Touch Pen is the ideal mobile solution, a robust device that can endure harsh environments.

Just touch the Thermo Button with the Flash Touch Pen. It automatically downloads data from the Button. It only takes 15 seconds to download the data. An audio signal indicates that the transfer has been successful.

You can store more than 50 Thermo Buttons before the memory of the Flash Touch Pen is full. Return to your PC, put the Flash Touch Pen on its communication base and upload data in just one click, directly into Thermo Track PC Pro.

- Metal housing
- Height : 13 cm - Weight : 260 Gr
- 3V replaceable battery
- Communication base connects via a serial port



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## TempTecR:

Enables to :

- **Collect data from your Thermo Buttons 21G** and get it back to your PC
- **Control alarms**



**2 leds indicate the status of the Thermo Button 21G**

- **Green** : no alarm occurred
- **Red** : alarms occurred



The display indicates the number of downloads (370 maximum).  
Requires a UBS port for the connection cable.



**Warning : TempTecR works with Thermo Buttons 21G only.**

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## "TC" Devices:

Control alarms, stops or starts the Thermo Button without using a PC



### TC Verifier:

Allows control of alarms by a simple touch to the Thermo Button

- **Green** led? No alarm occurred. Everything went ok.
- **Red** led? Alarms occurred. The cold chain has been cut.

Stops the mission of a Thermo Button. Data is kept and protected in the Thermo Button memory.

### Re-Launch:

Same functions as the TC Verifier with the ability to **re start** a stopped mission using the same mission parameters (measurement frequency, alarms levels, etc.).

Dimensions: 4 x 6 x 2 cm / Weight 25 g – lithium battery 3-Volt user replaceable, lifespan 5 years or 2.000.000 readings.



TC Relaunch cannot relaunch a mission that was stopped with Thermo Track PC.  
TC Verifiers and TC Relaunch work with the 21G model only

### TB Alarm Checker:

Even more powerful than TC Verifier, **TB Alarm Checker takes into account the alarm temporization**

**2 leds inform you about the status of the Thermo Button 21G**

- **Green** : **Continuous** light = mission in progress **without alarm**  
**Flashing** light = mission stopped **without alarm**
- **Red** : **Continuous** light = mission in progress **with alarms**  
**Flashing** light = mission stopped **with alarms**



For security reason, TB Alarm Checker cannot stop the mission of a Thermo Button.  
Warning, TB Alarm Checker **works with Thermo Button 21G**

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## Calibration Module (for Thermo Track PC Pro or Cinco)

*If you are concerned with high level of metrology and if temperature accuracy is a key item for you, the calibration module is made for you.*

You can enter in the Thermo Button memory the results of your calibration certificates: reference values (standard), measured values, uncertainties.

Reference values	Measured values	Uncertainty
-15,00	-14,95	0,20
0,00	0,15	0,20
37,00	36,90	0,20

Thermo Track will correct the values according to the difference.

The correction will be made linearly (between 2 and 5 points) or using a 4th degree polynomial (correction on the whole range).

### THE ADVANTAGES:

- The calibration parameters are kept in the software **AND ALSO** in the button, so that any other user of Thermo Track with calibration module can get the correction.
- The module lets you know the end of validity of the certificate. 30 days before the end of validity, you will be displayed a message each time you read the Button.

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## Chamber Characterization Module

*Do you know the standard NFX15-140 ? It defines the different criteria for chamber compliance (warehouses, cold rooms, fridges, chillers, cool boxes...).*

**The Chamber Characterization Module enables to check if your equipments are stables and homogeneous.**

### **PREPARATION OF THE CHARACTERIZATION :**

The Chamber Characterization Module enables to mission your Buttons (up to 30 per Characterization) by setting them up with the same parameters and assigning them a name (Top, Bottom, Middle, etc...). This preparation phase also enables to enter the setting values and the Upper and Lower Limits of the chamber to control (example 5°C,  $\pm 3^\circ\text{C}$  for a fridge)

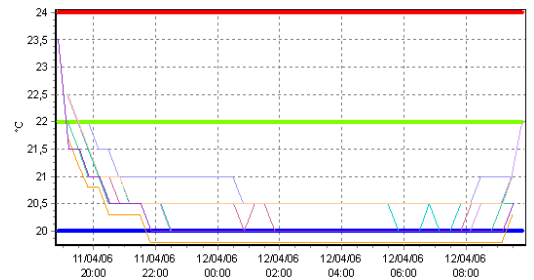
### **DATA READING :**

After the datalogging, you can read your Buttons. All Buttons are read and archived automatically one after the other. A first graph enables to superimpose all the graphs automatically, so that you can see when the temperatures of the different Buttons stabilize.

### **CALCULATIONS :**

The Characterization Module automatically calculates :

- the mini and maxi averages for each logger
- the temperature of the air
- the homogeneity of the environment
- the maximum homogeneity
- the maximum stability
- the error towards setting

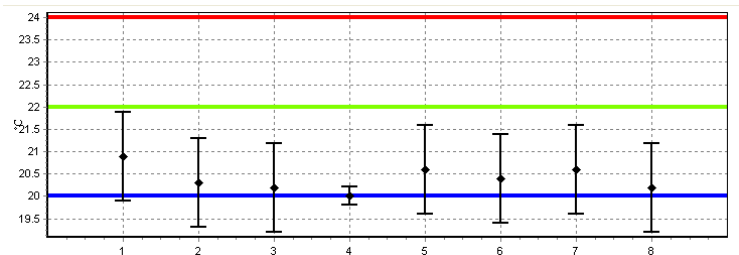


### **ASSESSMENT AND TEST REPORT:**

The compliance assessment takes into account the average of each logger and their maximum uncertainty . Indeed, each logger must be situated between the limits indicated for the chamber. The module gives an automatic assessment but it is possible to modify the judgment or to declare the chamber partly compliant.

The report presents:

- the references of the characterization (Equipment identification, dates...)
- the graph of each logger
- the graphs superimposition
- the compliance graph per logger
- the calibration references and uncertainties of the loggers
- the final assessment
- the comments



### **The report can be totally personalized :**

Indeed, it can be sent in word. It can also be converted in PDF Acrobat format.

All mappings are saved in the data base of Thermo Track, so that you can consult the results whenever you want.

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## **Software and functions**

Versions Thermo Track	Solo	Cinco	Pro	Controller	Recorder
<b>Number of Thermo Buttons possible to use</b>	<b>1</b>	<b>5</b>	<b>No limit</b>		
<b>Setting Mission Parameters</b>					
Relaunch a new mission with the same settings	✓	✓	✓	✓	✓
Start a new Mission	✓	✓	✓		
Stop current Mission	✓	✓	✓	✓	✓
Clock and sample rate setting	✓	✓	✓		
High and low alarm threshold with temporization settings	✓	✓	✓		
Start delay	✓	✓	✓		
Memory roll over	✓	✓	✓		
Easy setup with Mission Profiles	✓	✓	✓		
Enter tracking information into Button memory (Equipment, vehicule ID...)	✓	✓	✓		
<b>Reading Data and Graphs</b>					
Display logged values (date, time, Tempreture, rH%, due point)	✓	✓	✓	✓	✓
Display Alarms (start date, end date, duration)	✓	✓	✓	✓	✓
Print recorded values and alarms	✓	✓	✓		✓
Highest, lowest and average value (temp, humidity)	✓	✓	✓	✓	✓
Display the Graph	✓	✓	✓	✓	✓
Zoom-in on the graph with the mouse	✓	✓	✓	✓	✓
Simple graph printing (only the graph)	✓	✓	✓	✓	✓
Full report printing with tracking information, alarm report....	✓	✓	✓		
Super impose several curves on one graph	✓	✓	✓		
Add free comments on the graph	✓	✓	✓		
Notepad enables user friendly reports (text, graphs, tables ...)	✓	✓	✓		
"Watchdog" for quick alarm check	✓	✓	✓	✓	✓
Calculation of Sterilization and Pasteurisation value	✓	✓	✓		
<b>Saving Data and Communication</b>					
Programable automatic file naming	✓	✓	✓		
Transfert data from Flash Touch Pen to PC	✓	✓	✓		
Save data on PC	✓	✓	✓	Excel	✓
Save data on remote PC or server	✓	✓	✓	Excel	✓
Classification of data in directories	✓	✓	✓		✓
Share data between several PCs	✓	✓	✓		✓
Export to Microsoft Excel™	✓	✓	✓		
Create PDF, email reports, copy graphs as image, HTML, XML, ...	✓	✓	✓	✓	✓
Password protection possible	✓	✓	✓		

### Available in various languages



English



French



Spanish



German



Portuguese



Slovenian



Japanese