EXTECH®

USER MANUAL

Temperature Datalogger

Model TH10

Introduction

Thank you for selecting the Extech Instruments Model TH10 Temperature Datalogger that measures and stores up to 32,000 temperature readings. The user can easily set up the logging rate, high/low alarm limits start-mode, and download the stored data by plugging the module into a PC's USB port and running the supplied PC software. Temperature data can then be graphed, printed, and exported to other applications. The data logger is supplied with a long-life lithium battery, which can typically allow logging for one year. This device is shipped fully tested and calibrated and, with proper use, will provide years of reliable service. Please visit our website (www.extech.com) to check for the latest version of this User Guide, Product Updates, and Customer Support.
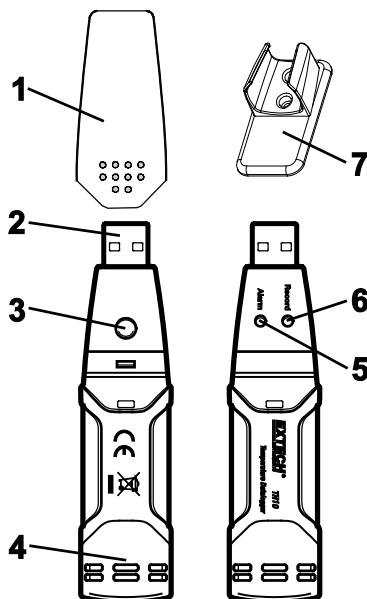
Features

- Memory for 32,000 readings
- Selectable data sampling rate: 2s to 30s, 1m, 5m, 15m, 30m, 1hr, 5hr, 12hr, 24hr
- Status Indication via Red/Yellow LED and Green LED
- USB Interface for Set-up and Data Download
- User-Programmable Alarm Thresholds for Temperature
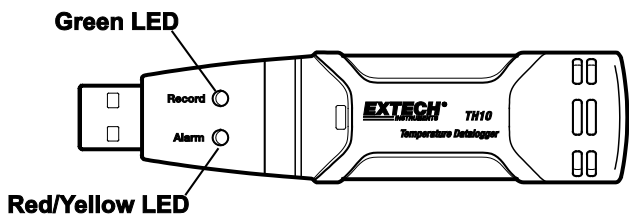- Analysis software used to view graph
- Long battery life

Description

1. Protective cover

2. USB connector to PC port

3. Start button

4. Temperature sensor

5. Alarm LED (yellow and Red)

6. Record LED (green)

7. Mounting clip

TH10 LED Status Guide

Green LED

Red/Yellow LED

LEDs	Meaning	Action
Record Alarm ○ ○	No LEDs on No logging in process Or -No battery found Or –Battery completely discharged	Fit battery in place Replace the battery
Record Alarm ● ○	Green single flash every 10 sec. * -Logging, no alarm** Green double flash every 10 sec. * -Delayed manual start	To start, Hold the start button until Green LED flashes twice
Record Alarm ○ ●	Yellow single flash every 10 sec. * -Logging, low alarm for TEMP*** Yellow double flash every 10 sec. * -Logging high alarm for TEMP*** Yellow single flash every 60 sec. -Logger memory full	Download data
Record Alarm ○ ●	Red single flash every 60 sec. * -Low battery ****	Replace the battery and download the data. No data will be lost.

*   To save power, the TH10's LED flashing cycle can be changed via the supplied software.

**   To save power, alarm LEDs for temperature can be disabled via the supplied software.

***   LED status indication alternates every cycle. For example: If there is one alarm, the REC LED blinks for one cycle and alarm LED will blink for next cycle.

****   When the battery is low, all operations will be disabled automatically. NOTE: Logging automatically stops when the battery weakens (logged data will be retained). The supplied software is required to restart logging and to download logged data.

***** To use the delay function run the datalogger Graph software. Click on the computer icon "Datalogger Setup" or select from the File pull-down menu. The Setup window will appear, and you will see there are two options: Manual and Instant. If you select the Manual option, after you click the Setup button, the logger won't start logging immediately until you press the orange button in logger's housing.

***** When the TH10 is not logging and the memory is not full, press the orange button in the housing of the meter for 3 seconds. The green LED will flash and the meter will begin logging. LED flash cycle is 10 second.

Caution: When the TH10 is logging and the memory is full, press the orange button in the meter housing for 6 seconds until the red LED flashes. This will stop the logging and <u>delete the contents of the memory</u>.

Specifications

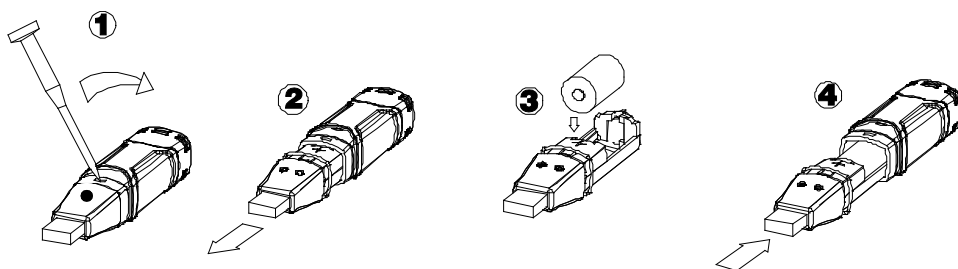| **Temperature**	Overall Range	-40 to 158ºF (-40 to 70ºC)
	Accuracy (-40 to -30 and +60 to +70ºC)	±1.5ºC
	Accuracy (-10 to +40ºC)	±1ºC
	Accuracy (-40 to +14 and 104 to 158ºF)	±2.7ºF
	Accuracy (+14 to 104ºF)	±1.8ºF
Logging rate	Selectable sampling interval: From 2 seconds up to 24 hours	
Memory	32,000 Temperature readings	
Operating temperature	-31 to 176ºF (-35 to 80ºC)	
Battery type	3.6V Lithium (1/2 AA) (SAFT LS14250, Tadiran TL-4902 or equivalent)	
Battery life	1 year (typ.) depending on logging rate, ambient temperature, & use of Alarm LEDs	
Dimensions/Weight	4.0 x 1.0 x 0.9" (101 x 25 x 23mm) / 6 oz. (172g)	

Battery Replacement

It is highly recommended that the battery be replaced every 12 months, or prior to logging critical data.

The TH10 does not lose its stored readings when the battery weakens or when the battery is replaced or removed; the data logging process will however be stopped and cannot be re-started until the battery has been replaced and the logged data has been downloaded to PC.

Use only 3.6V lithium batteries. Before replacing the battery, remove the datalogger from the PC. Follow steps 1 through 4 below.

NOTE: Leaving the TH10 plugged into the PC USB port longer than necessary will reduce the battery capacity.

Other Battery Safety Reminders

- Never dispose of batteries in a fire. Batteries may explode or leak.

Software Interface

The TH10 unit needs to be programmed using the supplied software before use.
The software can set the Sample rate, the temperature alarm limits, and the Start mode, as well as download the recorded data from the logger.

Please refer to the Software Help guide that is supplied with the software to understand how to operate the logger.

Check the software download page of the website www.extech.com for the latest version of the PC software and its operating system compatibility.

Two-year Warranty

Teledyne FLIR warrants this Extech brand instrument to be free of defects in parts and workmanship for **two years** from date of shipment (a six-month limited warranty applies to sensors and cables). To view the full warranty text please visit: http://www.extech.com/support/warranties.

Calibration and Repair Services

Teledyne FLIR offers calibration and repair services for the Extech brand products we sell. We offer NIST traceable calibration for most of our products. Contact us for information on calibration and repair availability, refer to the contact information below. Annual calibrations should be performed to verify meter performance and accuracy. Product specifications are subject to change without notice. Please visit our website for the most up-to-date product information: www.extech.com.

Contact Customer Support

Customer Support Telephone List: https://support.flir.com/contact

Calibration, Repair, and Returns: repair@extech.com

Technical Support: https://support.flir.com