USER MANUAL

TEMPERATURE DATA LOGGER

PCE-HTD 140

ENGLISH



User manuals in various languages (français, italiano, español, português, nederlands, türk, polski) can be found via our product search on:
www.pce-instruments.com

INTRODUCTION

Congratulations on your purchase of this multiple use high temperature datalogger.
This datalogger is designed for monitoring temperature subject to quality control requirement in laboratory and industry. Temperature measurements are saved throughout the duration of the measurement period.
This datalogger is equipped with a user defined programming function. The measurement report output is implemented using a PDF file and an Excel file, unique software and USB driver are not required. The generated PDF report contains charts and statistics.
Read through the instruction manual before using this logger. The logger is calibrated before shipment.

PRODUCT DESCRIPTION

1 - USB2.0 type C plug & play socket. USB driver is not required. PC software is also not required. Type C cable is included in package.
2 - LED indicator
3 - High accuracy built in PT1000 sensor for temperature measuring.
4 - Battery cover. This logger is operated by 1 pc 3.6V replaceable lithium battery. The battery is installed and pre-tested by datalogger manufacturer. Please always contact the shop where you purchase logger from to re-purchase this battery.
5 - Waterproof USB cover



Waterproof USB cover

» To provide the logger with water proof feature, must rotate the cover to assigned alignment point.

» To open, use coin to rotate open, in counterclockwise direction. The enclosed cloth can help to reduce slippage. Suggested to clean USB cover inner side and replace O-ring periodically to keep waterproof performance in best condition.

» To close, rotate in clockwise direction till you match the alignment marking.

LED indicator	
Status	**LED indicator**
Power OFF	All LEDs are OFF
Standby	Green LED dimly blinks every 5 seconds when logger is programmed to stand by and not yet start to log. The LED brightness is weaker than recording status.
Recording	Green LED blinks every 5 seconds when logging function is under going.
Recording is ended but data isn't read out yet	Green LED flashes 3 times every 5 seconds after logging function is ended but logged data isn't read out.
Low power	Red LED blinks every 5 seconds when power is low.

BATTERY INSTALL

The battery is pre-installed. The battery is replaceable but not re-chargable. The provided power is enough for 1 million times records or 18 months usage, which comes first. While you see the red LED blinks, please contact the shop where you purchased datalogger from to purchase a new battery. Then, follow up below procedure to replace battery.

- Suggest to using wrech tholding the logger in position.
- Rotate the middle section of logger in counterclockwise direction.
- Remove the old battery and O-ring and install new ones. Pay attention to the battery polarity.
- Rotate in clockwise direction till you match the alignment marking.

OPERATION

NOTE:

» Adobe Reader software is required.

» Program the logger and generate the PDF and Excel report at room temperature. For example: if the logger is removed from an autoclave, it should be allowed to return to the ambient room temperature before generating the PDF report temperature.

» The executable file for programming the logger is named: PDF Logger Configuration Tool

Step 1: Configuring the data logger

It is possible to make configuration changes at anytime before the logging function is started.
Once the logger is started, configuration changes cannot be made unless stopping the logging first.
If the logger is locked with a Password, the Password is required to make configuration changes.

» First, use coin to open the USB cover. Then, connect the data logger to a PC via USB-type C cable. The green LED stays on while the connection with computer is built.

» Windows file display window will appear.

» If the correct file folder is not open, click on Folder to view files.

» Open the file PDF Logger Configuration Tool.exe.

» The default language is English. The user may change it to one of six alternate languages. There are English, German, French, Italian, Spanish, and Portuguese.

» User programmable parameters are as follows:

SAMPLING RATE
Select the sampling interval you need from 1 second to 120 minutes

START DELAY
Select the start delay from 0 min to 24 hours. **For example:** If the delay is 5 minutes, and the sampling rate is 5 seconds, the real time to log the first temperature measurement is 5 minutes after you pressing the Save button on software. All measurements after the first measurement will be at a 5 seconds (or selected) interval.

UNIT OF MEASUREMENT (UOM)
Select the unit that will be displayed on the report. The selections are Celsius or Fahrenheit.

PASSWORD
The Password function is default OFF. The user may enable it to prevent unauthorized reprogramming prior to pressing the logger starting key. A Password may have up to 16 alpha or numeric characters.

COMPANY NAME
A user defined name, location or descriptor, can be input under Company Name. It will be displayed on the PDF report as the Title, with a maximum of 20 characters.

EFFECTIVE RANGE
Select the effective temperature threshold values. Whether the core temperature has stayed within the prescribed range for a sufficient duration can also be known from generated report.
For example: if 130 - 140 degree C is selected, it means that effective core temperature range for you is between 130 to 140 degree. You can then find the effective period time information from report after read out the data.

TIME ZONE
Before programming the logger, the user must assure that the PC is set for the correct time zone.
The logger will auto synchronize to the time zone of the PC, when Save button is clicked. Time zone changes over the transit distance are not adjusted in the logged data.

The default value of above parameters are:
Sampling rate: 1 second
Start delay: 0 min
Effective range: 120.0°C ... 140.0°C
Temp. Unit: °C
Password: disable
Company Name: blank
Language: English

Once all the programming is done, press Save to confirm the setting and then you may close the setup window and remove the logger from PC USB port.

Step 2: Start logging

- When logger is successfully programmed, if start delay time is choose as zero minute, the logger will start to record right after you disconnect the logger from computer. Green LED shall blink once every 5 seconds.
- If choosen delay time is not zero, the green LED blinks dimly every 5 seconds to indicate the logger is in standby mode. The LED brightness is weaker than recording mode. Then, turn to normal blink every 5 seconds to indicate the recording is started.
- During the logging, the green LED blinks, If battery power is too low to maintain a normal operation, it turns to red LED blinks.

Step 3: Download data

» Always wait till the logger is cooling down to room temperature.

» Connect logger to PC USB port can stop the logging.

» Open the file PDF Logger Configuration Tool.exe

» Choose function Convert to PDF or Convert to Excel to generate the report in preferred format. The default language is English. The user may change it to one of six alternate languages.

» Select the preference location to save the generated report to.

» The created excel report contains all data shown in PDF report except the graph.

» The logger will be turned off automatically after report is generated and no new recording trip is programmed.

» If you stop the logger but forget to download data, the logger will flash 3 times every 5 seconds.

Since this will contunie consume power, strongly suggest downloading data as early as possible to stop LED flashing.

» If a new recording trip is required, please be sure to go to configuration page to check the settings again and press SAVE, regardless the setting are the same or different from previous trip.

» The recorded data will be kept in logger and only be overwritten when a new recording trip is started. Any time before this, you may return to file generation feature to generate report again in amy launages you preferred.

NOTE:
The generated excel file is a tab-delimited ASCII text file which can be easily read by many programs. However, when opening the file in Microsoft Excel, a warning message may be displayed because the file is named .csv but the contents are like a .txt file. It can be safely opened.

TECHNICAL DATA

Model	Multiple Use High temp. logger
Temperature sensor	By PT1000 sensor
Temperature range	-40.0 ... 140.0°C (-40.0 ... 284.0°F)
Temperature resolution	0.1°C (0.1°F)
Temperature accuracy	+/-0.4°C
T90 Response	~20 seconds (room temp. to 90 °C)
Logging Type	Multiple use
Sampling points	48000 points
Battery Life	Battery replaceable, ~1 year time@5 second rate for full temperature range.
Meter size	64(L)*31.2(Dia.)mm
Probe size	25.8(L)*3.5(Dia.)mm
Material	meter and probe are both SUS316
Operation time	<1 week @140 °C oven <30 mins @134 °C autoclave
Operating temperature	-40 ... 140°C (Logging status); room temperature (PC status)
Operating RH%	Humidity < 80%
Storage temperature	-40 ... 85°C
Storage RH%	Humidity <90%
Weight	~175g
Battery	1 x 3.6V Lithiim battery. Installed before shipment. Replaceable
Sampling interval	1,5,10,30 seconds, 5, 10, 30, 60, 90, 120 minutes
Start delay	0, 5, 30, 45, 60, 90,120 minutes, 24 hours
Operation keys	No keys
LED indicator	REC, Low battery
Protection class	IP68
Directives	EN 61326-1:2013
Operating System	Windows only

DISPOSAL

For the disposal of batteries in the EU, the (EU) 2023/1542 directive of the European Parliament applies. Due to the contained pollutants, batteries must not be disposed of as household waste. They must be given to collection points designed for that purpose. In order to comply with the EU directive 2012/19/EU we take our devices back. We either re-use them or give them to a recycling company which disposes of the devices in line with law. For countries outside the EU, batteries and devices should be disposed of in accordance with your local waste regulations. If you have any questions, please contact PCE Instruments.

PCE INSTRUMENTS CONTACT INFORMATION

Germany
PCE Deutschland GmbH
Im Langel 26
D-59872 Meschede
Deutschland
Tel.: +49 (0) 2903 976 99 0
Fax: +49 (0) 2903 976 99 29
info@pce-instruments.com
www.pce-instruments.com/deutsch

France
PCE Instruments France EURL
2, rue Georges Kuhnmunch
67250 Soultz-sous-Forêts
France
Tel.: +33 (0) 972 35 37 17
Fax.: +33 (0) 972 35 37 18
info@pce-france.fr
www.pce-instruments.com/french

Spain
PCE Ibérica S.L.
Calle Mula, 8
02500 Tobarra (Albacete)
España
Tel. : +34 967 543 548
info@pce-iberica.es
www.pce-instruments.com/espanol

United Kingdom
PCE Instruments UK Ltd
Trafford House
Chester Rd, Old Trafford
Manchester M32 0RS
United Kingdom
Tel: +44 (0) 161 464902 0
Fax: +44 (0) 161 464902 9
info@pce-instruments.co.uk
www.pce-instruments.com/english

Italy
PCE Italia s.r.l.
Via Pesciatina 878 / B-Interno 6
55010 Loc. Gragnano
Capannori (Lucca)
Italia
Telefono: +39 0583 975 114
Fax: +39 0583 974 824
info@pce-italia.it
www.pce-instruments.com/italiano

Turkey
PCE Teknik Cihazları Ltd.Şti.
Halkalı Merkez Mah.
Pehlivan Sok. No.6/C
34303 Küçükçekmece - İstanbul
Türkiye
Tel: 0212 471 11 47
Faks: 0212 705 53 93
info@pce-cihazlari.com.tr
www.pce-instruments.com/turkish

The Netherlands
PCE Brookhuis B.V.
Twentepoort West 17
7609 RD Almelo
Nederland
Telefoon: +31 (0)53 737 01 92
info@pcebenelux.nl
www.pce-instruments.com/dutch

United States of America
PCE Americas Inc.
1201 Jupiter Park Drive, Suite 8
Jupiter / Palm Beach
33458 FL
USA
Tel: +1 (561) 320-9162
Fax: +1 (561) 320-9176
info@pce-americas.com
www.pce-instruments.com/us

Denmark
PCE Instruments Denmark ApS
Birk Centerpark 40
7400 Herning
Denmark
Tel.: +45 70 30 53 08
kontakt@pce-instruments.com
www.pce-instruments.com/dansk

Subject to change without notice