User Manual
Data Logger
PCE-LTD 100

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1、Welcome

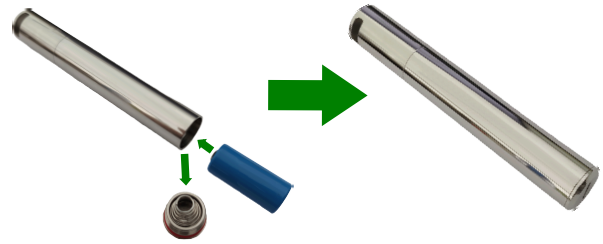
Please go through this user manual carefully before operating.

2、Ready to Start

The shell of this Dry Ice Temperature Data Logger is made of special alloy material, which has the advantages of high mechanical strength, low temperature resistance, environmental protection, non-toxic, wear resistance and corrosion resistance. It's very suitable for ultra-low temperature refrigeration and cold chain transportation.
After finishing the logging, the user only needs to connect the instrument to a computer to automatically generate an encrypted PDF report. The information showed in the PDF report includes record summary, statistics, alarm information, charts, et.

3、Battery Installation

The standard batteries of this product is 3.6V 2/3 AA battery. Users can purchase batteries from our company or dealers.
Please refer to the following instruction for battery installation:



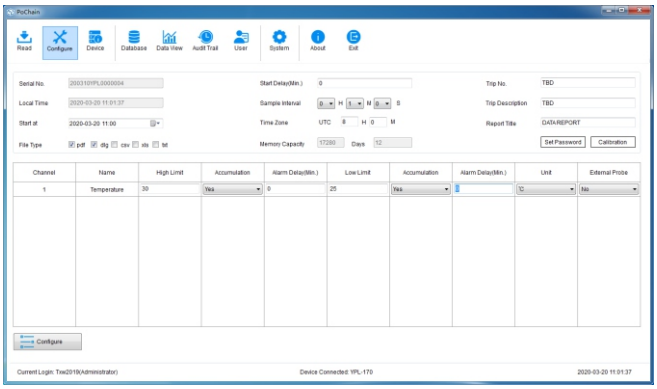
4、Software Installation

The PC software used in this recorder can be downloaded from the official website of our company or obtained from the distributor.
Double click "PoChain.exe", then click "Next" when you see "Welcome to the PoChain setup wizard", until the "Completing the PoChain setup wizard" dialog box appears, click "Finish" to complete installation.

5、Setup and Start

1. Make sure the data logger has been connected to PC USB port.
2. Double click PoChain software.
3. Click "Configure" to enter configuration interface. If the configuration interface displays the serial number of the data logger, it indicates that the connection between the device and the PC is successful.
4. In configuration interface, customer can configure the file format, start time, start delay time, recording interval, time zone, report title, multi-point calibration, and access password. customer can also set the alarm limit, alarm type, alarm delay time and temperature units. Click the "Configure" to complete the configuration.
5. After finishing configuration, Plug out the data logger. After tightening the lid,

place data logger in the specific work environment. The data logger will start recording according to user's settings.



6、Software Configuration

1. Channel: Single channel.
2. Parameter: Temperature.
3. High and Low Limit: To set high and low limit and violation events will happen when exceeding the set data.
4. Accumulation: If unselected, it will be single-type, and alarm will happen after set alarm delay. And if limit violation events removed before this delay, alarm won't happen. If selected, it will be accumulation-type, alarm will happen when the total time of the violation events exceeds the set alarm delay.
5. Alarm Delay: When limit violation events happen, alarm will happen after the set alarm delay time.
6. Units: ℃/℉ To choose between Centigrade and Fahrenheit temperature.
7. External probe: This data logger only supports internal temperature probe.
8. File format: The data logger supports to generate pdf, dlg (raw file), csv, xls or txt directly, and user can select the file type that will be generated, dlg files can be opened and analyzed with professional software provided by us.
9. Start time: Set when the data logger starts recording.
10. Start delay: This decide start time actually. Data logger will start after the start delay time.
11. Recording interval: Time interval for recording data.
12. Time and Zone: The software automatically updates the time according to the time of the computer used by the user. User can set time zone according to user's country or region.
13. Change report information: User can modify report title, trip No., and trip description.
14. Password: User can set password for current logger. Once password set, user must input right password to access.
15. Calibration: This operation affects actual measurement accuracy of data logger. For

professional users, this function can be used to recalibrate. Non-professional users must operate this function under the guidance. Please consult your local distributor for details.
16. Configurate: After finishing all settings, click this option to complete configuration.

7、Stop Recording and Viewing Data

1. The data logger will stop recording when memory is full or connecting with a computer.
2. Plug the data logger into an available USB port on a PC, When a data report is being generated the LED light will flash. The LED light will stop flashing and keep on after generating a data report. It may need several seconds (According to logged readings) to finish. Do not unplug data logger at this time. The time required to generate report is determined by amount of data generated. Please wait patiently about 10s. When the LED lamp stops flashing and keeps on, it indicates that record report has been generated. Users can view or copy generated record report on PC.
3. User can also use PC software to view and analyze the data.

8、LED Indication

1. After finishing configuration and plug out the data logger, LED light will flash. LED light begins to flash. When logging, the LED will flash once every 5s. When not logging, the LED will flash twice every 5s. The flashing time is 3 minutes, and within 3 minutes, if temperature exceeds the range of -20~60℃, data logger will still work normally, but LED light will go out immediately.
2. Plug the data logger into an available USB port on a PC after finishing recording, and data logger will automatically generate record report. In the process of generating the record report, LED flashes every 1s. After recording report is generated, the LED light will stop flashing and stay on.

9、Specifications

Measuring accuracy	±0.5℃ (-30℃~+70℃); ±1℃ (others)
Measuring range	-80℃~+70℃
Resolution	0.1℃
Data storage capacity	17280
Recording interval	10 s~18 hours
Start mode	Start at a certain time
Stop mode	Memory full; When into USB
Operation environment	-80℃~+70℃ (Non-condensation)
Storage environment	-40℃~+70℃ (No battery)
Power supply	3.6V 2/3 AA lithium battery, user-replaceable
Protection class	IP67
Size	Φ18mm x 115mm
Weight	About 95g (No battery)
Standards	CE, RoHS, EN 12830
Warranty	12 months

10、Notes

• Pay attention to the positive and negative poles of the battery.
• Make sure the battery is enough charged before starting recording.
• Please tighten battery cover and USB cover before use to prevent liquid and dust infiltration.
• After taking out data logger from low temperature environment, it is necessary for the instrument to return to normal temperature before opening lid, so as not to affect its function.
• After recording, before opening cover, clean liquid or dust on the surface of data logger.
• Low-power batteries or damaged batteries should be removed in time and recycled or disposed according to local regulations.
• Please read relevant instructions carefully before operation.
• Any questions, please contact after-sale in time.

Tips:
• Old data will be deleted when the configuration is completed or recording is restarted.
• After configuring or restarting recording, if no data is recorded, record report will not be generated.

11、Warnings

• Use instrument inappropriately will cause dangers!
- Do not damage battery or attempt to charge it.
- Keep batteries away from fire.
- Keep batteries out of reach of children.
- Please use our designated standard battery.
- Don't use instrument in oxidizing and corrosive environment.
- It must be used under the environmental conditions specified by this instrument (especially the operation environment), otherwise the battery may explode!
- We will not be responsible for any danger in the use process if it is used in violation of regulations.

• The inner rubber ring of the instrument is an important waterproof and dustproof device, unauthorized dismantling is prohibited!
- Dust and liquid around the rubber ring must be inspected and cleaned before using. Or the protection level of the instrument will be lowered.
- If any damage is found, please contact the after-sale service and repair it before operation.

battery

Data logger