Product Overview

Whether in the storage or transportation, the Elog 20 is mainly used to record temperature and humidity of food, pharmaceutical and chemical products, along with others...
The device is widely applicable to each stage of the logistic process, such as reefer containers and trucks, cooling bags and cabinets, medical and laboratory cold storage, among others...
The Elog 20 counts with a big LCD screen, a menu button, an external temperature sensor and an external temperature-humidity combined sensor.
There are two ways to store data on the unit, stop when the memory is full or continue recording over the existing data. The Elog 20 also has a sound-light alarm and the record interval will automatically be shorten in case the temperature goes over limit. Additionally, two magnets on the back of the device make it convenient to attach the logger to any metal surface.

Specification

Dimensions: 118 (length) * 61.5 (width) * 19 (height) (mm)

Technical Parameters

Temperature measuring range:
-40°C ~ +85°C (Note:Cryogenic probe measuring range: -85°C~+150°C)
Temperature accuracy:
（Temperature probe）: ±0.5°C(-20°C~+40°C);±1.0°C(others)
（Cryogenic probe）: ±0.3°C(-20°C~+40°C) ;±0.5°C(-50°C~+85°C);±1.0°C(others)
Humidity range: 10%~99%
Humidity accuracy: ±3%RH (25°C,20% ~ 80%RH); ±5%RH (others)
Resolution: temperature 0.1°C, humidity 0.1%RH
Record capacity: 16000 points (MAX)
Record interval: 10 sec ~ 24 hour continuously set
Data interface: USB
Power supply: single-use 3.6V lithium battery or powered via USB
Battery life: two years at room temperature with 15 minute record interval and buzzer alarm disabled
Ambient temperature: -30°C~70°C. At low temperature environment, the LCD screen displays normal readings but slower. It will display data normally when the ambient temperature returns to normal.

Set Parameters Before Use

1. Install the data management software for Elog 20 data logger(Using an USB port connect the logger to a computer and install the software).
2. After connected to the computer, the software will automatically upload the information from the logger.
3. To configurate the settings, go to "Parameter" , after the changes have been made, click "Save Parameter" and exit the program. The date and time will automatically syncronize with your computer after the parameters was successfully saved .
4. Press and hold the left button for more than 4 seconds, the logger will start recording when the symbol flashes out. Click the icon "upload data" to view the data.
5. Log out the data management software.

Obtain Recorded Data

The data recorded will not be cleared from the unit after the data was transfered.
The data can also be extracted when the data logger is currently in use and it will not affect its recoding performance.
1. Insert the data logger to a USB port, the icon 🖵 and a green light LED will flash out in the screen when connected.
2. Open the data management software, the data logger will connect automatically and upload data.
Note: the parameters should be set on the computer. Please, refer to the additional support file of the management software.

Functions

Button: switch interfaces, start/stop recording.
The data logger displays the following interfaces: display status, Max, Min, upper limit setpoint, lower limit setpoint and average value.
If the display status is off, press the button to enter. (See Fig.1)

Fig.1

Click at the menu button to switch the screen. The data logger will display the current measured temperature and humidity values.

Symbol	Status	Meaning
▶	It lights up.	The data logger is recording.
	It flashes out.	The data logger is in start delay status.
■	It lights.	The data logger stops recording.
▶■	Both do not light.	The data logger is not turned on.
⬆	It lights.	The measured temperature/humidity value is over the upper limit setpoint.
⬇	It lights.	The measured temperature/humidity value is over the lower limit setpoint.
⇄	It lights.	The data logger is in cyclic record mode.
	It does not light.	The data logger is in full record stop mode.
⇔))	It lights.	Buzzer alarm is enabled.
🖵	It lights.	The data logger is connected to a computer.
LOG	It lights.	The figure in the third line indicates the record points.
⏱	It lights.	The figure in the third line indicates the current time.

The figure in the first line indicates the current temperature, the figure in the second line indicates the current humidity.
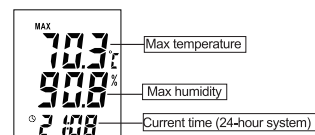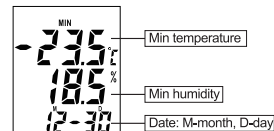
Max value interface. See Fig.2.

Max temperature
Max humidity
Current time (24-hour system)

Fig.2

Min value interface. See Fig.3.

Min temperature
Min humidity
Date: M-month, D-day

Fig.3

Upper limit setpoint interface. See Fig.4.

Upper limit setpoint of temperature
Upper limit setpoint of humidity

Fig.4

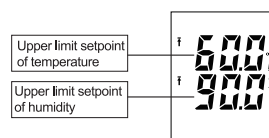Lower limit setpoint interface. See Fig.5.
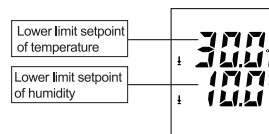
Lower limit setpoint of temperature
Lower limit setpoint of humidity

Fig.5

Average value interface, indicating the average value of all the temperature and humidity data measured. See Fig.6.
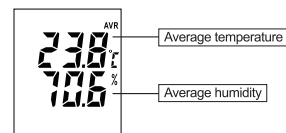

Average temperature
Average humidity

Fig.6

Operation Instruction

1. Start recording
Open the data management software and set the parameters, the data logger stays unstarted. Press and hold the button in status display interface for more than 4 seconds until the symbol ▶ lights up, the data logger starts recording.
It delays starting when ▶ flashes out.
Note: The history data will be cleared after setting parameters by the data management software. Please read and save the history data before parameter settings.

2. Stop recording:
1) The data logger stops recording automatically when the storage space is full. It stops recording when the symbol ■ shows on the display interface.
2) When "stop recording by button" is enabled in the parameters, press and hold the button for more than 4 seconds until the symbol ■ shows, it stops recording.
3) Stop recording by the data management software until the symbol ■ shows on the display interface.
When the data logger is paused, it will not be able to start the data logger again until the parameters are set in the data management sofware.

3. Switch interfaces:
Click the button to switch the interfaces.

4. Alarm status:
When logging, ⬆ lights up to indicate the measured temperature/humidity value is over the upper limit setpoint. ⬇ lights to indicate the measured temperature/humidity value is over the lower limit setpoint.

5. Record interval
Set the record interval by the data management software, the data logger will save the record data accordingly. When the record interval is set, the software will automatically calculate the record duration.

6. Record duration:
The duration from the start point to a full capacity stop.
7. Clear the recorded data:
The recorded data can be cleared by the data management software by setting parameters.
8. Clock and calendar:
Set and adjust the clock and calendar by the data management software.
9. Sensor status:
On the display, "Err" indicates sensor fault or unconnected."NC" in the data list of the software indicates sensor unconnected.
10. LED indicator and buzzer:
When the data is over the upper/lower limit of temperature/humidity, the red LED indicator will flashes out once every 15 seconds.
When the data logger is connected to a computer, the green LED indicator will light up normally.
When switching to a different mode:
- paused mode, buzzer beeps once and LED indicator flashes once.
- started mode, buzzer beeps twice and LED indicator flashes twice.
- stop mode, buzzer beeps 3 times and LED indicator flashes 3 times.
- start delay mode, buzzer beeps 4 times and LED indicator flashes 4 times.
11. Start delay:
In the Xetronwin software parameters settings , set " start delay time" : keep pressing the button for about 4 seconds until the symbol flashes out. The LED indicator displays a solid light when recording.
12. Temperature unit:
Two units are optional (℃/℉) with ℉ as default.
13. Min/Max Display Setting :
In the Xetronwin software parameters settings, select max/min recorded or by date.
14. Product serial number and user information:
Set it by the data management software.
15. Auto off time of the screen:
Set it by the data management software.
16. Buzzer alarm interval:
Set it by the data management software.
17. Recording and saving modes:
In the data management sofware, select the record and save mode prefered, full record stop or cyclic record.
18. Auto shortening of record interval:
This function can be enabled in "full record stop" mode. If record interval is longer than 1 minute and over limit data is detected, the next record interval will be automatically shortened to 1 minute. When the data recovers to the normal range, the record interval returns to the set record interval.
19. Average temperature and humidity:
The average value refers to the average of all the stored temperature and humidity data since the data logger started.
20. External sensor installation :

Sensor Type	Sensor Plug-in	Reading Display from Sensor Type
Temperature + Humidity (TH probe)	TH probe -- (H inlet)	① -- TH probe ② -- TH probe
Temperature (T probe) + Humidity (TH probe)	TH probe – (H inlet) T probe – (T inlet)	① -- T probe ② -- TH probe
Temperature 1 (TH probe) + Temperature 2 (T probe)	TH probe – (H inlet) T probe – (T inlet)	① -- TH probe ② -- T probe
Low Temperature (LT probe)+ Temperature 2 (T probe)	LT probe – (H inlet) T probe – (T inlet)	① -- LH probe ② -- T probe

Note: Temperature and humidity sensor should be installed in place.
Select the desired mode from the parameters screen using Xetronlog Data Management Software

H inlet
T inlet

①
②
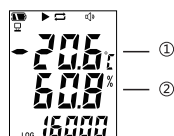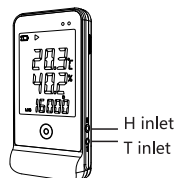
21. Battery indications:
There is battery indication on the screen of the data logger.

Battery indicator	Capacity
	25%～100%
	10%～25%
	＜10%

Note: Please replace the battery ASAP when the battery capacity is less than or equals to 10%.
22. Xetronlog Data Management Software:
All the data from the data logger will be converted into a graph when transfered to Xetronlog software. The history data can be saved ,analyzed, and exported into a Excel or PDF file.
In the Xetronlog sofware, click in the" Graph" tab, "export data" and then select the file format prefered. Go to Graph, click Export Data and select the file format that you'd like to be saved

onto your computer.
Xetronlog win is compatible with Windows XP, Windows 7, Windows 8, Windows 10.Please check for the instruction in Temperature & Humidity Data Management document (Open the Xetronlog software, click Help).

23. Default parameters:
Note: In the brackets are default values.
Running status: unstarted
Record interval (15 minutes)
Start delay time (0 minute)
Data logger ID (1)
Stop by button(Disabled)
Temperature unit (℉)
Upper temperature limit (140℉/60℃)
Lower temperature limit (-22℉/-30℃)
Temperature calibration (0℃)
Upper humidity limit (90%)
Lower humidity limit (10%)
Humidity calibration (0%)
Button tone (disabled)
Buzzer alarm (disabled)
Buzzer alarm interval (disabled)
Auto turn-off time of the screen (15 sec)
Saving mode: (full record stop)
Auto shortening of record interval in case of over limit (disabled)
Set clock (current time)
Set user info (Elog 20 Temperature & Humidity Data Logger)
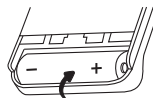
24. Steps to replace the battery:
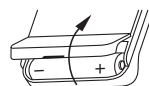
1. Open the battery compartment.   2. Remove the old battery.

3. Put in the new battery.   4. Close the battery compartment.

Notice: Cathode is on the end with a spring in the battery jar.

Standard configuration:

Name	QTY
Elog 20 temperature and humidity data logger	1
External temperature and humidity sensor	1 (2m)
External temperature sensor	1 (2m)
Micro USB data cable	1
User manual	1

To download software, please visit www.xetron1996.com .

Optional accessory:
One piece of data management software setup disk(including the cabinet).