

HUATO ELECTRONIC CO., LTD.

HUATO

S500WIFI

User Manual of Temperature and Humidity Data Logger



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Chapter 1. Introduction

1.1 Features

- Elegant appearance, easy to operate and reliable. Desktop and wall-mounted
- Transferring real-time temperature and humidity data to computer through WIFI
- High accuracy: 0.2~0.5°C/2~5%RH
- Large Capacity: 65000 data groups
- Can be locked to display maximum and minimum value
- Internal audible and visual alarm and send alarm message to mobile phone once temperature or humidity is over limit.
- Multiple levels of data protection; all the collected data will not be lost.

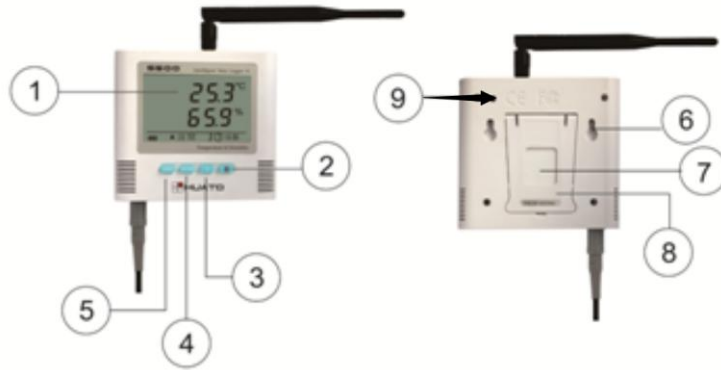
1.2 Application

- Widely used in environment with WIFI access to monitor temperature and humidity.

1.3 Specifications

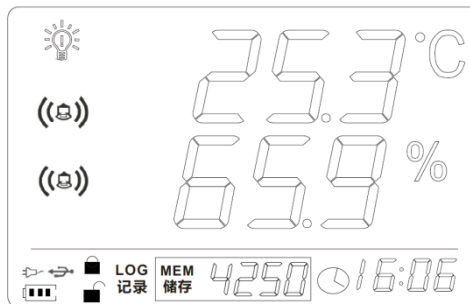
Model	Accuracy	Measuring range	Sensor type	Capacity
S500-TH	±0.5°C/±5%RH	-20 ~ 70°C 0 ~ 100%RH	Temperature + humidity , internal	65000
S500-EX	±0.5°C/±3%RH	-40 ~ 85°C 0 ~ 100%RH	Temperature + humidity external sensor with 3 meters	65000
S520-TH	±0.3°C/±3%RH	-20 ~ 70°C 0 ~ 100%RH	Temperature + humidity , internal	65000
S520-EX	±0.3°C/±3%RH	-40 ~ 85°C 0 ~ 100%RH	Temperature + humidity , external sensor with 3 meters	65000
S580-TH	±0.2°C/±2%RH	-20 ~ 70°C 0 ~ 100%RH	Temperature + humidity , internal	65000
S580-EX	±0.2°C/±2%RH	-40 ~ 85°C 0 ~ 100%RH	Temperature + humidity , external sensor with 3 meters	65000
S500-ET	±0.5°C	-40 ~ 85°C	Single Temperature external sensor with 3 meters	65000
S500-DT	±0.5°C	-40 ~ 85°C	Dual Temperature external sensor with 3 meters	65000
S520-ET	±0.3°C	-40 ~ 85°C	Single Temperature external sensor with 3 meters	65000
S520-DT	±0.3°C	-40 ~ 85°C	Dual Temperature external sensor with 3 meters	65000










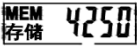
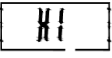
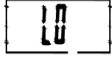

1.4 Structure Instruction








1. LCD display
2. ON/OFF
3. Backlight
4. MAX/MIN checking button
5. LOG
6. Hanger (used for fixing on the wall)
7. Battery cover (screw to replace the battery)
8. Holder (used for desktop)
9. WIFI reset button

1.5 LCD Display Instructions



Symbol	Instruction
	Backlight
	Alarming for over limit of temperature or humidity
	Temperature
	Humidity
	Battery indication
	Buttons locked/unlocked
	External AC 12V power connected
	Connected to computer by USB cable
	Logger is in the logging mode
	Number of data groups collected
	Maximum value is displayed
	Minimum value is displayed
	Time


1.6 Instruction of Buttons

Button	Instruction
	Log function button, turn on/off the log function.
	Press to check the maximum and minimum value of all the recording data.
	Backlight button
	Power button
	Press these two buttons simultaneously to lock and unlock the data logger


Chapter 2. Software

2.1 WIFI Setup

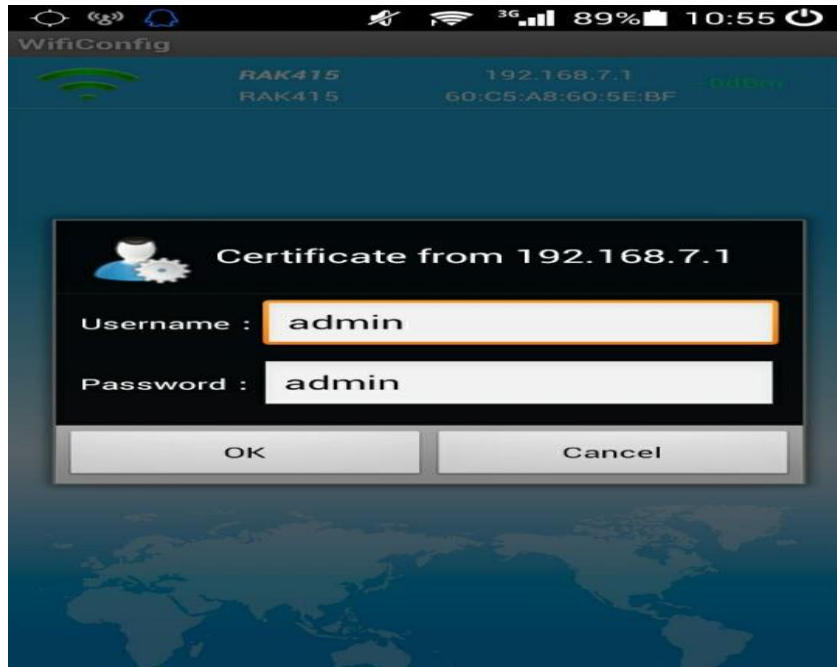
Copy the WIFIconfig software from the accompanied CD in the package to a computer, then to the designated cell phone (Android Cell Phone only).

Install the software which will create  icon.

Reset the logger for 3-5 seconds (reset hole is at the upper corner in the back of logger), then search for network module of this device (defaulted as RAK415-AP-606AB0) in WIFI settings of the cell phone and choose it.

Open WIFICONFIG  software in the cell phone, slide down the screen to refresh interface of the app, then click on RAK415WIFI to enter setting mode.

2.1.1 Click on **【OK】** button to confirm **【Certificate】**.



2.1.2 Click on **【Mode】** in the function list, then choose **【STA】** and **【Save】** to save settings.



2.1.3 Click on **【STA】** and choose the WIFI name and input password, then **【Save】** to save the settings.



2.1.4 Socket Settings



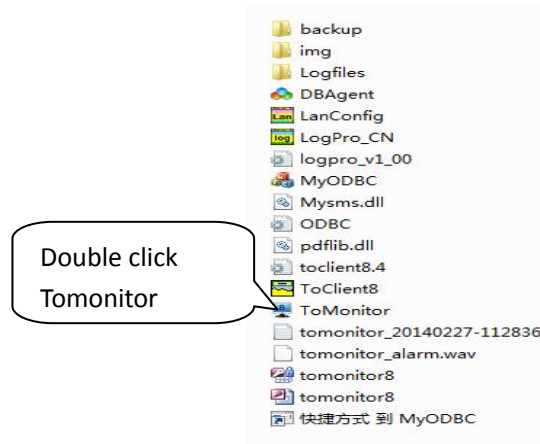
【Object IP】 is the IP address of the computer where the data is stored, for example: 192.168.1.25;As of 【Object Port】 ,please enter “4588” .

2.1.5 Click on **【Settings】**, then **【RESET】** to save settings and restart WIFI module of the logger.

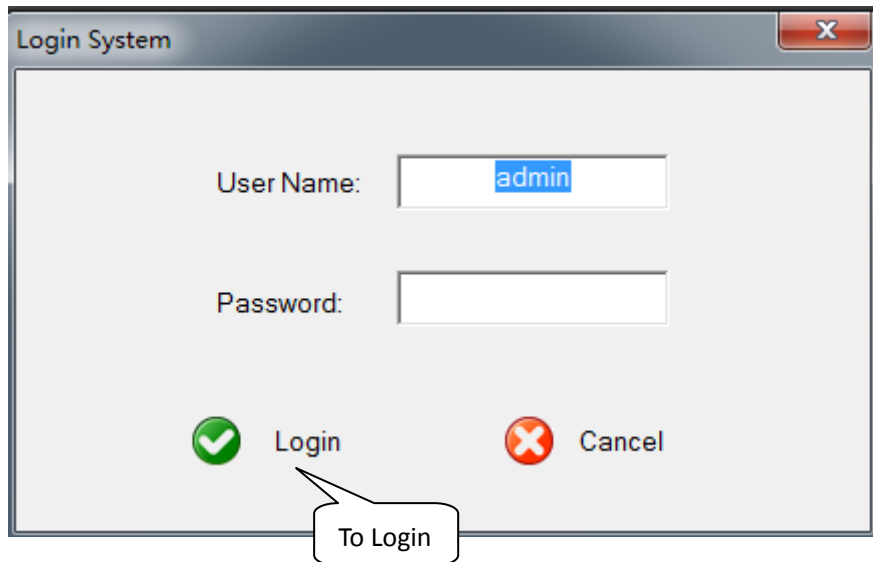


2.2 Instruction of ToMonitor software

(1) Copy the software folder to the computer, then open the software



(2) User Name: admin; Password: admin



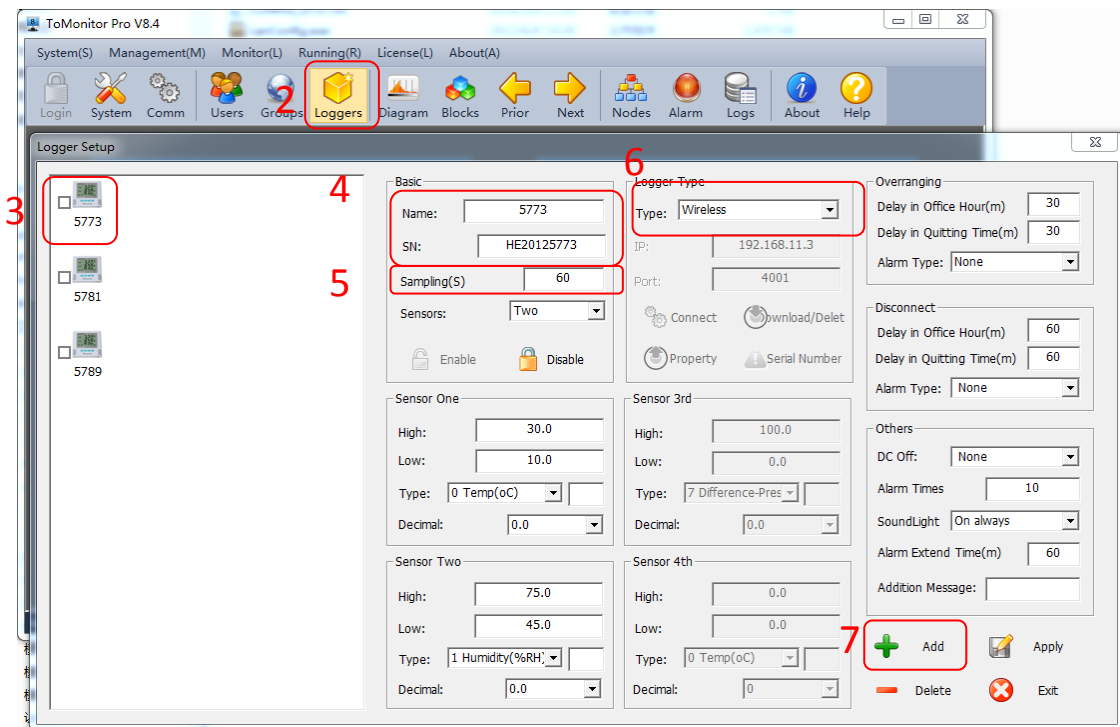
(3) Add New Logger in Tomonitor



1. Run ToMonitor software & Login
2. Press "Loggers"
3. Choose a logger in the logger list and display its properties on the right side
4. Input the new logger's Serial Number & Name.

Tips: Name cannot include `\\:*? "<>|` symbol. Serial Number is on the label of the logger

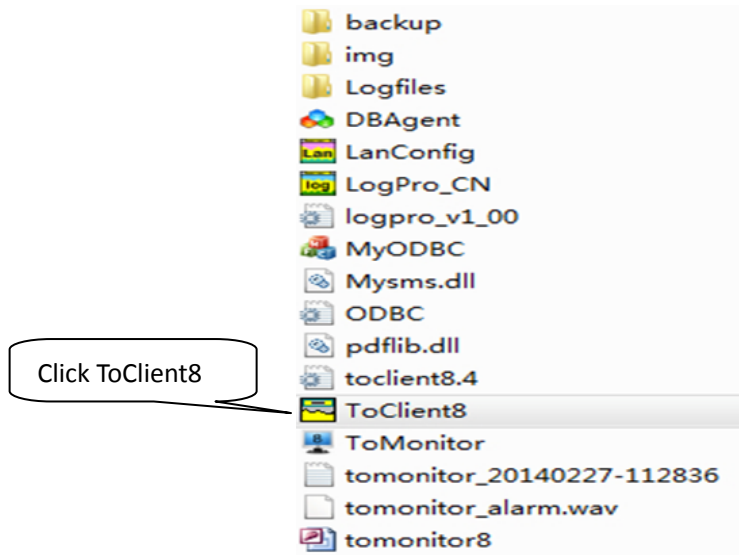
5. Sampling (Seconds): When S500-GPRS upload real-time data, ToMonitor will sync this value to the data logger's "Logging Interval" (Logging/Upload frequency) property.
6. Logger type choose **【Wireless】**
7. Press **【Add】** and **【Exit】** to enter the monitoring interface
8. In short time, real-time data collected by the logger will be displayed



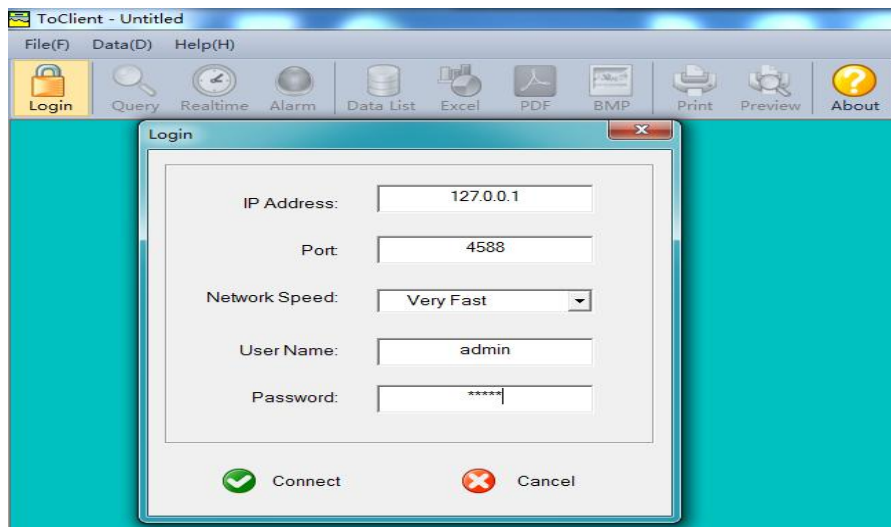
2.3 Data Analysis

(Notice: ToMonitor needs to be opened before we can use ToClient8 software which is used for data analysis)

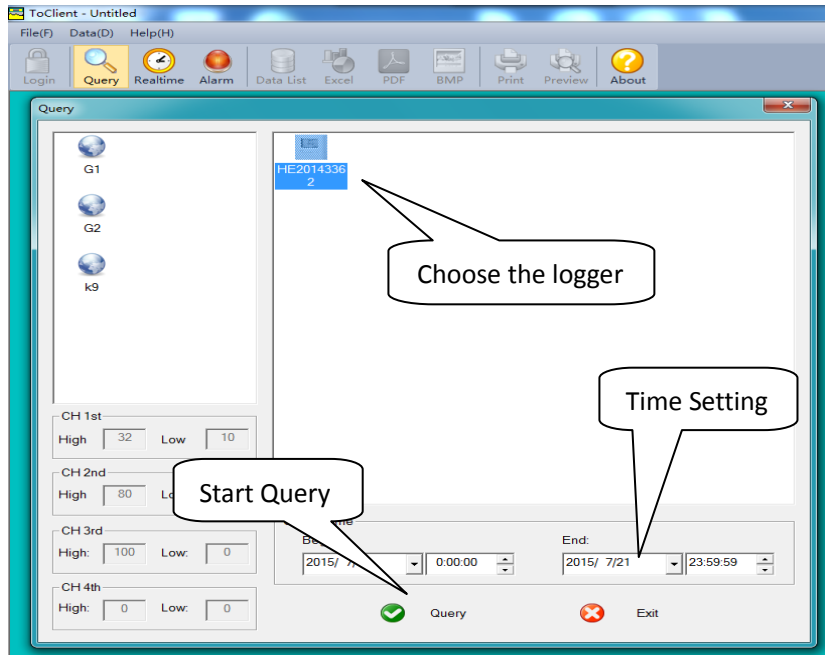
(1) Open ToClient8 software in the software folder



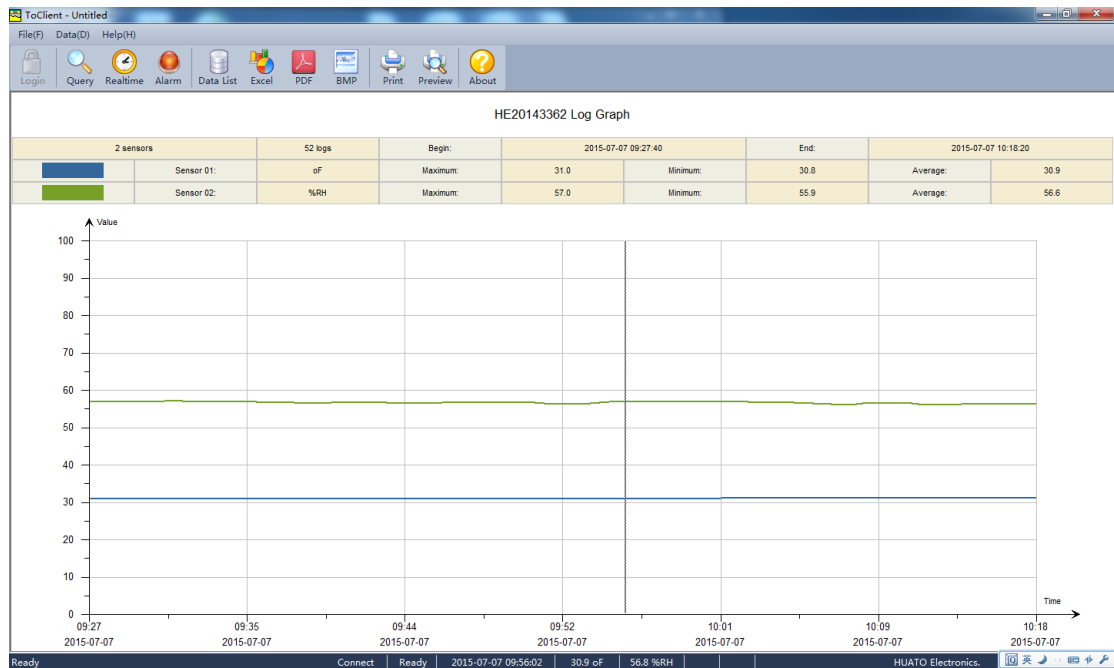
(2) Click on **【Connect】** to login. **【Password】** is “admin”.



(3) Data Query:

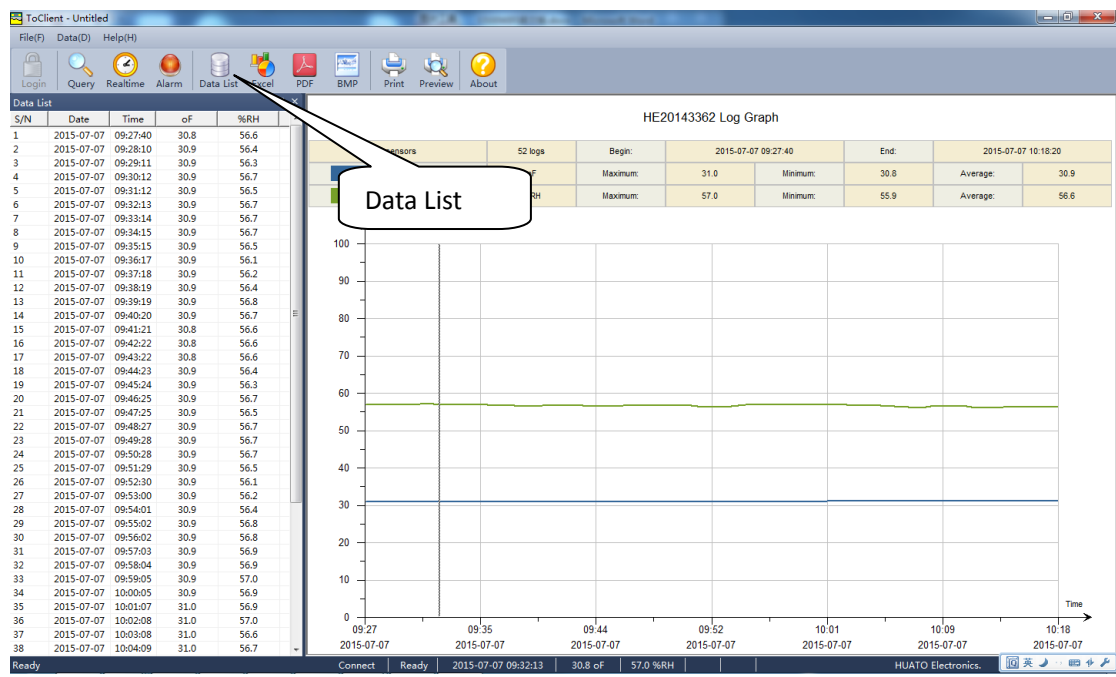


(4) It will come out the following graph



(5) Click on **【Data List】** to get historic data

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Chapter 3. FAQ

3.1 LCD Screen Dim

Reason:

- Insufficient battery or the environment temperature is too low or too high.

Solution:

- In the case of insufficient battery, please replace the battery. If resulted from environment temperature, please immediately take the logger out of the environment.

3.2 Software "Runtime Error"

Reason:

- OS forbid software creating files.

Solution:

- Run the program (software) as an administrator.
- Install software in Disk D:\
- A data logger name cannot contain any of the following characters:
\\ / : * ? " < > |
- Software's installation path cannot include Chinese character or garbage character.

3.3 Check COM Port Number

- Press "Win" + "R" in keyboard -> Run "devmgmt.msc" to Open "Device Manager" in Windows-> Expand "Ports (COM & LPT)" -> "USB-SERIAL CH340 (COM No.)" is the Data Logger