

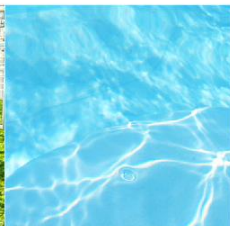


Operation Manual

eYc THM06

Industrial Accuracy

Temp. & Humidity Transmitter



eYc THM06

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1. Security considerations

Please read this Specification carefully, prior to use of this, and keep the manual properly, for timely reference.

Solemn Statement :

This product can not be used for any explosion-proof area.

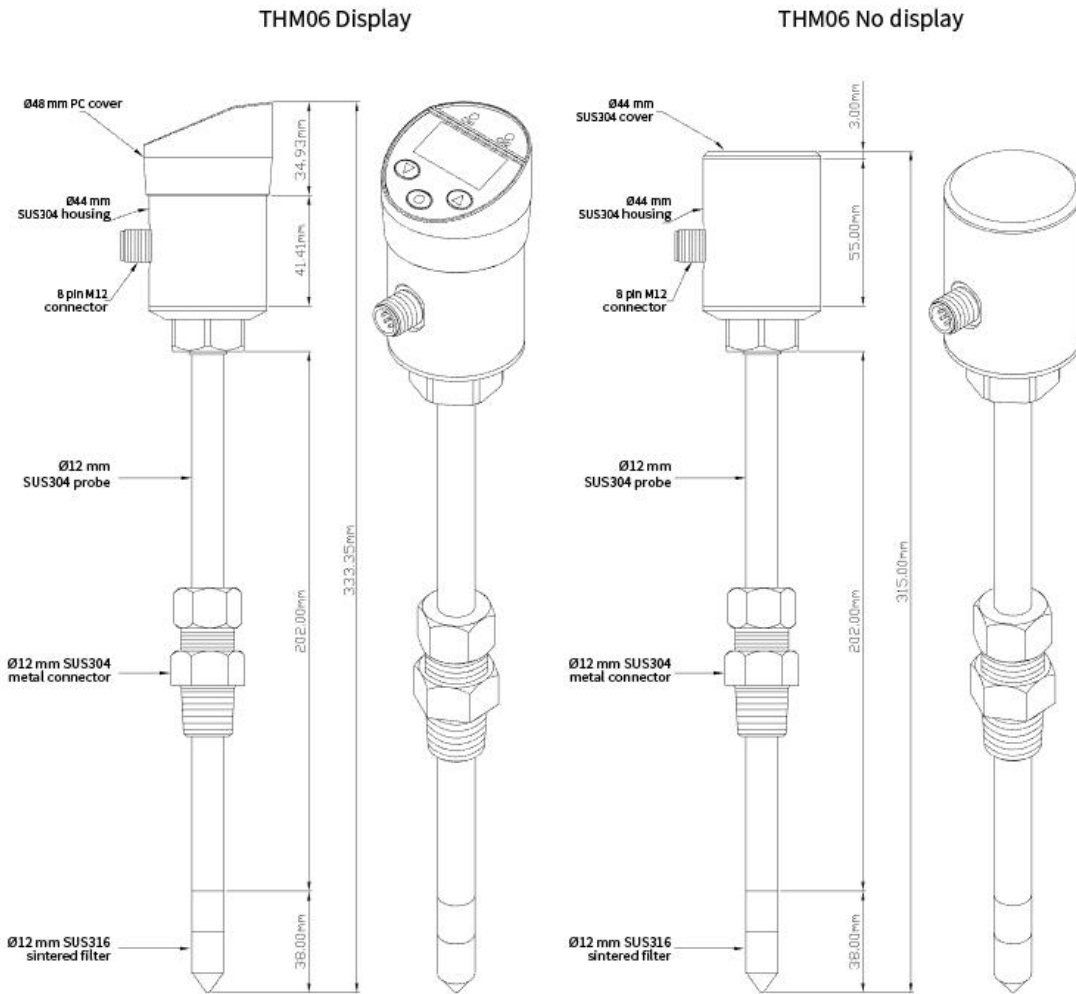
Do not use this product in a situation where human life may be affected.

eyc-tech will not bear any responsibility for the results produced by the operators !

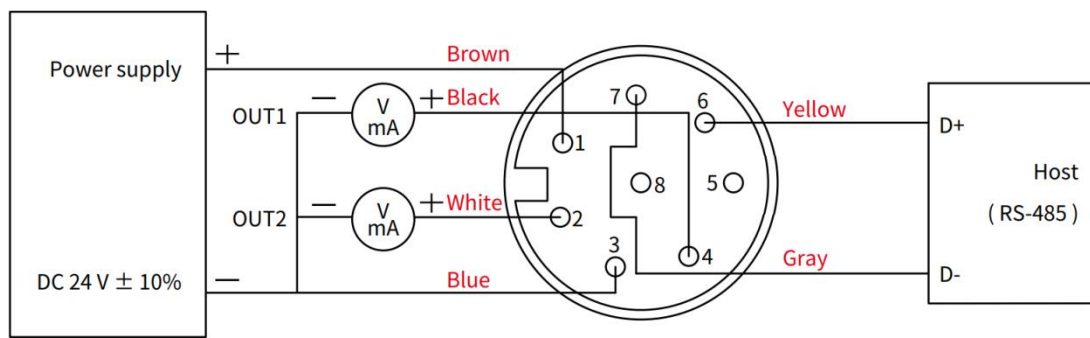
Warning!

- Installation and wiring must be performed by qualified personnel in accordance with all applicable safety standards.
- This product must be operated under the operating conditions specified in manual to prevent equipment damages.
- Please using the product under the ordinary pressure, or it will influence safe problem.
- This product must be operated under the operating condition specified in this manual to prevent equipment damages.
- This product must be operated under the normally atmospheric condition to prevent equipment damages.
- To prevent products damage, always disconnect the power supply from the product before performing any wiring and installation.
- All wiring must comply with local codes of indoor wiring and electrical installation rules.
- Please use crimp type terminal.
- To prevent personal injury, do not touch the moving part of product in operation.
- It may cause high humidity atmosphere during the product was breakdown. Please take safety strategy.

2. Dimension



3. Diagram



M Type (8P)

4. Software configuration

4.1 Application requirements

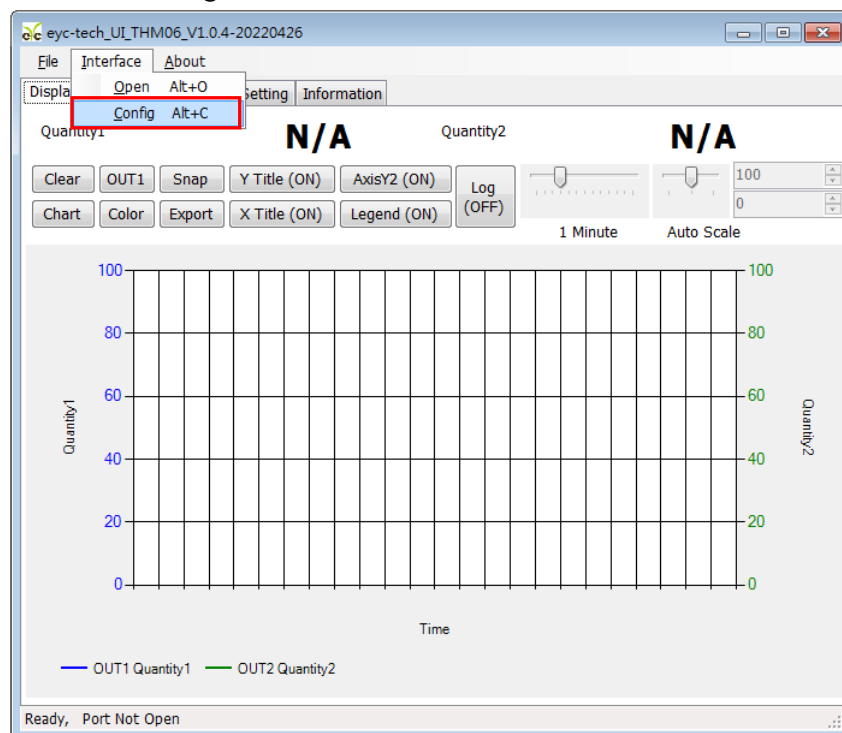
Download the configuration software from eYc website, decompress it and execute it.

The operating system requirements: Windows XP SP2 or above. Hardware requirements:

RS-485 interface, such as a USB to RS-485 or RS-232 to RS-485 converter

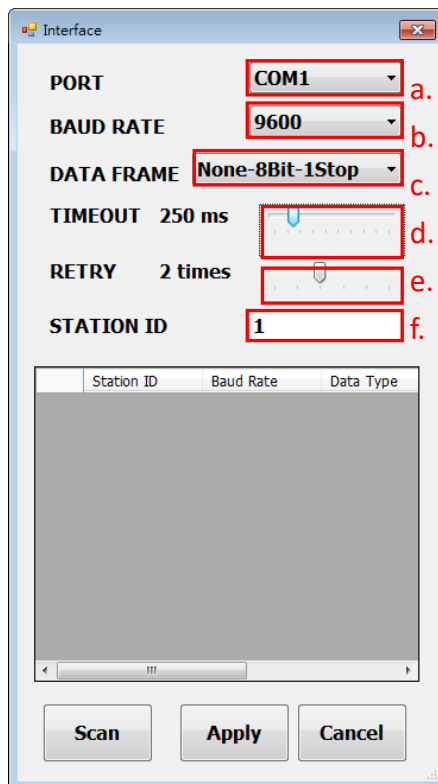
4.2 Setting RS-485 connection

1. Connect product to PC via RS-485 cable
2. Execute THM06 UI
3. Click “Interface > Config”



4. Select the corresponding values of com port as following :

- a. Port : Check Come Port
- b. Baud Rate
- c. Data Frame
- d. Timeout
- e. Retry
- f. Station ID(Default 1)



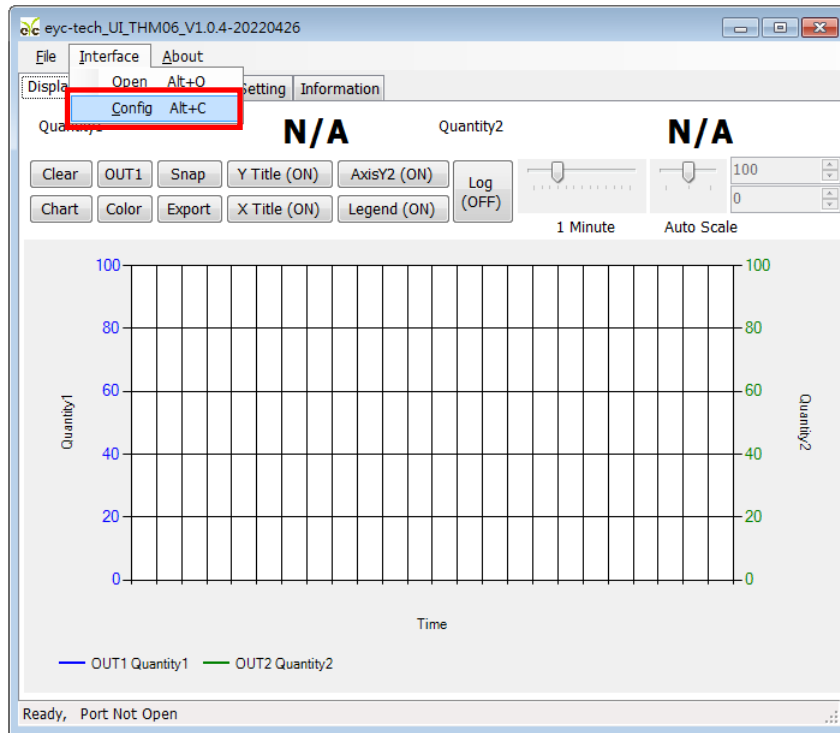
5. Click “Apply”
6. Connect successfully
 - a. Show value and trend chart of temperature
 - b. Show value and trend chart of relative humidity
 - c. Show “Open Port, Read successful”



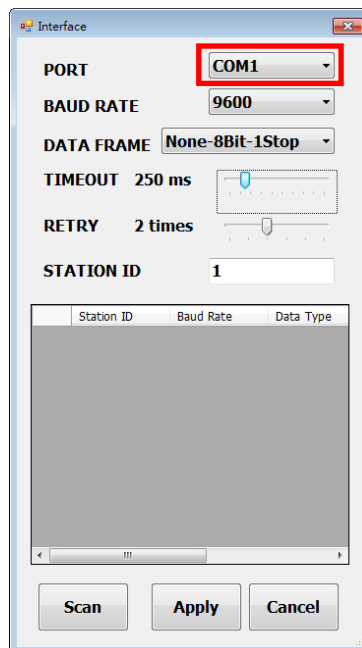
4.3 Scan RS-485 connection

※Use scan function to connect when forgetting the connection information or having more facilities .

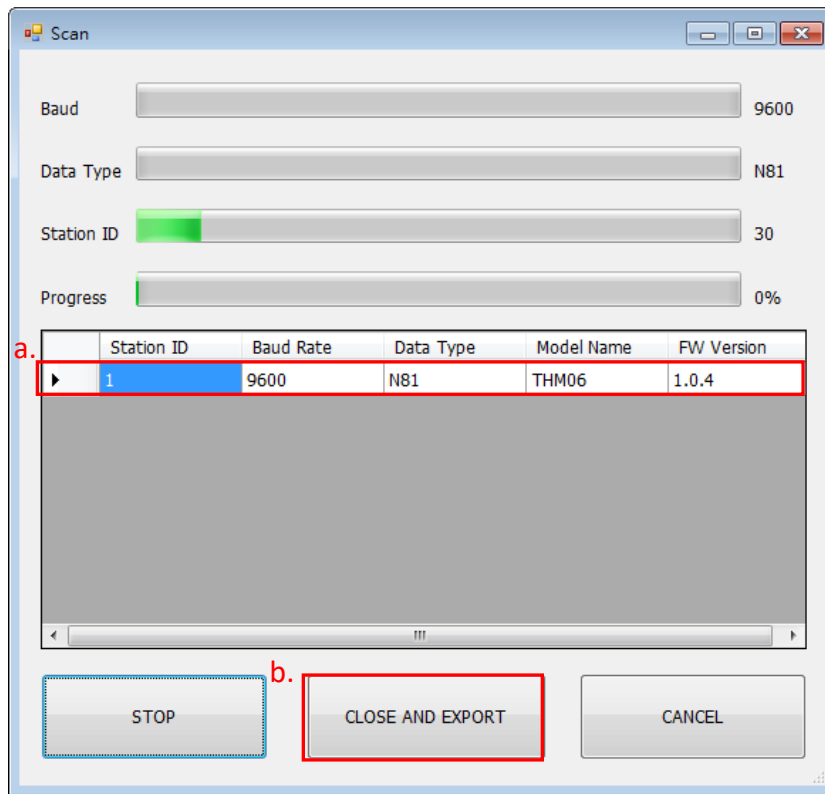
1. Connect the product to PC via RS-485 cable
2. Execute THM06 UI
3. Click “Interface > Config”



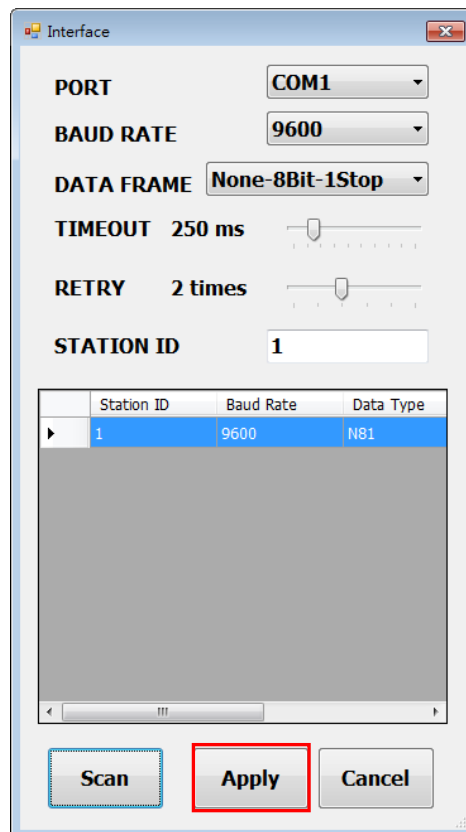
4. Select the corresponding values of com port as following:
 - a. Port :
 - b. RS-485



5. Click “Scan” to execute connection facilities
6. Scan connection facilities and set up
 - a. Select Station ID
 - b. Click “CLOSE AND EXPORT”

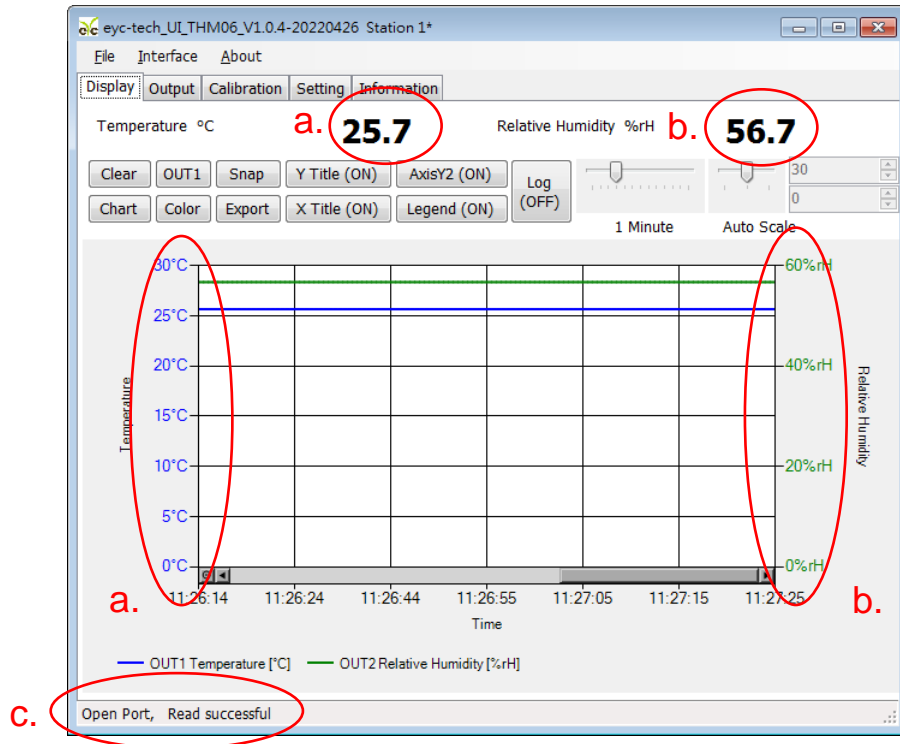


7. Click “Apply”



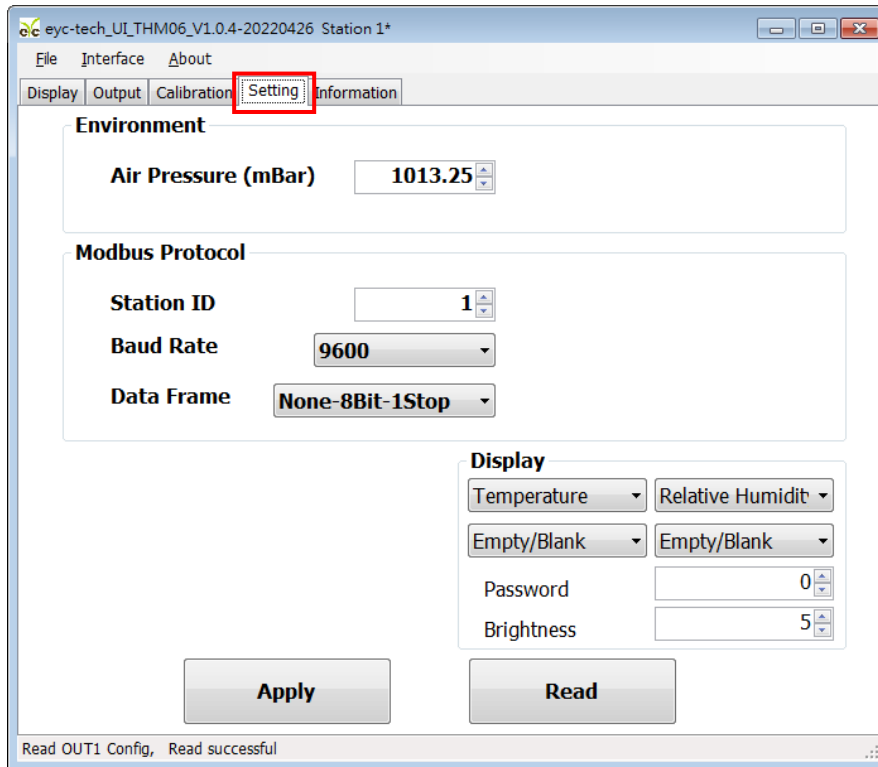
8. Connect successfully

- a. Show value and trend chart of temperature
- b. Show value and trend chart of relative humidity
- c. Show “Open Port, Read successful”

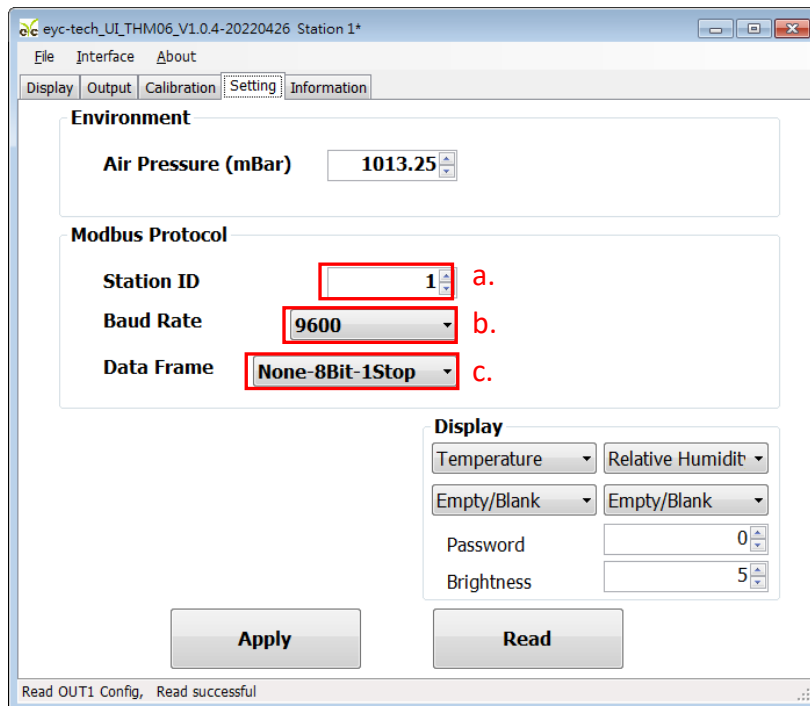


4.4 Setting RS-485 ModBus Protocol

1. Setting RS-485 connection step as step 4.2 or 4.3
2. Click “Setting”



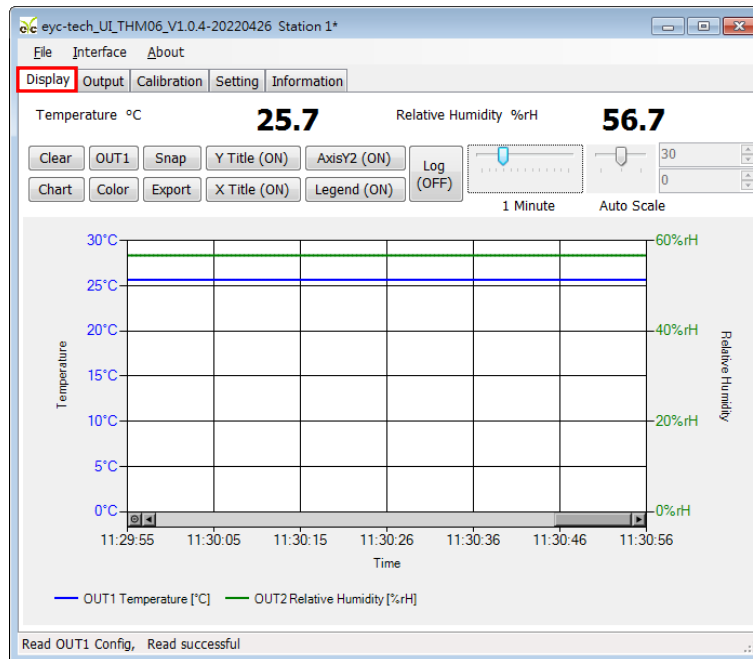
3. Select Modbus Protocol parameter
 - a. Station ID : 1~247
 - b. Baud Rate : 9600, 19200, 38400, 57600, 115200
 - c. Data Frame : None-8Bit-1Stop, None-8Bit-2Stop, Even-8Bit-1Stop, Even-8Bit-2Stop, Odd-8Bit-1Stop, Odd-8Bit-1Stop






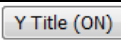



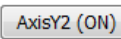




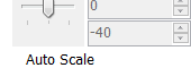
4. Click “Apply”
5. Execute connection as step 4.2 or 4.3 again

4.5 Display and save data

1. Show Data : Click ” Display”

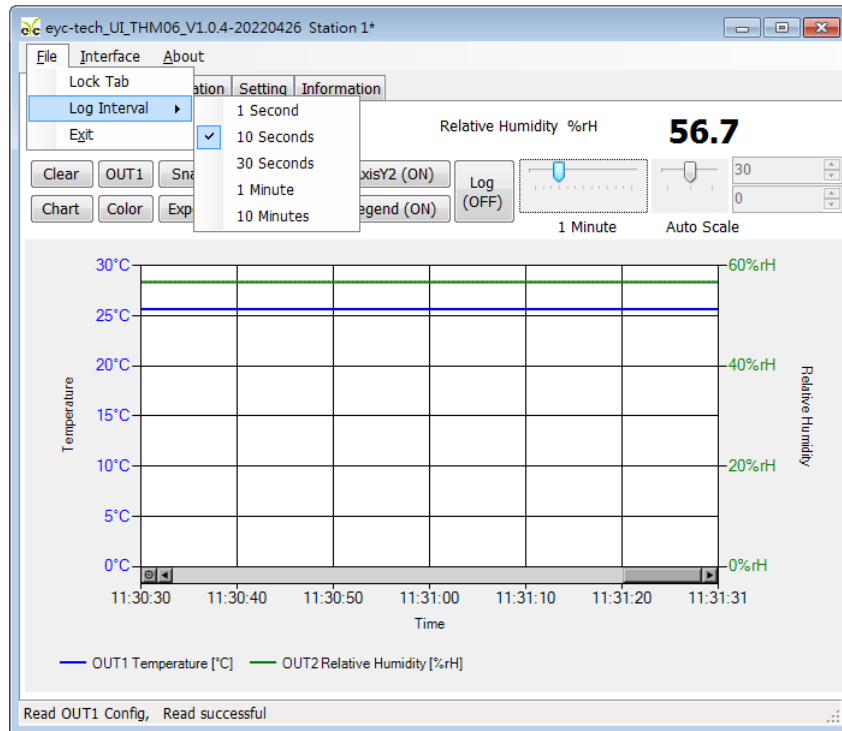


2. Icon function statements

	Clear the chart records		Save the data measuring when the system start connecting before clicking the Export icon
	Change the chart style		Show/Not show the statement of Y axis
	Select the OUTPUT channel		Show/Not show the statement of X axis
	Set line color chosen from OUTPUT		Show/Not show the statement of Y secondary axis
	Snap chart		Show/ Not show chart
	Show/Not show measuring data		
	Adjust time range of X axis		
	Adjust time range of Y axis		

3. Setting time interval of record

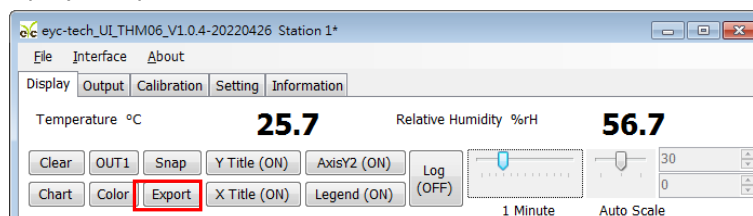
- File > Log Interval
- Select time interval of record



4. Save/Log measuring data

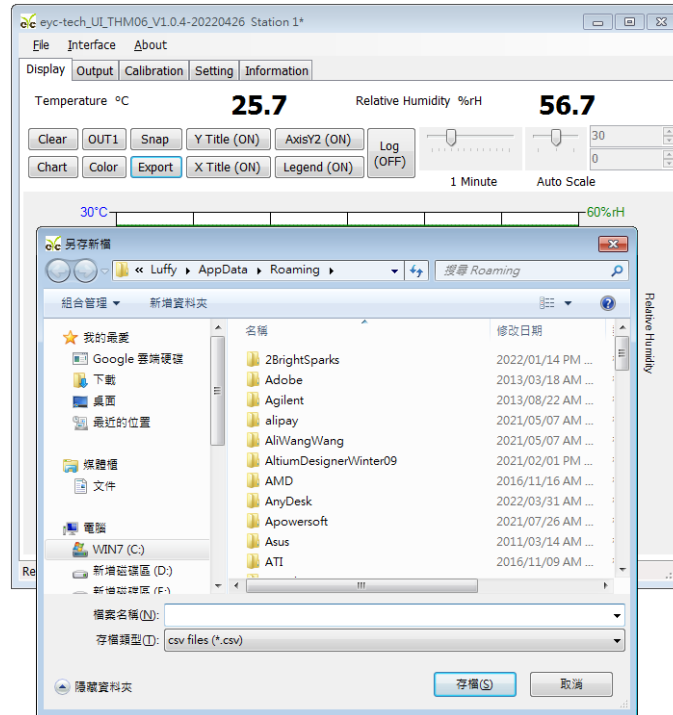
a. Log measuring range : Save the data measuring when the system start connecting before clicking the Export icon

a-1. Click Display > Export



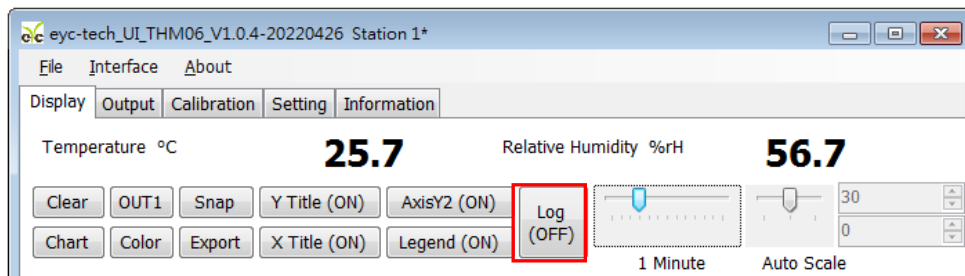
a-2. Appoint path and Key in file name > save

※1. If file name is same as the path name, the original file will be over write.



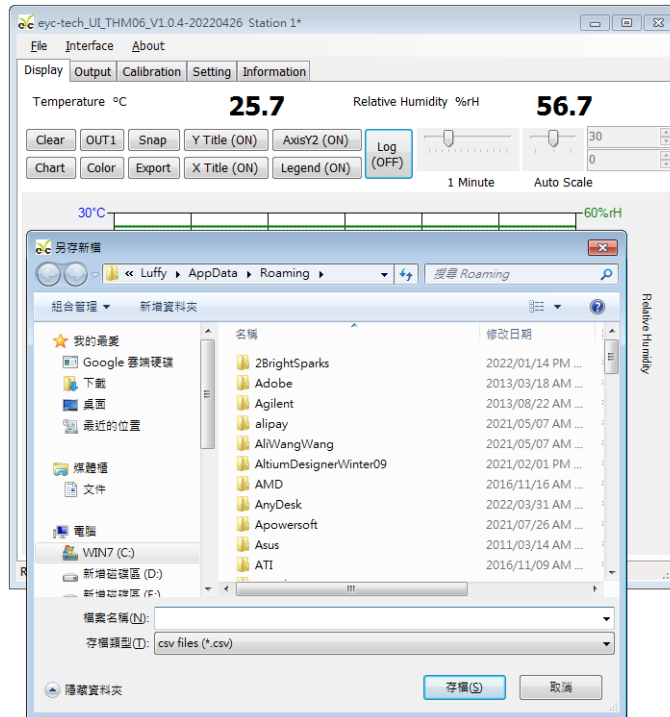
b. Log measuring data : Log the data which is on from start or off

b-1. Display > Log(OFF)



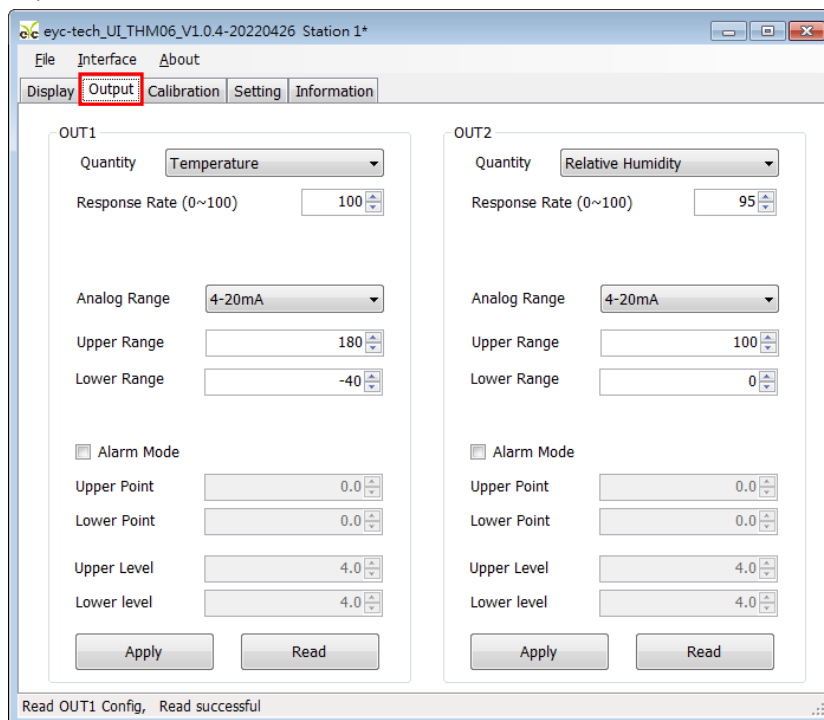
b-2. Appoint path and Key in file name > save > Log (ON)

※1. If file name is some as the path name, the original file will be over write.



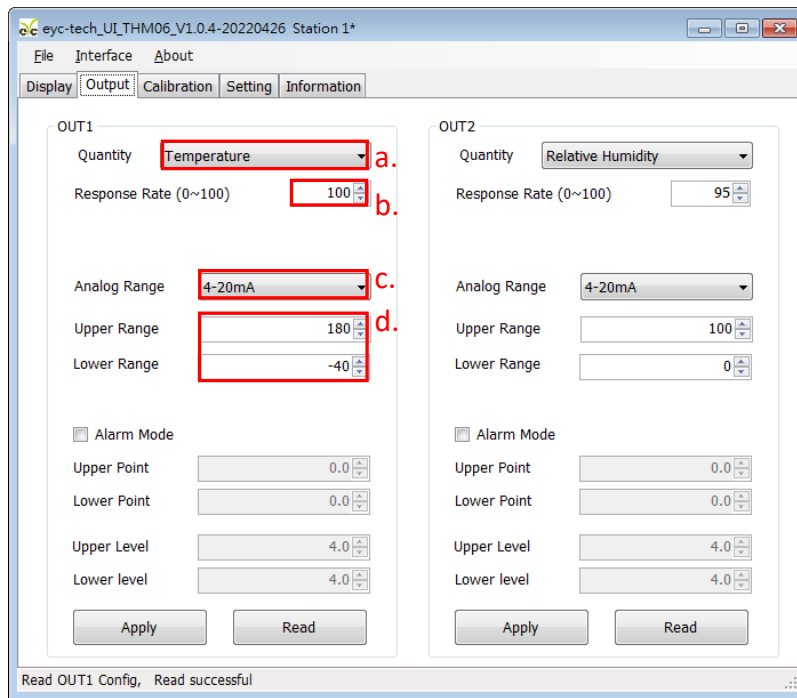
4.6 Choose parameter of Output

1. Click “Output”

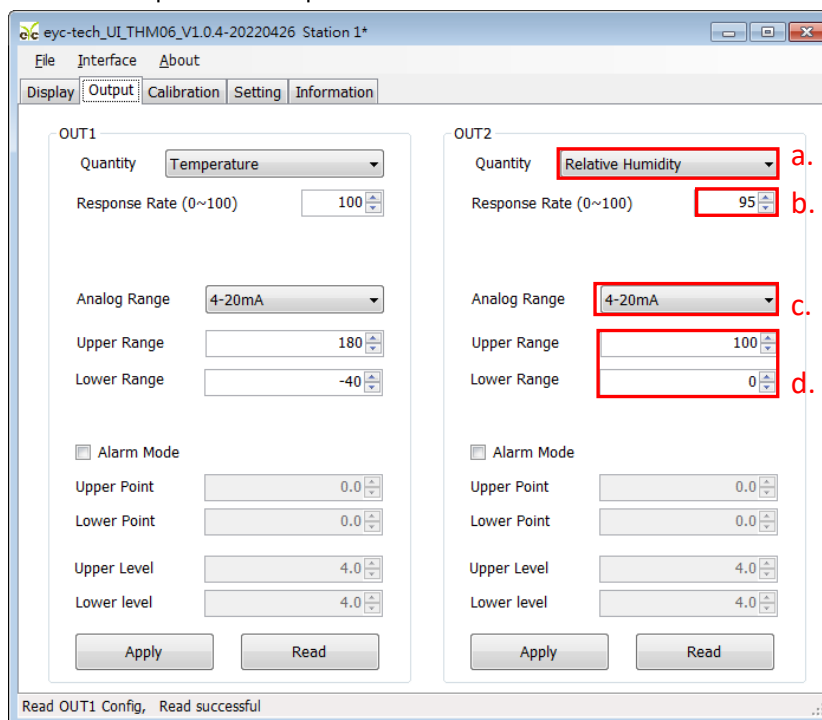


2. Select relative parameters of Output1

- a. Measures
- b. Responding Rate
- c. Voltage or current analog range
- d. Upper and Lower point of Output



3. Click “Apply”
4. Select relative parameters of Output2
 - a. Measures
 - b. Responding Rate
 - c. Voltage or current analog range
 - d. Upper and Lower point of Output



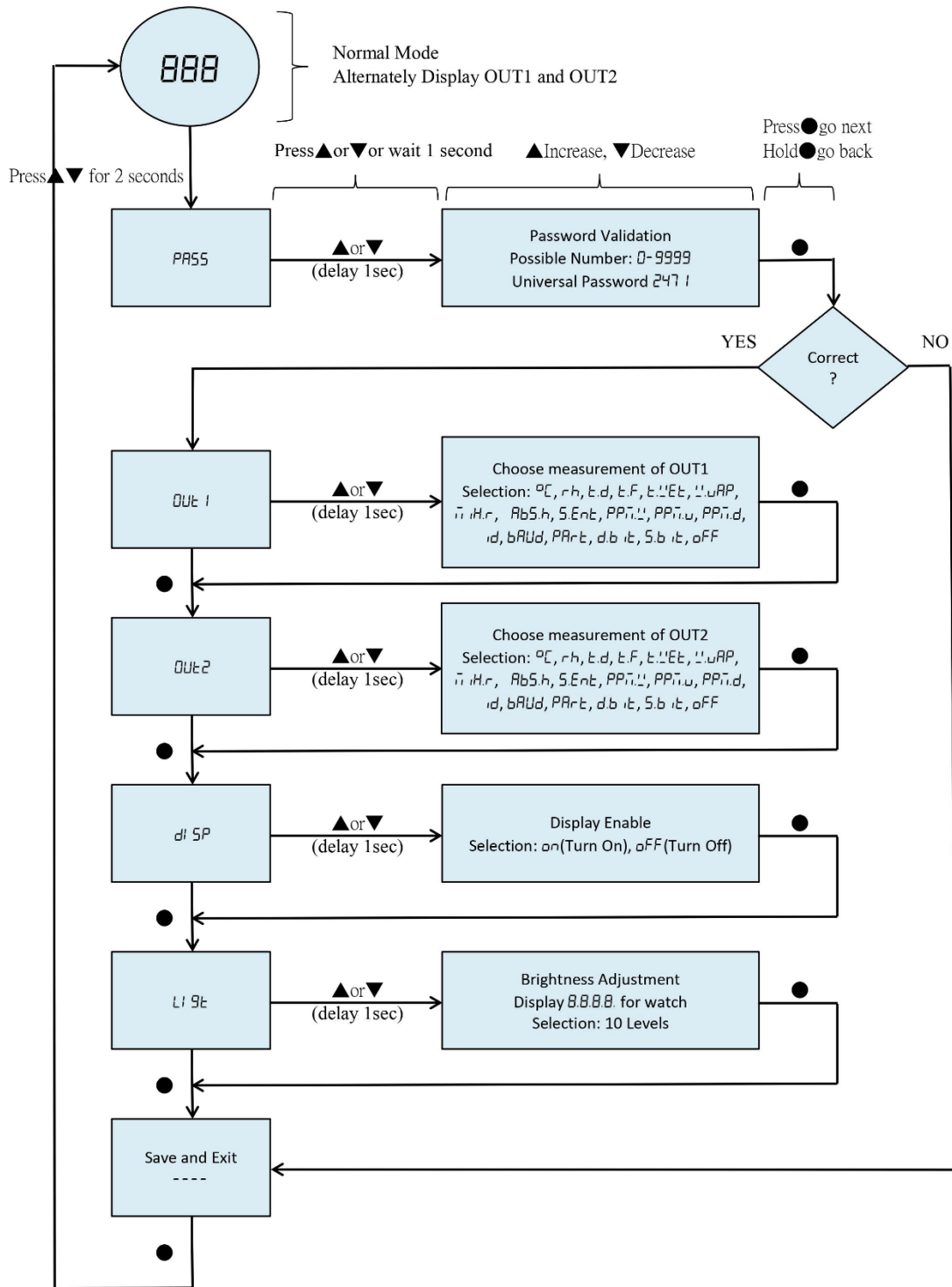
5. Click “Apply”

5. Display and Keypad operation menu

The THM06 with display (optional) provides 4-digit display, which adopts alternate display, each measurement value is displayed for 3 seconds, and then another measurement value is alternately displayed. The alternate display can display up to two measurement results. There are two LED sign to indicate the measurement items of the displayed value. When the LED on the left is on, it means the measured value of CH1 is displayed, and when the LED on the right is on, it means the measured value of CH2. For example, the THM06 is now display CH1 reading 180.0 in below figure.



The operation flow is as follow.



Symbol of Selection:

Symbol	Measurement
$^{\circ}C$	temperature
rh	relative humidity
$t.d$	dew point temperature
$t.F$	frost point temperature
$t.WEt$	wet bulb temperature
$P.WAP$	water vapour pressure
$\bar{r}H.r$	mixture ratio
$ABS.h$	absolute humidity
$S.Ent$	specific enthalpy
$PP\bar{r}.w$	humidity PPMw
$PP\bar{r}.v$	humidity PPMv
$PP\bar{r}.d$	humidity PPMw/v
id	protocol, station id
$bAUd$	protocol, baud rate
$PARt$	protocol, parity check
$d.b \text{ it}$	protocol, data bit
$S.b \text{ it}$	protocol, stop bit
oFF	turn off

6. Inspection and maintenance

1. Maintenance

Since this product is inspected and calibrated for high accuracy at the factory before shipment, no calibration on the installation site is necessary when this product is installed. For inspection and maintenance follow the instructions below :

- Periodic inspection

Periodically inspect this product for its sensing accuracy, and clean the cover. Set the period between inspections based on atmospheric dust and other contaminants

in the installation environment.

2. Troubleshooting

- Sensor maintenance

Do not damage sensor surface during the maintenance process.

- Troubleshooting

If any problem occurs during operation, refer to the table below for appropriate solutions.

Problem	Cleck items	Soluations
<ul style="list-style-type: none"> ● No output ● Unstable output 	<ul style="list-style-type: none"> ● Disconnected wiring ● Loose wiring ● Power supply voltage ● Sensor damages 	<ul style="list-style-type: none"> ● Re-perform wiring ● Crew on terminal tightly or replace wires ● Replace the sensor
<ul style="list-style-type: none"> ● Slow response to output ● Errow in output 	<ul style="list-style-type: none"> ● Moisture /condensation on the product ● Check installed location ● Check installed angle ● Check dust and contamination on the sensor 	<ul style="list-style-type: none"> ● Remove the sensor and filter. Dry power-off state sensor in clean air seasoning ● Refer to the section ● Align measurement head with flow direction ● Cleaning the filter ● Changing the filter ● Calibrate ● Replace the sensor

eyc-tech Measuring Specialist

enhance your capability with **sensor** technology

Air flow | Humidity | Dew point | Differential pressure | Liquid flow

Temp. | Pressure | Level | Air quality | Signal meter



Tel. : 886-2-8221-2958

Web : www.eyc-tech.com

e-mail : info@eyc-tech.com