eyc-tech THS88MAX Dew Point Industrial Dew Point Transmitter Instruction Manual

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Contents

Security Considerations

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

Solemn Statement

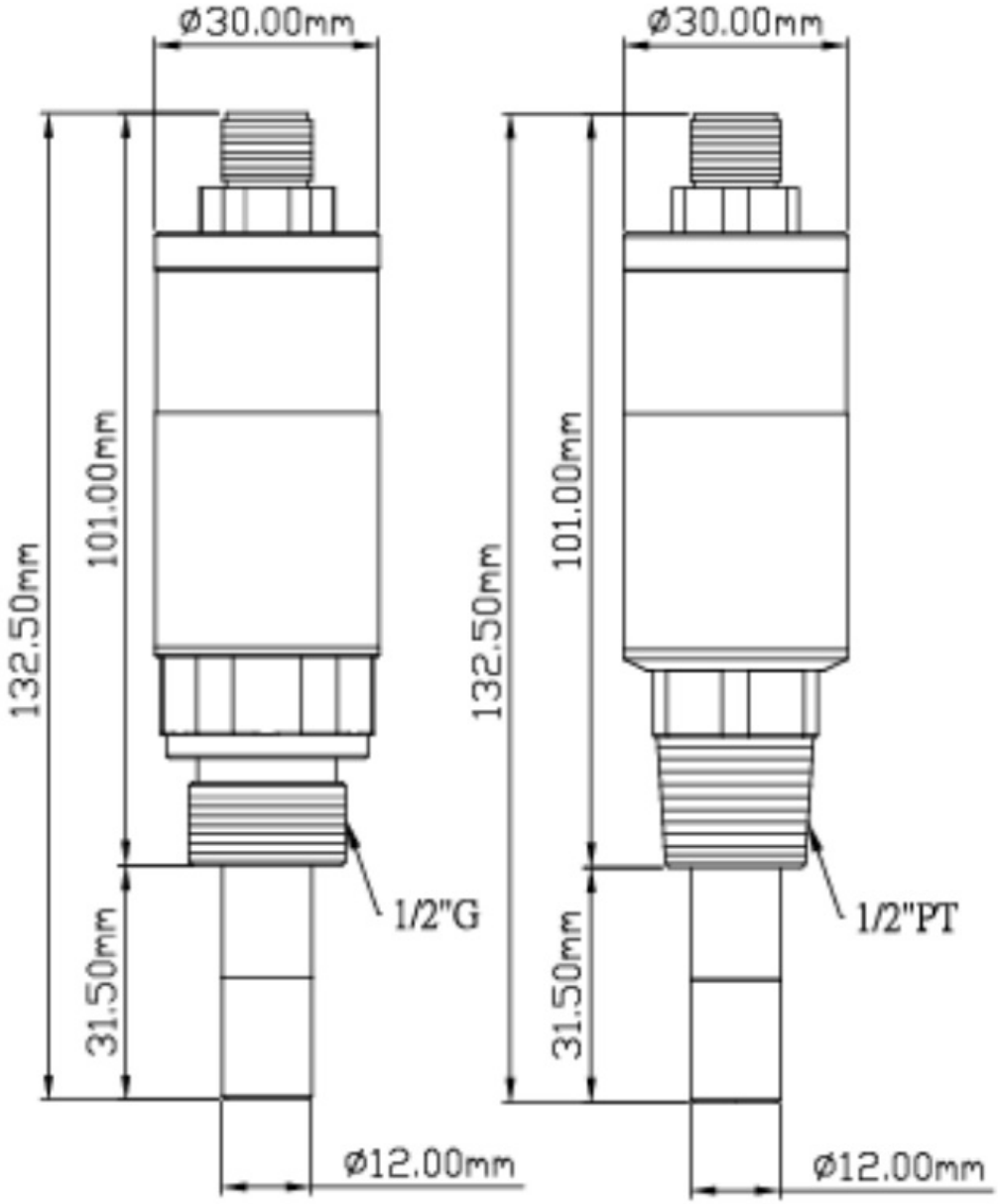
This product can not be used for any explosion-proof area.
Do not use this product in a situation where human life may be affected.
eyc-tech will not bear any responsibility for the results produced by the operators

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.

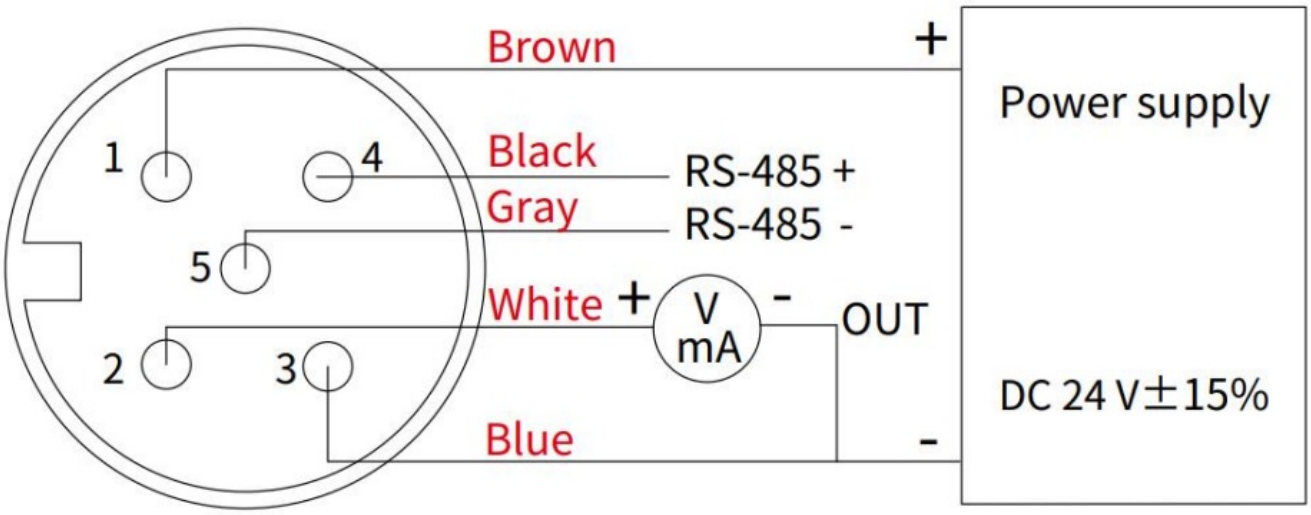
Dimension

- Standard — M12-5PIN 2M waterproof cable



Diagram

- M12 Connector



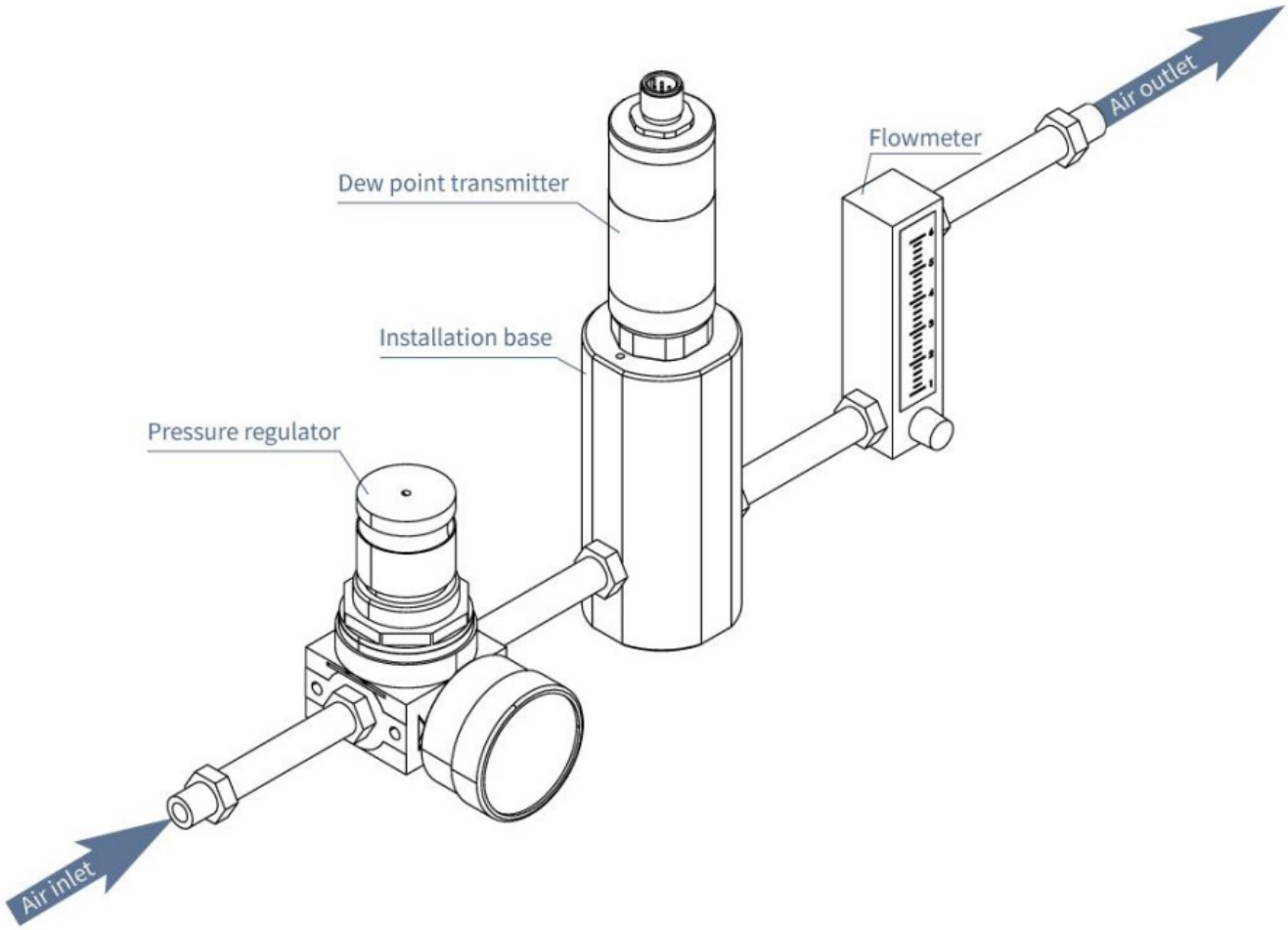
Please make sure the product and the device which connect with RS-485 are on common ground, avoid damaged product.

Accessories For Measuring Atmospheric Dew Point

- Environment pressure affects the value of dew point. When environment pressure is higher, water vapor condensate easier. Thus, dew point value in high pressure environment is higher than atmospheric dew point.
- In process line, pressure could change and fluctuate easily, and leads to inconstant reading value. To avoid this problem, eyc-tech suggest user to measure dew point at atmospheric pressure (atmospheric dew point).
- To help user measuring atmospheric dew point easily, eyc-tech provide related accessories, which including installation base for dew point transmitter, pressure regulator and flowmeter …etc. User can select accessories depends on installation. Please ask our sales personnel for further information.

Part number	Description
BASE-THS-001	Installation base(1/2“PT for transmitter), SUS304, Connection for air inlet and outlet: 1/4”PT
BASE-THS-002	Installation base(1/2“PF for transmitter), SUS304, Connection for air inlet and outlet: 1/4”PT
BASE-THS-003	Installation base(5/8“UNF for transmitter), SUS304, Connection for air inlet and outlet: 1/4”PT
BASE-THS-002-1	Installation base(1/2“PF for transmitter), SUS304, Connection for air inlet : 1/4”PF, regulator included.

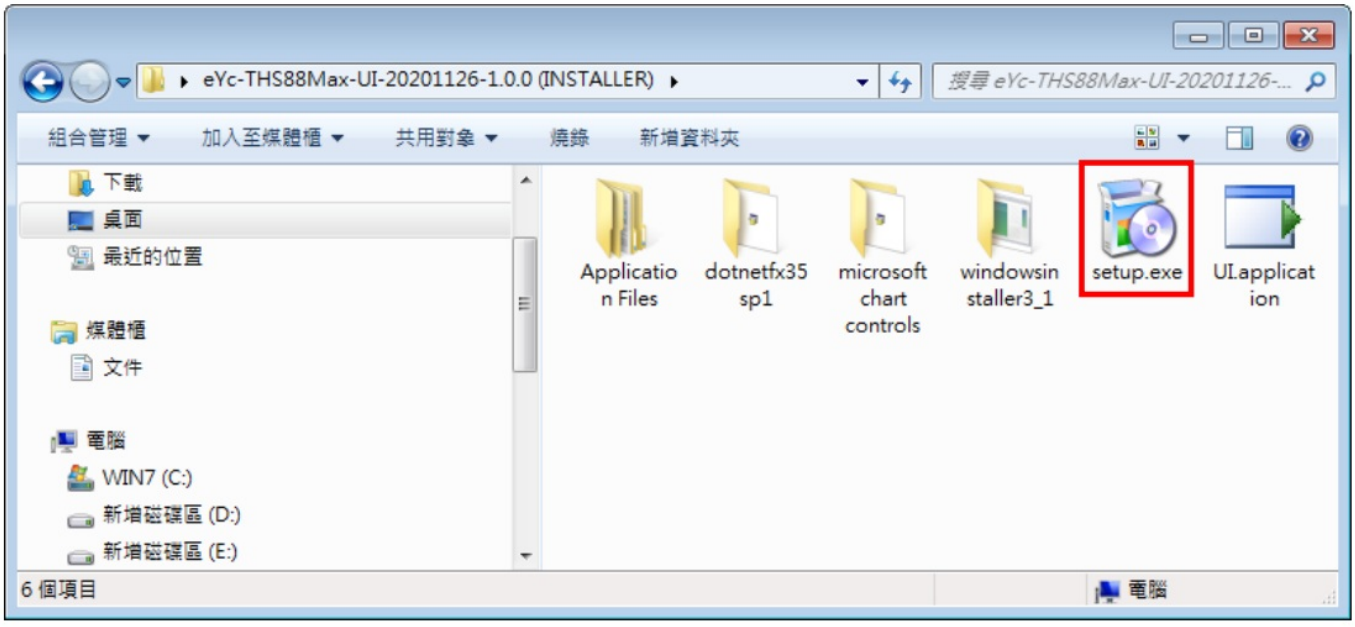
- A schematic of installation is shown below. Using pressure regulator to regulate pressure to 1 atm, and adjust airflow to 1~5 LPM to have stable reading of atmospheric pressure.



Software And Calibration Operation Step

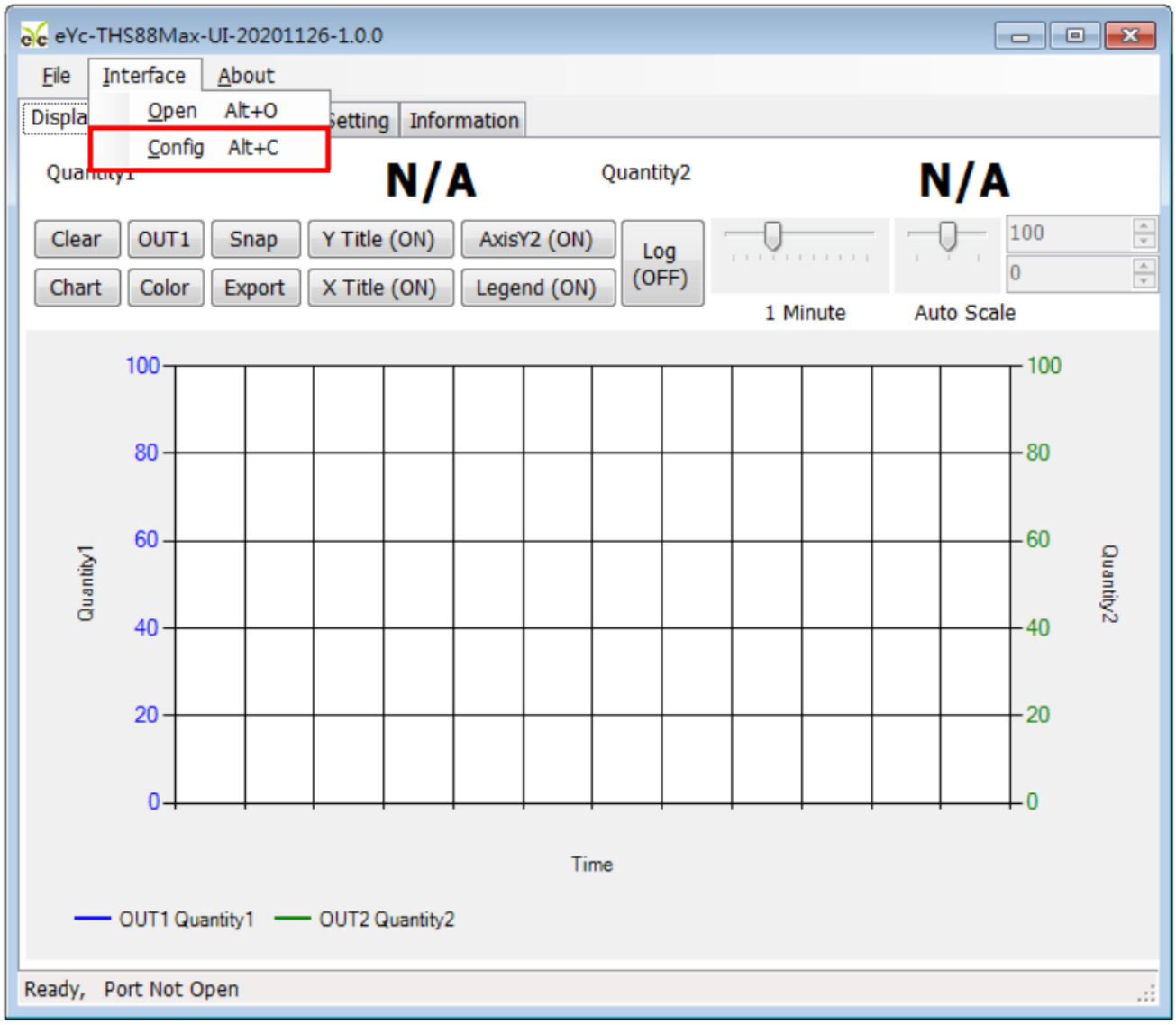
Application Program statement

User may download the configuration software on eyc-tech web site. Please decompress the application prior to execute it. Operating System requirements above Windows XP. Other application program requirements above Microsoft Office 2003

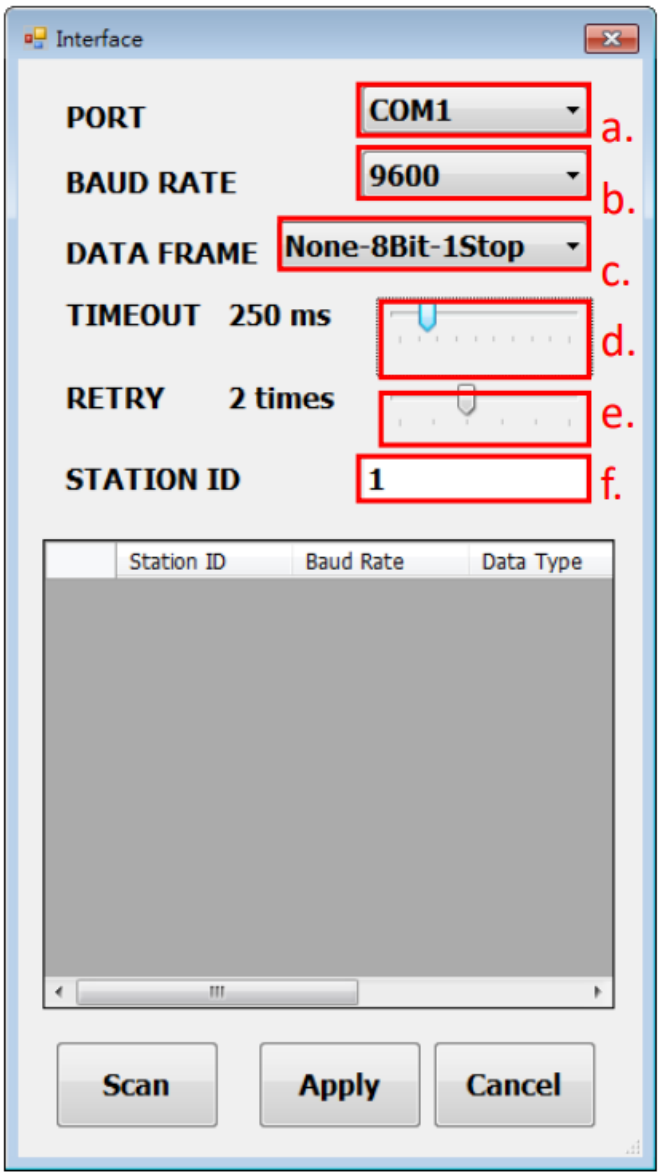


Setting RS-485 connection

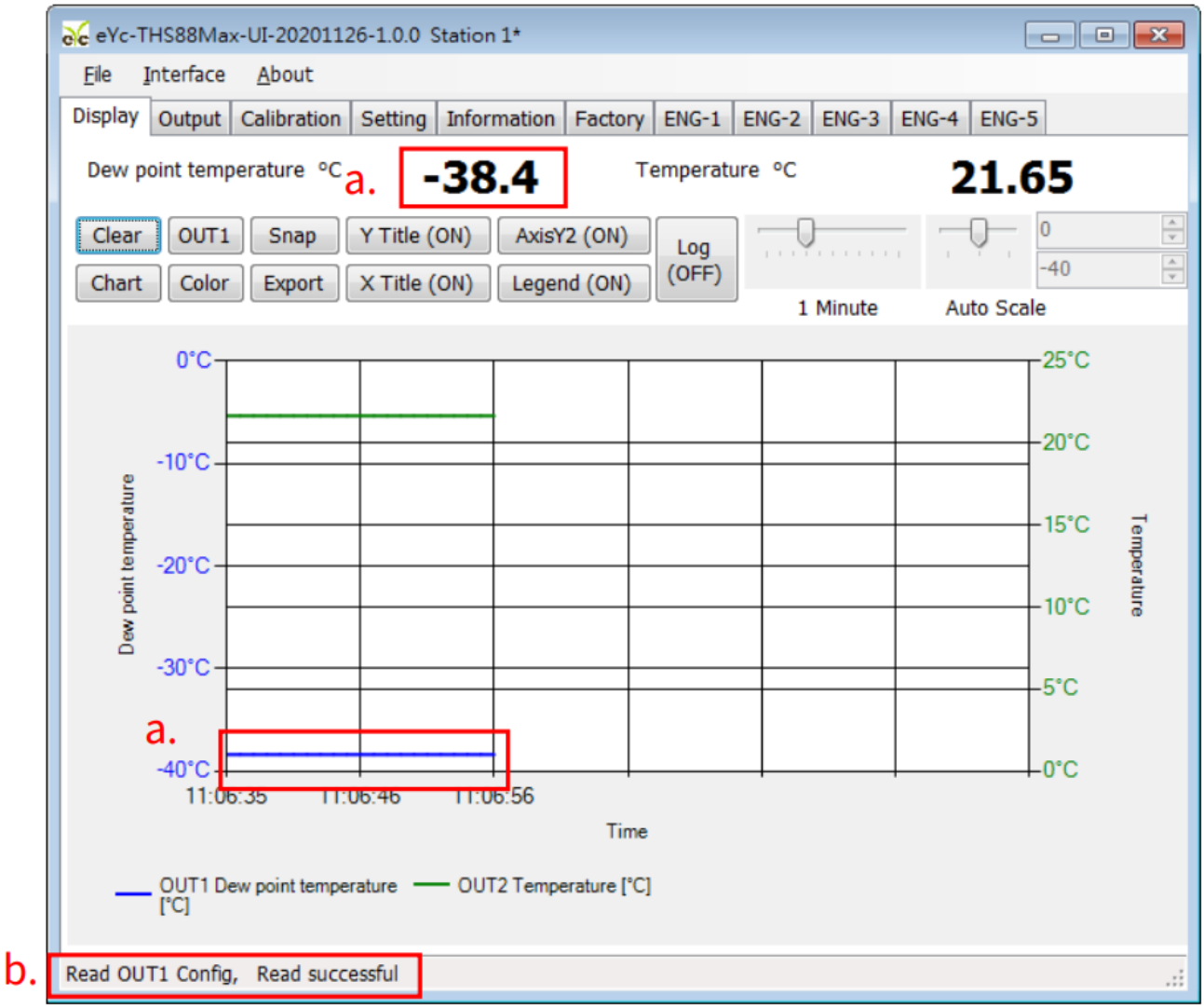
1. Connect product to PC via RS-485 cable
2. Execute “THS UI”
3. Click “Interface > Config”



4. Select the corresponding values of com port as fallowing :
   a. Port Check Come Port
   b. Baud Rate
   c. Data Frame
   d. Timeout
   e. Retry
   f. Station ID(Default 1)



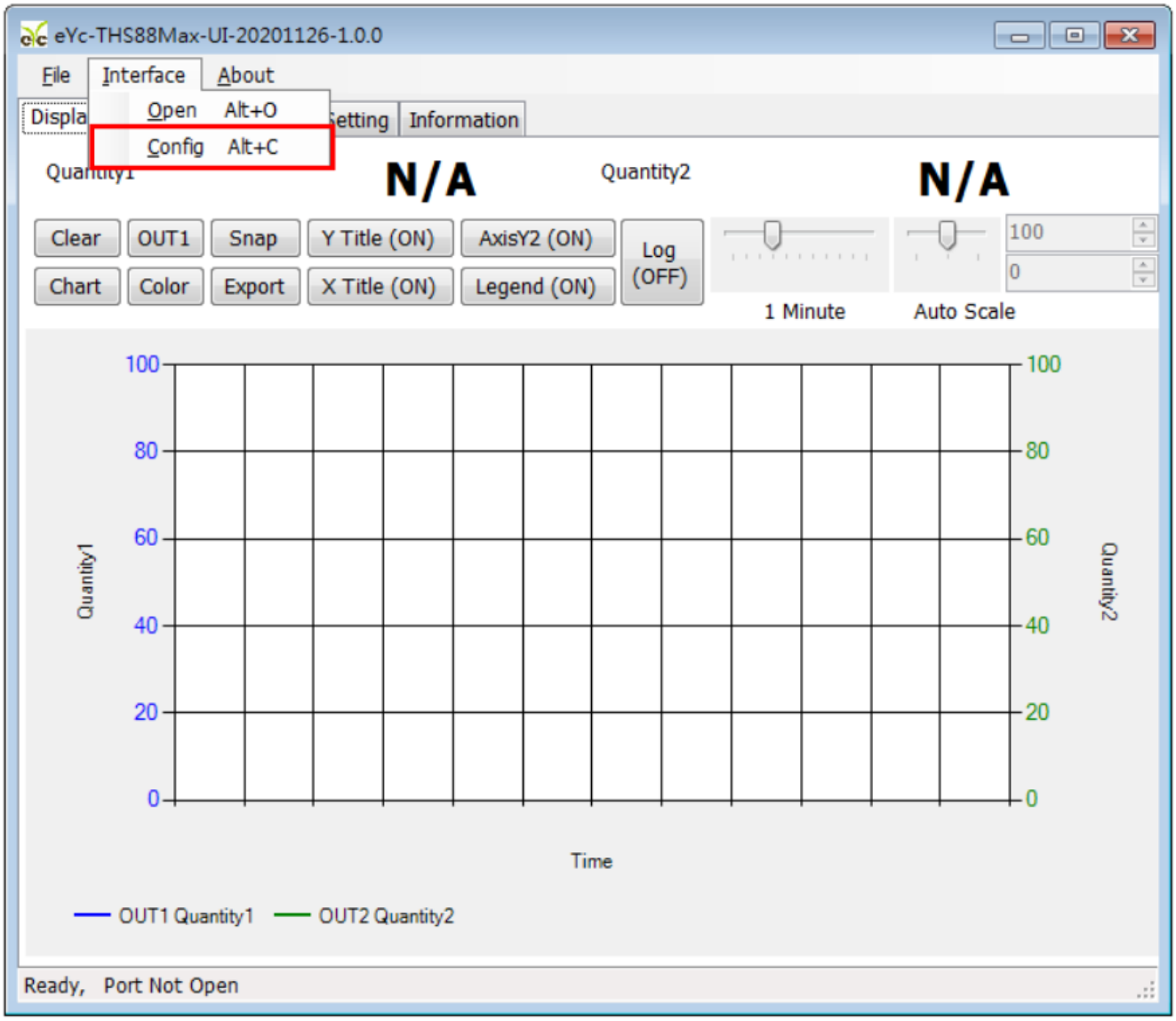
5. Click “Apply”
6. Connect successfuly
   a. Show value and trend chart of Dew point temperature
   b. Show “Open Port, Read successful”



Scan RS-485 connection

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

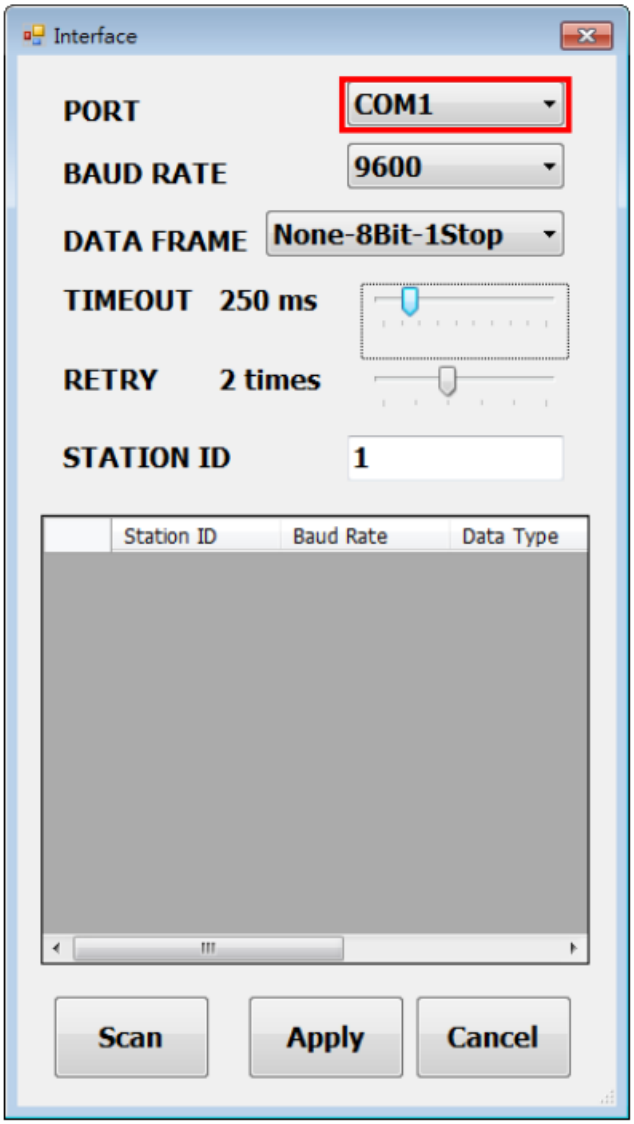
1. Connect the product to PC via RS-485 cable
2. Execute “THS UI”
3. Click “Interface > Config”



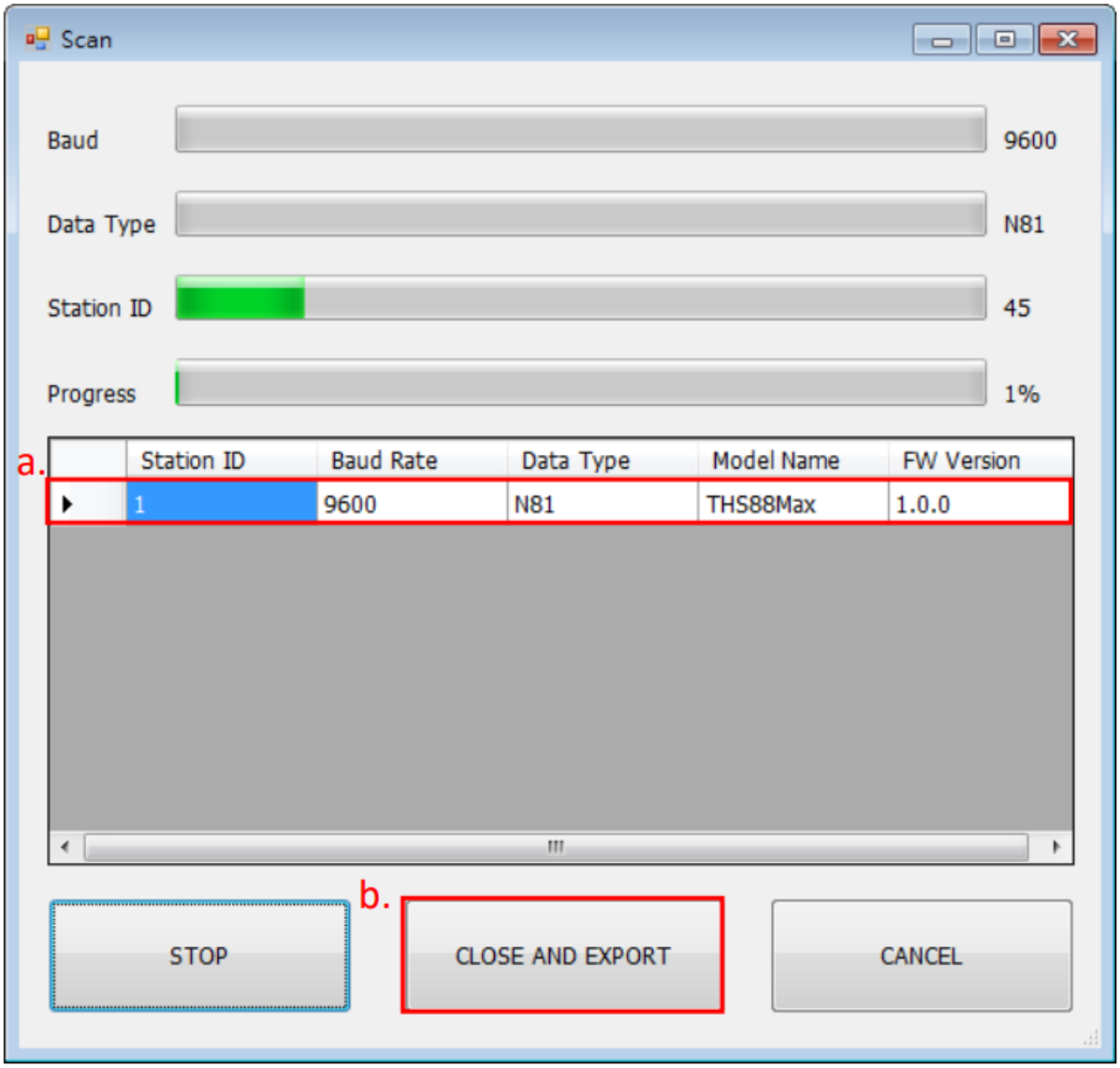
4. Select the corresponding values of com port as fallowing:

   a. Port

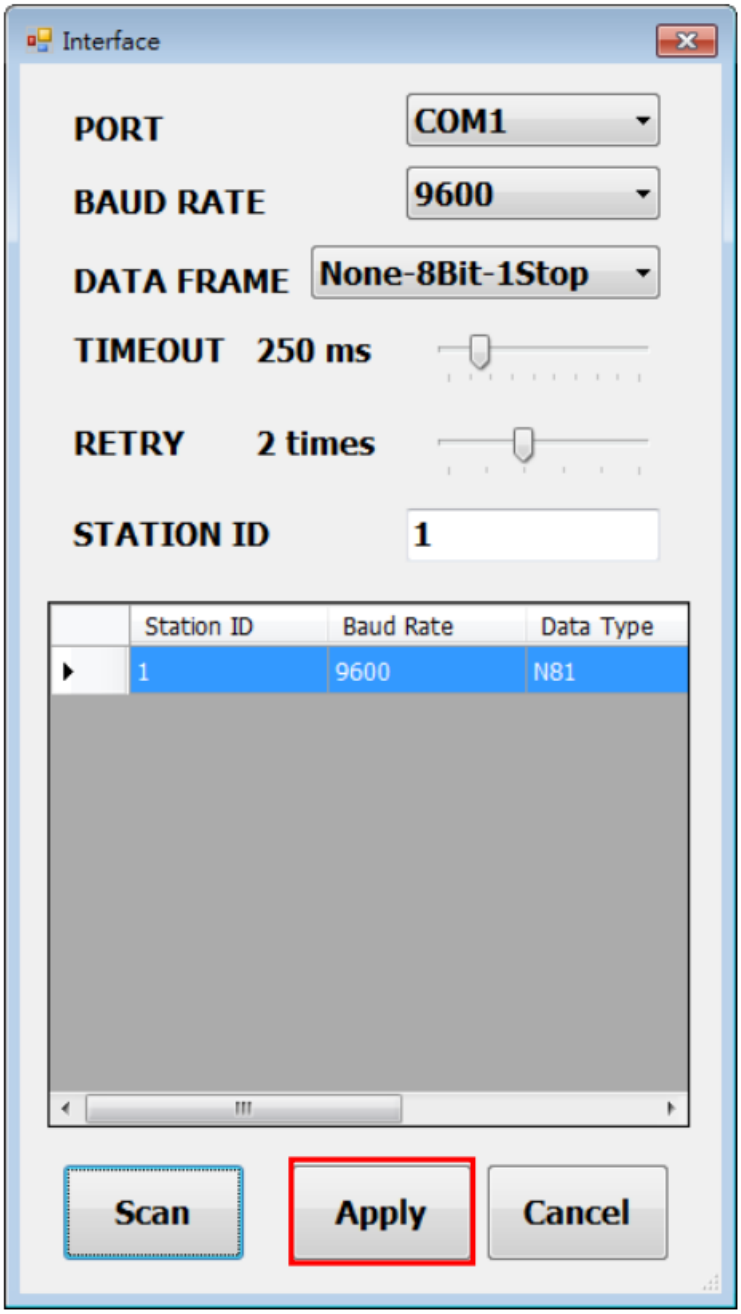
   b. RS-485



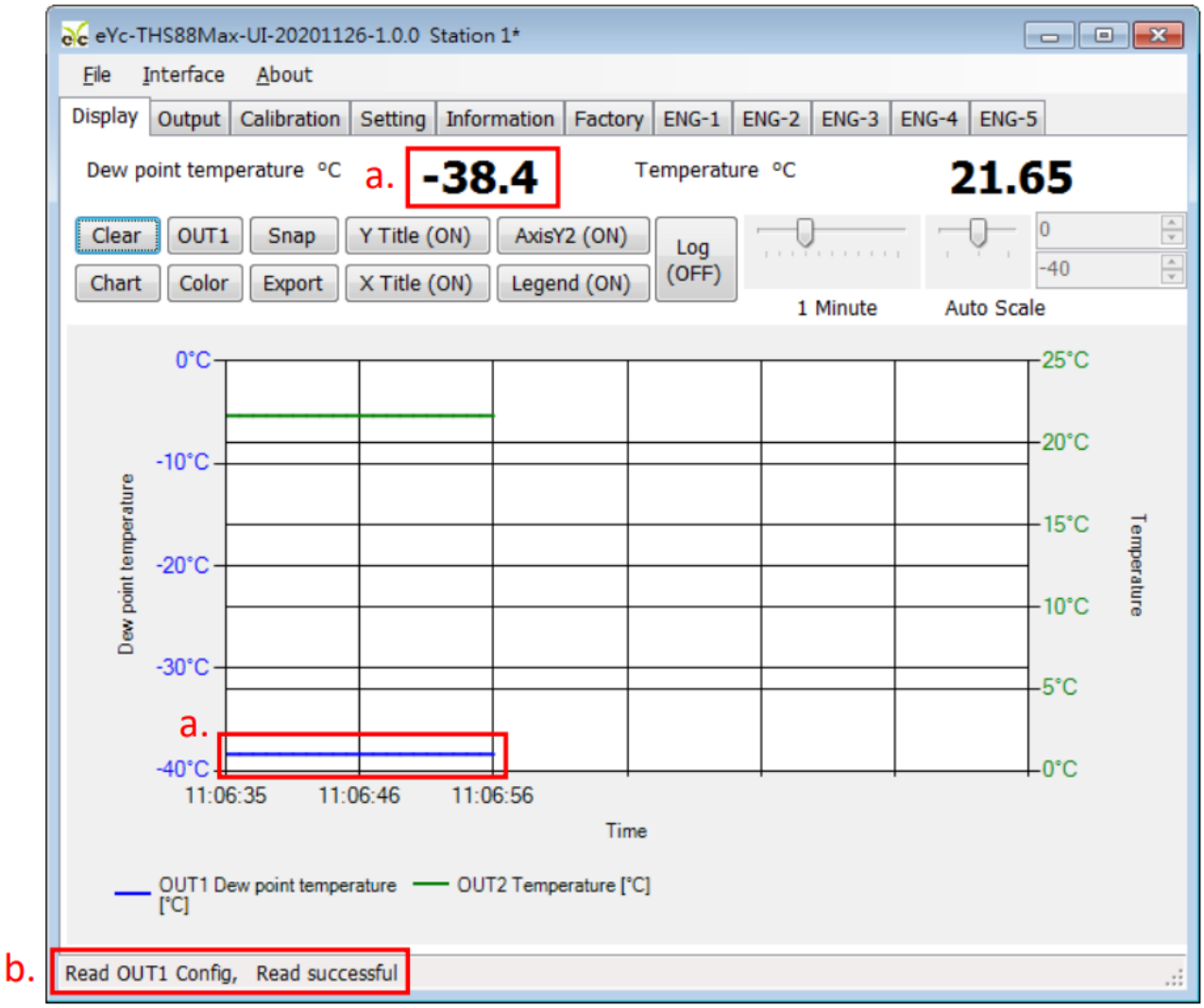
5. Click “Scan” to execute connection facilities
6. Scan connection facilities and set up
   a. Select Station ID
   b. Click “CLOSE AND EXPORT”



7. Click “Apply”

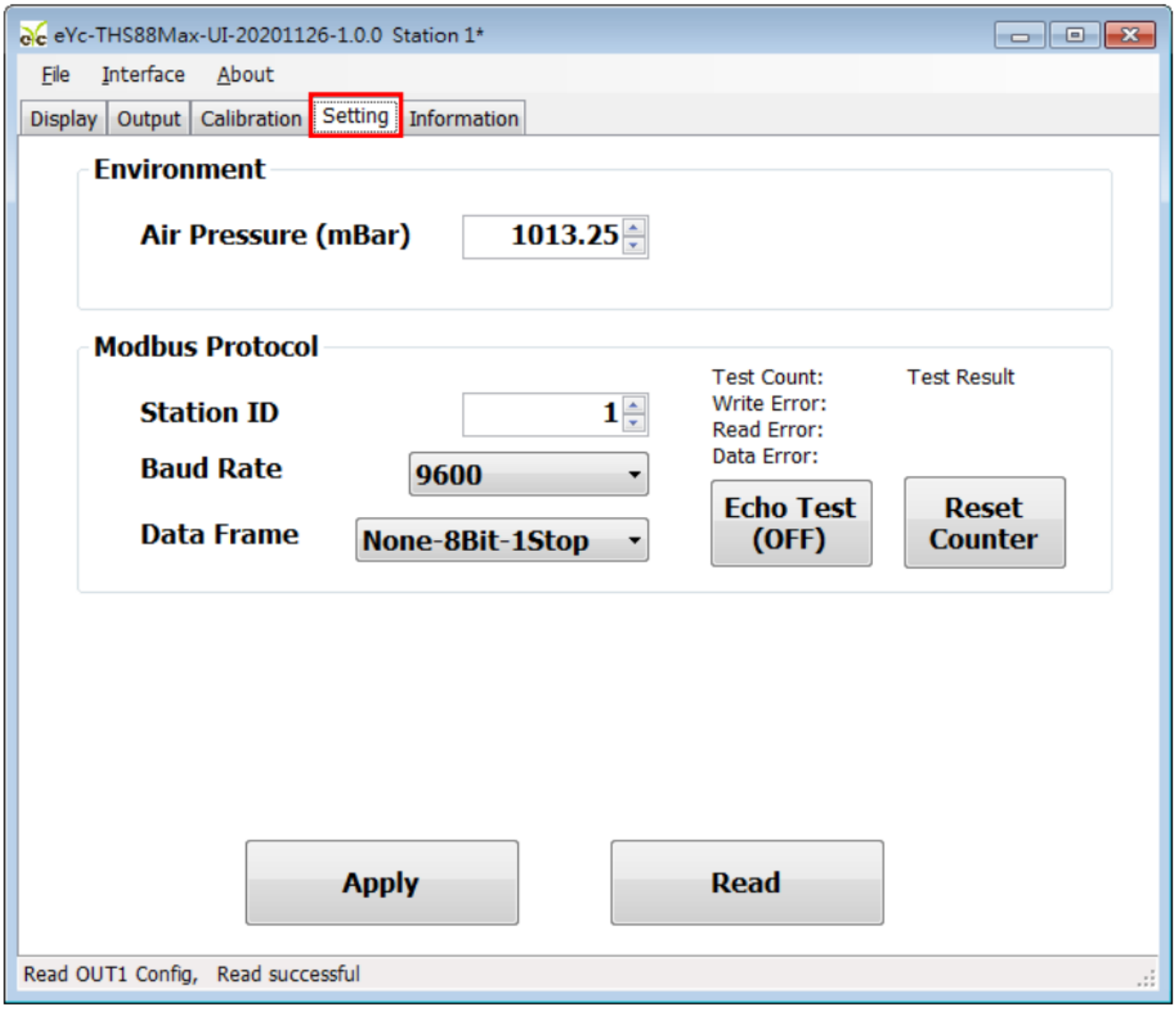


8. Connect successfully
   a. Show values and trend chat Dew point Temperature
   b. Show “Open port, Read successfu



Setting RS-485 ModBus Protocol

1. Setting RS-485 connection step as step 5.1
2. Click “Setting”

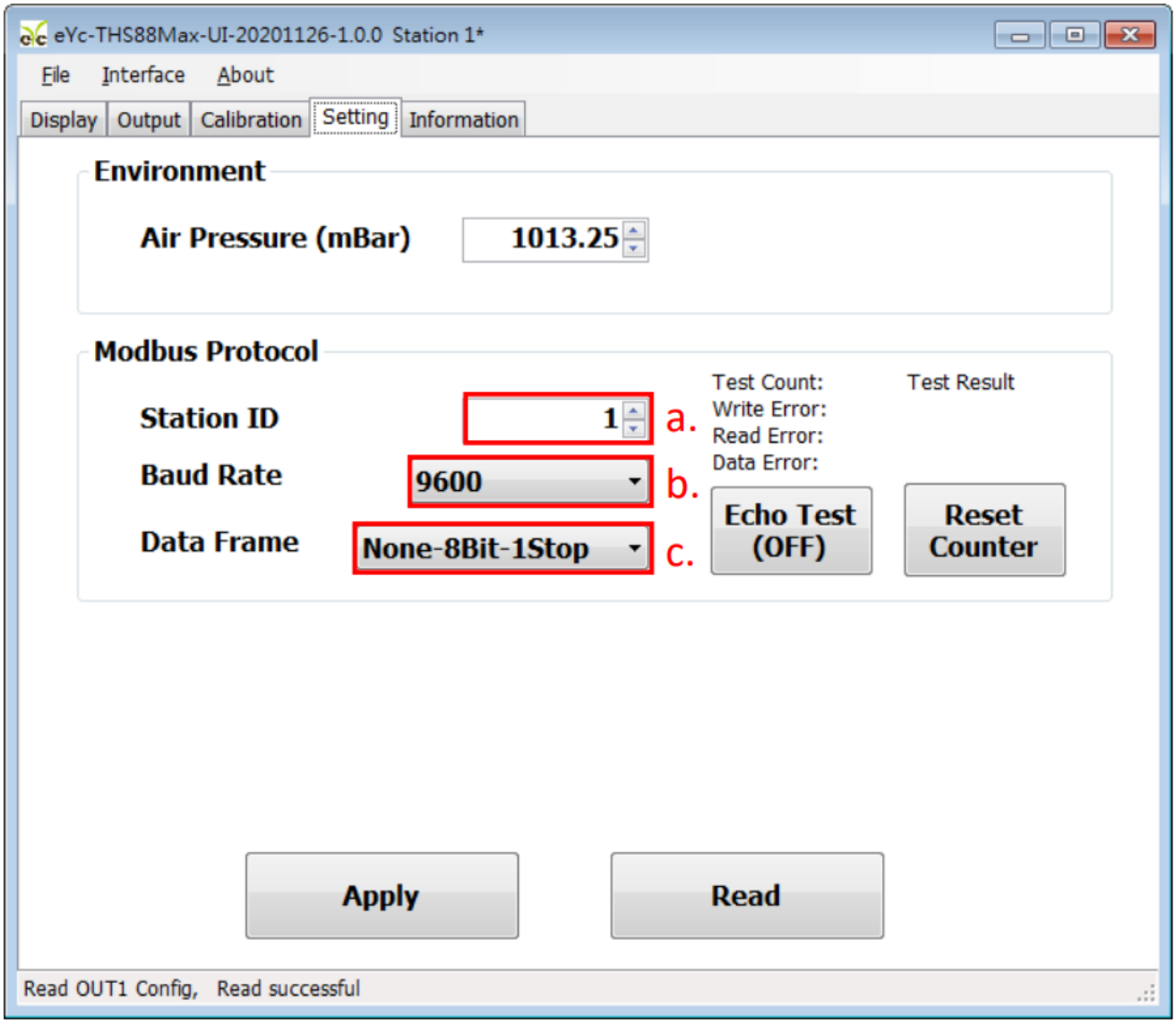


3. Select Modbus Protocol parameter

   a. Station ID 1~247

   b. Baud Rate 9600, 19200, 38400, 57600, 115200

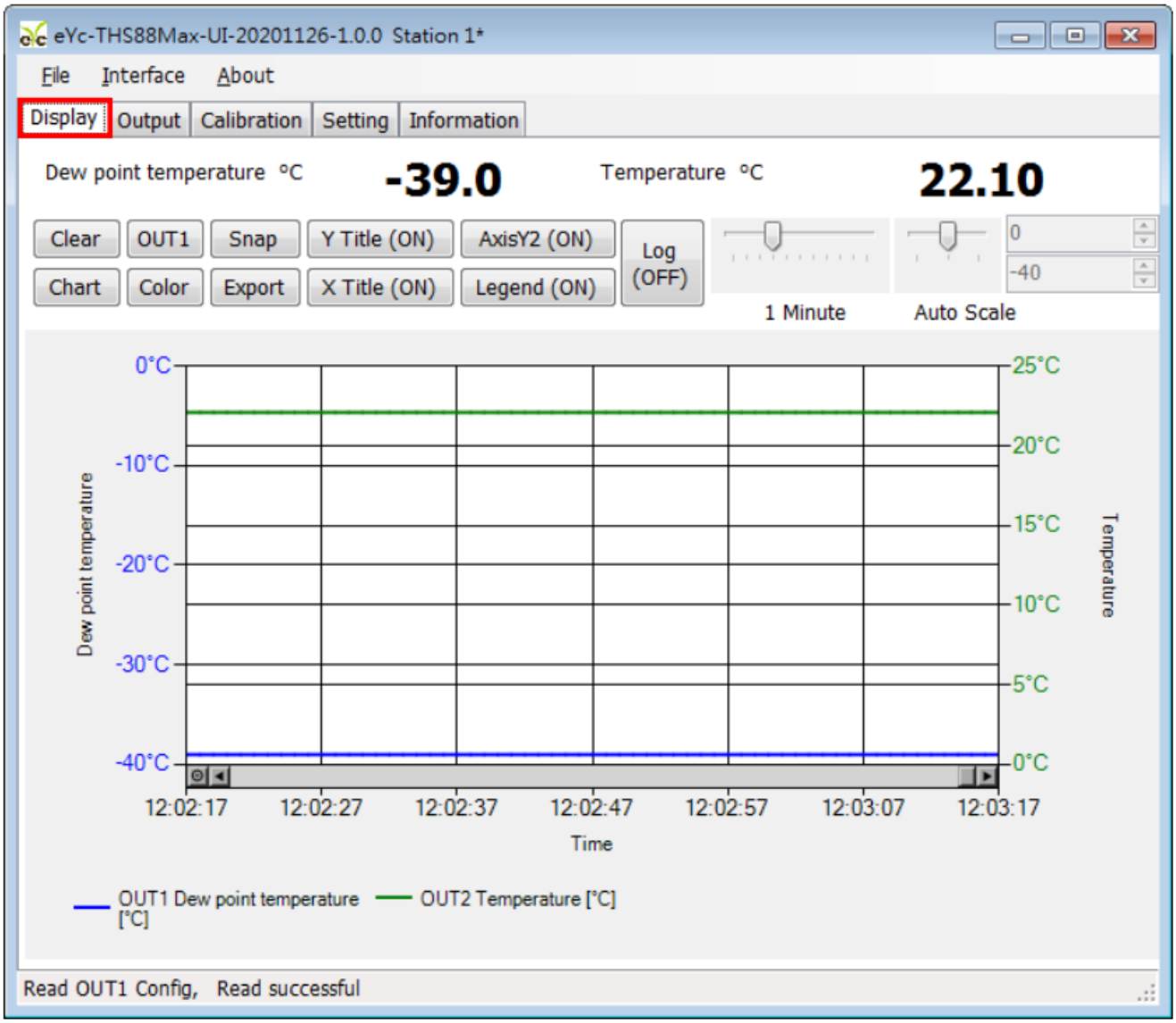
   c. Data Frame None-8Bit-1Stop, None-8Bit-2Stop, Even-8Bit-1Stop, Even-8Bit-2Stop, Odd-8Bit-1Stop, Odd-8Bit-1Stop



4. Click “Apply”
5. Execute connection as step 5.2 or 5.3 again

Display and save data

1. Show Data Click ”Display”



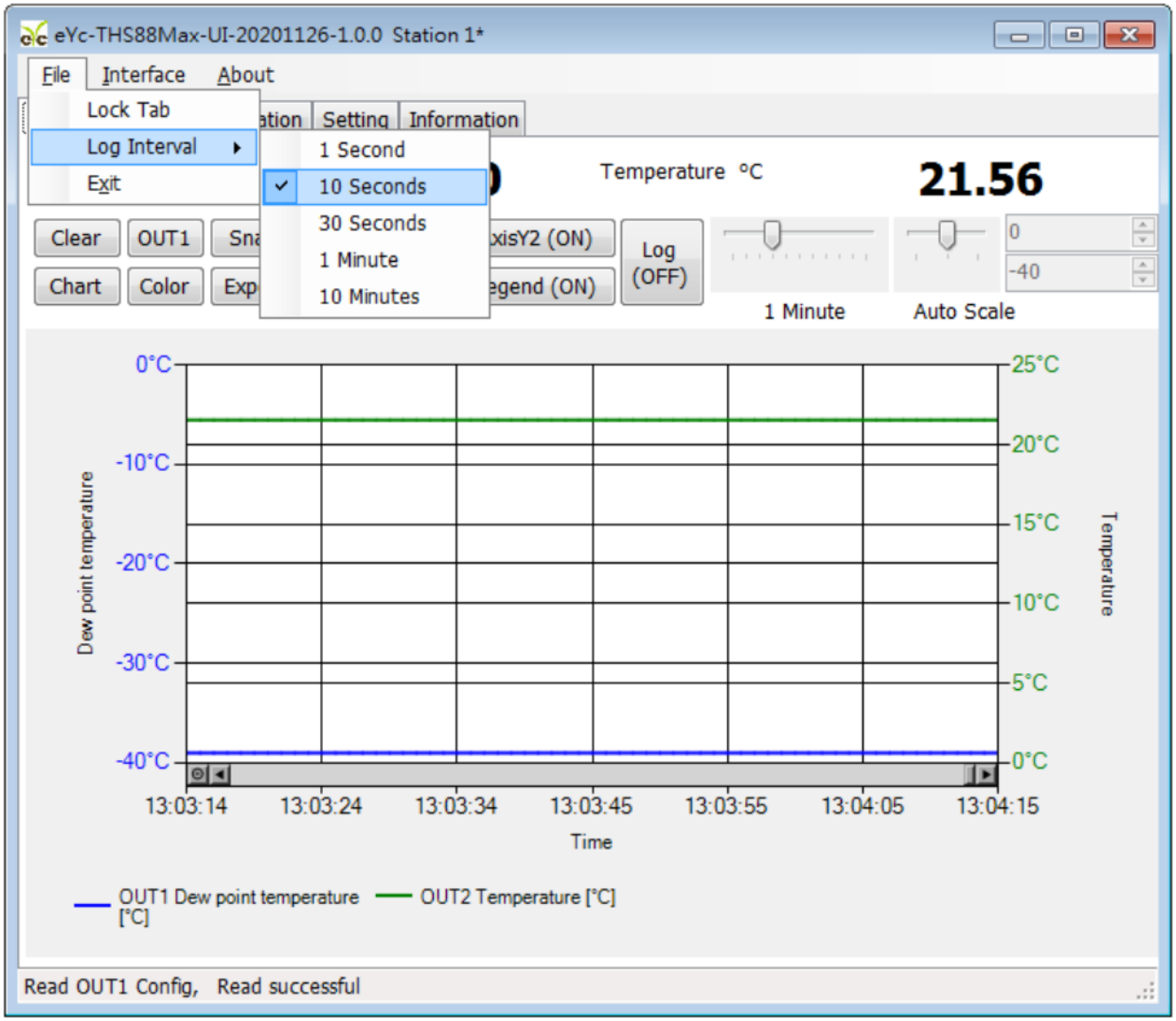
2. Icon function statements

Clear	Clear the chart records	Export	Save the data measuring when the system start connecting before clinking the Export icon
Chart	Change the chart style	Y Title (ON)	Show/Not show the statement of Y axis
OUT1	Select the OUTPUT channel	X Title (ON)	Show/Not show the statement of X axis
Color	Set line color chosen from OUTPUT	AxisY2 (ON)	Show/Not show the statement of Y secondary axis
Snap	Snap chart	Legend (ON)	Show/ Not show chart
Log (OFF)	Show/Not show measuring data		
1 Minute	Adjust time range of X axis		
0 -40 Auto Scale	Adjust time range of Y axis		

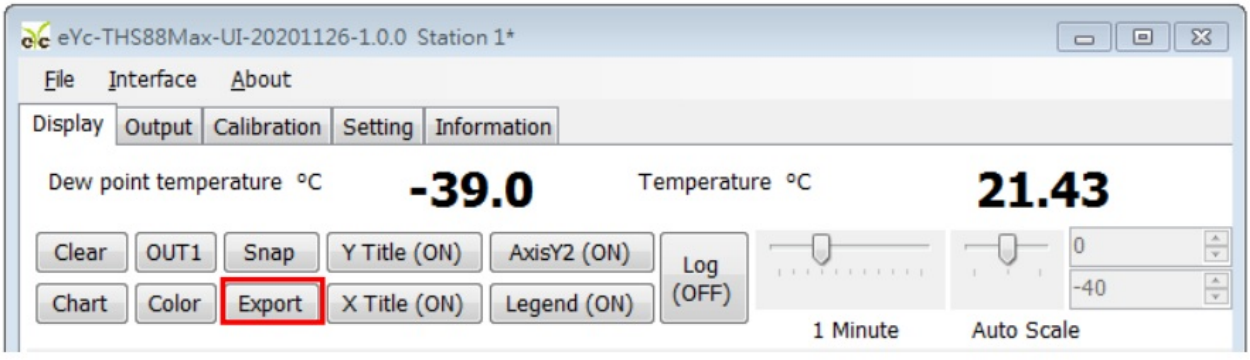
3. Setting time interval of record

a. File > Log Interval

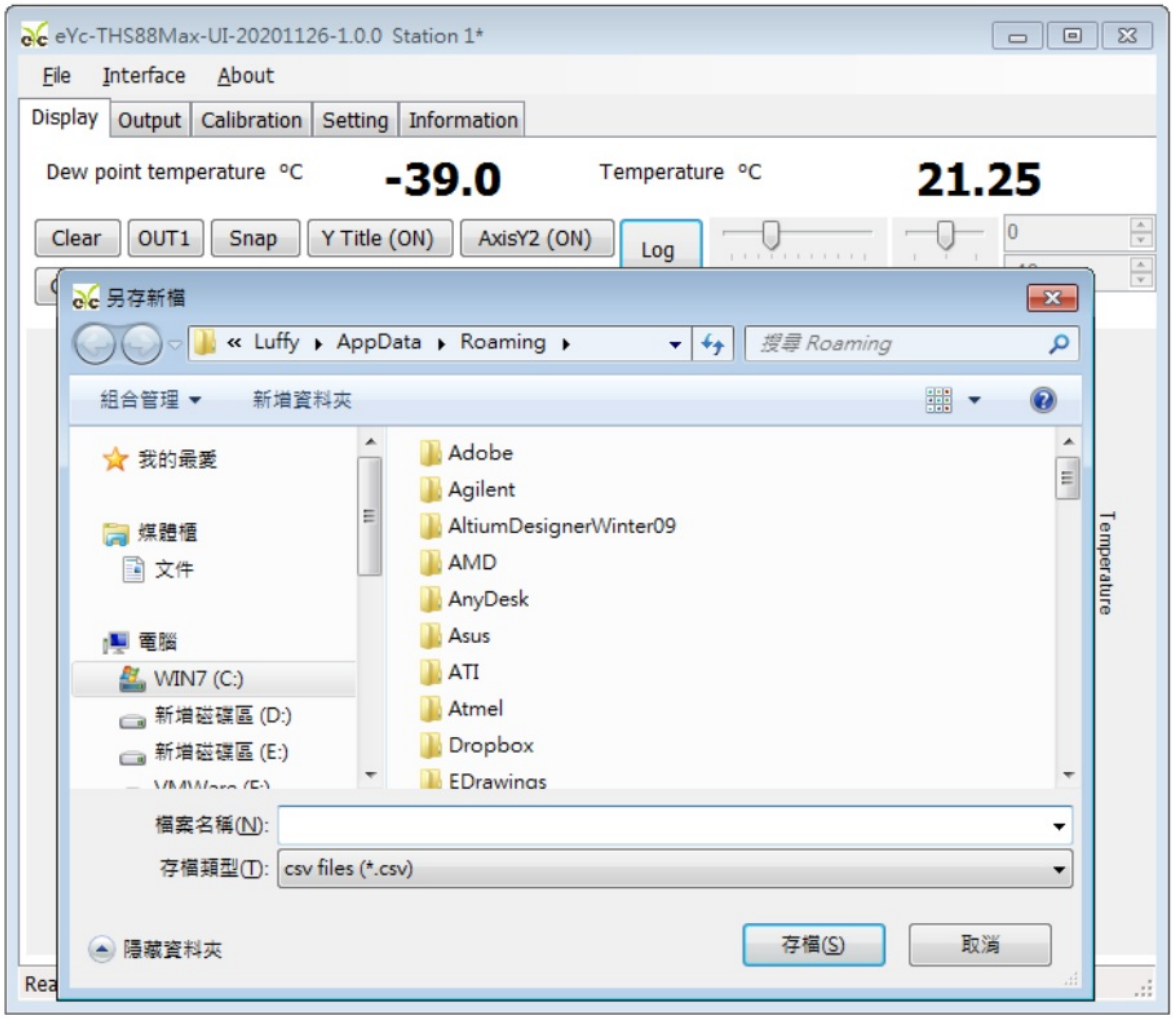
b. Select time interval of record



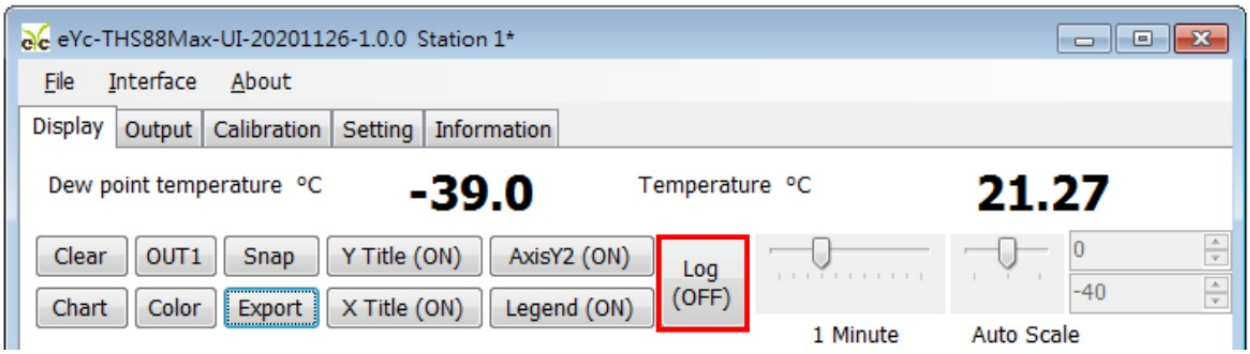
- a. Log measuring range Save the data measuring when the system start connecting
  1. Click Display > Export



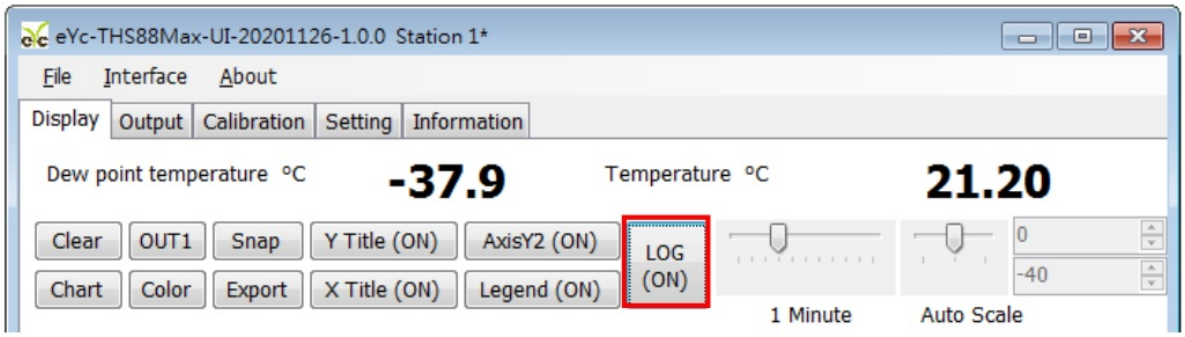
  2. Appoint path and Key in file name > save
     1. If file name is some as the path name, the original file will be over write.



- **b**. Log measuring data Log the data which is on from start or off
  1. Display > Log(OFF)

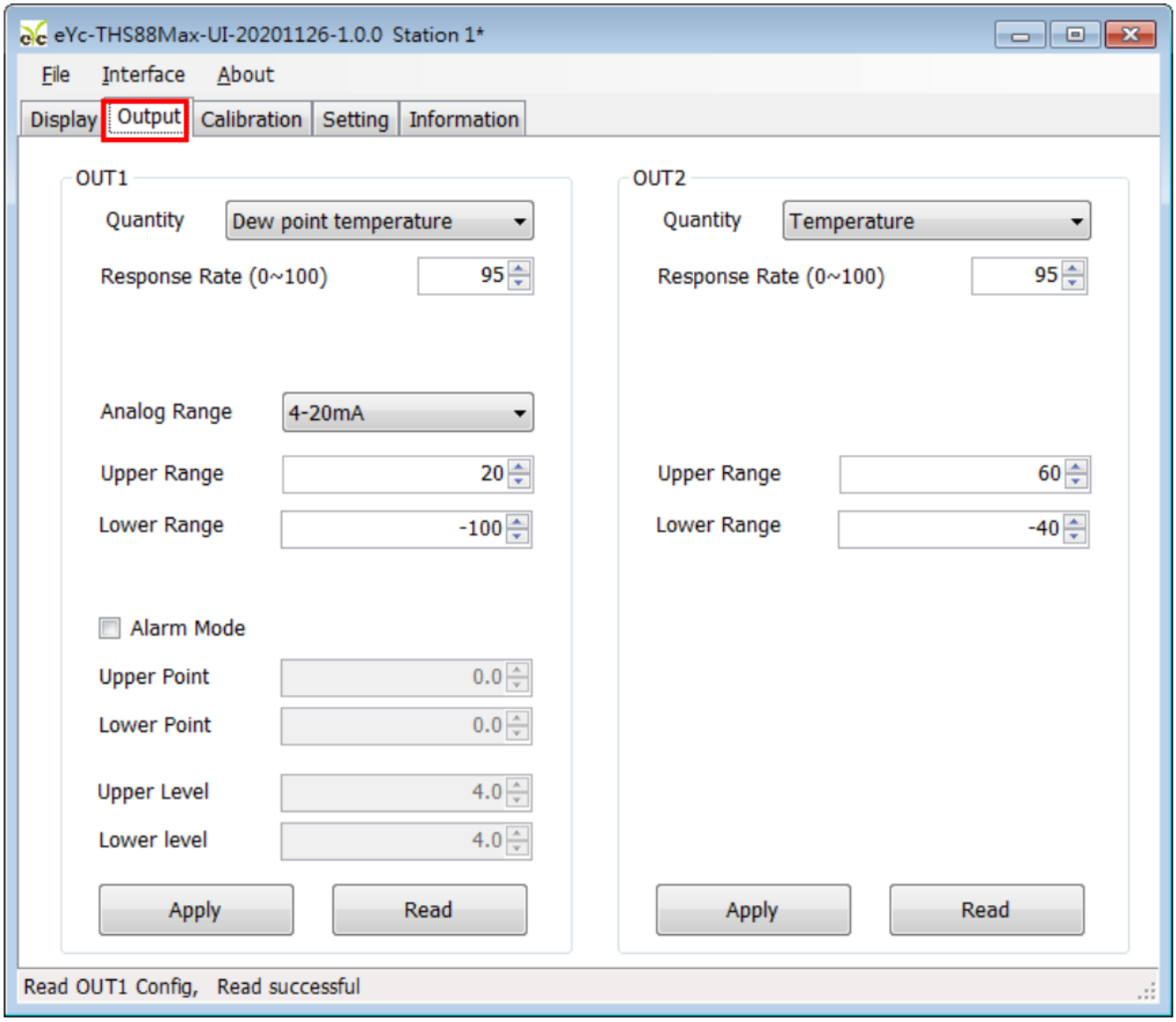


  2. Appoint path and Key in file name > save > Log (ON)
     1. If file name is some as the path name, the original file will be over write.

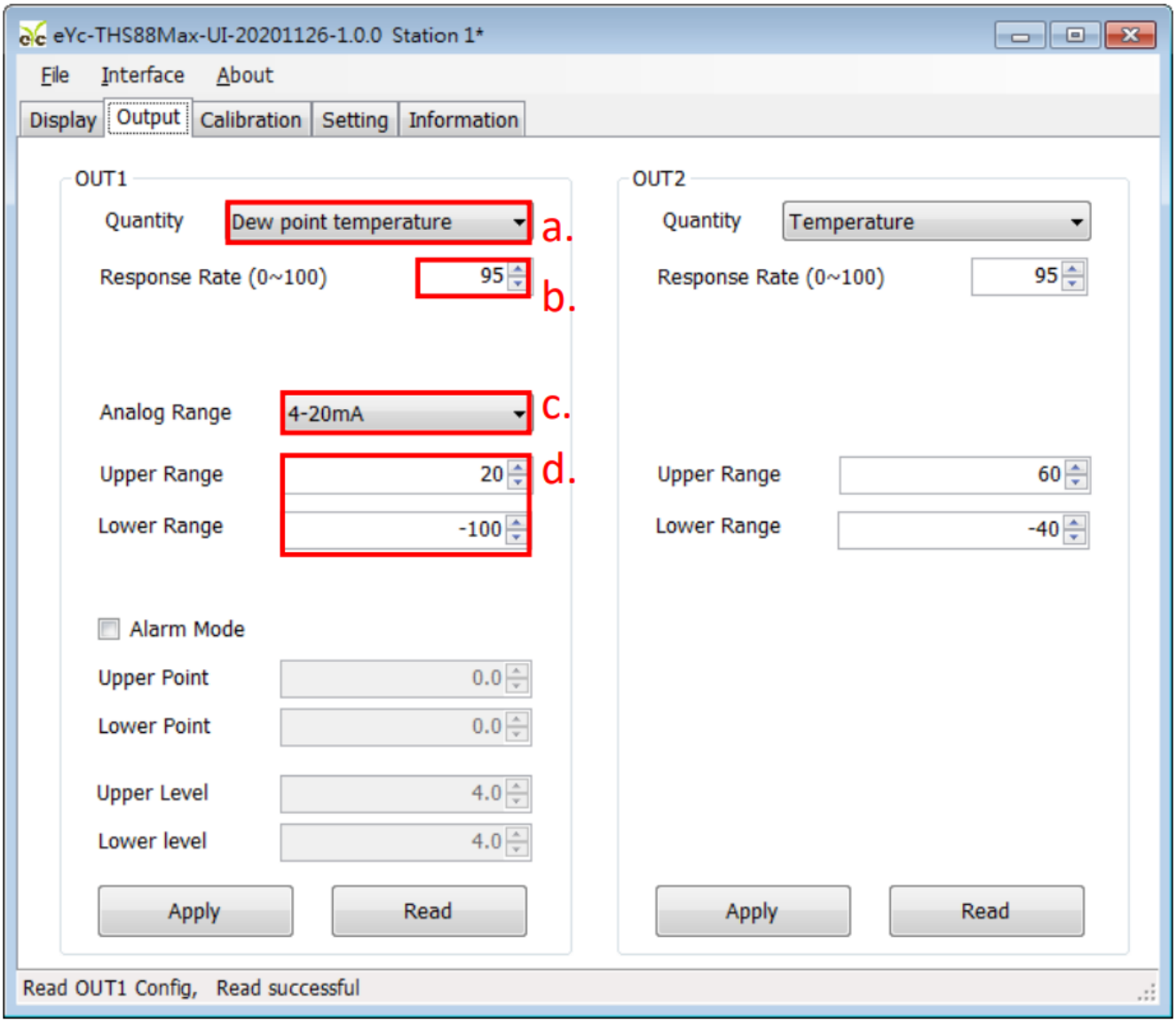


Choose parameter of Output

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

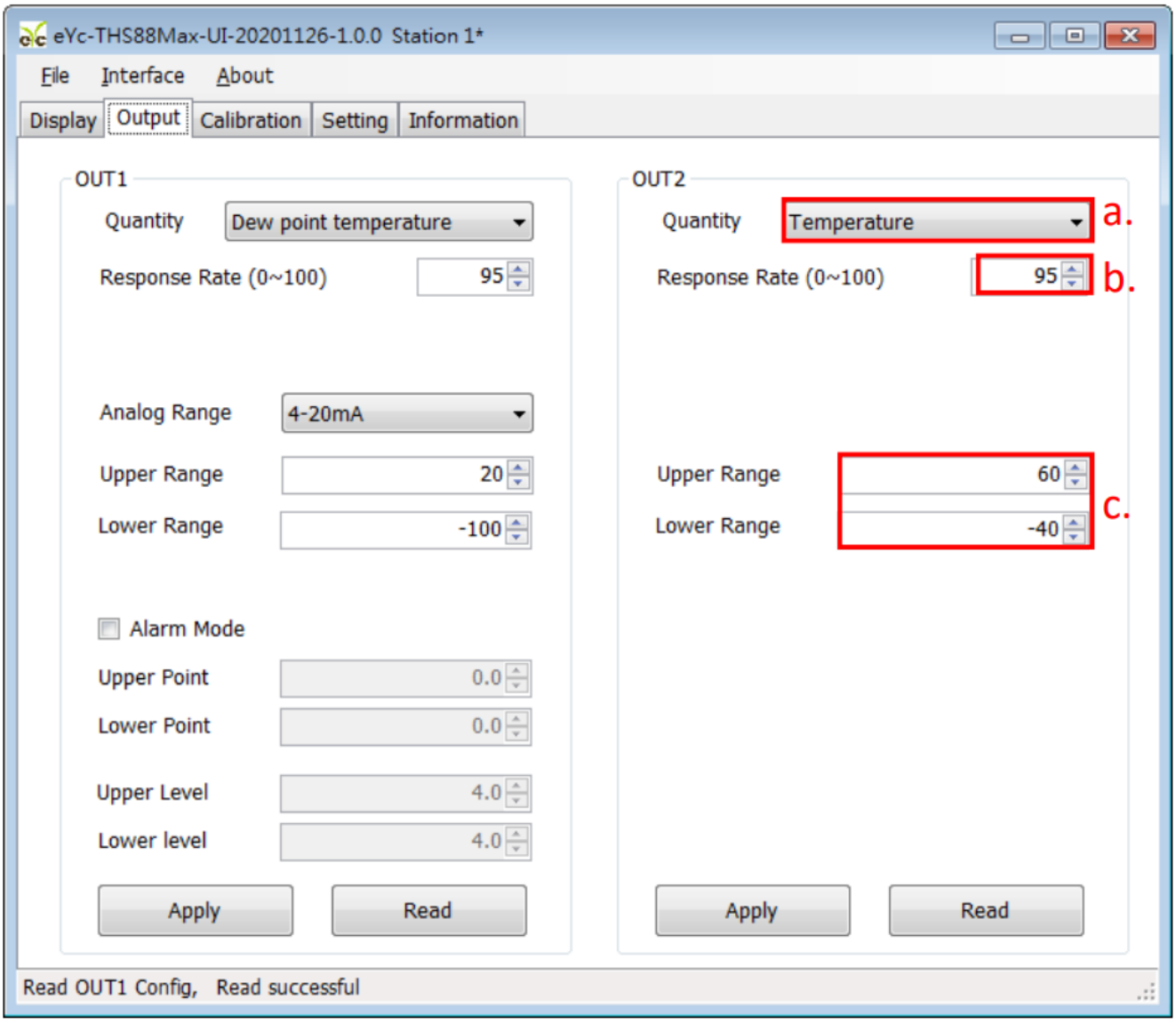


3. Click “Apply”
4. Select relative parameters of Output2

   a. Measures

   b. Responding Rate

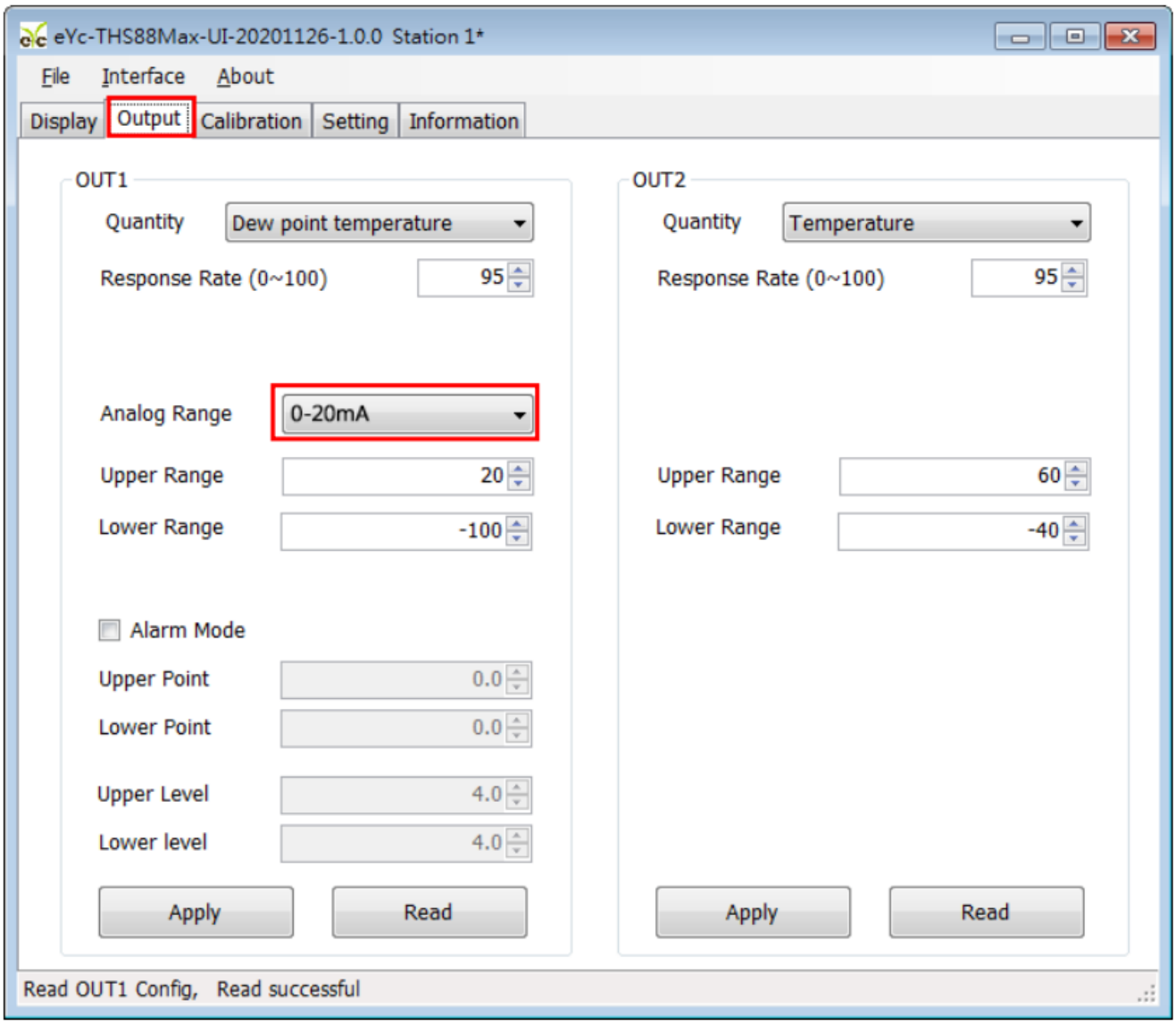
   c. Upper and Lower point of Output



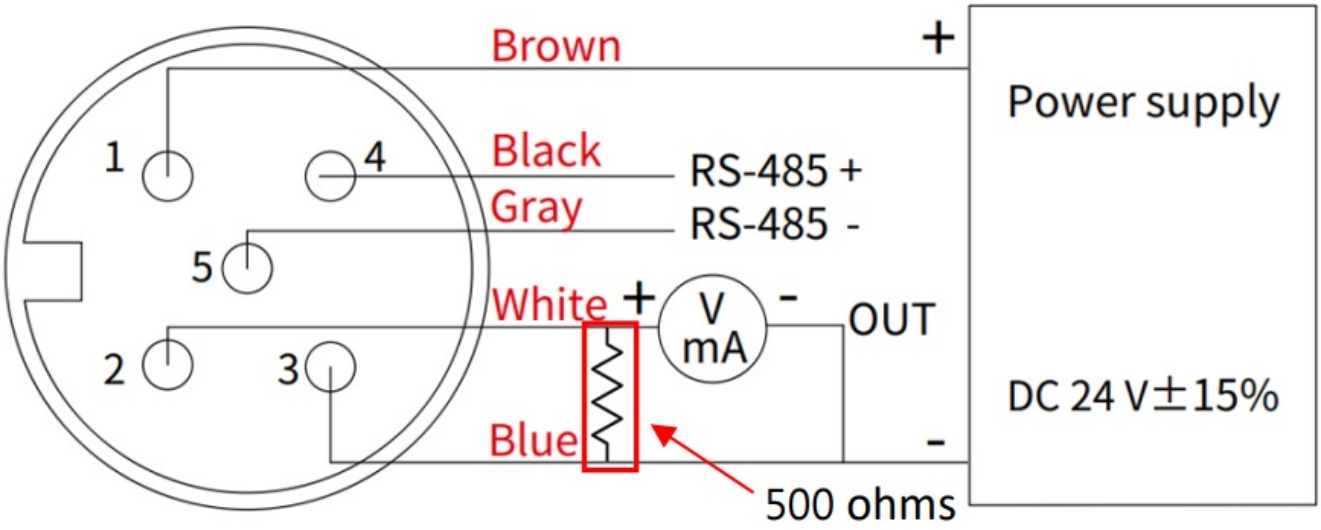
5. Click “Apply”

Convert 4-20mA to 0-10V

1. Select Current to 0-20mA in UI.



2. Please Connect 500 ohms in parallel at the output.



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
◦ No output ◦ Unstable output	◦ Disconnected wiring ◦ Loose wiring ◦ Power supply voltage ◦ Sensor damages	◦ Re-perform wiring ◦ Crew on terminal tightly or replace wire s ◦ Replace the sensor
◦ Slow response to out put ◦ Errow in output	◦ Moisture /condensation on th e product ◦ Check installed location ◦ Check installed angle ◦ Check dust and contaminatio n on the sensor	◦ Remove the sensor and filter. Dry pow er-off state sensor in clean air seasoning ◦ Refer to the section ◦ Align measurement head with flow dire ction ◦ Cleaning the filter ◦ Changing the filter ◦ Calibrate ◦ Replace the sensor

Customer Support

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

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Documents / Resources

	eyc-tech THS88MAX Dew Point Industrial Dew Point Transmitter [pdf] Instruction Manual THS88MAX Dew Point Industrial Dew Point Transmitter, THS88MAX, Dew Point Industrial Dew Point Transmitter, Industrial Dew Point Transmitter, Dew Point Transmitter, Point Transmitter

References

- eyc-techï½œTaiwan measurement specialist, sensor manufacturer
- User Manual