THS88 High Pressure Dew Point Transmitter

eyc-tech

Operation manual

1. Features

1.1 THS 88 is based on capacitive humidity sensor and RTD PT100 platinum resistance sensor design. It has temperature compensated and linear correction with high precision and stability. Furturemore, various physical quantity is capable to program by the software. With RS485 and MODBUS RTU communication interface will be easy to monitoring.

1.2 Application

Monitoring for industrial process/ air conditioning/ environmental ventilation control
Environmental monitoring for building/ factory/ clean room/ Lab.
Monitoring for storeroom/ crisper/ agriculture/ food industry
Dew point measuring in hospital/ pharmaceutical industry/ textile industry.

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 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 wring 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.
- ●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 electric 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.

CE

EN 61326-1:2013

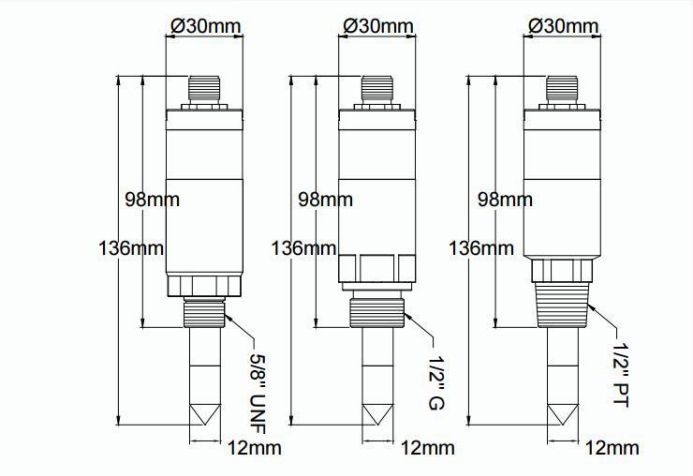
CISPR11:2009+A1:2007+A2:2010

Immunity

EN61326-1:2013

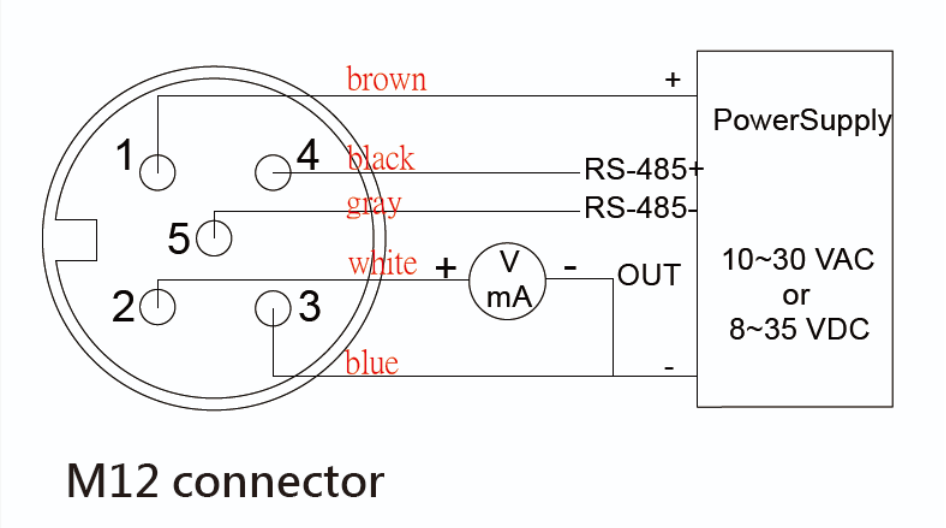
IEC 61000-4-2:2008，IEC 61000-4-3:20066+A1:2007/A2:2010，IEC 61000-4-8:2009)

3. Dimension



※ standard ─ PVC-5PIN 2M waterproof cable

4. Connection



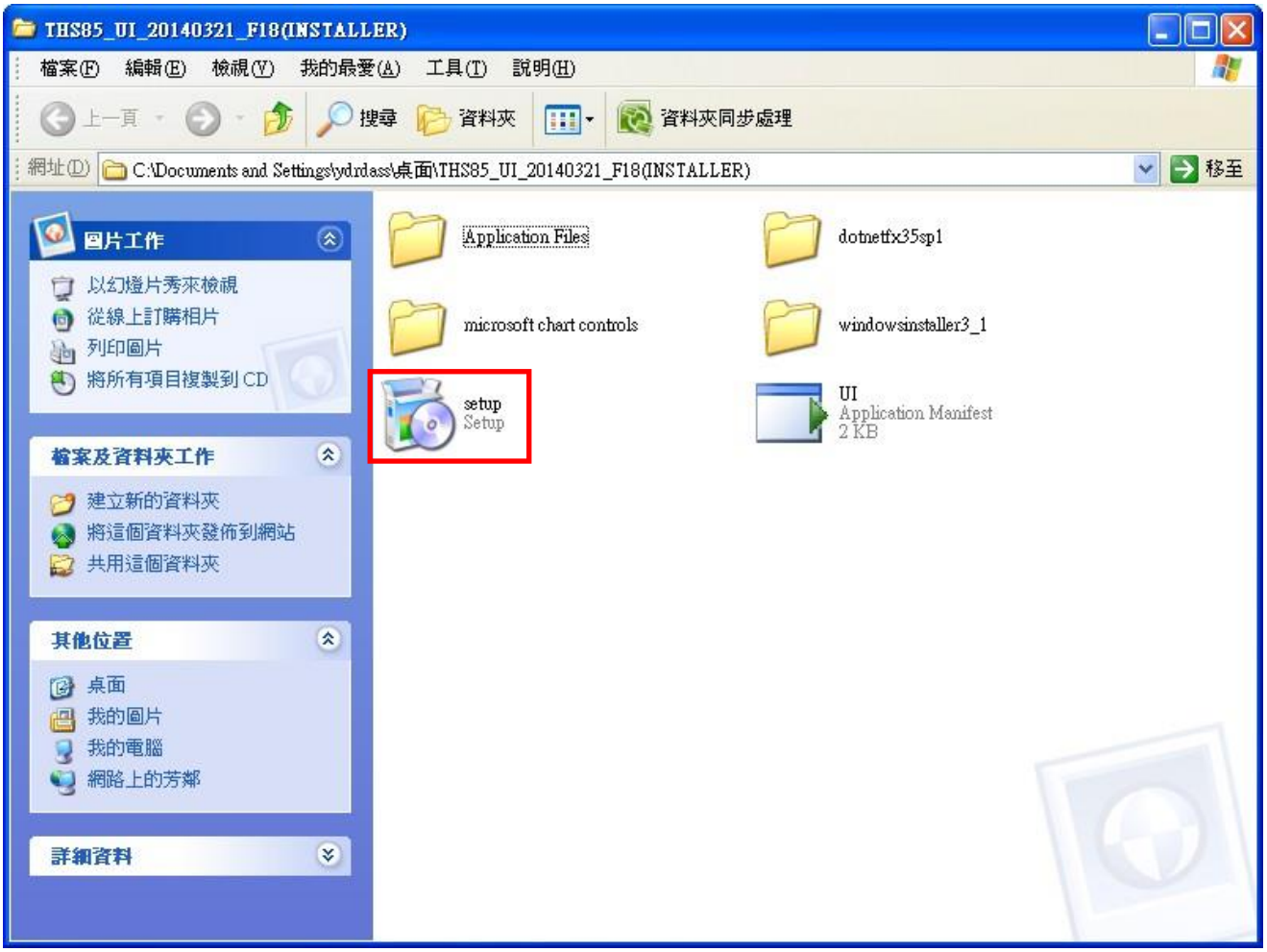
5. Software and calibration operation step

5.1 Application Program statement

1. Free installation program：THS UI_F19D.exe

（※Please use installation program when free program doesn't execute）

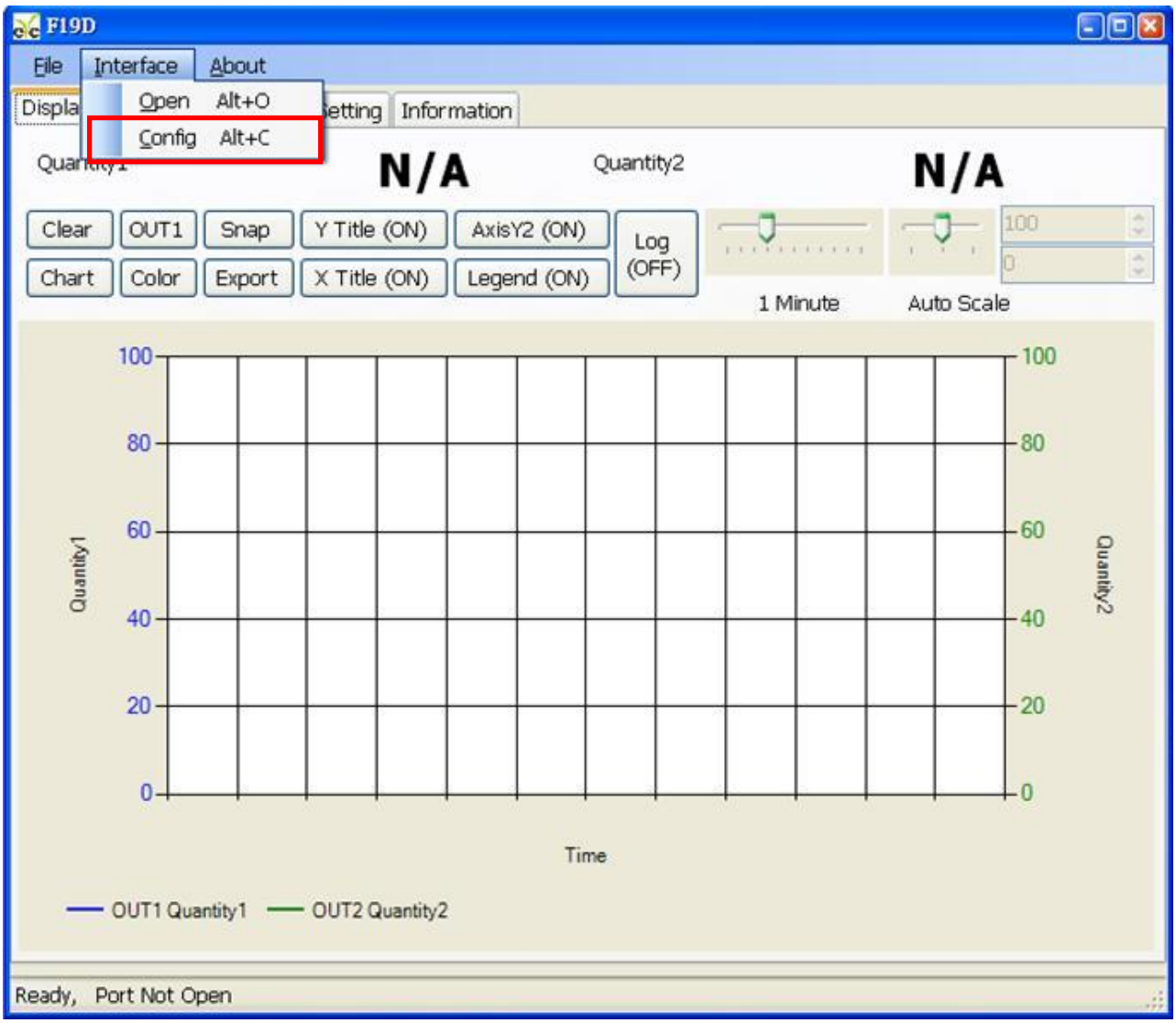
2. Installation program：THS_UI_F19D(INSTALLER).rar
   a. Operating System requirements：above Windows XP
   b. Click Setup to install



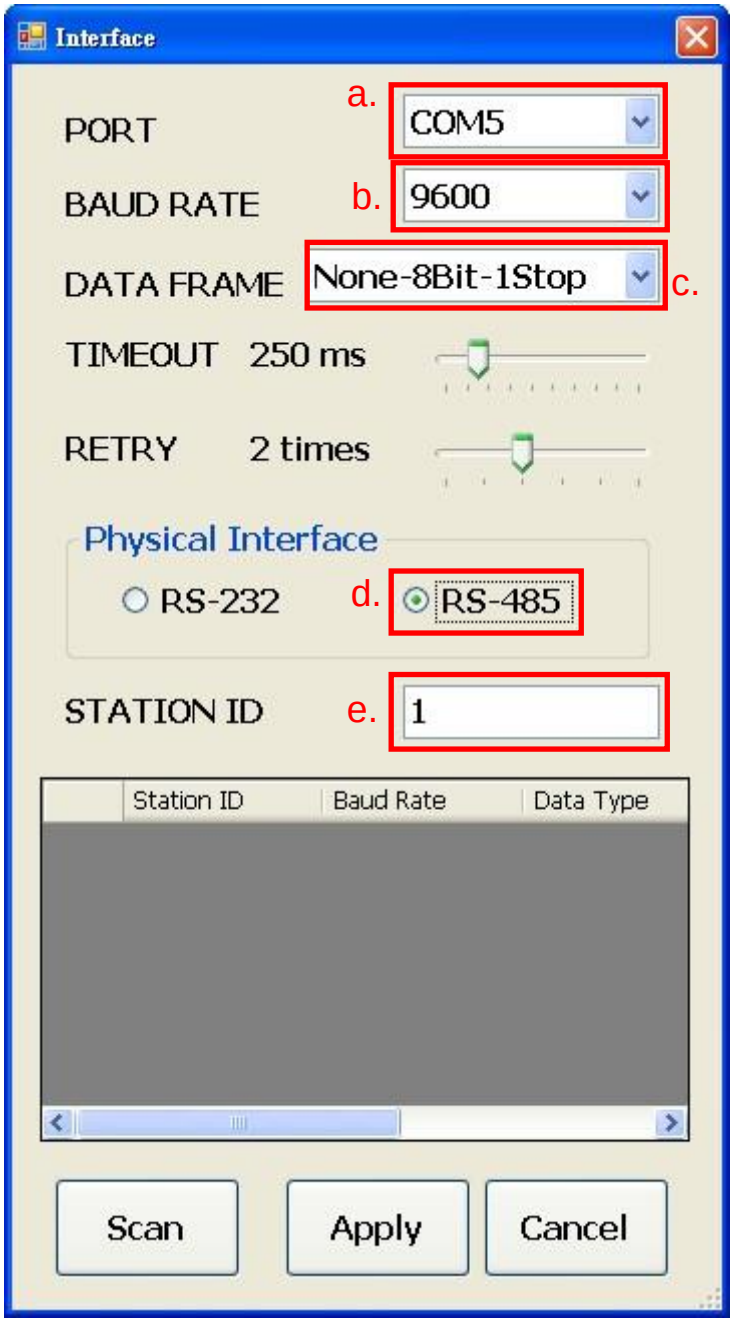
3. Other application program requirements：above Microsoft Office 2003

5.2 Setting RS-485 connection

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

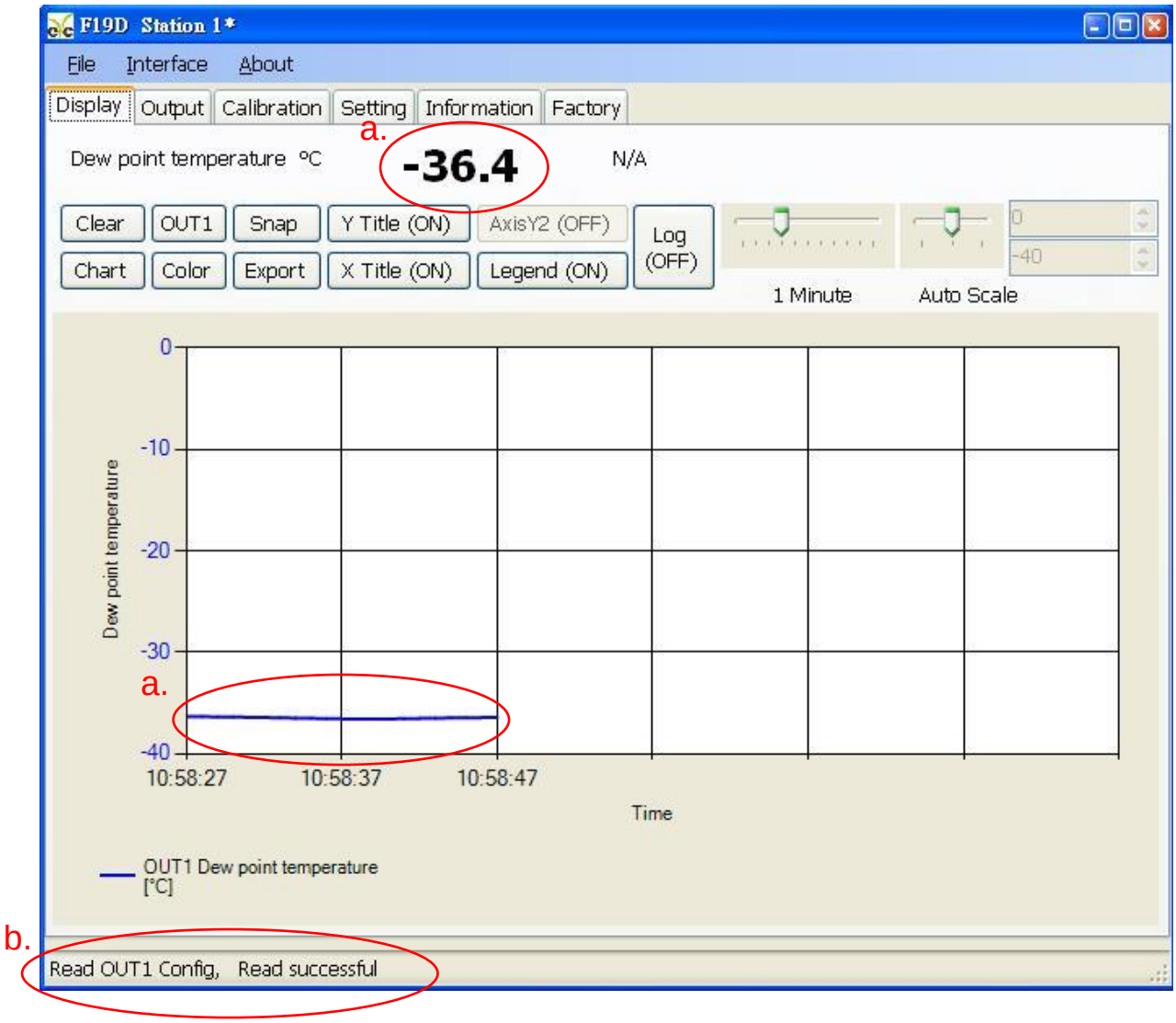


4. Select the corresponding values of com port as fallowing :
   a. Port：Check Come Port
   b. Baud Rate
   c. Data Frame
   d. RS-485
   e. Station ID(Default 1)



5. Click “Apply”

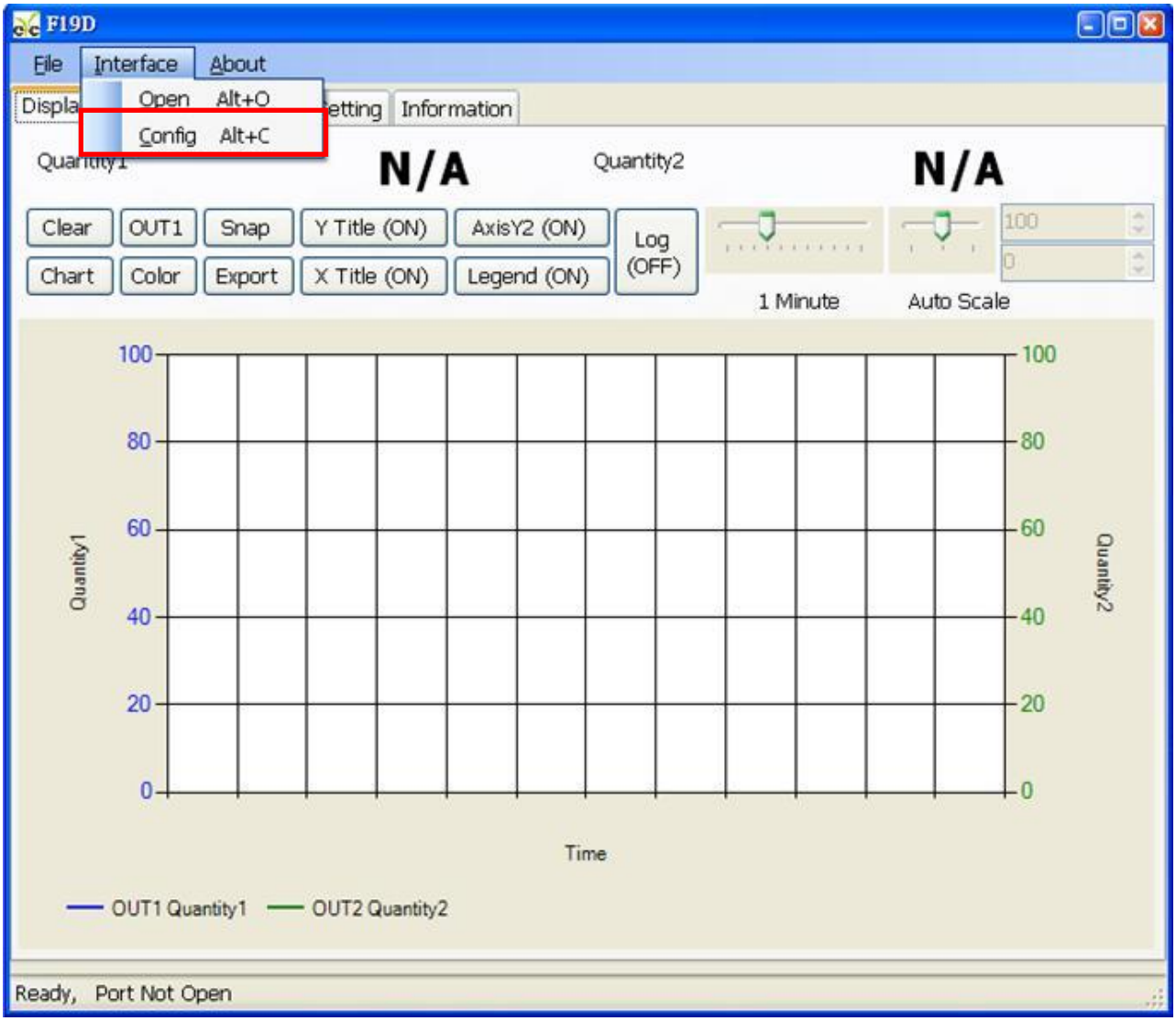
6. Connect successfully
   a. Show value and trend chart of Dew point temperature
   b. Show “Open Port, Read successful”



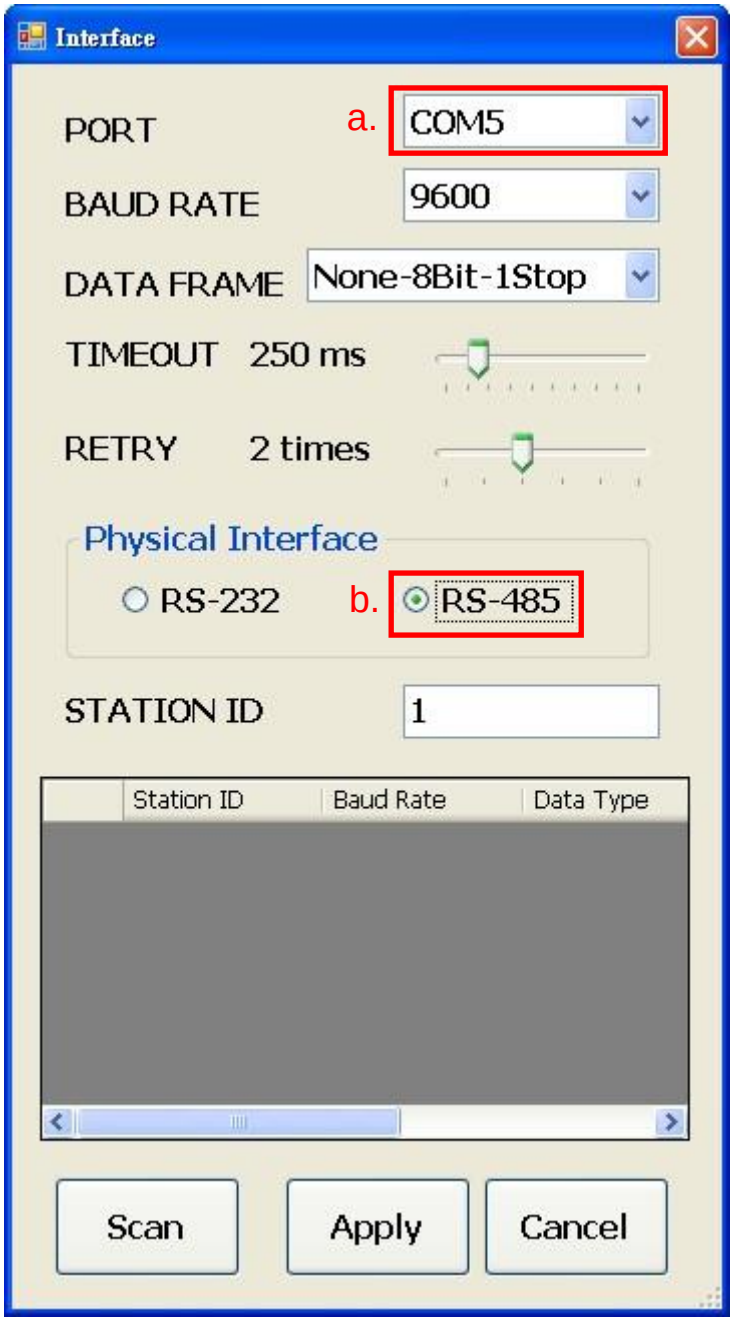
5.3 Scan RS-485 connection

※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 “THS UI”
3. Click “Interface > Config”

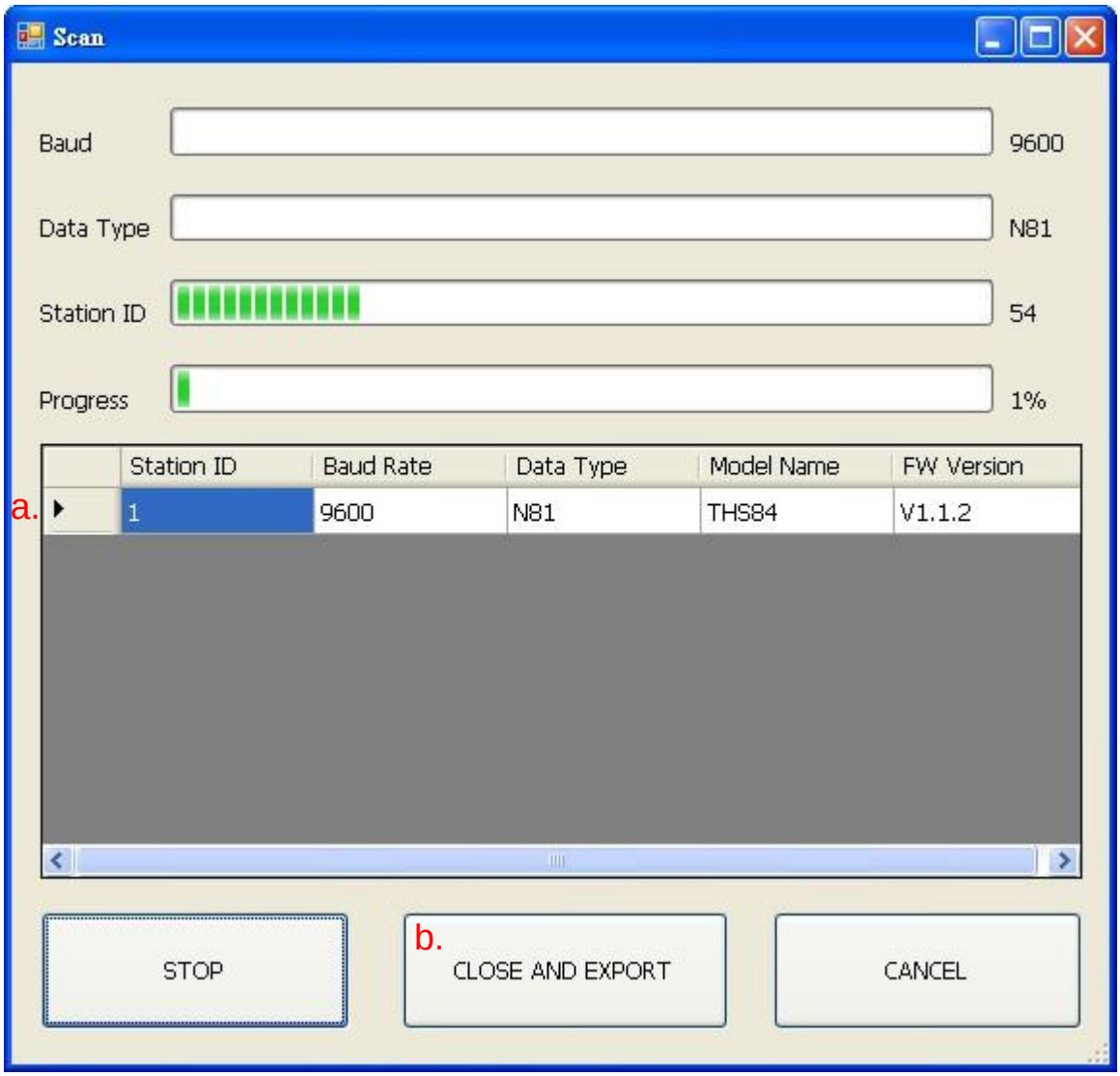


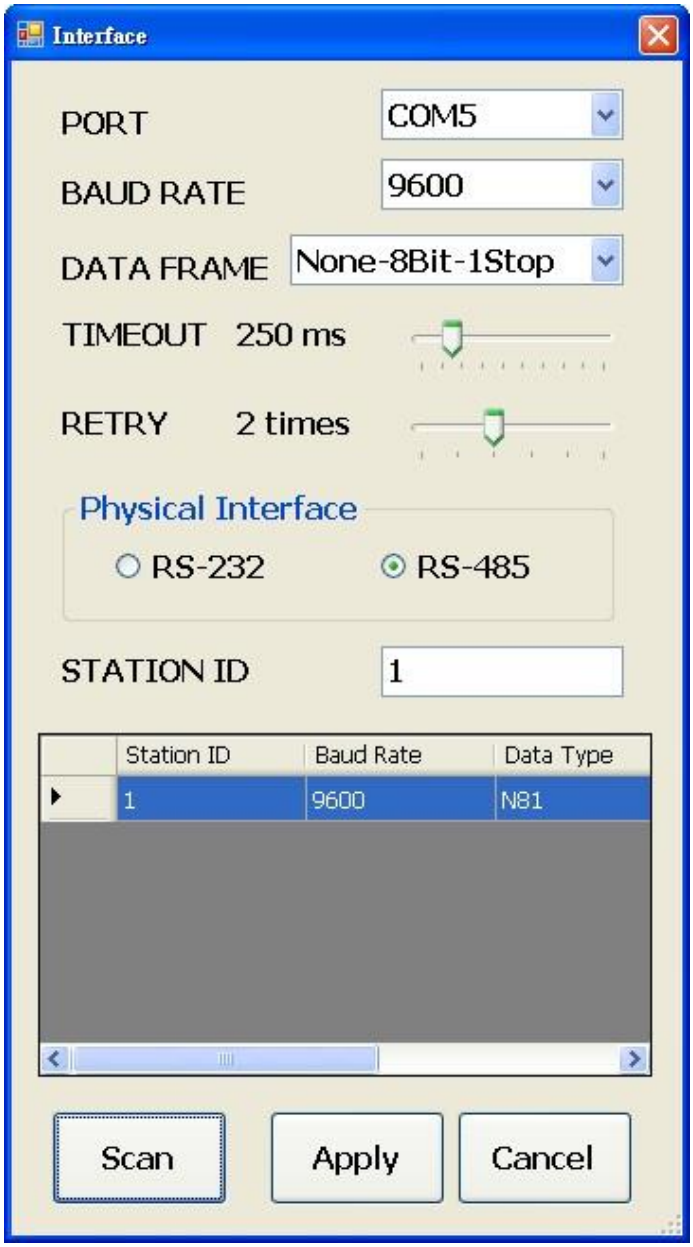
4. Select the corresponding values of com port as fallowing:
   a. Port：
   b. RS-485



5. Click “Scan” to execute connection facilities

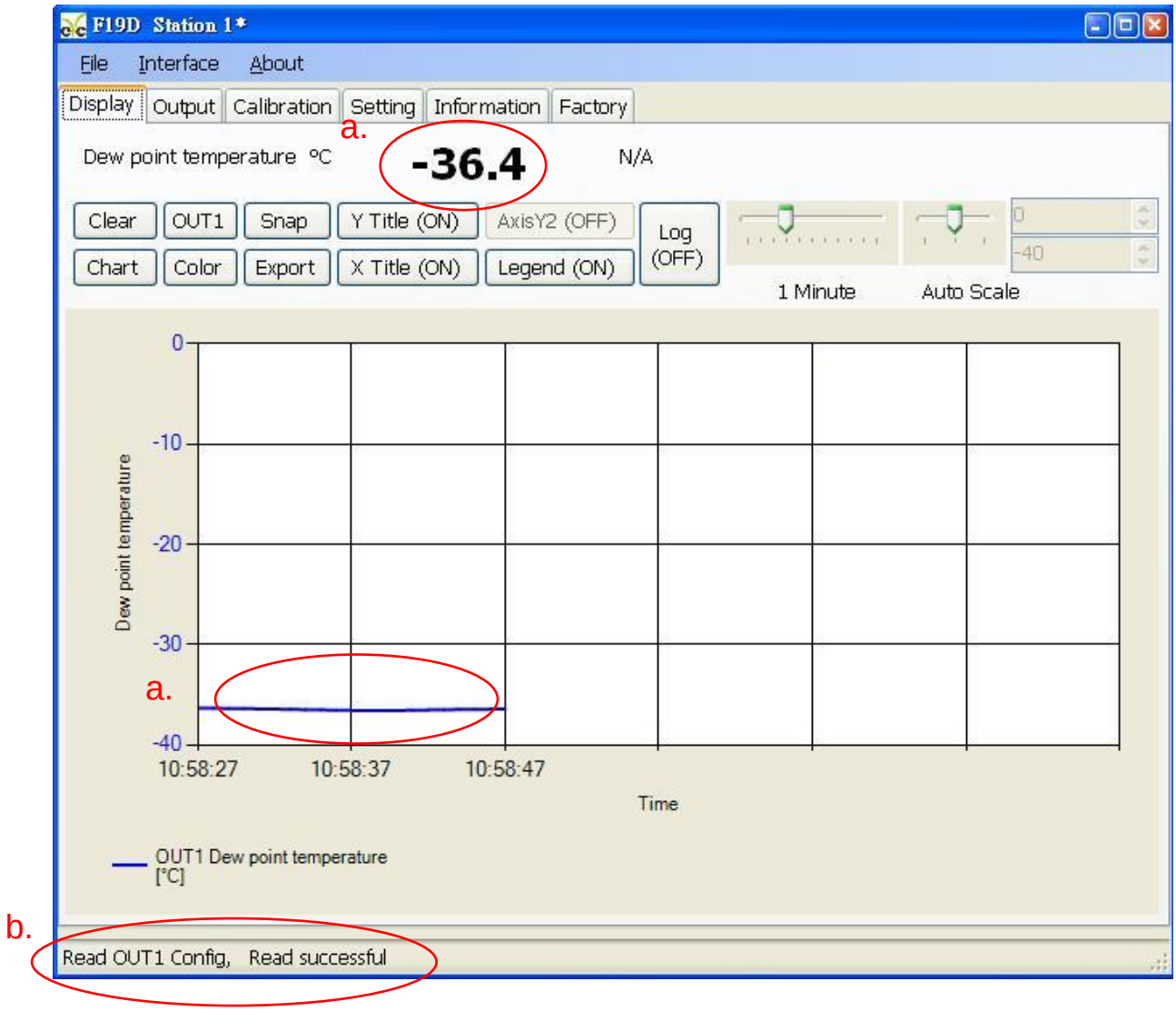
6. Scan connection facilities and set up
   a. Select Station ID
   b. Click "CLOSE AND EXPORT"





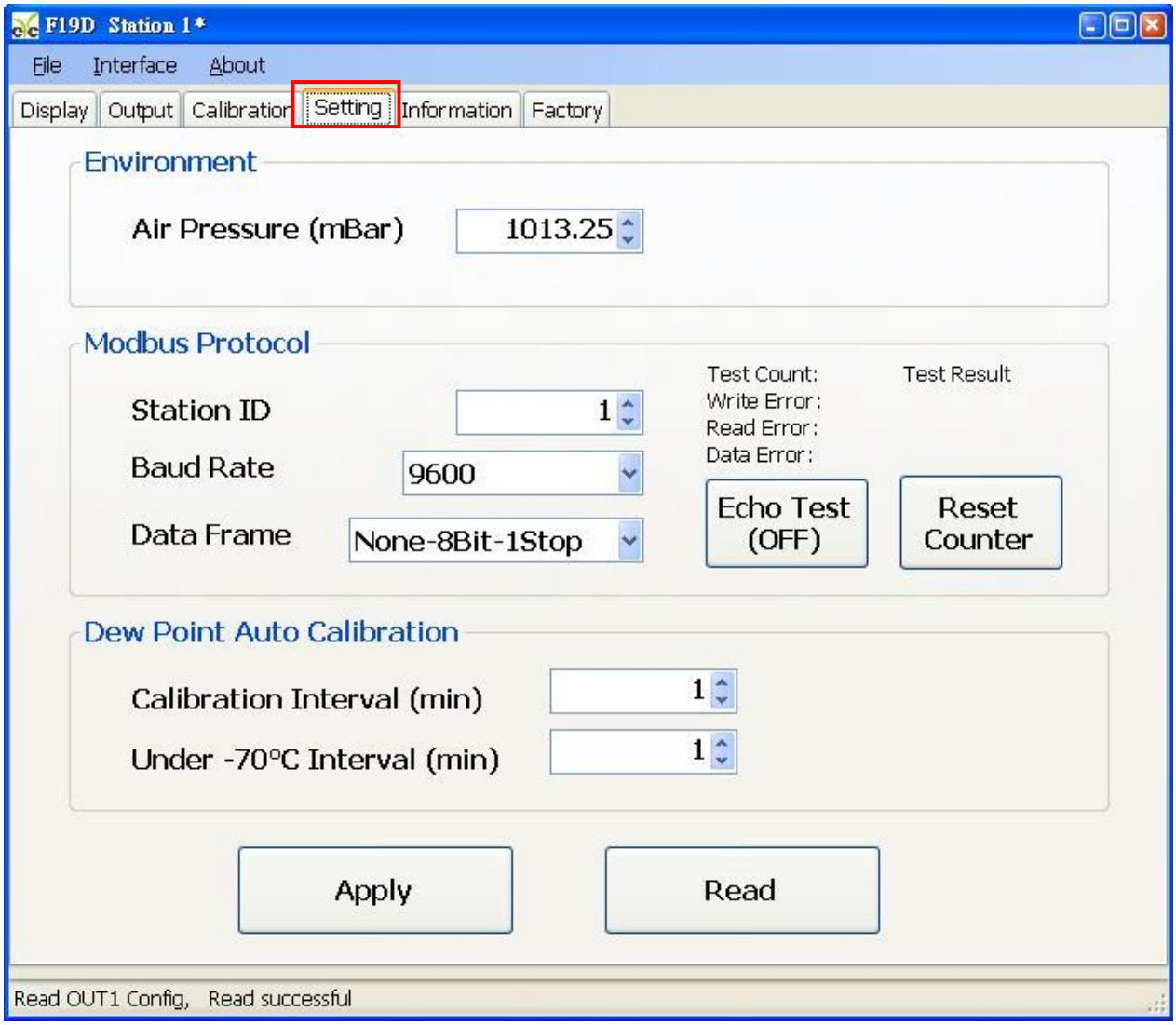
7. Click “Apply”

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



5.4 Setting RS-485 ModBus Protocol

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

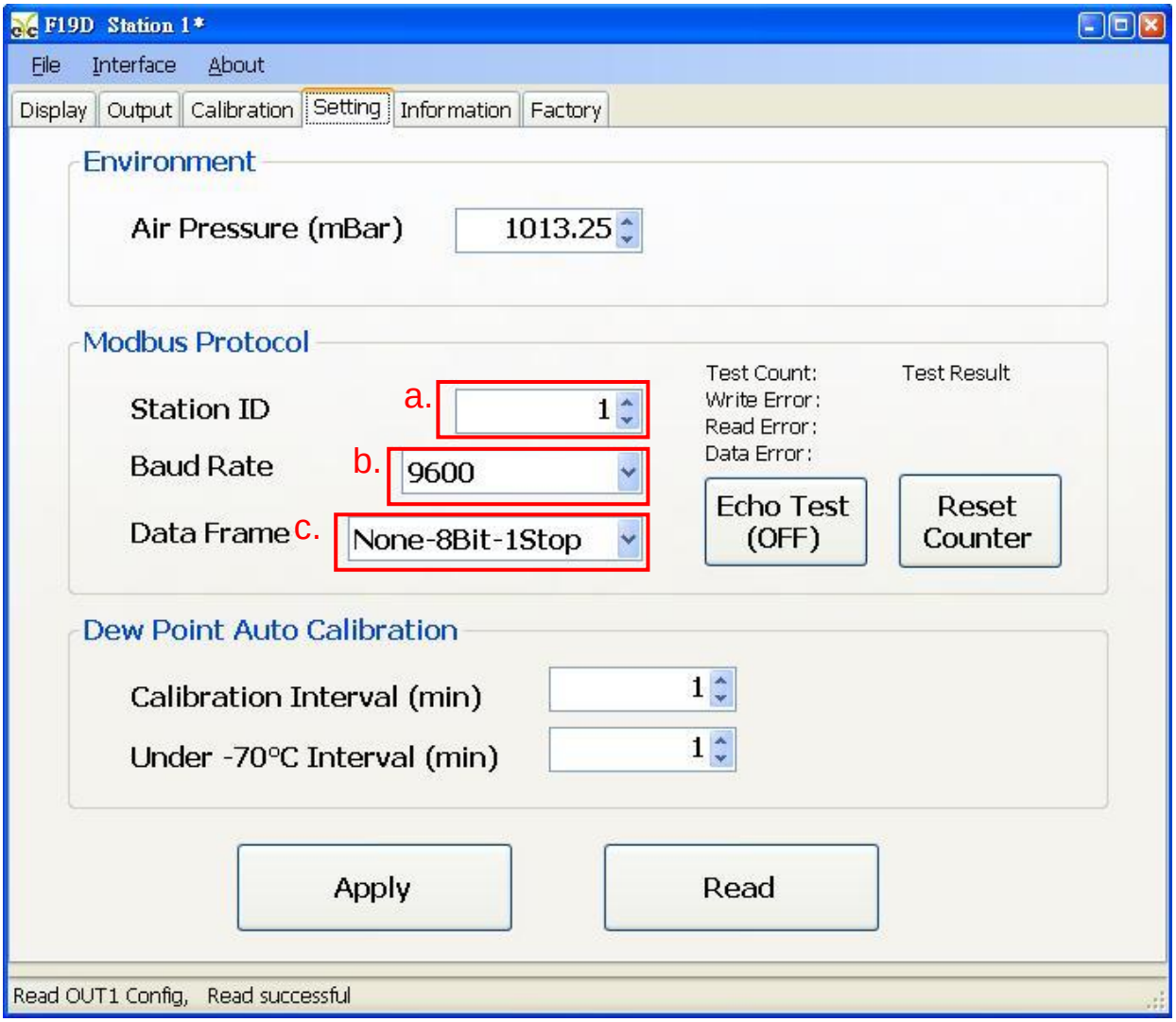


3. Select Modbus Protocol parameter

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

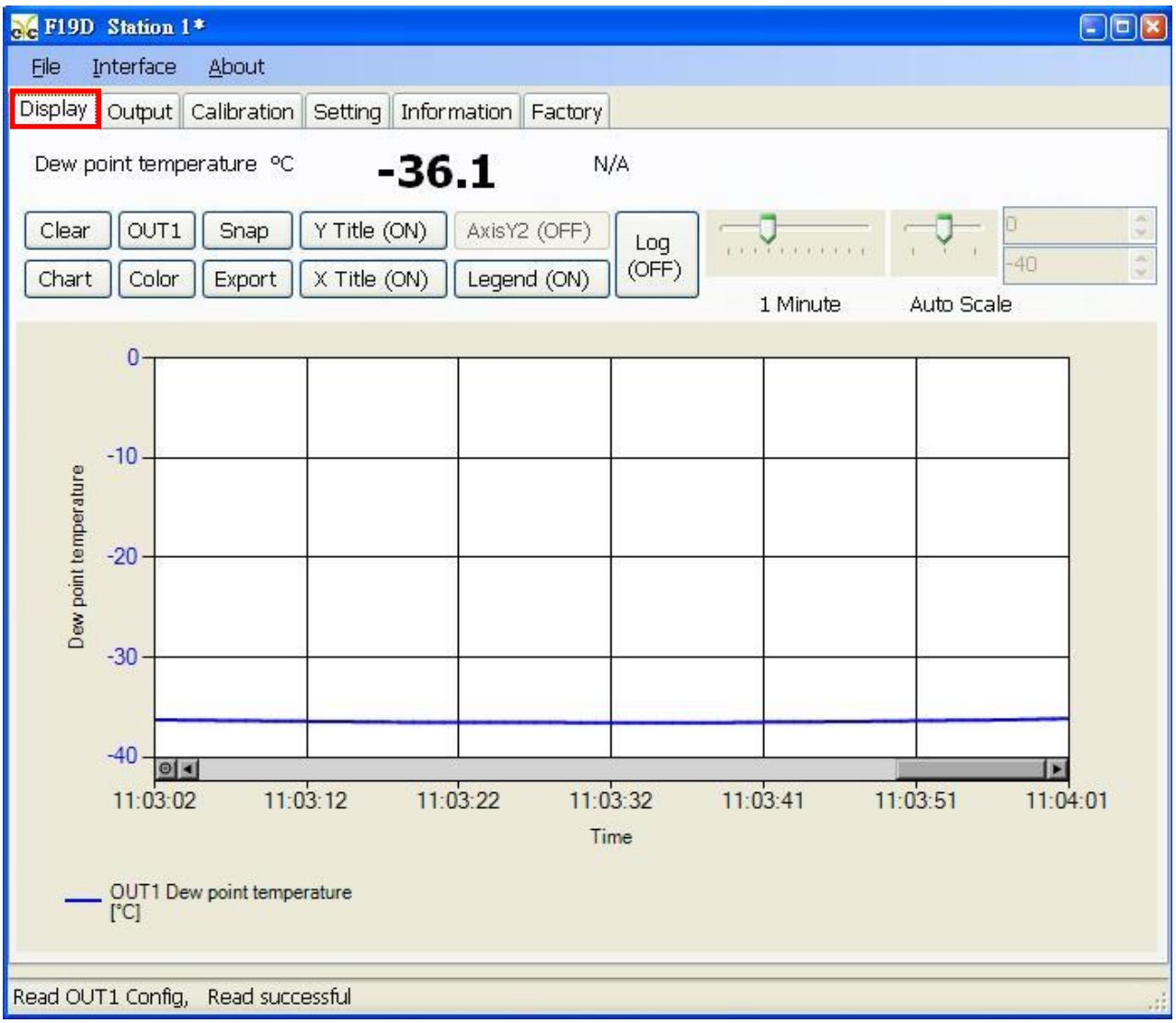


4. Click “Apply”

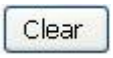
5. Execute connection as step 5.2 or 5.3 again

5.5 Display and save data

1. Show Data：Click ” Display”

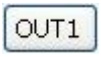


2. Icon function statements



Clear the chart records

Change the chart style



Select the OUTPUT channel

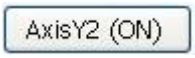
Set line color chosen from OUTPUT

Snap chart

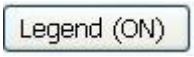
Save the data measuring when the system start connecting before clinking the Export icon

Show/Not show the statement of Y axis

Show/Not show the statement of X axis



Show/Not show the statement of Y secondary axis



Show/ Not show chart

Show/Not show measuring data

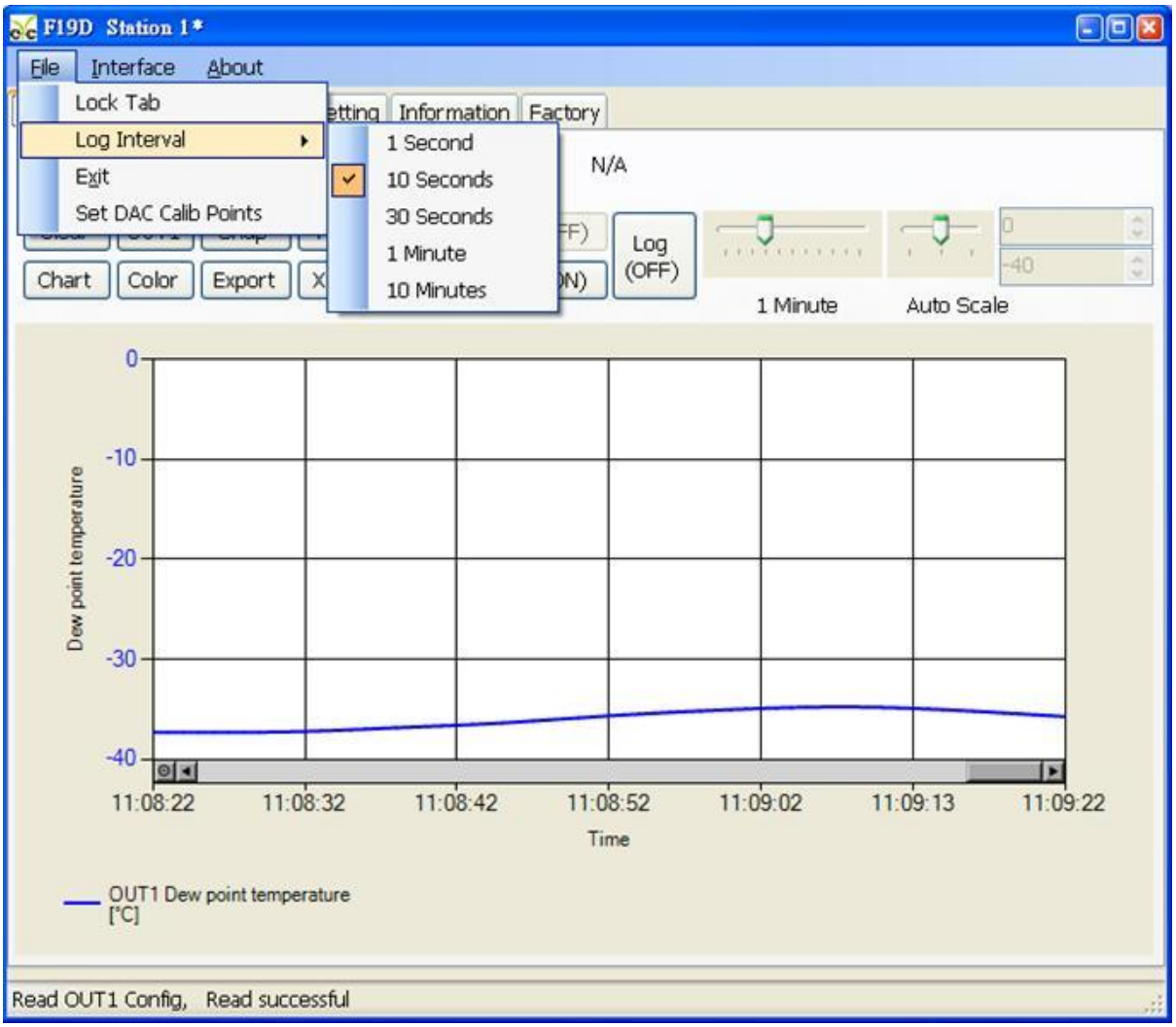
Adjust time range of X axis

Adjust time range of Y axis

3. Setting time interval of record

a. File > Log Interval

b. Select time interval of record



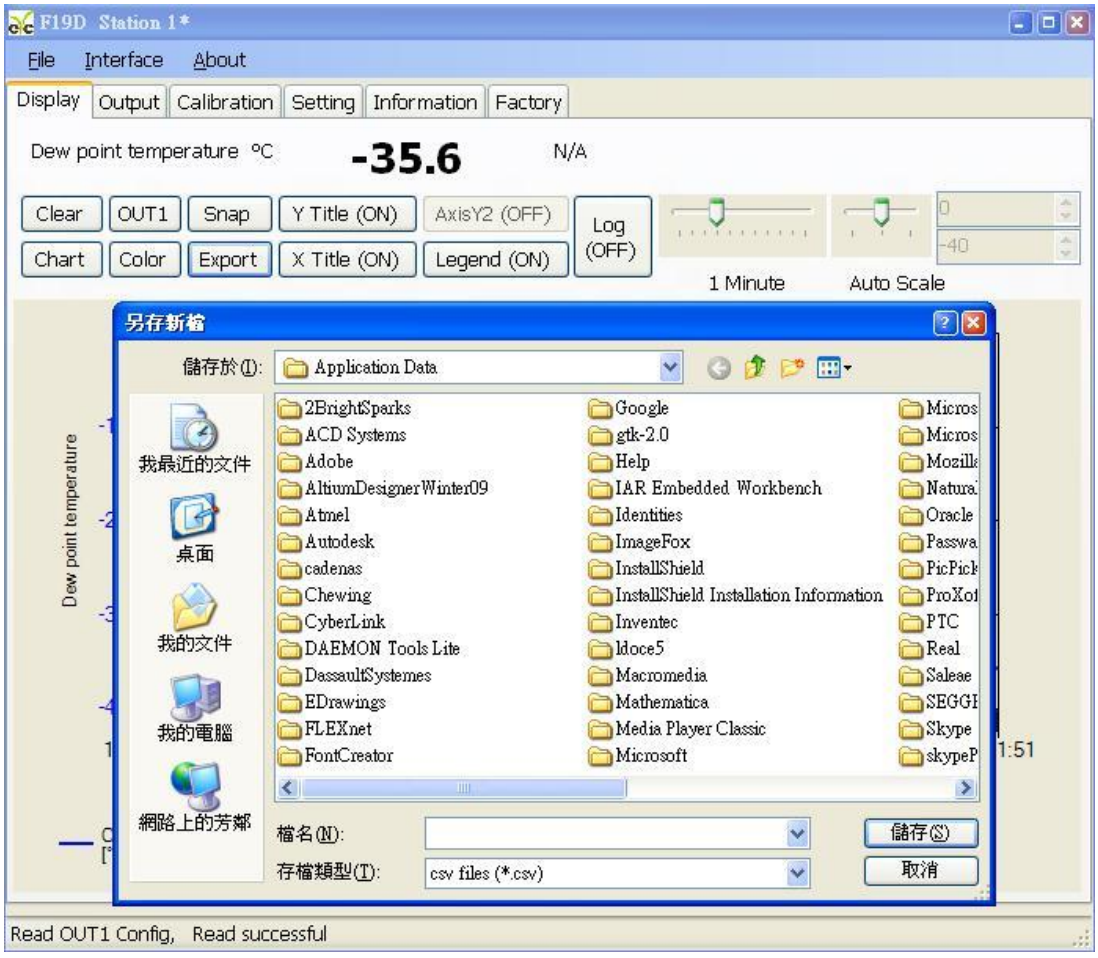
4. Save/Log measuring data

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

a-1. Click Display > Export

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

註 1. 指定路徑、檔名相同時會覆蓋原檔案資料

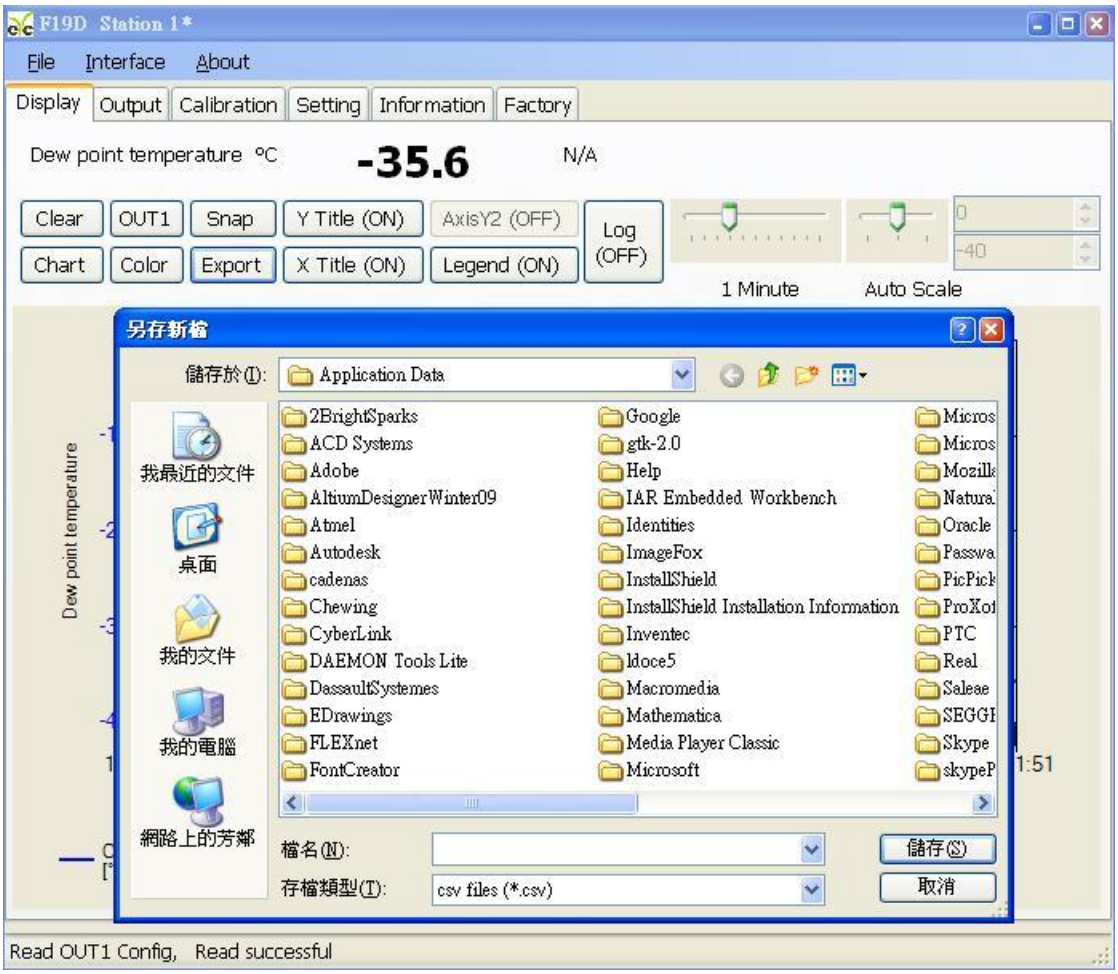


b. Log measuring data：Log the data which is on from start or off

b-1. Display > Log(OFF)

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

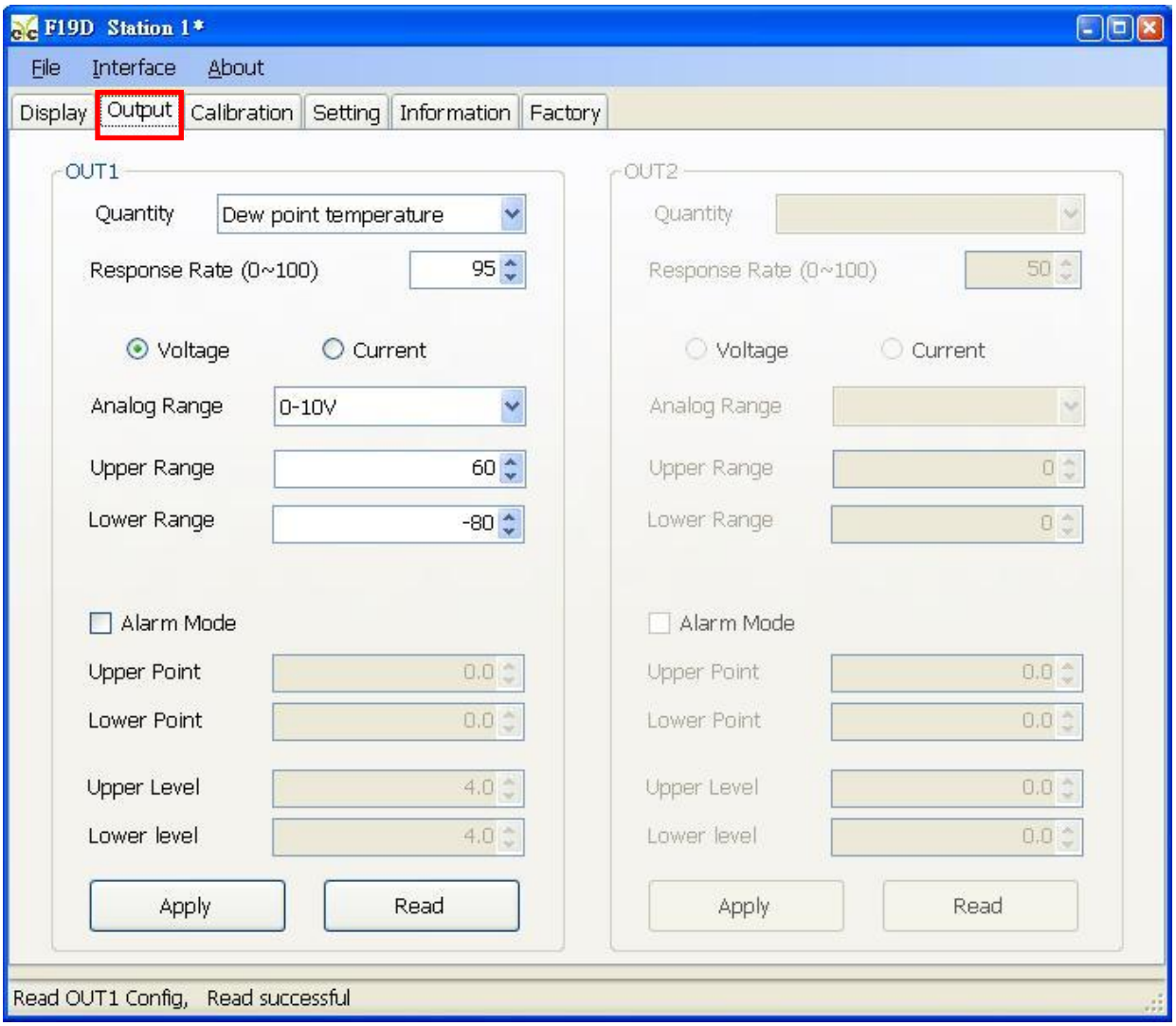
※1. If file name is some as the path name, the original file will be covered.




F19D Station 1*
File
Interface
About
Display
Output
Calibration
Setting
Information
Factory
Dew point temperature °C
-35.9
N/A
Clear
OUT1
Snap
Y Title (ON)
AxisY2 (OFF)
LOG (ON)
Chart
Color
Export
X Title (ON)
Legend (ON)
1 Minute
Auto Scale
0
-40

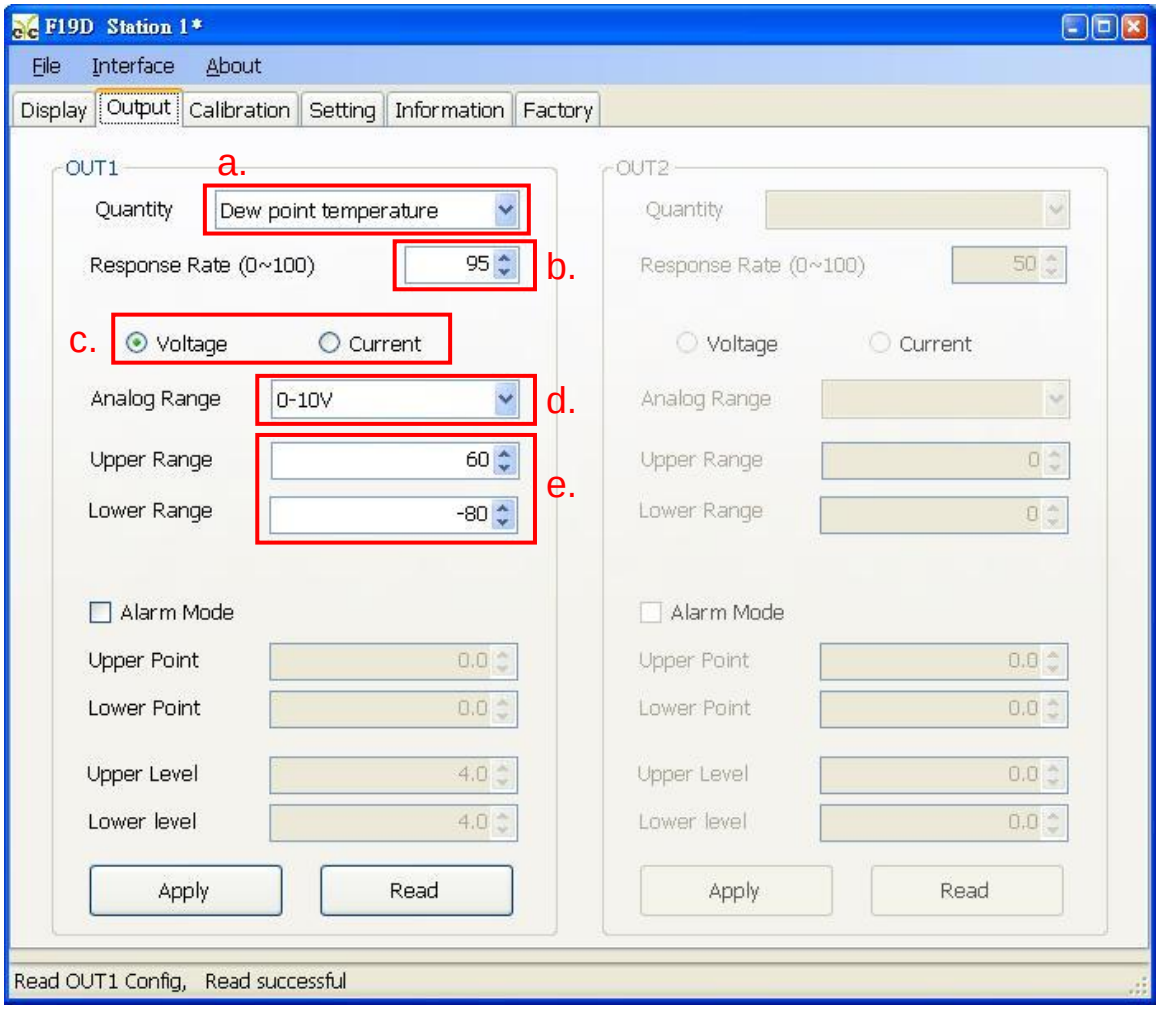
5.6 Choose parameter of Output

1. Click "Output"



2. Select relative parameters from Output1

a. Output Style
b. Responding time
c. Voltage or current Output
d. Voltage or current analog range
e. Upper and Lower point of Output



3. Click "Apply"

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：

1) 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) Sensor maintenance

Do not damage sensor surface during maintenance process.

3) Troubleshooting

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

2. Troubleshooting：

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 wires ●Replace the sensor
●Slow response to output ●Errow in output	●Moisture/ condensation on the product ●Check installed location ●Check dust and contamination on the sensor	●Remove the sensor and filter. Dry power-off state sensor in clean air seasoning ●Refer to the section ●Cleaning the filter ●Changing the filter ●Calibrate ●Replace the sensor