Operation Manual

eyc-tech THS17-MD

Temp. & Humidity Transmitter

Contents

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.

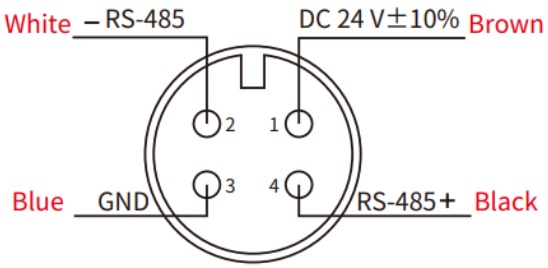
Do not use this product in a situation where human life may be affected.

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. Connection Diagram



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

3. RS-485 and Modbus

THS17-MD integrates a RS-485 interface for digital communication capability. Based on Modbus protocol makes the general convenience on PLC, HMI and PC connection. For Modbus protocol information please download the file from website. Besides the PLC, HMI application, the user software provide the device setting and data logging function, it also can free download from website.

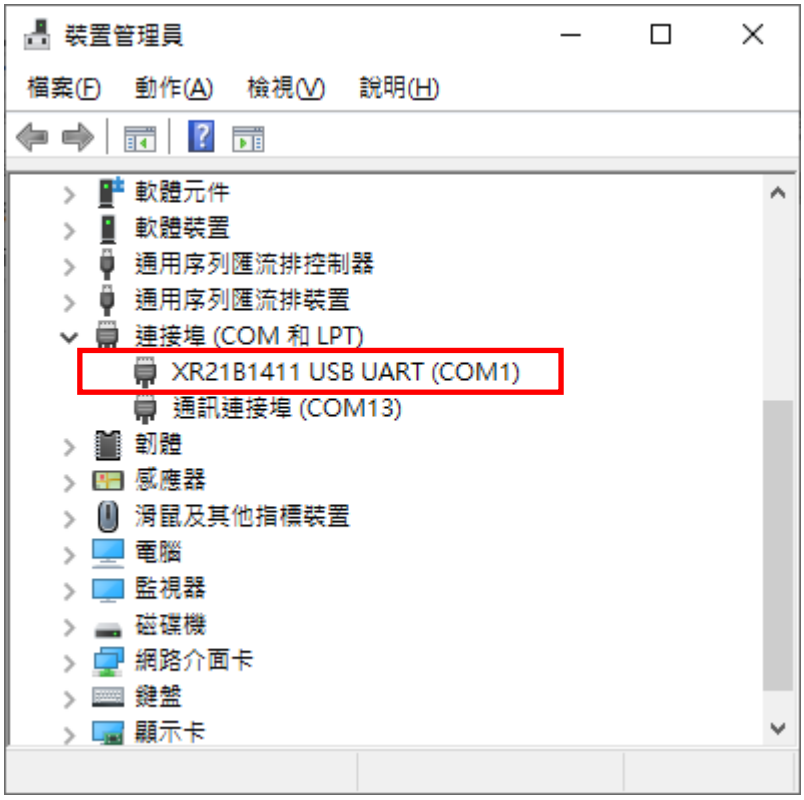
Technical Data：

(1) Max. network size：32 transmitters
(2) Communication：with COM-Port (serial interface) of PC
(3) Max. network expansion：1200m (3937ft) total length at 9600 baud
(4) Transmission rate：9600, 19200, 38400, 57600, 115200 Baud
(5) Parity：None, Even, Odd
(6) Data length：8 bit
(7) Stop bit：1 or 2 bit
(8) Factory default Station address = 1, Data format= 9600, N81

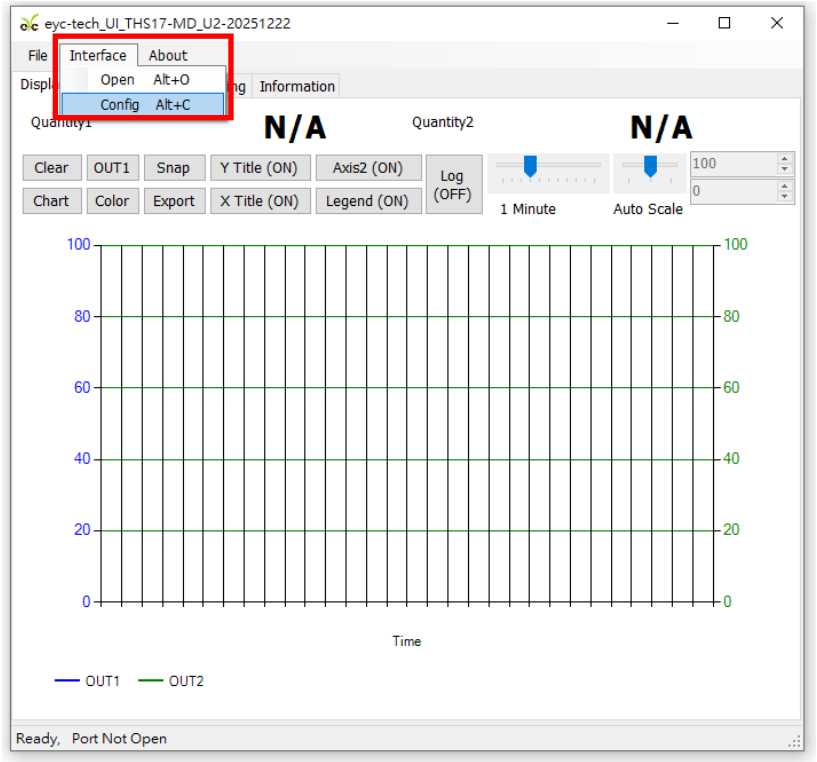
4. Configuration

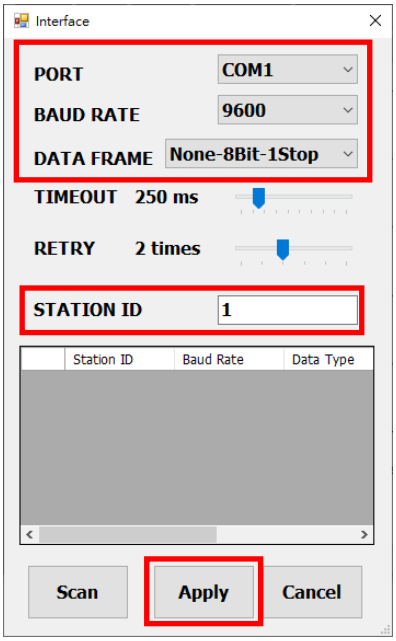
Download the configuration software from eyc-tech website, decompress it and execute it. The operating system requirements: Windows 10 or above. Hardware requirements: RS-485 interface, such as a USB to RS-485 or RS-232 to RS-485 converter

1. Hardware connection：Connect the THS17-MD to PC through USB to RS-485 or RS-232 to RS-485 converter
2. Check the COM port number from Device Manager in Computer Management. e.g. COM1 in illustration



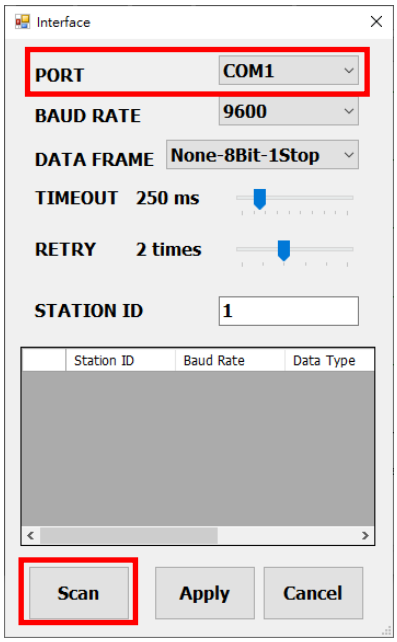
3. Open the THS17-MD UI, go to function " Interface " , click item " Config " and then setting COM port, BAUD rate, data format and Station ID, pressed " Apply " for connection

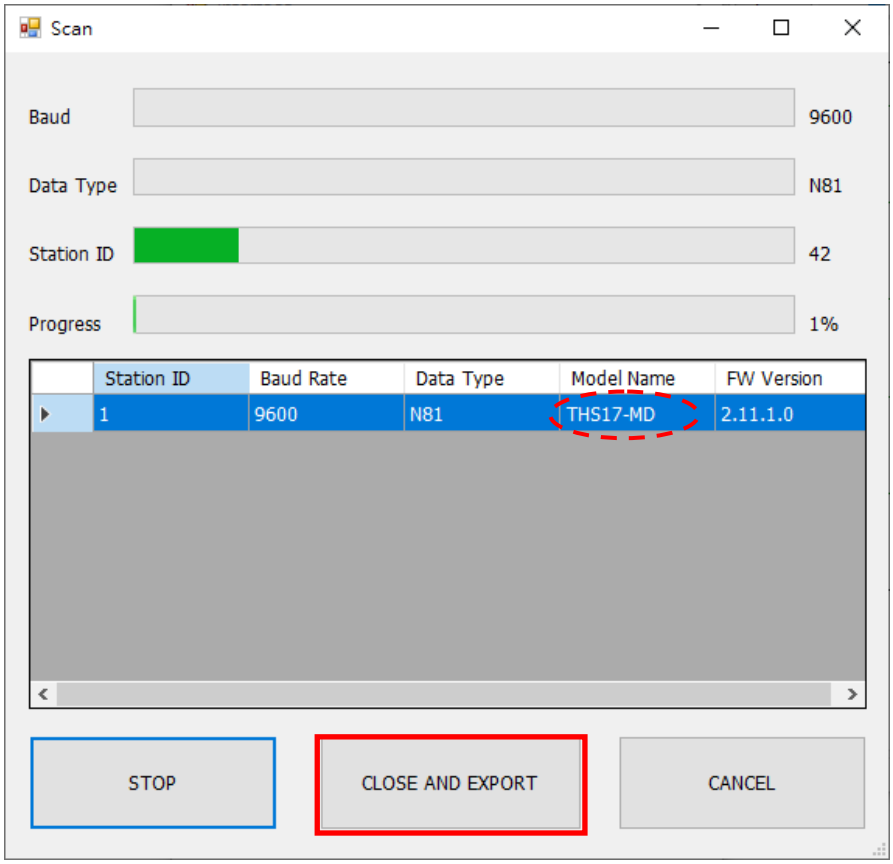




4. Scan RS-485 connection

Open the THS17-MD UI, go to function " Interface " , click item " Config " and then setting COM port, pressed " Scan " bottom for scan devices and pressed " Close and Export " when the interested devices found.





Pick up the device that you want to connect to and then press “Apply” to go.

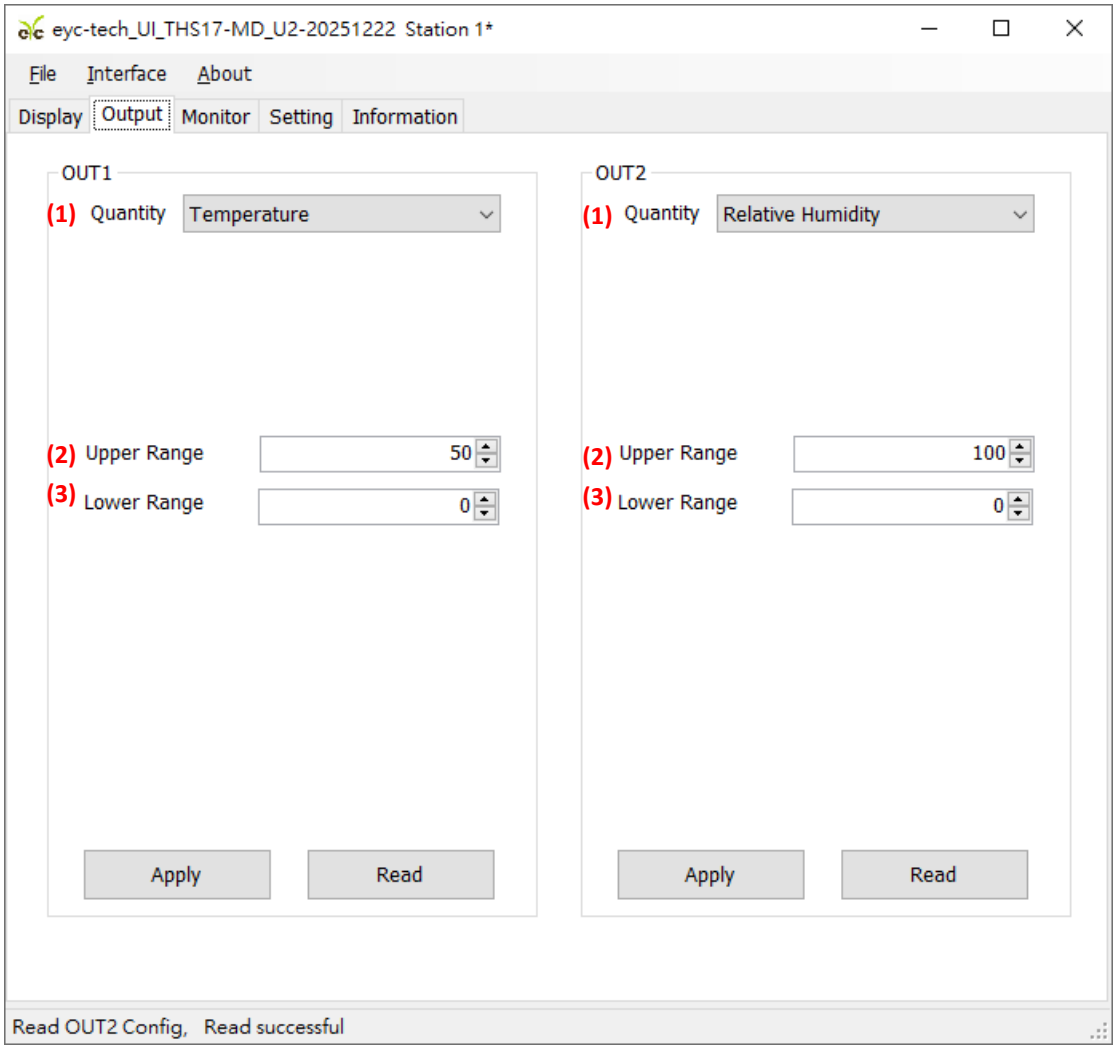
5. Setting on Output

In the group of OUT1(OUT2), Output tab. The both output1 and output2 related setting could be found.

(1) Quantity：Temperature, Relative Humidity

(2) Measurement upper point

(3) Measurement lower point



6. Setting on RS-485 and response time

There are 2 groups in setting tab. The description of each item as below.

※ Environment Parameters：

(1) Air Pressure

※ Modbus Protocol：

(2) station ID

(3) Baud Rate

(4) Date Frame

(5) Modbus Echo Test Enable/Disable

(6) Modbus Echo Test Result Reset

※ Response Time：

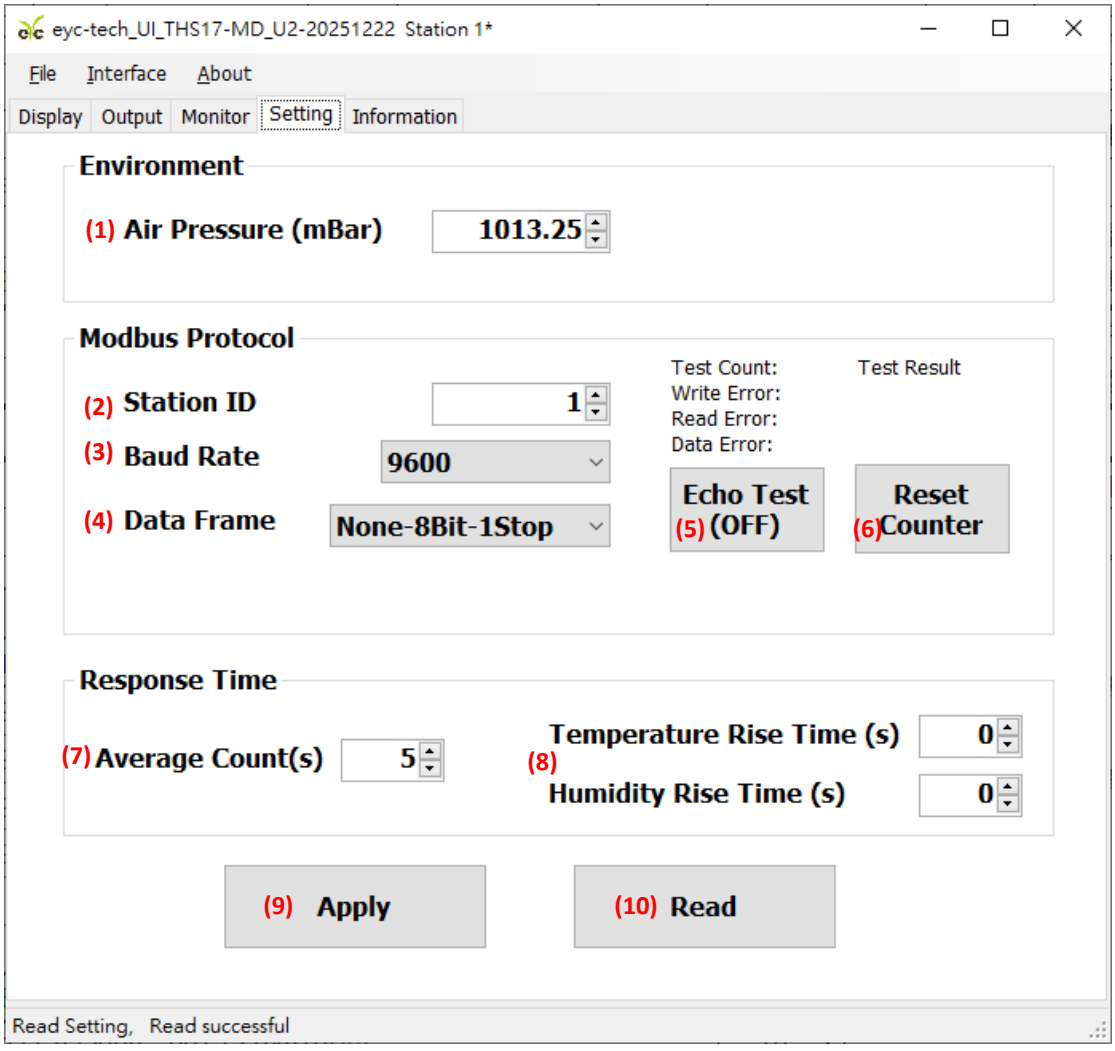
(7) Moving Average Count, 1 minimum (faster) and 60 maximum (slower)

(8) 1st Order Low Pass Filter T90 rise time, 0 second faster) and 60 seconds maximum (slower)

※ Others

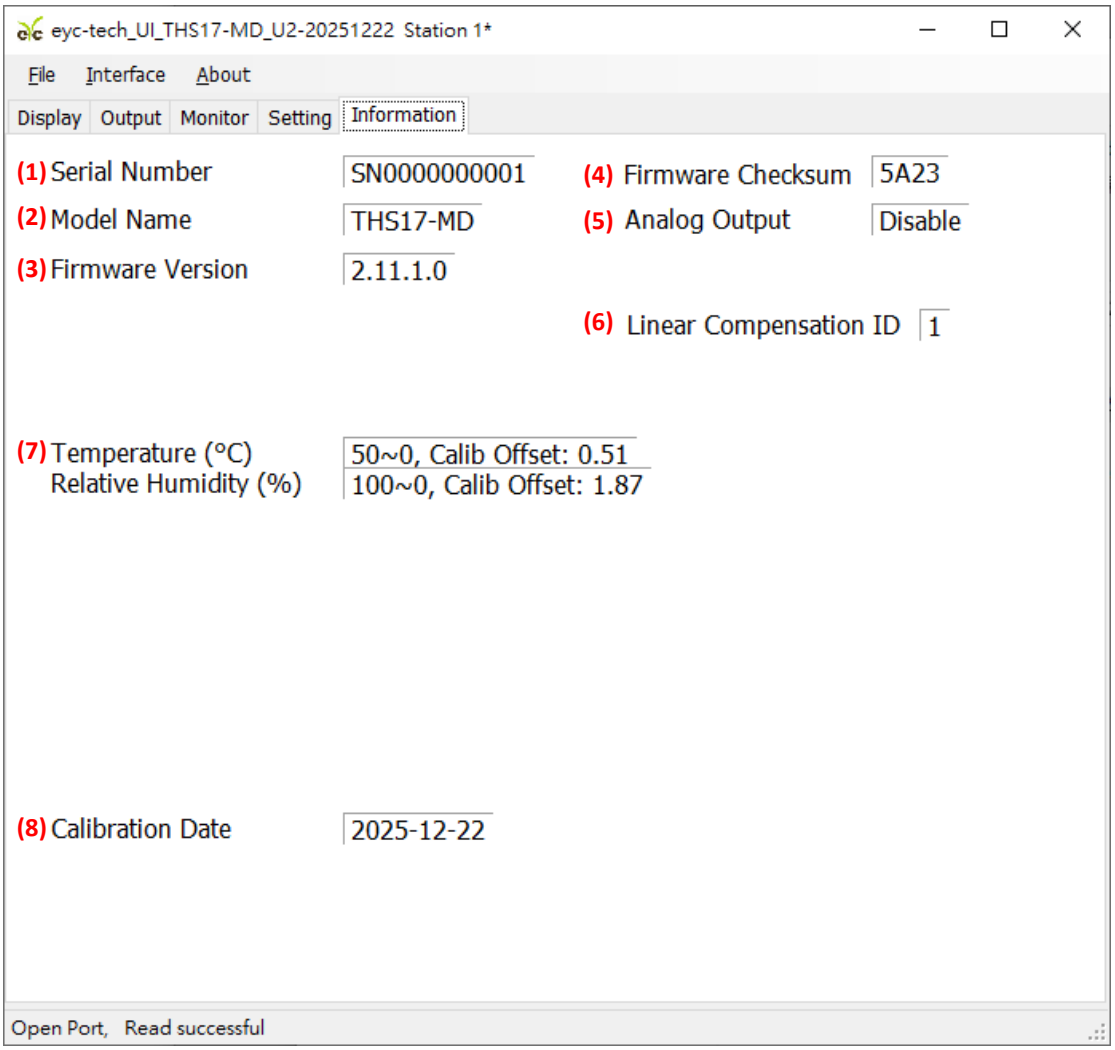
(9) Write Setting

(10) Read Setting



7. Data display and logging
   (1) The measurement of OUT1 and OUT2 will be display here
   (2) Clear plot chart
   (3) Toggle the selection channel of color function, refer to item (8)
   (4) Snap the current plot chart
   (5) Display title of vertical axis (ON or OFF toggle in turn once click)
   (6) Enable secondary axis (right axis)
   (7) Change chart line style in turn
   (8) Select the color of plot channel
   (9) Export the records in plot buffer
   (10) Enable horizontal axis
   (11) Enable the legend of plot channel
   (12) Enable the log function, the data in cvs format with comma delimiter
   (13) The scale of horizontal scale
   (14) Select the scale method of vertical axis
   (15) Select the range of vertical axis
   (16) The vertical axis, label of OUT1
   (17) The vertical axis, label of OUT2

8. Device Information
   (1) Serial Number
   (2) Model Name
   (3) Firmware Version
   (4) Firmware Checksum
   (5) The activation of analog output
   (6) ID linear compensation (temperature compensation) model
   (7) Programming range and offset adjustment of temperature and relative humidity
   (8) Calibration Date



5. 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 wires ● Replace the sensor
● Slow response to output ● Errow in output	● Moisture /condensation on the product ● Check installed location ● Check installed angle ● 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 ● 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

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