

I. Brief introduction

This series of temperature and humidity transmitter adopts high stability sensor, wide detection range, can accurately measure the temperature and humidity, the use of temperature compensation circuit, the product is stable and reliable.

- Adopt high and stable temperature and humidity sensor
- Hd VA liquid crystal circulation display
- Standard RS485 communication interface
- Small appearance, beautiful, easy to install
- Industrial EMC design

II. Technical parameters

Power voltage: DC 24V (12V~28V)

Power loss: $\leq 0.4W$

Measuring range:

Humidity: 0%RH~100%RH

Temperature: -20°C~60°C

Accuracy:

Humidity: $\pm 3\%RH$ (5%RH~95%RH, 25°C)

Temperature: $\pm 0.5^\circ C$ (25°C)

Operating temperature: -20°C~60°C

Long-term stability:

Humidity: $\leq 1\%RH/y$

Temperature: $\leq 0.1^\circ C/y$

Response time: $\leq 15s$ (1m/s wind speed)

Output signal: RS-485 Output

Display mode: High brightness VA liquid crystal

Installation:

Wall-mounted: fixed wall surface

Split type: flange or thread installation

Pipeline type: flanged or threaded installation

Shell: ABS White wall-mounted 102mm×155mm×40mm

Product weight: $\leq 130g$

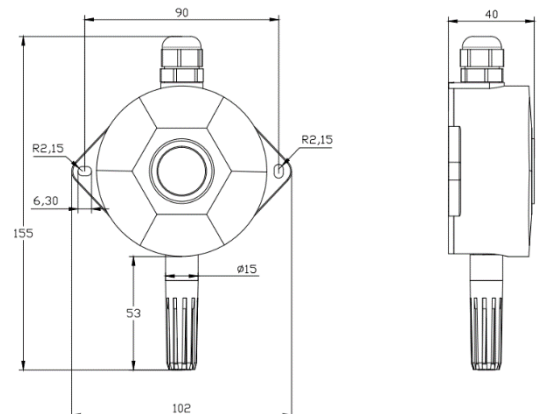
ABS white wall mounted Sample drawing:



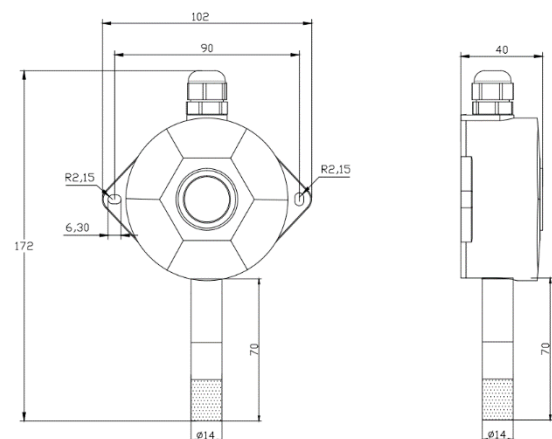
III. Shape and Connection

1. Wall mounted type

W type (ABS)

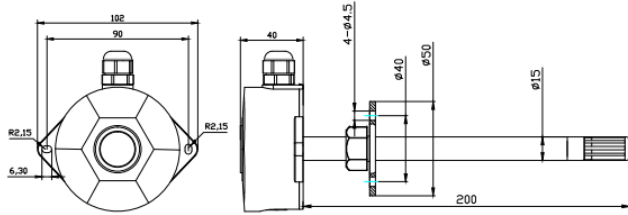


W6 type (Metal)

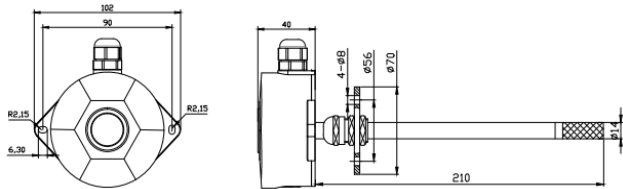


2. Pipe line type

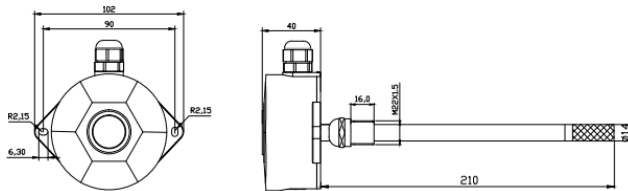
D type (ABS)



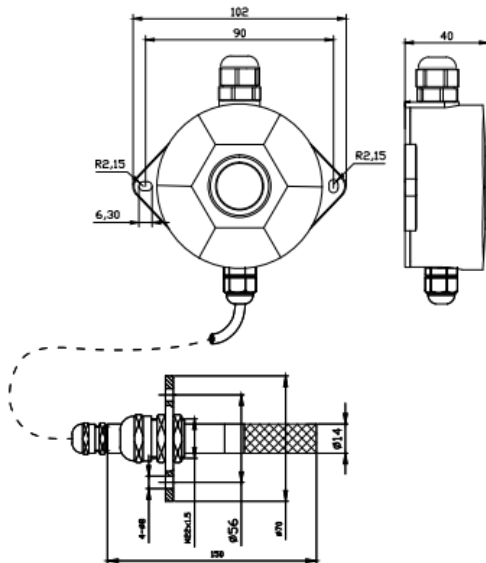
D5 type (Metal)



D6 type (Metal)

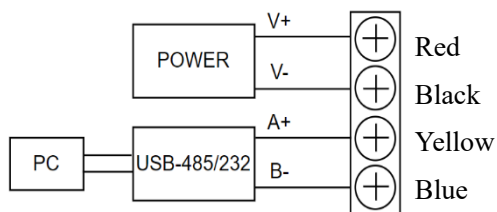


3.Split type



NWST-TW1-X wiring instructions: (Any incorrect wiring may cause irreversible damage to the transmitter)

Wiring diagram



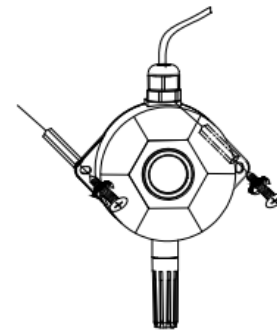
Wiring definition

Color of line	Network output type	
	Interface Definition	Interface screen printing
red	Power +	V+
black	Power -	V-
yellow	485-A	A+
blue	485-B	B-

IV. Installation

Installation steps:

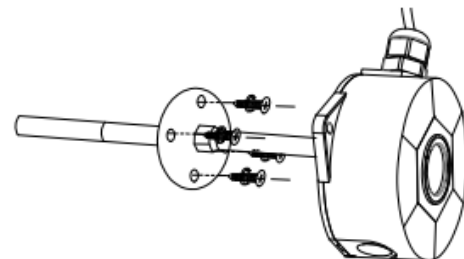
1. Wall-mounted type: there are 2 φ4 mounting holes on both sides of the transmitter, which are fixed to the wall with standard expansion screws and screws.



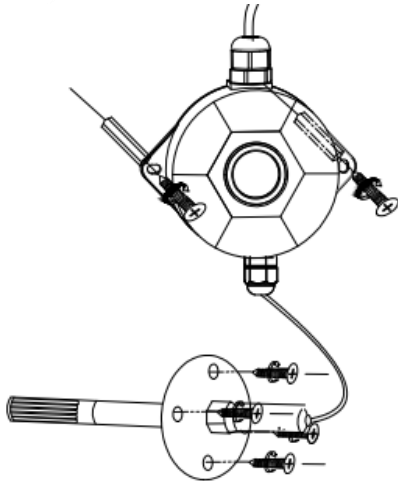
2. Pipe line type

Metal pipe type: fixed on the wall or pipe with 4 holes of φ8 on the flange (optional flange), and the mounting thread of the probe M22×1.5 is fixed on the wall or pipe (optional thread);

ABS pipe type: fixed to the wall or pipe with 4 holes of φ4.3 in the flange on the probe.



3. Split type: there are 2 φ4 mounting holes on both sides of the transmitter, which are fixed on the wall with standard expansion screws and screws; The probe is fixed to the wall or pipe with four holes of φ8 in the flange (optional flange), and the probe is fixed to the wall or pipe with M22×1.5 mounting thread (optional thread).



Split installation size drawing

4. Connect to the acquisition device with a transmitter cable.

Note: The installation thread size is M22×1.5

Installation location:

1. Do not measure at high temperature and high humidity;
2. When used, the light detector should be kept clean;
3. Try to stay away from high-power interference equipment, so as not to cause inaccurate measurement, such as frequency converters, motors, etc.;

Installation note:

1. Avoid the installation in the area where heat transfer is easy and the temperature difference between the area to be measured will be directly caused, otherwise the temperature and humidity measurement will be inaccurate.
2. Installed in the area of environmental stability, avoid direct sunlight, away from the window and air conditioning, heating and other equipment, avoid straight to the window and door.
3. Away from high power interference device as far as possible, lest cause inaccurate measurement, such as frequency converter, motor, etc.
4. Temperature and humidity cover is a disposable device, easy to damage, not removable.

V. Use

1. After careful inspection to ensure correct wiring, connect to PC serial port through 485 conversion module, connect DC 24V or 12V power supply, you can check the temperature and humidity value through the test software. (See Appendix 1 of the newsletter for details.)

2. If you want to remove the transmitter, must disconnect the power supply first, then remove.

3. The transmitter for indoor type, transmitter inside to avoid water enters, lest cause damage.

VI. Attention

1. Please read this manual carefully before use to make sure the wiring is correct. Any incorrect wiring may cause irreversible damage to the transmitter.
2. Avoid installation in zones where heat transfer is easy and will directly cause temperature differences with the area to be measured, as this will result in inaccurate temperature and humidity measurements.
3. Prevent chemical reagents, oil, dust, etc. from directly attacking the sensor, and do not use it for a long time under the environment of condensation and extreme temperature. Do not carry out cold or thermal shock.
4. This product is an electronic product, scrapping will produce environmental pollution, scrapping should follow the national electronic device scrapping related standards.

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VII. Maintenance

1. The transmitter will be offset when used for a long time. In order to ensure the accuracy of measurement, it is best to calibrate once a year.

VIII. Transportation, storage

1. Transmitter try to avoid vibration, lightly take and put.
2. Long-term optimal storage conditions: 10°C ~ 40°C; 20%RH ~ 50%RH.

IX. Open box inspection

1. After opening the package, check whether the transmitter is intact.
2. Transmitter 1set
Manual 1serving
Certificate of conformity 1sheet

X. Troubleshooting and Analysis

1. When the network output, if the transmitter can not communicate, please check whether the wiring is correct and firm; Communication test software is set correctly (baud rate, data bit, stop bit check mode, flow control. Products factory defaults to: , 9600,8,1, n, no.)
2. If not these reasons, please contact the manufacturer.