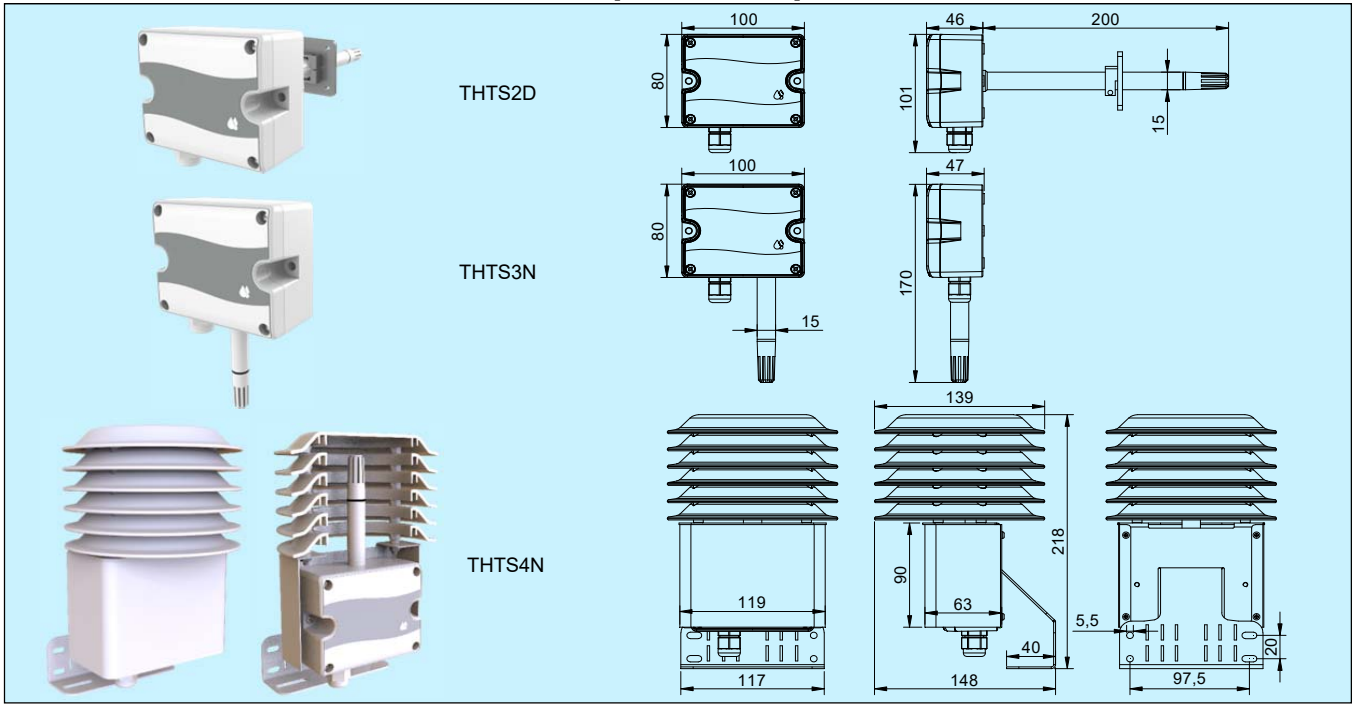


THTS4N Weather proof Temp/RH Transmitter



Applications & Features

- THTS2D duct temp. and humidity transmitter can be used for temp. and humidity measurement in duct air
- THTS3N wall mount temp. and humidity transmitter can be used for temp. and humidity measurement in indoor or outdoor environments
- THTS4N is equipped with a weather shield to protect the THTS3N transmitter with rain, dust, and sunshine, which is good for critical environments or long-term outdoor applications
- Multiple thermistor & RTD and current, voltage outputs selection, compatible with various automatic control systems
- Wide measurement range, multiple ranges, fast response
- High protection rate up to IP65

Specifications

Relative Humidity

- Sensor:** Digital polymer
- Range:** 0~100%RH
- Output:** 4~20mA (2 wires), 0~10VDC (3 wires), RS485/Modbus
- Accuracy:** 2%(@25°C): 20~80%: ±2%; 0~95%: ±3%
3%(@25°C): 20~80%: ±3%; 0~95%: ±5%
- Hysteresis:** <±1%RH
- Response time:** <10s (25°C, in slow air)
- Drift:** <±0.5%RH/year

Temperature

- Sensor:** Digital, RTD or thermistor, see models
- Range:** 0~50°C, 0~100°C, -40~60°C, etc.
- Transmitter output:** 4~20mA (2 wires), 0~10VDC (3 wires), RS485/Modbus

RTD or thermistor output: See Models and resistance table

- Accuracy:**
Transmitter: ±0.3°C or ±0.4°C@25°C, 24VDC;
RTD/thermistor: ±0.2~0.5°C@25°C, see models

- Power:** 0-10V: 24VDC/24VAC±20%; 4-20mA: 24VDC±20%
- Output Load:** ≤500Ω (current), ≥2KΩ (voltage)
- Temp. Limit:** -20~70°C, 0~95%RH (Non cond.)
- Storage Temperature:** -30~70°C
- Housing:** fire retardant ABS+PC(UL94V-0)
- Protection:** IP65
- Weight:** THTS2D:340g; THTS3N:240g; THTS4N: 910g (with WS-6 weather shield)
- Approval:** CE

Models

Model	THTS2D	THTS3N	THTS4N			Duct mount Temp/RH transmitter	Wall mount Temp/RH transmitter	Weather proof Temp/RH transmitter
RH Accuracy		2	3			±2%RH(0.3°C)	±3%RH(0.4°C)	
RH Output				1	2	8	0~10VDC(3 wires)	4~20mA(2 wires)
Temp. Output				0	1	2	3	4
Temp. Range								

1. THTS2D, THTS3N series current products are powered by RH circuit, so the RH circuit must be powered. Otherwise, it could not work. When the temp. output is 1 or 2, it must be consistent with the humidity output.
2. Only when the temperature output is 1 or 2, the temperature range 1-3 is applicable. Otherwise, always use 0 as temperature range selection.
3. THTS4N is equipped with WS-6 weather shield.

Weather shield (can be ordered separately)

Application: Protect the inside product from solar radiation, dust, rain, etc., with natural ventilation, shorten response time, and ensure accurate measurement under long-term outdoor conditions

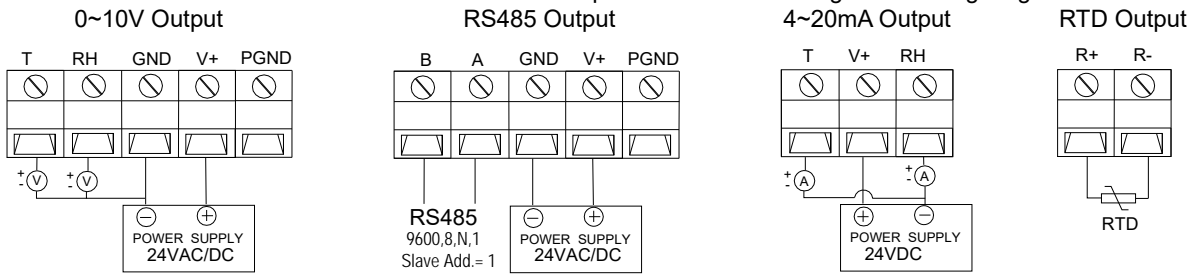
Model: WS-6: 6 layers/740g/218mm,
WS-8: 8 layers/835g/247mm,
WS-10: 10 layers/930g/277mm, with standard bracket

Material: Anti-radiation shield: flame retardant, anti-ultraviolet, anti-oxidation PC+ABS(UL94V-0); Mounting bracket: anti-rust and anti-corrosion paint galvanized sheet

Installation: surface installation on vertical wall or flat roof, or bundled on round column

Connection

Different models have different electrical terminals. Wire specific model according to the wiring diagram.



The instructions for RS485 terminal resistor DIP switch J8: set the switch to "ON", the terminal resistance is 120Ω.



Terminal resistance: 120 Ω Terminal resistance: None (Default)

Installation

This manual is only for product and the weather shield WS series. The THTS2D/THTS3N series products have separate instructions.

1. As shown in Fig. 1, remove the four screws on the back to open the U-shape cover, complete the wiring of the transmitter, and then install the cover;
2. If install on a vertical surface, as shown in Fig. 2;
3. If install on a horizontal surface, as shown in Fig. 3;
4. If install on a circular or special-shaped cylinder, it should be fixed with a clamp, as shown in Fig. 4. The clamps should be selected separately according to actual needs.

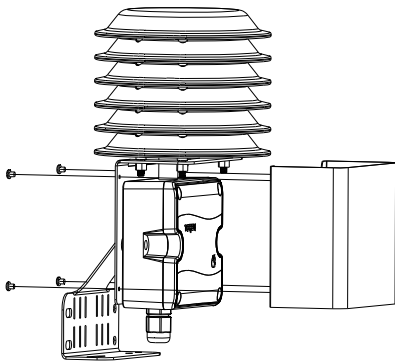


Fig.1

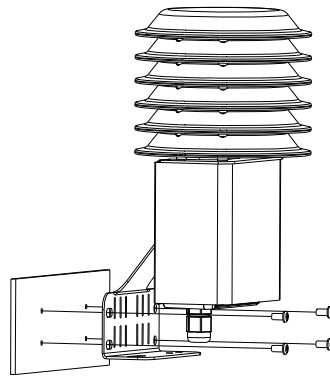


Fig.2

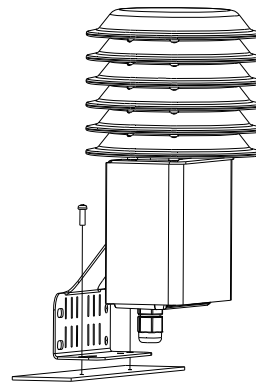


Fig.3

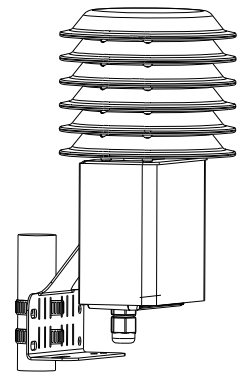


Fig.4

Attention

It should be power OFF during installing and wiring. When using 24VAC, it is strongly recommended to power the unit with independent transformer. If sharing a 24VAC transformer with other equipments such as controllers, transmitters or actuators, please make sure the terminals 24V and GND are connected correctly. Otherwise, it will perhaps induce serious damages.

Warranty

During warranty period, if failed, the product can be returned for repairing or replacing after confirmed normal operation.