

## TEMPERATURE & HUMIDITY TRANSMITTER THT66 SERIES



**Product manual:**

- Model
- Parameter
- Temperature accuracy curve
- Wiring Instructions
- Dimension
- Installation

**Note important:**

- The parameters involved are all measured under laboratory conditions, such as in the special environment, the parameters will cause deviation and error.
- This series of products can be customized, special requirements.
- Accessory selection depends on the actual configuration.
- To ensure safety and avoid loss. Power off during installation.

**Model**

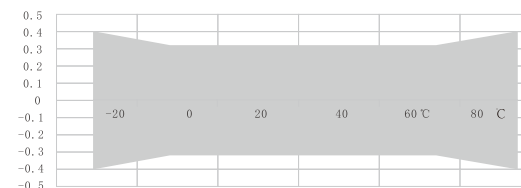
Product Name	Model	Temperature And Humidity Accuracy	Humidity Output	Temperature Output
EX THT66		3		
	1=Wall-mounted type 2=Duct type 3=Split type	3=±3%RH(0.3°C)	V10=0~10VDC( 3wire) A4=4~20mA(2wire) RS=RS485/Modbus	V10=0~10VDC A4=4~20mA RS=RS485 / Modbus 0=PT1000,±0.2°C@0°C 1=PT100,±0.2°C@0°C 2=NTC20K,±0.4°C@25°C 3=NTC10K,±0.4°C@25°C
	<b>Temperature Range</b>	<b>Display</b>		
	1	1		
	0=None 1=0~50°C 2=-20°C~60°C 8=Others	0=None 1=LCD display		

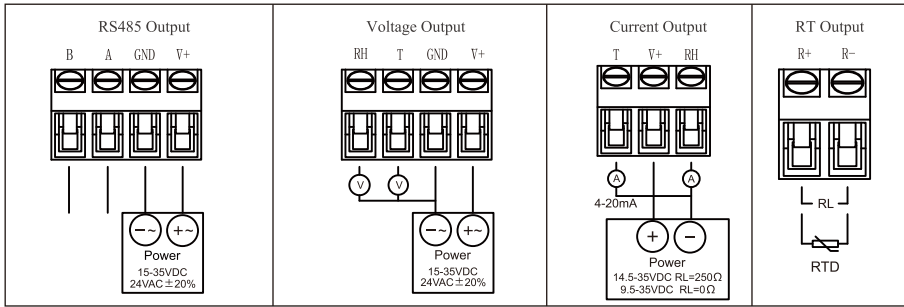
Only when the temperature output option is V10 or A4, the corresponding temperature range 1-8 needs to be selected; otherwise, only 0 can be selected.

**Parameters**

Relative humidity	
Sensor	Digital
Range	0%~100%
Output	RS485/Modbus,0~10VDC,4~20mA optional
Accuracy	±3%@ 20°C & 20~80%RH
Response speed	≤10s(20°C,slow flow air)
Temperature	
Sensor	Digital or thermal resistance, see model selection table
Range	0~50°C, -20~60°C etc.
Output	4~20mA,0~10VDC, RS485/Modbus Optional
Thermal resistance	Please check the selection table and thermal resistance indexing table
Accuracy	Digital sensor:±0.3°C@(0~60°C) see table below,Thermal resistance: typical ±0.2~0.4°C@25°C, see selection table
Power supply	Voltage type/RS-485 15~35VDC/24VAC±20% (AC power supply needs to be connected to an isolation transformer)
	Current type 14.5~35VDC (RL=250Ω) / 9.5~35VDC (RL=0Ω)
Output load	≤250Ω (Current type), ≥2KΩ(Voltage type)
Housing material	PC shell, PA6 probe rod and polymer filter (optional stainless steel probe and stainless steel sintered filter)
Work environment	-20~60°C, 5%-95%RH(non-condensing)
IP grade	IP65
Display	LCD display optional, with unit display and backlight (4~20mA without backlight)

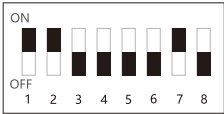
**Temperature accuracy curve**





Dip Switch Description

1. 485 types: The first 6 digits of the 8-bit dial code are the address, the address can be set to 1-63, the factory default setting is 1, and the 7/8 digits are the baud rate and can be set to 1-3, respectively representing 1: 9600 2: 19200 3: 38400. The setting method is as follows: (ON stands for 1, OFF stands for 0, numbers 1~8 on the dial panel represent low to high)



Example: At this time: the address is :  $1*2^0+1*2^1+0*2^2+...=3$ , the baud rate is 1.

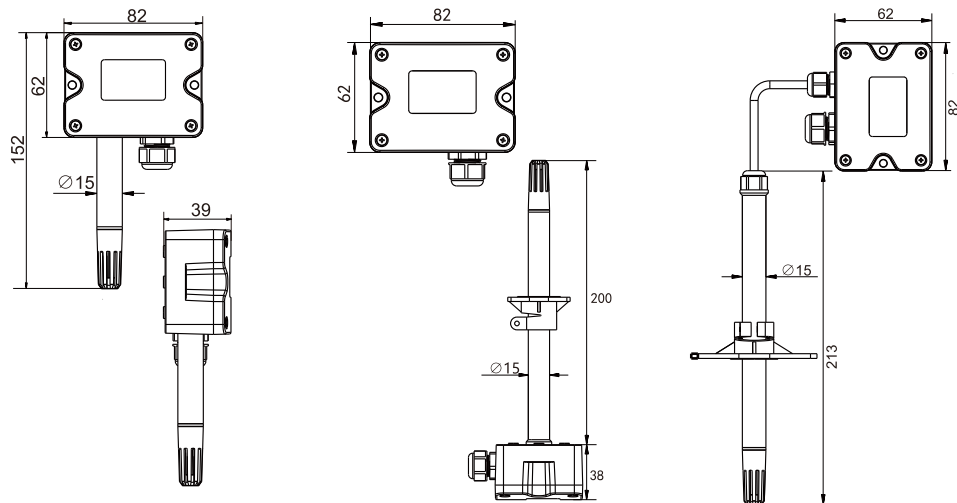
2. Voltage or current type: 3-bit dial code to select the temperature range, which can be set to 0-7, respectively representing (1: 0~50°C, 2: 0~60°C, 3: 0~80°C, 4: 0~100°C, 5: 20~60°C, 6: 20~80°C, 7: -40~60°C, 0: Default range (-20°C~60°C) Customer specified range)



Example: The dial value is:  $1*2^0+1*2^1+0*2^2=3$  which means the temperature range is 0~80°C

Note: After all the dial codes are changed, the power must be restarted to make the changes take effect. When the address or baud rate dial code is 0, the 485 can be changed by software!

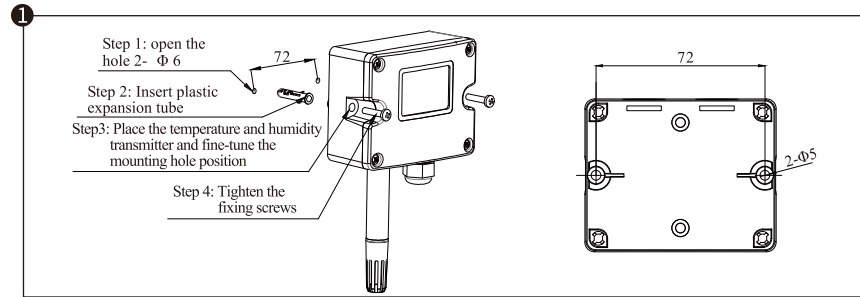
Dimension in:mm



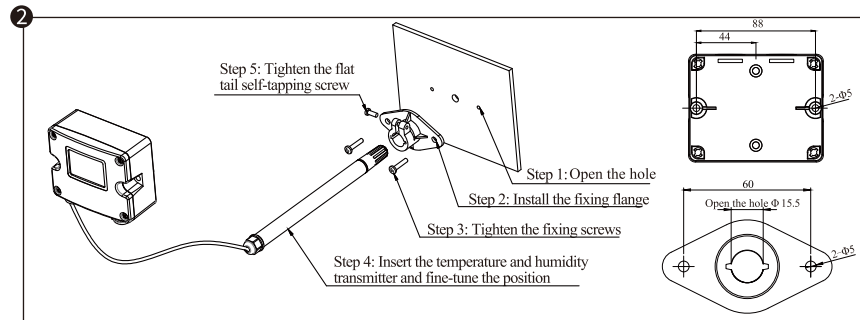
THT66-1

THT66-2

THT66-3

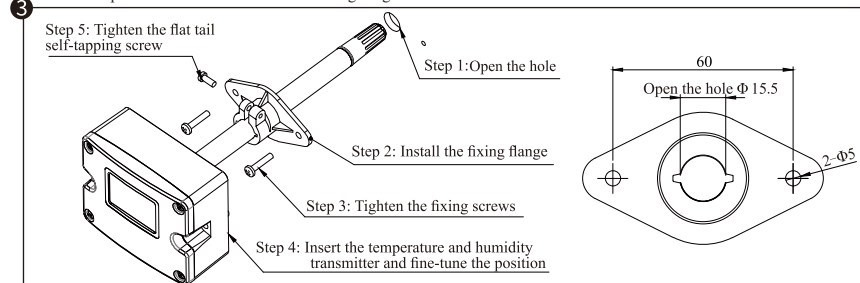


THT66-1



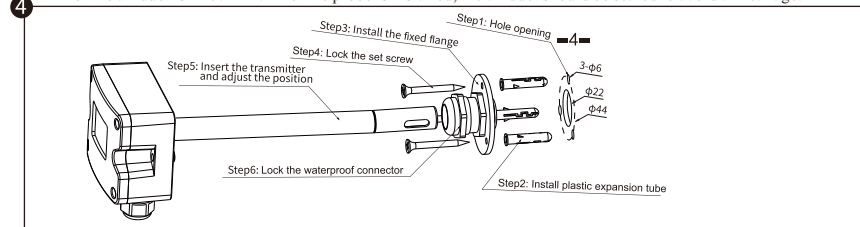
THT66-3

THT66 - 1/3 should be vertical when wall-mounted, and pay attention to the probe facing down. The installation location should be far away from the factors that affect the measurement, such as cold and heat sources, etc., and should avoid direct sunlight or rain, and if necessary, install a sunshade or rain cover. On the installation plane, open 2 fixing holes according to the hole size in the installation drawing (see above), and then use 2 screws to fix the bottom box. The THT66 - 3 probe tube installation description is the same as the THT66 - 2 using flanged installation.



THT66-2

THT66 - 2 is recommended to be installed with flange accessories, and the insertion depth can be adjusted. Fix the mounting flange on the air duct with two screws, the screws on the flange can lock the inserted probe. The opening of the air duct is Φ 15.1mm. After the probe is installed, the air duct should be sealed to avoid air leakage.



Metal flange installation diagram

Open the top cover, connect the power cord and signal line to the bottom box through the waterproof connector, complete the wiring according to the wiring diagram, and install the top cover back to its original state. Pay attention to the sealing between the waterproof connector and the bottom box (with a sealing ring), and the sealing between the upper cover and the bottom box (with a sealing ring), so that the overall protection level can reach IP65.