FEATURES

- Humidity accuracy up to +2%RH
- Imported humidity-sensitive capacitors, anti-condensation and pollution
- Passive temperature output optional
- CE certification, Ip65, ROHS

DESCRIPTION

LFH30 sensitive components use imported polymer film humidity sensitive capacitors and PT1000 temperature sensitive resistors.The special breathable coating and SMD injection molding process can ensure the long stability of the probe in the environment of dust salt spray pollution and high humidity condensation. It is calibrated with mature humidity and temperature measurement technology to ensure the accuracy. It is suitable for high-standard intelligent buildings incubators, industrial dehumidifiers and other fields.

SPECIFICATION

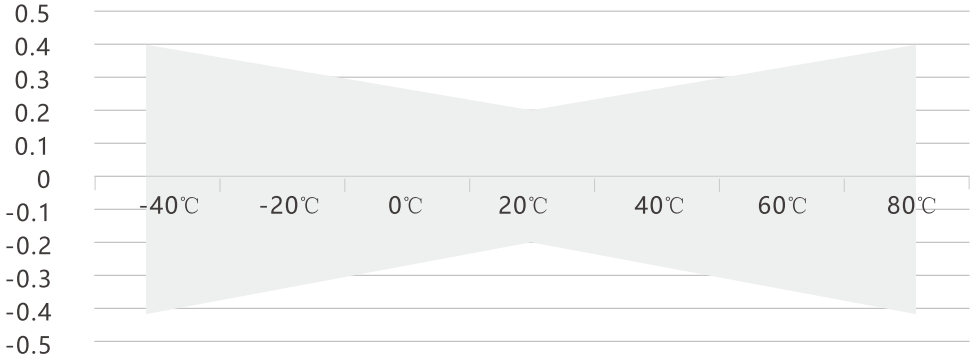
(1)Relative Humidity

Sensor	High-precision digital core
Range	0%~100%RH
Output	RS485/Modbus, 0~10VDC,4~20mA optiona
Accuracy	±2%@20℃&20~80%RH
Response time	<10s(20℃, slow flow air)

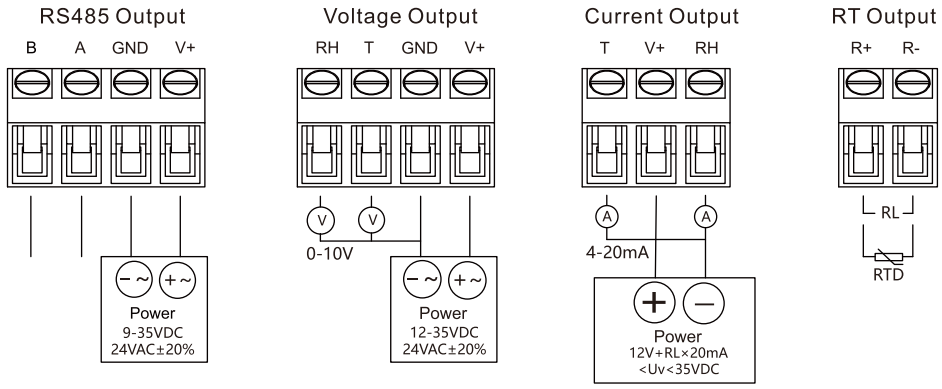
(2)Temperature

Sensor	High-precision digital core or passive thermal resistance, see Order Ref No.
Measurement Range	0~50℃, -20~60℃ etc.
Output	4~20mA,0~10VDC,RS485/Modbus optional
Thermal resistance	See Order Ref No.and Thermal Resistance Indexing Table
Accuracy	±0.2℃@20℃ Passivity RTD: typical ±0.2~0.4℃@25℃,see Order Ref No.
Power supply	RS485 type: 9~35VDC/24VAC±20% Voltage type: 12~35VDC/24VAC±20% Current type 12V+RL*20mA<UV<35VDC
Output load	≤500Ω (Current type), ≥10KΩ(Voltage type)
Display	Optional LCD display with unit display and backlight (4~20mA without backlight)
Case Material	PC shell, PA6 probe rod and polymer filter
Working Environment	-20~60℃,5%-95%RH(Non-condensing)
Protection Grade	IP65

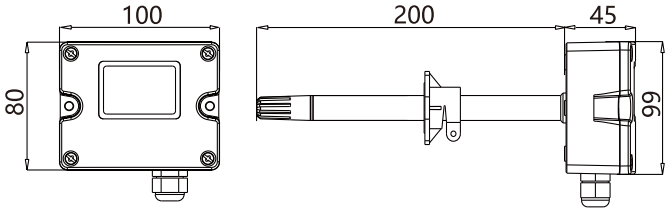
(3)Digital sensor temperature accuracy curve



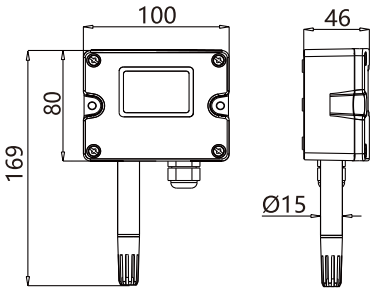
WIRING INSTRUCTION



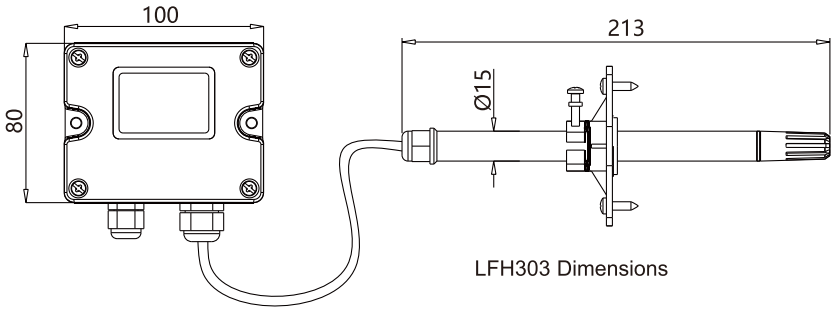
SIZE（mm）



LFH302 Dimensions

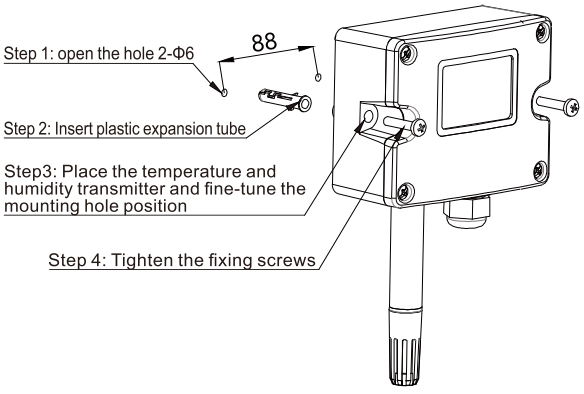


LFH301 Dimensions

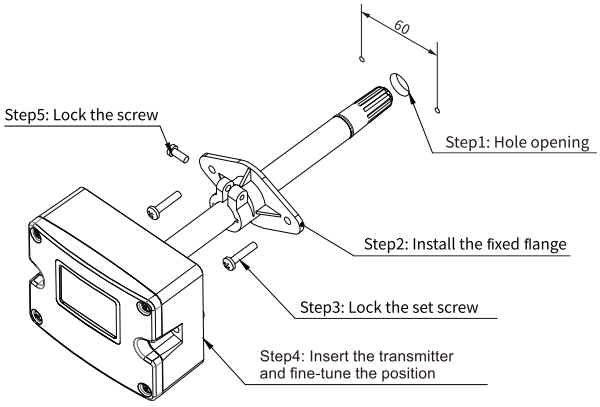


LFH303 Dimensions

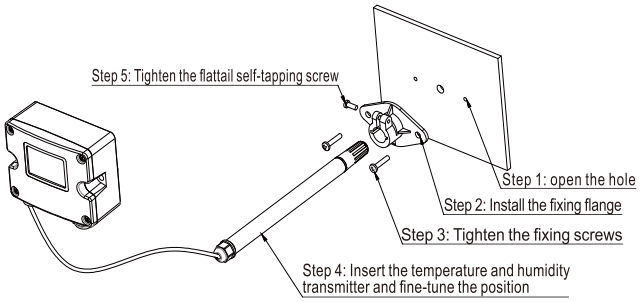
PRODUCT INSTALLATION



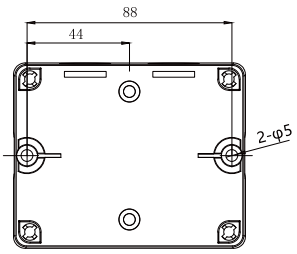
LFH301 Instructions



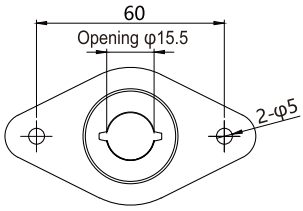
LFH302 Instructions



LFH303 Instructions



LFH301/303 Wall mounting hole



LFH302/303 Flange Mounting Holes

1. LFH302 is recommended to be installed with flange accessories and the insertion depth can be adjusted. Use two screws to fix the mounting flange on the air duct, and the screws on the flange can lock the inserted probe. The opening of the air duct is φ15.5mm. After the probe is installed, the air duct should be sealed to avoid air leakage.

2. LTH301/303 should be installed vertically when hanging on the wall and pay attention to the probe facing down. If necessary, install a sun visor or rain cover. Drill 2 fixing holes on the installation plane according to the opening size of the installation diagram (see the picture above), and fix the bottom box with 2 screws. LFH303 probe tube installation description is the same as LFH302 using flange installation.

3. Open the upper cover, connect the power line and signal line into the bottom box through the waterproof connector, complete the wiring according to the wiring diagram, and install the upper cover back to its original state. Pay attention to the sealing between the waterproof joint 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.

SELECTION

Code and Description						Remark
LFH301-	Wall-mounted temperature and humidity transmitter					Main Model
LFH302-	Duct Type Temperature and Humidity Transmitter					
LFH303-	Split type temperature and humidity transmitter					
	2	±2%RH (0.2℃)				Accuracy
		V10	0~10VDC(3-wired)			Humidity Output
		A4	4~20mA(2-wired)			
		RS	RS485/Modbus			
			V10	0~10VDC(3-wire)	0 PT1000, ±0.2℃@0℃	Temperature Output
			A4	4~20mA(2-wire)	1 PT100, ±0.2℃@0℃	
			RS	RS485 / Modbus	2 NTC20K, ±0.4℃@25℃	
					6 NTC10K, ±0.4℃@25℃	
				0	None	Temperature Range
				1	0~50℃	
				2	-20~60℃	
				8	Other(customized)	
					0 None	Display Mode
					1 LCD display	
LFH301	- 2	A4	A4	1	1	Model Example

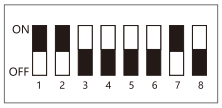
1.Only when the temperature output option is V10 or A4, you need to select the temperature range 1-8; otherwise, you can only choose 0.

2.Model example LFH301-2A4A411 represents the wal-mounted type, accuracy 2%RH(0.2℃),humidity output4~20mA, temperature output 4~20mA, and temperature range 0~50℃ with display.

3.Prolonged exposure of the product's sensor probe to hich concentrations of chemical gases may cause sensor readinas to shift.

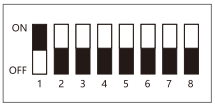
DIP SWITCH DESCRIPTION

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



Example:
The address is:1*2^0+1*2^1+0*2^2+.....=3 and the baud rate is 1.

Voltage or current type: 8-digit dial code can select the temperature range, each dial code represents a temperature range, 1: 0~50℃,2: 0~60℃,3: 0~80℃, 4:0~100 °C, 5: -20~60℃, 6: -20~80℃, 7: -40~60℃, 8: -40~80℃, for example, At this point, the temperature range is 0~50℃.



Example:
At this point, the temperature range is 0~50℃.

Note: After all the dial codes are changed, the power must be re-powered to make the changes effective. When the address or baud rate dial code is 0, the 485 type can be changed by software. The voltage or current type dial codes are all OFF or more than two dia codes are When ON, the temperature range is the default range.