FEATURES

- Intrinsically safe, dust explosion-proof certification
- Cast aluminium housing, protection level IP65
- LCD, temperature and humidity dual display
- Imported sensors, high precision, fast response
- Conforms to CE, ROHS standards

DESCRIPTION

LFH71 is a temperature and humidity transmitter that can be applied in hazardous occasions. The product adopts cast aluminium housing with high protection level, which is suitable for the monitoring of natural gas pipeline network, air supply system of power plant, pharmaceutical factory clean room and other industrial environments with complicated working conditions. The product adopts imported temperature and humidity sensors, with high precision and fast response. The product is divided into intrinsically safe explosion-proof (with display), intrinsically safe dust explosion-proof two models, of which intrinsically safe explosion-proof can work in Zone 0, Zone 1, Zone 2; intrinsically safe dust explosion-proof can work in Zone 20, Zone 21, Zone 22.

TECHNICAL PARAMETERS

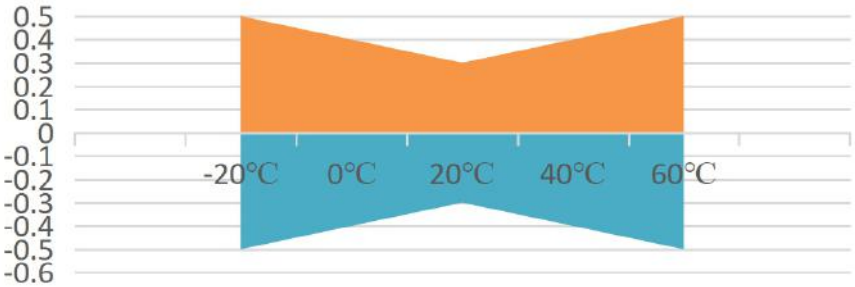
1. Relative Humidity

Sensor	Digital
Range	0%~100%RH
Output	4~20mA(two wire)
Accuracy	+3%@ 20℃ & 20~80%RH
Response time	≤15s(20℃，Slow flow air)

2. Relative Temperature

Sensor	Digital
Range	0~50℃，-20~60℃ etc
Output	4~20mA(two wire)
Accuracy	+0.3℃@20'℃, For other accuracy, refer to the digital sensor temperature accuracy curve below.

3. The digital sensor temperature accuracy curve



4. Intrinsically safe parameters

Explosion-proof Marking	With display: Ex ia ⅡC T6/T4 Ga Without display: Ex ia ⅡC T6/T4 Ga；Ex ia ⅢC T_{200} 85℃/T_{200} 135℃ Da
Explosion-proof certificate	CE24. 2060X
Intrinsically Safe Parameters	(RH+、RH-):Ui: 28VDC；Ii: 93mA；Pi: 0.65W；Ci: 0.02uF；Li: 0mH (T+、T-):Ui: 28VDC；Ii: 93mA；Pi: 0.65W；Ci: 0.02uF；Li: 0mH
Environment temperature	T4: -40℃~80℃；T6: -40℃~60℃

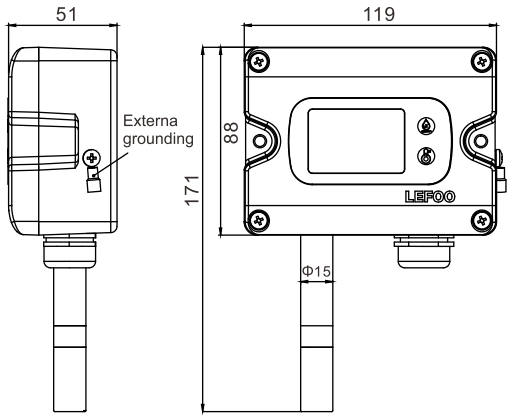
5. Other parameters

Power Supply	9~28VDC
Maximum Power	0.04UV (W) (UV=supply voltage)
Output Load	≤500Ω
Display	Intrinsically safe: Optional LCD display (with unit without backlight) Dust intrinsically safe: No display
Housing Material	ADC12, stainless steel probe and sintered mesh filter
Working temperature	T4: -40℃~80℃； T6: -40℃~60℃, 5%~95%RH (non-condensing)
Protection Class	IP65
Weight	≈666g(Wall-mounted) ≈760g(Duct type) ≈813g(Split type,without accereceries)
Certificates	CE，Intrinsically Safe Explosion-proof, Dust Intrinsically Safe Explosion-proof

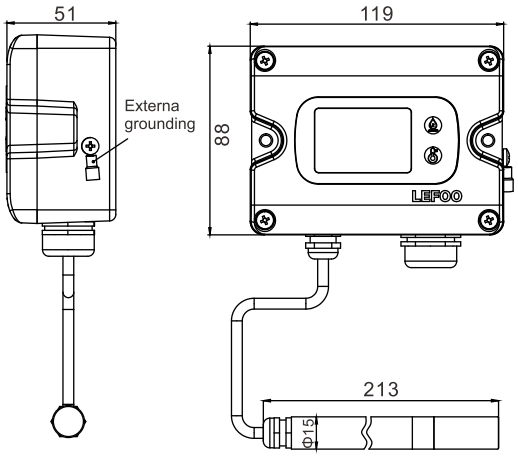
WARNING

1. The product housing is made of aluminium alloy, please avoid the risk of ignition during use due to impact or friction.
2. The housing must be reliably grounded during installation.
3. The product display is made of plastic with a potential danger of electrostatic charge. Please avoid friction during use, or wipe with a wet cloth when cleaning.
4. When the product is used in explosive dust environments, there is a potential danger of electrostatic charge, so it should not be used in areas affected by charge-generating processes, mechanical friction, separation processes, electronic emission and pneumatic transmission of dust.

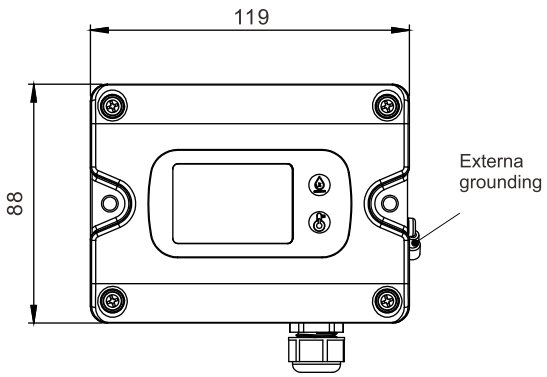
DIMENSIONS (mm)

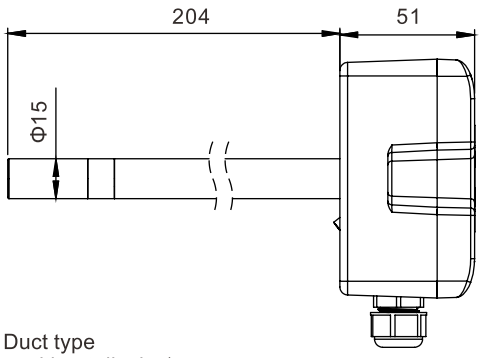


LFH711 Wall-mounted
(same dimensions without display)



LFH713 Split type
(same dimensions without display)





LFH712 Duct type
(same dimensions without display)

ORDER REF NO.

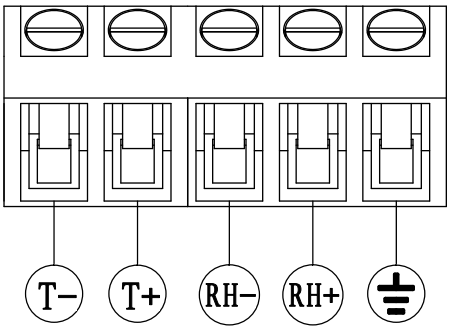
Code and description						Remark
LFH711-	Wall Mounted Temperature and Humidity Transmitter					Model
LFH712-	Duct Type Temperature and Humidity Transmitter					
LFH713-	Split Type Temperature and Humidity Transmitter					
	A4	4~20mA (2-wire)				Output
		3	±3%RH (±0.3℃)			Accuracy
			1	0~50℃		Temperature Range
			2	-20~60℃		
			8	Others (Customer specified, T6: Upper limit 60°C, lower limit -40°C; T4: upper limit 80°C, lower limit -40°C)		
				0	Without Display (Explosion-proof type: B/F/BF)	Display
				1	LCD Display (No backlight)(Explosion-proof type: B)	
					B Intrinsically Safe	Explosion-proof type
					F Dust Intrinsically Safe	
					BF Intrinsically Safe / Dust Intrinsically Safe	
LFH711-	A4	3	1	1	B	Selection Example

ATTENTION:

1. Example LFH711-A4A4311B represents wall-mounted type, accuracy of ±3% RH (±0.3℃), humidity output 4-20mA, temperature output 4-20mA, temperature range 0 ~ 50℃, with display;
2. When the temperature range is selected as 8, the temperature range specified by the customer shall not exceed the specified range, T6: -40℃~60℃; T4: -40℃~80℃;
3. When the display is selected as showing (1), only intrinsically safe type (B) can be selected.
4. Prolonged exposure of the product's sensor probe to high concentrations of chemical gases may cause the sensor's reading to shift.

WIRING METHOD

The Transmitter adopts two-wire system, connected to the power supply and current detection device through the safety barrier, 4-20mA current output, installation and wiring as shown in the figure below.



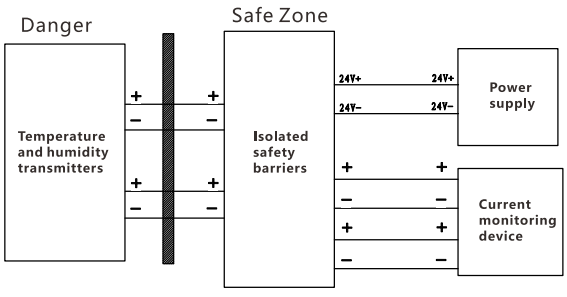
Parameters of safety gate Um:250VAC/DC;Uo:28VDC;Io:93mA; Po:0.65W;Co:0.08uF;Lo:4.1mH;

Recommended Model of Safety Barrier:
CB4036-ES Isolated Safety Barrier
MTL5041 Isolated Safety Barrier

T+: temperature input; T-: temperature output;
RH+: Humility Input; RH-: Humility Output;

⏚ Grounding terminal

Note: For the current type output model, the humidity circuit must be connected, otherwise the product will not work.



Grounding method:

Can be grounded through the internal terminal

①Open the top cover of the product and fix the earth wire to the ground terminal of terminal H1.

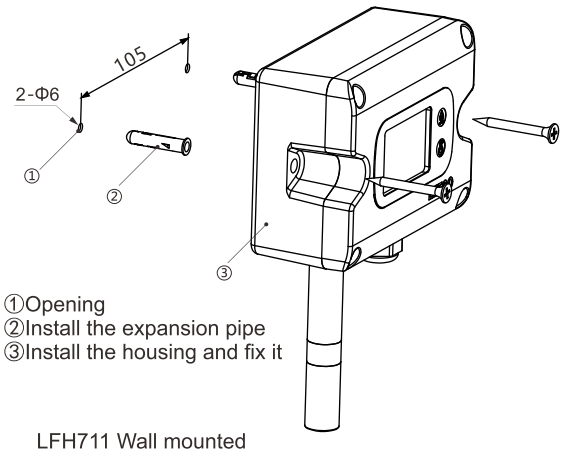
Can be grounded through the connection of screw and the case

①Unscrew the grounding screw on the side of the housing and remove the terminal.

②Insert the ground wire into the terminal and press the terminal with crimping pliers.

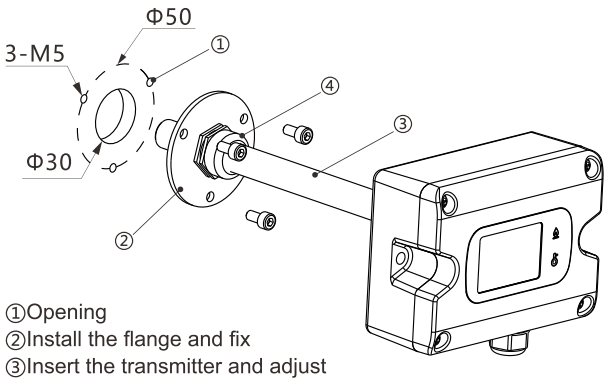
③Fix the terminal to the product shell and tighten the screw to complete the grounding.

INSTALLATION METHOD:



①Opening
②Install the expansion pipe
③Install the housing and fix it

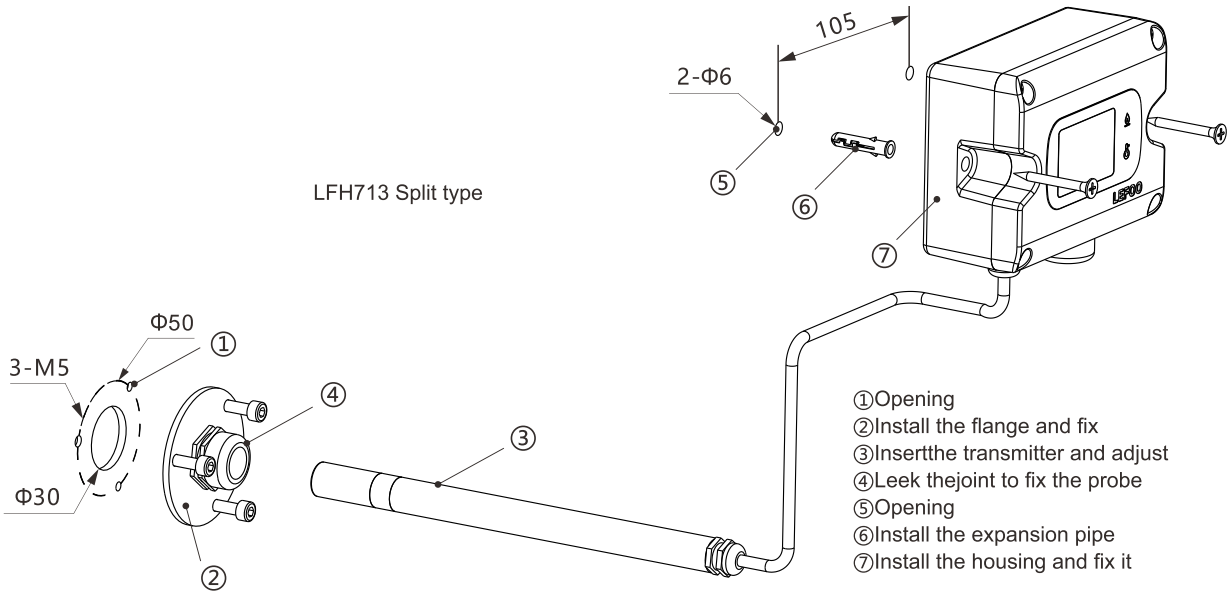
LFH711 Wall mounted



①Opening
②Install the flange and fix
③Insert the transmitter and adjust
④Lock the joint to fix the probe

LFH712 Duct type

LFH713 Split type



①Opening
②Install the flange and fix
③Insertthe transmitter and adjust
④Leek thejoint to fix the probe
⑤Opening
⑥Install the expansion pipe
⑦Install the housing and fix it

Attention
Expansion screws are required if mounted on the wall; machine screws are required if mounted on the iron plate.