

FEATURES

- Stainless steel dust-free panel, smooth embedded installation
- Probe rod with aviation plug connection, easy to replace
- Optional H₂O₂ cap, more suitable for disinfection environments
- High-precision imported sensor with excellent long-term stability
- Password-protected setup interface to prevent unauthorized operation
- CE, ROHS certification



DESCRIPTION

LFH75 Temperature and Humidity Transmitter specifically developed for clean environments. The product features a stainless steel metal panel, and its embedded installation allows it to be flush with the wall, significantly reducing dust accumulation and meeting the cleaning requirements of clean environments. Additionally, the imported capacitive humidity sensor ensures the product's accuracy and long-term stability. The replaceable probe design also facilitates daily use and maintenance. This product is an ideal choice for temperature and humidity measurement in cleanrooms, laboratories, isolation wards, animal rooms, and other similar environments.

SPEIFICATIONS

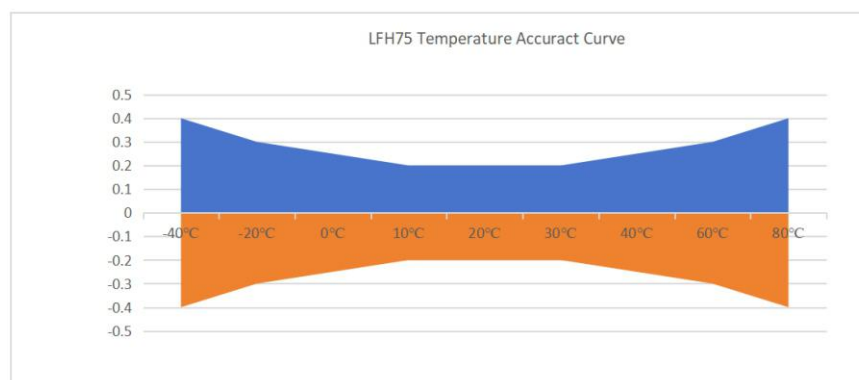
(1) Relative Humidity

| | |
|---------------|---------------------------------------|
| Sensor | Humidity Sensitive Capacitor |
| Range | 0%~100%RH |
| Output | RS485/Modbus, 0~10VDC, 4~20mA, 0~20mA |
| Accuracy | ±2%@ 20°C & 20~80%RH |
| Response time | ≤10s(20°C, slow flow air) |

(2) Temperature

| | |
|------------|--|
| Transducer | PT1000 (class A) |
| Range | 0-50°C, -20-60°C, etc. |
| Output | RS485/Modbus, 0~10VDC, 4~20mA, 0~20mA |
| Accuracy | ±0.2°C@ 10°C-30°C see chart for other ranges |

(3) TEMPERATURE ACCURACY CURVE



Power Supply: 16-35VDC or 24VAC ±20%

Note: An isolation transformer is required when using AC power.

Output Load: ≥10KΩ (voltage type); ≤500Ω (current type)

Display Resolution: 0.01°C, 0.01% RH

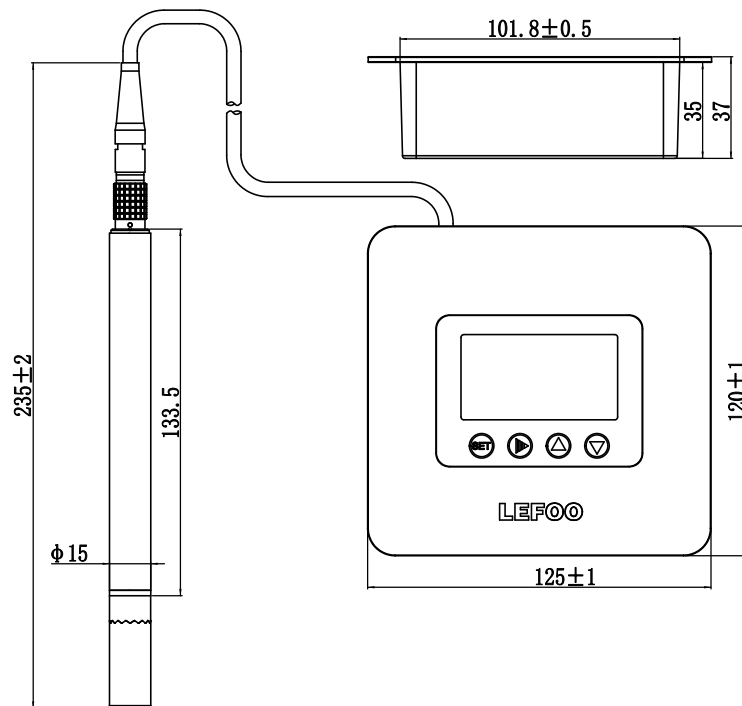
Housing Material: Base shell PC, panel stainless steel 304, probe stainless steel 304 probe

Operating Environment: -20 to 60°C, 5%-95% RH (non-condensing)

Storage Environment: -20 to 60°C, 5%-95% RH

Protection Level: Front panel: IP65 after installation; Probe: IP65 (stainless steel sintered and H₂O₂ filter); IP30 (metal U-groove filter)

DIMENSION (mm)



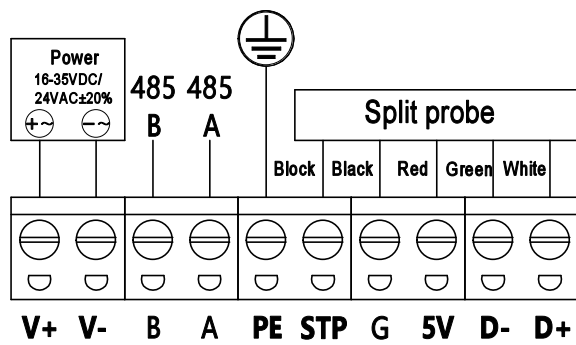
ORDER REF NO.

| Code and Definition | | | | | | Remark | |
|---------------------|----|---|-----------------|------------------------------------|--------------------------------------|-------------------|--------------|
| LFH75- | | Embedded Temperature and Humidity Transmitter | | | | Model | |
| | | V10 | 0~10VDC(3-wire) | | | Output | |
| | | A0 | 0~20mA(3-wire) | | | | |
| | | A4 | 4~20mA(3-wire) | | | | |
| | | RS | RS485/Modbus | | | | |
| | | | 0 | N0 | | Temperature Range | |
| | | | 1 | 0~50℃ | | | |
| | | | 2 | -20~60℃ | | | |
| | | | 8 | Other (customized, within -40~80℃) | | | |
| | | | | 1 | Metal U-groove Filter | | Filter |
| | | | | 2 | Stainless Steel Sintered Filter | | |
| | | | | 3 | H ₂ O ₂ Filter | | |
| | | | | 02 | 2M | | Cable Length |
| | | | | 10 | 10M | | |
| | | | | XX | Customized (≤10m) | | |
| LFH75- | A4 | 2 | 2 | 02 | Selection | | |

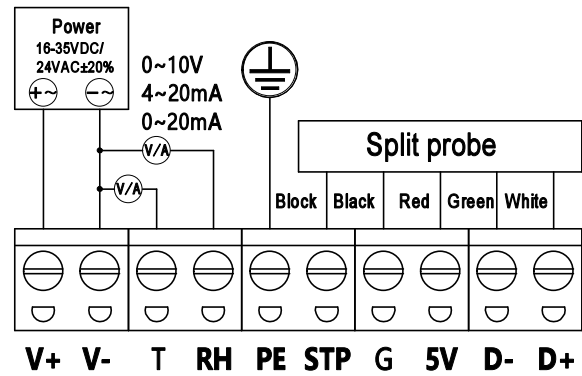
Note:

- Only when the output option is V10, A0, or A4, the temperature range 1-8 must be selected; otherwise, only 0 can be selected.
- Example LFH75-A42202 represents an embedded temperature and humidity transmitter with current output 4-20mA, temperature range -20-60℃, stainless steel sintered filter, and 2-meter cable length.
- Prolonged exposure of the sensor probe to high temperature and humidity environments may cause humidity drift, which can be restored by placing it in a normal environment.

WIRING INSTRUCTIONS

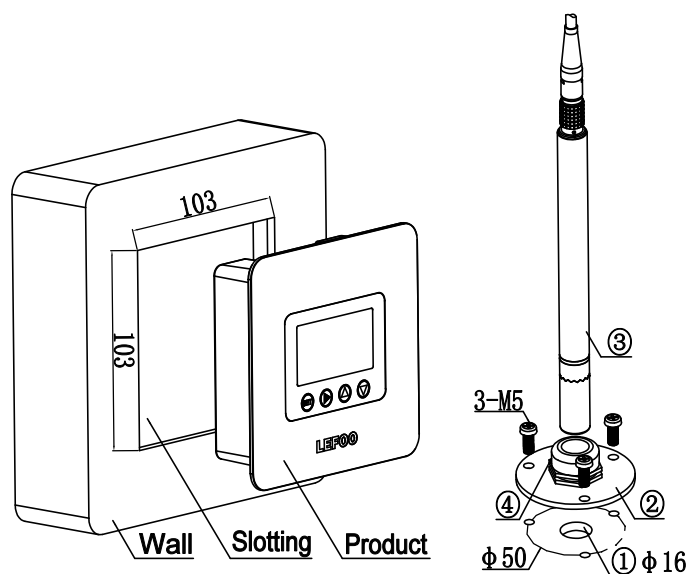


RS485 Output



Voltage-current output

PRODUCT INSTALLATION:



Main Unit Installation:





1. Cut a slot in the hollow wall.
2. Connect the wiring harness to the product.
3. Embed the entire product into the wall through the slot.
4. Finally, use adhesive to secure the product to the wall.

Probe Installation:

1. Cut a slot with the diameter as shown.
2. Screw the waterproof connector onto the flange and secure the flange.
3. Insert the probe through the waterproof connector and adjust its position.
4. Finally, adjust the cap of the waterproof connector to secure the probe.




FUNCTION DESCRIPTION:

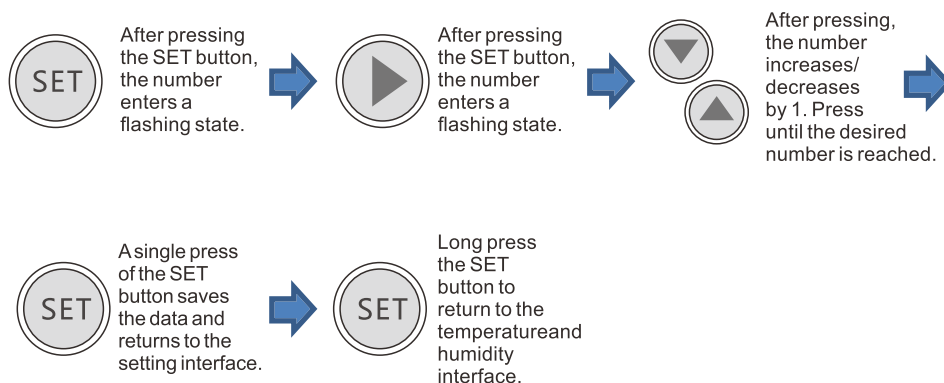
Button Description

| Button | Description | Function Description | Remarks |
|---|-----------------------------|---|--|
|  | 1.Menu Key 2.Confirm Key | 1. Long press the SET key for 3 seconds to enter the parameter settings. 2. In the parameter setting interface, press the S key once to select the current parameter setting, and then you can modify the parameter. The modifiable parameter will flash on the screen. 3. In the parameter setting interface, press the S key once to select the current parameter setting, and then you can modify the parameter. The modifiable parameter will flash on the screen. 4. Long press this key to return to the main display interface. | |
|  | Up/Value Increase Key | 1.Press this key to select the parameter interface to be modified. 2.Press this key to increase the current parameter by 1. | Display upper/lower limits directly after some parameters exceed the limit |
|  | Down/Value Decrease Key | 1.Press this key to select the parameter interface to be modified. 2.Press this key to decrease the current parameter by 1. | Display upper/lower limits directly after some parameters exceed the limit |
|  | Shift Key | 1.Change the position of the flashing cursor | |

Display Interface

Slave Address Setting Interface (Addr) (Available for RS485 Version)

Enter the password to access the setting interface, navigate to the slave address setting interface, and the screen will display "F5 Addr". Briefly press the SET button, and the second line of the screen will flash to show the current slave address. The slave address can be set within the range of 1-255, with the default address being 1. The slave address consists of three digits, which will flash upon pressing the  button, and the flashing state will move to the next digit. When the digit is in the flashing state, pressing the  button will increment or decrement the number. After modifying the slave address, press the SET button to save the data, and the display will return to "Addr". If you wish to continue modifying other parameters, you can press the button  again to select the interface for further modifications. If no other parameters are to be modified, long press the SET button to return to the data display interface. The method for modifying other parameters is the same as that for modifying the slave address.



Parameter Setting Password Interface (Password 0003)

Long press the SET button to enter the password interface, where the first line of the screen will display "CODE". Use the up and down adjustment buttons to change the password to 0003, then briefly press the SET button to enter the parameter setting menu.

Baud Rate Setting Interface (bAud) (Available for RS485 Version)

After the display screen enters the setting interface, adjust to the baud rate setting interface, and the screen will display "F6 bAud". Briefly press the SET button, and the second line of the screen will flash to show the current baud rate parameter. There are 7 baud rate options: 0~6.0 corresponds to a baud rate of 4800, 1 corresponds to 9600 (default), 2 corresponds to 14400, 3 corresponds to 19200, 4 corresponds to 38400, 5 corresponds to 57600, 6 corresponds to 115200. The default baud rate is 9600, and the default parameter is 1. The method for modifying parameters is the same as for modifying the slave address.

Parity Setting Interface (PAr) (Available for RS485 Version)

After the display screen enters the setting interface, adjust to the parity setting interface, and the screen will display "F9 PAr". Briefly press the SET button, and the second line of the screen will flash to show the current parity setting. There are 3 options: non (no parity) / odd (odd parity) / Even (even parity).

Temperature Range High Point Setting Interface (tr-H) (For Analog Version)

After the display screen enters the setting interface, adjust to the temperature range high point setting interface, and the screen will display "F5 tr-H". Briefly press the SET button, and the second line of the screen will flash to show the current range high point parameter. The setting range is -40°C to 120°C, with the default high point being 60°C. The method for modifying parameters is the same as for modifying the slave address.

Temperature Range Low Point Setting Interface (tr-L) (For Analog Version)

After the display screen enters the setting interface, adjust to the temperature range low point setting interface, and the screen will display "F6 tr-L". Briefly press the SET button, and the second line of the screen will flash to show the current range low point parameter. The setting range must be less than the high point value, with the default low point being -20°C. The method for modifying parameters is the same as for modifying the slave address.

Temperature Unit Setting Interface (tu)

After the display screen enters the setting interface, adjust to the temperature unit setting interface, and the screen will display "F1 tu". Briefly press the SET button, and the second line of the screen will flash to show the current temperature unit. The setting range is C/F, representing Celsius and Fahrenheit temperature units, respectively. Press the up and down buttons to modify the parameter.

Humidity Parameter Setting Interface (Hn)

After the display screen enters the setting interface, adjust to the humidity parameter setting interface, and the screen will display "F2 Hn". Briefly press the SET button, and the second line of the screen will flash to show the current humidity parameter. The setting range is RH/TF/TD, representing relative humidity, frost point/dew point temperature, respectively. Press the up and down buttons to modify the parameter.

Humidity Single Point Offset Setting Interface (HoFF)

After the display screen enters the setting interface, adjust to the humidity offset setting interface, and the screen will display "F4 HoFF". Briefly press the SET button, and the second line of the screen will flash to show the current offset. The setting range is -100 to 100, with the default value being 0. The method for modifying parameters is the same as for modifying the slave address. The temperature setting interface is "F3 toFF", with the same setting method as humidity.

Backlight Setting Interface (bLEn)

After the display screen enters the setting interface, adjust to the backlight setting interface, and the screen will display "F10 bLEn". Briefly press the SET button, and the second line of the screen will flash to show the current switch state on/off. Press the up and down buttons to control the backlight switch.

Humidity Linear Calibration Interface (CA-H)

After the display screen enters the setting interface, adjust to the humidity calibration setting interface, and the screen will display "F7 CA-H". Briefly press the SET button, and the screen will display submenus RH-H, RH-L, CAL. Use the up and down buttons to adjust the submenu, briefly press the SET button to first enter RH-H or RH-L standard humidity high or low points, input the current standard humidity value through the up and down shift buttons and briefly press the SET button to save. Then, enter the CAL submenu to perform calibration calculation. In this menu, OFF means no calculation, and ON means calculation. Briefly press SET to confirm the calculation, and the corrected humidity value will be displayed, and the single point offset value will be cleared. Temperature calibration follows the same principle.

Restore Factory Settings (FACS)

After the display screen enters the setting interface, adjust to the restore factory settings interface, and the screen will display "F11 FACS". Briefly press the SET button, and the second line of the screen will flash to show the current state on/off corresponding to restore factory settings or not. Press the up and down buttons to control. Briefly press the SET button to confirm.