FEATURES

■ Up to 5 mounting and output options available

■ New industrial look quick-fifit design for fast installation and deployment

■ Imported Heraeus Class A sensors, high accuracy, fast response
low temperature drift

■ Excellent anti-interference ability and protection function, CE
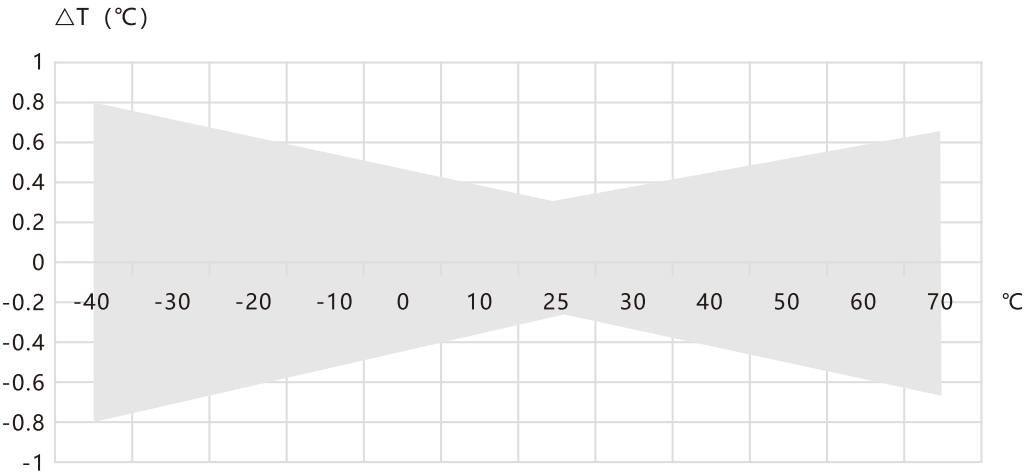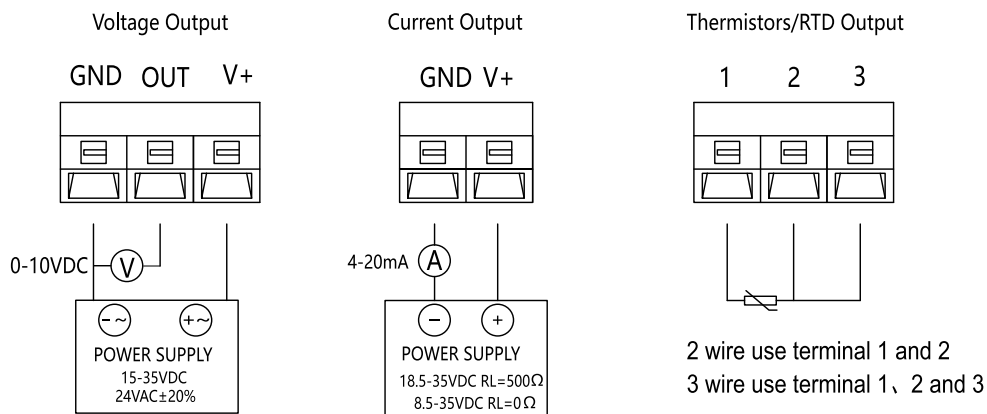certifification IP65, RoHS

DESCRIPTION

The LFW10 series temperature transmitter is a transmitter designed for industrial applications.It is specially designed for shock surges, electrostatic discharges group pulse withstand voltages, etc, and has strong anti- interference ability There is a wall hangingThere are fifive installation methods of air duct / water pipe split, and clamp, and three outputs of current, voltage and thermal resistance The mode is optional, the on-site adaptability is strong and the spring screw / terminal design is suitable for quick installation.canIt is widely used in computer room HVAC, buildings, warehouses and other places where temperature detection is required.

SPECIFICATIONS

Sensor	·High precision thermal resistance please refer to the selection instruction table(resistance output) ·PT1000, level A(analog output type)
Output	·Resistance value，please refer to the selection table and thermal resistance indexing table ·4~20mA or 0~10VDC,0~5VDC
Thermal resistance	Please check the selection table and thermalresistance indexing table
Accuracy	Typical 0.2~0.5℃@0/25℃,see selection table ±0.3℃@25℃,see accuracy curve
Power supply	·Voltage type 15~35VDC/24VAC±20% ·Current type 18.5~35VDC (RL=500Ω) 8.5~35VDC (RL=0Ω)
Output load	(analog output type): <500Ω(current type)≥2KΩ(0~5V),≥3KΩ(0~10V)
Housing material	PC housing、stainless steel probe(Φ6mm)and sleeving
Working environment	-40~70°C,0~95%RH(Non-condensing)
IP level	IP65

△T （℃）

WIRING INSTRUCTION

Voltage Output

GND OUT V+

0-10VDC (V)

POWER SUPPLY
15-35VDC
24VAC±20%

Current Output

GND V+

4-20mA (A)

POWER SUPPLY
18.5-35VDC RL=500Ω
8.5-35VDC RL=0Ω

Thermistors/RTD Output
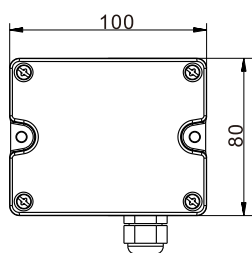
1   2   3
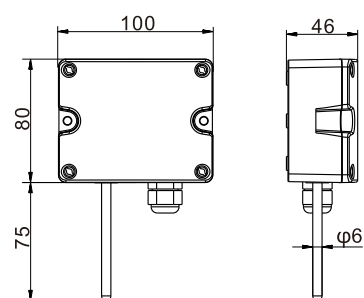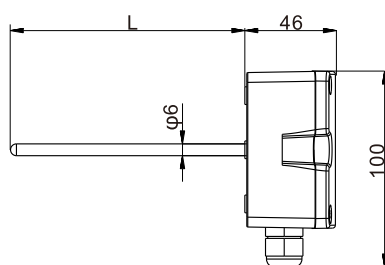
2 wire use terminal 1 and 2
3 wire use terminal 1、2 and 3

Note: When using 24VAC power supply, it is recommended to use isolated 24VAC power supply. The maximum power of thermal resistance output type is P=100mW@25℃. If it exceeds the rated power, the thermal resistance will burn.
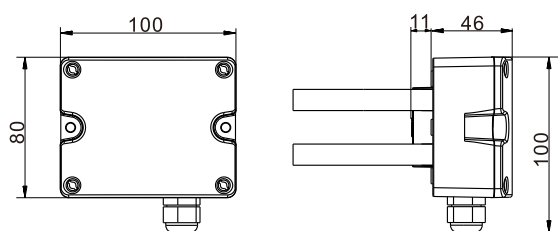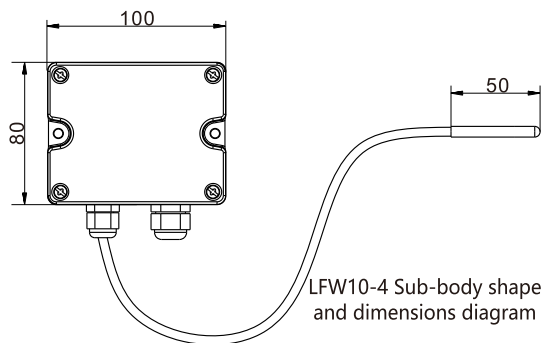
SIZE（mm）

100

80

L   46

φ6

100

LFW10-2/LFW10-3 Dimensions of pipeline type

100

80

75

46

φ6

LFW10-1 Wall-mounted outline drawing

100

80

11 46

100

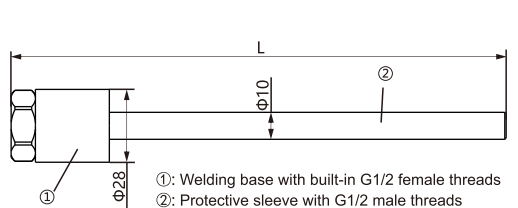LFW10-5 Clamp type outline drawing

100

80

50

LFW10-4 Sub-body shape
and dimensions diagram

PRODUCT INSTALLATION

L

Φ10

②

①

Φ28

①: Welding base with built-in G1/2 female threads
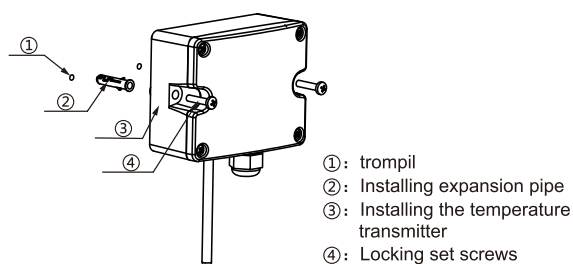②: Protective sleeve with G1/2 male threads

LFW10-3 Stainless steel casing installation opening

88

44

2-Φ5
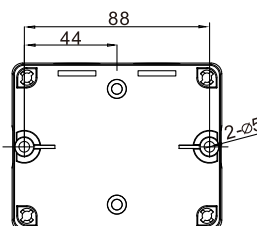
LFW10-1/10-4
wall mounting opening

50

2-Φ4.5

Open the hole
Φ6.5
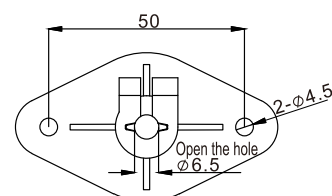
LFW10-2 Flange mounting opening

①：trompil
②：Installing expansion pipe
③：Installing the temperature transmitter
④：Locking set screws

LFW10-1/4 Installation diagram

①：trompil
②：Install fixing flange
③：Locking set screw
④：Insert the temperature transmitter and fine tune the position
⑤：Locking flange fixing screw
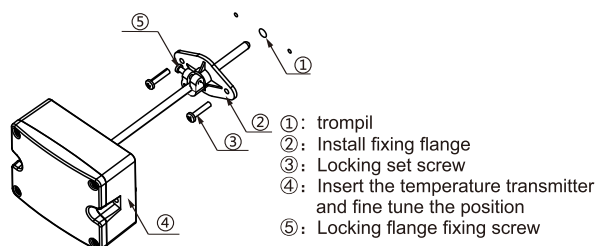
LFW10-2 Installation diagram

①：Installation sleeve
②：Thread G1/2
③：Connecting pipe fittings
④：pipeline
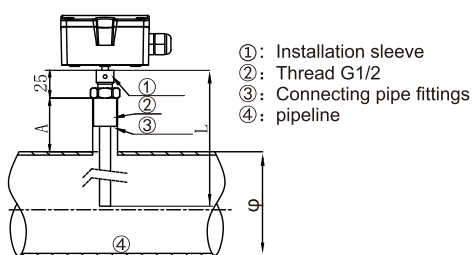
for instance：A=L-25-1/2φ

LFW10-3 Installation diagram

Clamp

Step 1: Clean the fitting area and remove rust
Step 2: Insert the two clamps into the mounting holes
Step 3: Use a screwdriver to lock the clamp sothat the sensor prode is closely fitted tothe outer wall of the pipeline under test
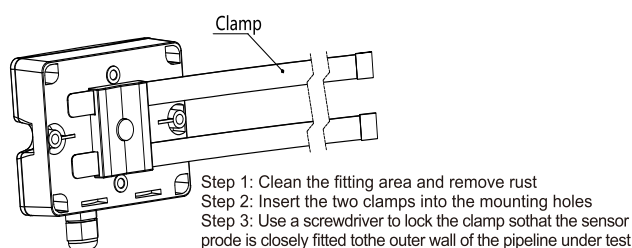
LFW10-5 Installation diagram

SELECTION

Codes & descriptions					Remark
LFW10-1	Wall-mounted type temperature transmitter		LFW10-4	Split type temperature transmitter	Model
LFW10-2	Duct type temperature		LFW10-5	Clamp type temperature transmitter	
LFW10-3	Pipe type temperature				
	V10	0~10VDC(3-wired)		0	PT1000, ±0.2℃@0℃	Temperature output
	A4	4~20mA(2-wired)		1	PT100,±0.2℃@0℃	
	V5	0~5VDC(3-wired)		2	NTC20K,±0.3℃@25℃	
				6	NTC10K, ±0.3℃@25℃	
		0	null			Temperature range
		1	0~50℃			
		2	-20~60℃			
		8	others(available on request)			
			0	65MM		Probe length LFW10-2/10-3
			1	100MM		
			2	200MM		
			3	150MM		
			8	others(available on request)		
LFW10-2	A4	1	2			Selection example

1. Only when the temperature output are V10、A4、V5, the temperature range can be accordingly selected from 1-8；otherwise, the range selection would be 0。

2. The standard LFW104 cable length is 1m。If request longer length, the cable length should be round number, and add a length identifier at the end of the model number.E.g., LFW104-A41-2 means the cable length is 2m。

3.The accuracy of the clamp type of LFW105 depends on the wall material, installation, working temperature, and wind speed, etc. Therefore, it might be difficult to achieve the above accuracy.

4.The example LFW10-2A412 shows the duct type, temperature output is 4~20mA,temperature range is 0~50°C,probe length is 200MM.

CAUTIONS

1. LFW10-1/10-4, when select wall-mounted, the probe should be vertically downward. When applied to outdoors, a proper position is needed. Please make sure the transmitter is away from the factors which may affect the measurement, such as cold, heat source, etc. And it's also necessary to install sun visor or protective cover to protect the transmitter from direct sunlight or rain. Drill two holes in the mounting place according to the hole size of the mounting box(refer to above picture), and tighten the mounting box with two screws.

2. LFW10-2 is recommended to use flange accessories for installation. The insertion depth is adjustable. Fix the flange on the pipe with two screws. The screws can tighten the probe and LFW102. Drilling hole size is Φ7mm and it must be finally sealed after drilling.

3. LFW10-3 should be installed with installation joint . The connection joint size should be G1/2 ,and welded to the pipe. Tighten the connection joint to ensure pipe pressure was sealed well. Put in the probe to the pipe bottom, and fasten it with the screws.

4. LFW 10-5 is designed for circular pipe and cable ties installation. Tighten the cable tie to make the probe is as close as possible to the pipe surface (To achieve the best measurement performance, the connect part must be clean and no rust).

5. When wiring, please open the cover and install the waterproof connector first. And then connect the power supply and signal wire at the box base through the waterproof connector. Finish the wiring according to the wiring diagram. In order to make the protection level up to IP65. Please make sure the waterproof connector and the box base matched well without leakage (There is a sealing ring). So do the cover and the bottom box (There is also a sealing ring).

As shown in the figure, when using the clamp type transmitter LFW10-5 to test the T process (temperature of the fluid in the pipe), the real temperature. Tsensor will be different from Tprocess the temperature of the fluid in pipe. The factors which lea

$T_{process}$

T_{sensor}

$T_{ambient}$

Pipe   Sensor

K_2 K_1

X_2 X_1

NOTE:
Tambient=Measure ambient temperature
X1=Thickness of the sensor module
K1=Thermal conductivity of the sensor module
Tsensor=Measure surface temperature
X2=pipe wall thickness