

## FEATURES

- The protection tube is made of 304 stainless steel with strong corrosion resistance and excellent mechanical properties
- With reverse protection function
- High protection level up to IP65



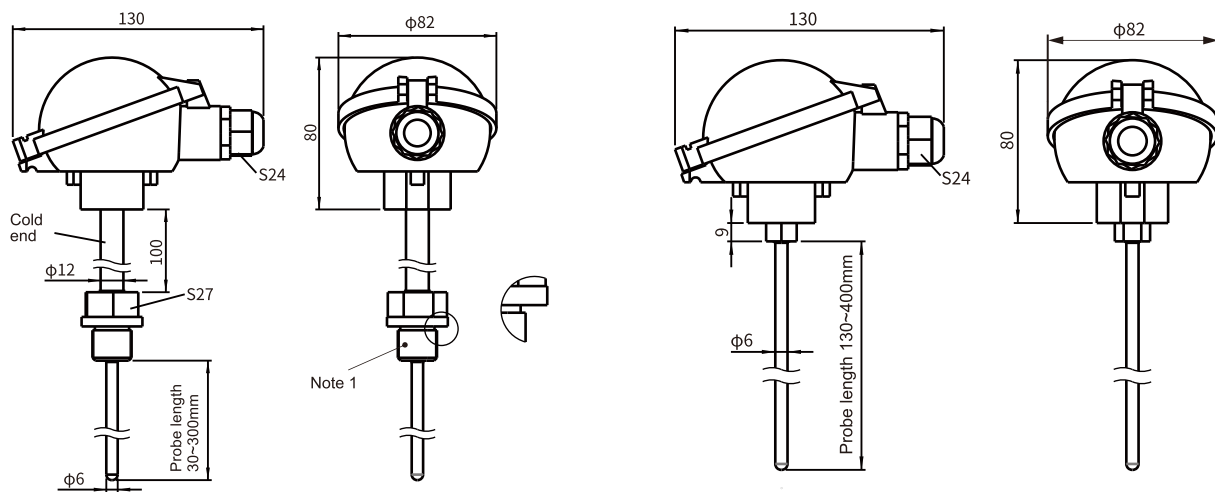
## DESCRIPTION

LFW20 series temperature transmitter adopts high-precision platinum resistance, the probe rod is made of 304 stainless steel integrated processing, with strong corrosion resistance and excellent mechanical properties, can work stably for a long time. A variety of installation options, suitable for different working conditions, widely used in petroleum, chemical, heating, hydrology, HVAC and other industrial site temperature measurement.

## SPECIFICATION

|                     |                                                                                                            |
|---------------------|------------------------------------------------------------------------------------------------------------|
| Measuring medium    | Liquid or gas, etc. (compatible with contact materials)                                                    |
| Measuring range     | -50~300°C (see range parameter selection table for details)                                                |
| Output signal       | 4~20mA / 0-10V / RS485 / PT100 / PT1000                                                                    |
| Supply voltage      | 15~35VDC                                                                                                   |
| Accuracy            | 0.25%FS、0.5%FS                                                                                             |
| Working environment | -40~85°C、0~95%RH (No condensation)                                                                         |
| Housing material    | Die-cast aluminum housing、304 stainless steel probe rod and casing                                         |
| Protection level    | IP65. Note: this protection level refers to the level achieved after the electrical connection is complete |

## DIMENSION (mm)



• Sleeved Type •

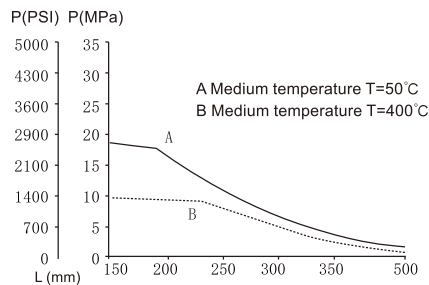
• Direct Insert Type •

|             |       |         |      |      |                   |
|-------------|-------|---------|------|------|-------------------|
| Thread Size |       |         |      |      |                   |
| Thread Spec | M27*2 | M20*1.5 | G1/2 | G1/4 | Clamp size 50.5MM |

## PARAMETRIC CURVE

### ①Pressure resistance characteristics

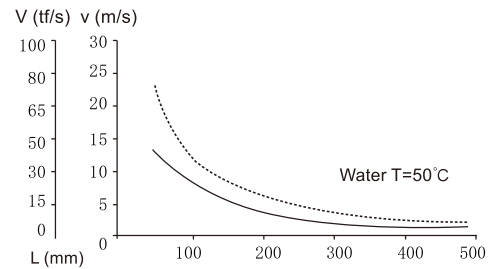
The pressure that protective tube withstand changes with the tube length (see the figure below)



Protective tube diameter 6MM, wall thickness 1.0MM,  
L: immersion depth, P: process pressure

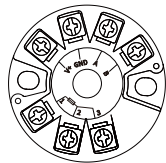
### ②Medium flow

The maximum medium flow rate that the protective tube can withstand decreases with the increase of insertion depth (see the figure below)

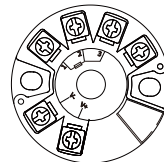
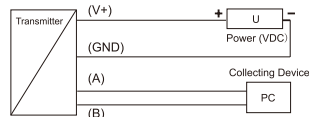


Protective tube diameter 6MM, wall thickness 1.0MM,  
L: immersion depth V: flow rate

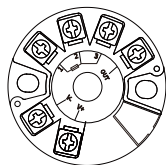
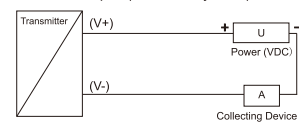
## WIRING INSTRUCTION:



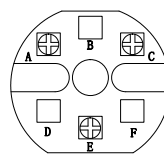
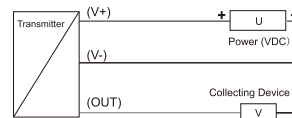
### • RS485 Output



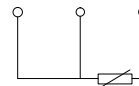
### • Current Output (two wire system)



### • Voltage Output (three wires system)



A C E  
Red Red White



• PT100/PT1000 output wiring diagram

## ACCESSORIES PURCHASE SEPARATELY)

|                                                    |                                                                        |                                               |
|----------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------|
| <br>Staged welded ring<br><br><br>Flat welded ring | <br>Clamp adapter<br><br><br>Flange adapter<br><br><br>Ferrule adapter | <br>Integrated sleeve<br><br><br>Ferrule tube |
| Welded ring                                        | Adapter                                                                | Protective tube                               |

## ORDER REF NO.

| Code and description |                                 |                  |                                         |                                          |    |                  |      |                    |                               | Remark             |                   |
|----------------------|---------------------------------|------------------|-----------------------------------------|------------------------------------------|----|------------------|------|--------------------|-------------------------------|--------------------|-------------------|
| LFW20                | Armored Temperature Transmitter |                  |                                         |                                          |    |                  |      |                    |                               | Model              |                   |
|                      | A4                              | 4~20mA (2-wired) |                                         |                                          | 0  | PT100, ±0.2℃@0℃  |      |                    |                               | Temperature Output |                   |
|                      | V10                             | 0-10V (3-wired)  |                                         |                                          | 1  | PT1000, ±0.2℃@0℃ |      |                    |                               |                    |                   |
|                      | RS                              | RS485 / Modbus   |                                         |                                          |    |                  |      |                    |                               |                    |                   |
|                      |                                 | 25               | 0.25%FS                                 |                                          |    |                  |      |                    |                               |                    | Accuracy          |
|                      |                                 | 50               | 0.5%FS                                  |                                          |    |                  |      |                    |                               |                    |                   |
|                      |                                 | 0                | 0~100℃                                  |                                          |    |                  |      |                    |                               |                    | Temperature Range |
|                      |                                 | 1                | 0~200℃ (with cold end)                  |                                          |    |                  |      |                    |                               |                    |                   |
|                      |                                 | 2                | 0~300℃ (with cold end)                  |                                          |    |                  |      |                    |                               |                    |                   |
|                      |                                 | 3                | -50~150℃ (with cold end)                |                                          |    |                  |      |                    |                               |                    |                   |
|                      |                                 | 4                | -50~300℃ (with cold end)                |                                          |    |                  |      |                    |                               |                    |                   |
|                      |                                 | X                | Customized (temperature range -50~300℃) |                                          |    |                  |      |                    |                               |                    |                   |
|                      |                                 | 0                | Water-proof                             |                                          |    |                  |      |                    |                               |                    | Wiring Box        |
|                      |                                 |                  | G2                                      | G1/2 male (fixed thread installation)    |    |                  |      | Sleeved Type       | Installation Method           |                    |                   |
|                      |                                 |                  | G4                                      | G1/4 male (fixed thread installation)    |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | M16                                     | M16*1.5 male (fixed thread installation) |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | M20                                     | M20*1.5 male (fixed thread installation) |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | M27                                     | M27*2 male (fixed thread installation)   |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | K                                       | Clamp (50.5MM)                           |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | Z                                       |                                          |    |                  |      | Direct Insert Type |                               |                    |                   |
|                      |                                 | 0                | With                                    |                                          |    |                  |      |                    |                               |                    | Protective tube   |
|                      |                                 | 1                | Without                                 |                                          |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | L30                                     | 30mm                                     |    |                  |      | Sleeved Type       | Probe length (without thread) |                    |                   |
|                      |                                 |                  | L50                                     | 50mm                                     |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | L100                                    | 100mm                                    |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | L150                                    | 150mm                                    |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | L200                                    | 200mm                                    |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | L300                                    | 300mm                                    |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | X                                       | customized                               |    |                  |      | Direct Insert Type |                               |                    |                   |
|                      |                                 |                  | L130                                    | 130mm                                    |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | L200                                    | 200mm                                    |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | L250                                    | 250mm                                    |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | L300                                    | 300mm                                    |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | L400                                    | 400mm                                    |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | X                                       | Customized                               |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | 0                                       | Without cold end(15mm)                   |    |                  |      |                    |                               | Code End           |                   |
|                      |                                 |                  | 1                                       | Cold end length 100mm                    |    |                  |      |                    |                               |                    |                   |
|                      |                                 |                  | X                                       | Customized                               |    |                  |      |                    |                               |                    |                   |
| LFW20                | A4                              | 50               | 1                                       | 0                                        | G2 | 0                | L100 | 1                  | Model Selection Example       |                    |                   |

1. LFW20-A4-50-1-0- G2-0-L100-1 represents an armored temperature transmitter; output 4-20mA; accuracy 0.5%FS; temperature range 0~200°C (cold end required); junction box form is waterproof; installation method is G1/2 external thread (fixed thread installation); no protective sleeve; probe length 100mm; cold end length 100mm.

2. When selecting the installation method and probe length, the selection should be consistent with sleeved type or direct insert type.

3. The operating temperature without cold end should be  $\leq 120^{\circ}\text{C}$ ; when the operating temperature is  $> 120^{\circ}\text{C}$ , you are advised to increase the length of the cold end

4. Protection sleeve parameters: diameter 10mm, mounting thread G1/2 male, length matching the length of the probe.