

# TC-TT-210/ TC-TT-500

# Head mount smart temperature transmitter



## General Features:

- Universal input, support RTD:Pt100, Cu50, Cu100  
Thermocouple:K,J,E,T,S,R,B,N,  
PT1000 and WRe needs to be custom made
- **2 wires 4-20mA output(TT-210), 2 wires 0-10Vdc output(TT-500)**
- Input configurable via **PC software** and **android smart phone**
- Built-in cold junction compensation
- Can be installed in Form B connection box
- High accuracy, 0.1% for RTD, 0.2% for TC
- USB cable for configuration purpose can draw power from PC directly  
separate 24VDC power source is no need
- Surge protection, reverse connection protection

The configuration can be done via software from PC or from android smart phone

## Ordering Information

- TC-TT-210-4-20mA output(programmable via PC or android smart phone)**
- TC-TT-500-0-10Vdc output(programmable via PC or android smart phone)**

## General Specifications

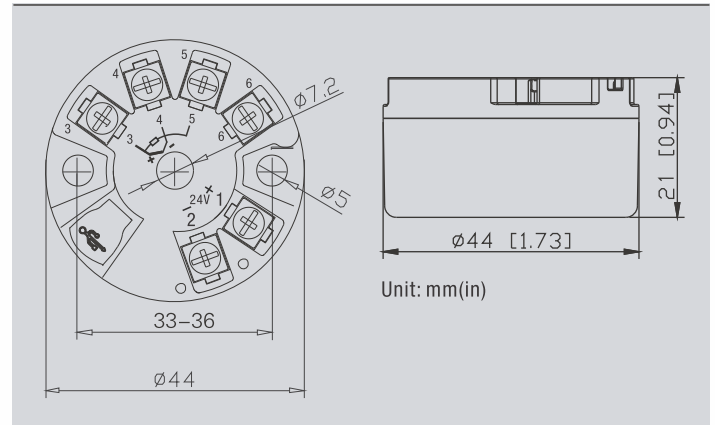
| Item No                            | TT-210 and TT-500   |
|------------------------------------|---|
| Sensor type                        | PT100,Cu50,Cu100,K,J,E,T,S,R,B,N<br><i>PT1000 and WRe, these two inputs needs to be custom made, standard unit does not works with them</i> |
| Cold end junction compensate range | -40°C ~ + 80°C  |
| Compensate accuracy                | ±1°C  |
| Output                             | 4-20mA  |
| Load resistance                    | $RL \leq (U_e - 12) / 0.021$  |
| Over range alarm value             | IH=20.8mA, IL=20.8mA  |
| Input break output current value   | 21mA  |
| Power supply                       | 12-35VDC  |
| Accuracy(ambient 20°C)             | 0.1% F.S for RTD, 0.2% F.S for TC   |
| Temperature drift                  | 0.01% F.S/°C  |
| Response time                      | 1ms to 90% of maximum output  |
| Input/output isolation strength    | Non-isolation   |
| Input/output impedance             | Non-isolation   |
| EMC standard                       | IEC 61326-1   |
| Working temperature                | -40°C ~ + 80°C  |
| Mounting screw                     | M4*2  |

## Input signal and range

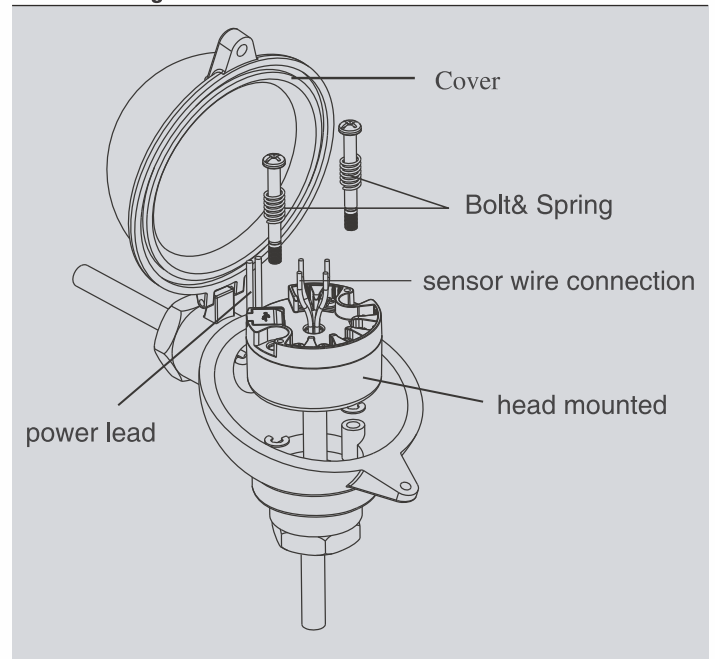
| Sensor type            | Specific sensor type | Measuring range  | Minimum measuring range |
|------------------------|----------------------|------------------|-------------------------|
| RTD                    | Pt100                | -200.0 ~ 850.0°C | 10°C                    |
|                        | Cu50                 | -50.0 ~ 150.0°C  | 10°C                    |
|                        | Cu100                | -50.0 ~ 150.0°C  | 10°C                    |
| TC                     | B                    | 400 ~ 1800°C     | 500°C                   |
|                        | E                    | -100 ~ 1000°C    | 50°C                    |
|                        | J                    | -100 ~ 1200°C    | 50°C                    |
|                        | K                    | -180 ~ 1372°C    | 50°C                    |
|                        | N                    | -180 ~ 1300°C    | 50°C                    |
|                        | R                    | -50 ~ 1760°C     | 500°C                   |
|                        | S                    | -50 ~ 1760°C     | 500°C                   |
|                        | T                    | -200 ~ 400°C     | 50°C                    |
| Need to be custom made | Wre3-25              | 0 ~ 2315°C       | 500°C                   |
|                        | Wre5-26              | 0 ~ 2310°C       | 500°C                   |
|                        | Pt1000               | -200.0 ~ 850.0°C | 10°C                    |

## Technical Specifications

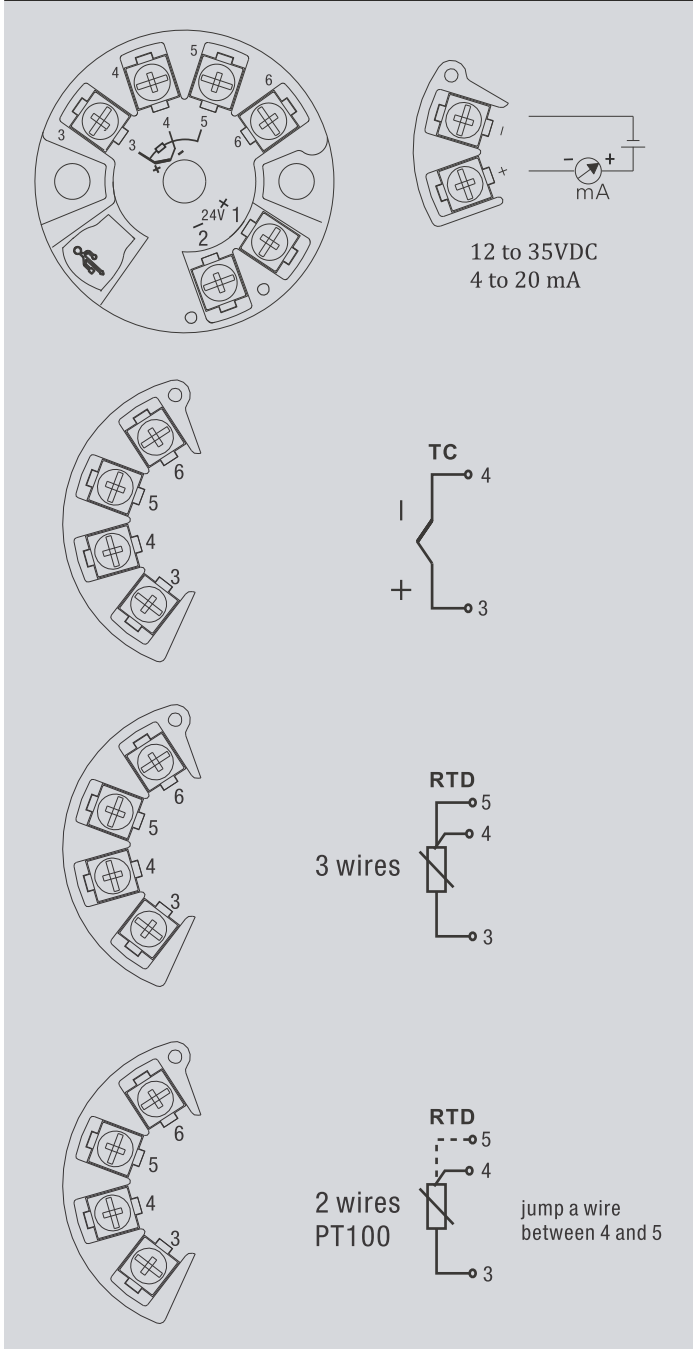
### Dimension



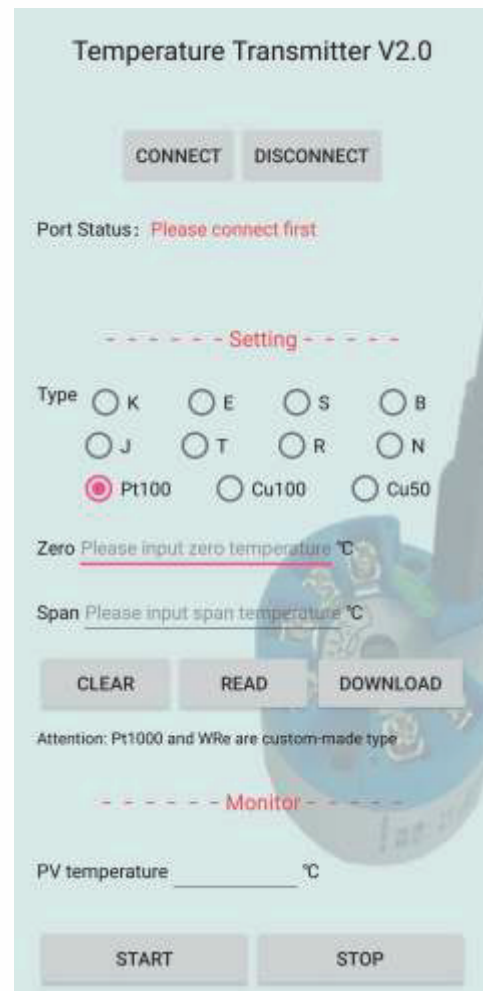
### Installation guide



### Wiring diagram



PC configuration software interface



Android OS system configuration software interface

### Configuration guidelines

The configuration can be done via PC and android smart phone.



Connect the transmitter with PC using the programming cable provide by please noted that this is a custom made programming cable, do not use other cable otherwise the transmitter will be damaged. Please goes to our website and check our video tutorial on how to use our PC configuration software