

■ Maintenance

(1) Every product has been tested strictly before delivery. If users find any abnormality, please contact the nearest agent or our company.

(2) In 5 years from the delivery date, if the product works improperly during normal operation, we will repair it for free.

# Temp Transmitter

CZWB010  
CZWB020  
CZWB030



Please read the instruction manual carefully before use the product, and please safekeeping.

### Caution

- Please check whether the product type on the package accords to the ordering contract;
- Read this manual carefully before installation or using. If there is anything unclear, please dial technic support hotline-400 881 0780;
- Supply voltage is 24VDC, 220VAC is forbidden;
- Users are not allowed to dismantle or repair the barrier otherwise it will induce malfunction.



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## Summarize

Isolated temperature transmitter, deliver the field thermocouple(TC) or thermal resistance(RTD) signal by digital linearization, converted to linearly with temperature of 4~20mA current and output isolatedly. Transmitter with RTD input has sensor disconnection alarm, TC input has sensor disconnection alarm and cold junction compensation automatically. By special software parameters such as range of transmitter, indexing number configured.

CZWB010: RTD input

CZWB020: TC input

CZWB030: RTD, TC input

## Specification

Supply voltage:  $U_e(1+, 2-)$  12~30V DC

Input: see "Input signal and range list"

Type	Range	Min.span	Accuracy	
TC	T	-200°C ~ +400°C	50°C	0.5°C / 0.1%
	E	-200°C ~ +900°C	50°C	0.5°C / 0.1%
	J	-200°C ~ +1200°C	50°C	0.5°C / 0.1%
	K	-200°C ~ +1372°C	50°C	0.5°C / 0.1%
	N	-200°C ~ +1300°C	50°C	0.5°C / 0.1%
	R	-40°C ~ +1768°C	500°C	1.5°C / 0.1%
	S	-40°C ~ +1768°C	500°C	1.5°C / 0.1%
	B	+320°C ~ +1820°C	500°C	1.5°C / 0.1%
mV	-100mV ~ +100mV	10mV	20uV / 0.1%	
RTD	Pt100	-200°C ~ +850°C	20°C	0.2°C / 0.1%
	Cu50	-50°C ~ +150°C	20°C	0.2°C / 0.1%
	Cu100	-50°C ~ +150°C	20°C	0.2°C / 0.1%

Note:

1. "%" of output accuracy is relative to the setting range, should take a bigger of relative error and absolute error as the output accuracy in application.

2. RTD input, allow max wire resistance 50Ω (3-wire);

3. TC input, transfer accuracy not contain cold junction compensation error; Every increase in compensation wire 100Ω, cold end error increases 0.2°C;

4. RTD type B input, the lower limits of temperature range must be greater than 680°C, to meet the accuracy specifications.

Output: 4~20mA; Load resistance:  $R_L \leq (U_e - 12) / 0.021 \Omega$

Alarm directions:

Lower limit overflow alarm, output current  $\approx 3.8\text{mA}$ ;

Upper limit overflow, Breakage alarm, output current  $\approx 20.8\text{mA}$ ;

(Note: breakage alarm current < 4mA or other special requirements, be customized)

Temperature drift: 0.01%F.S./°C

Cold junction compensation:  $\pm 1^\circ\text{C}$  (Compensation range: -20°C ~ +60°C)

Response time: Reach 90% of final value in 1.5s

Electromagnetic compatibility: According to GB/T 18268(IEC 61326-1)

Weight: Approx.45g

## Operation Conditions

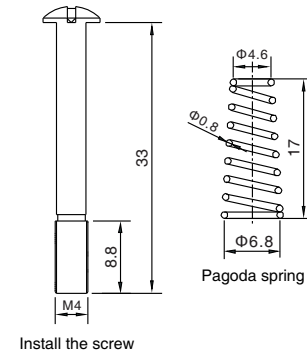
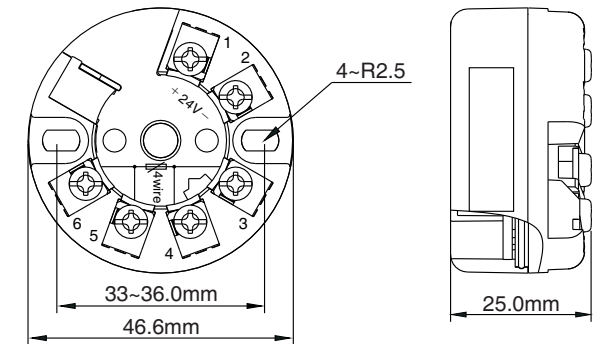
(1).The air should not contain any medium corrupting the coat of chrome, nickel and silver. Moreover, violent quiver and impact or any cause of electromagnetic induction (such as big current or spark, etc.) must be avoided when using.

(2). Operating temperature: -40°C ~ +85°C

(3). Storage temperature: -40°C ~ +85°C

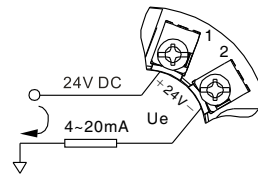
(4). Relative humidity: 10% ~ 90%

## Outline dimensions

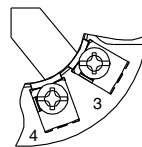


Install the screw

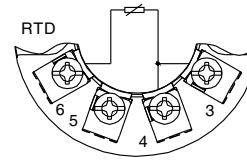
## Application



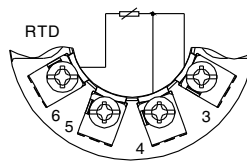
TC



2-wire RTD



3-wire RTD



4-wire RTD

Note:

1. Terminals 3 and 4 must be connected when 2-wire RTD inputs.
2. 3-wire input, wire resistance should be as same as possible, otherwise it will increase the error of measurement.

## Configuration software EasyConfig

EasyConfig is configuration software. Based on the Windows operating system, the software is easy to use for its friendly interface and the use of USB interface. The parameters such as the sensor type and range scope could be set in by users the software.

Version of operating system: Windows XP and above version

Hardware interface: USB interface

Dedicated adapter: USBCOM-MINI(dedicated USB to RS-232 serial connection)