PCT380 Smart Temperature Transmitter

- Can convert all inputs to 4-20 mA
- Input: thermocouples, RTD, resistance or voltage
- Configuration directly via PDA or PC
- Build-in cold junction compensation
- Available with screw-in temperature probe

PCT380 Intelligent temperature transmitter (round card) is used for the signal input of resistance temperature detector (RTD) and thermocouple (TC)，linear resistance input，and 4 - 20mA analog output of the two-wire system. It is installed inside the sensor(Form B).

Technical Parameters	
Input	
Input signal	Resistance temperature detector (RTD), thermocouple (TC),
Cold-junction compensation temperature scope	-20～60℃
Compensation precision	±1℃
Output	
Output signal	4-20mA
Load resistance	RL≤(Ue-12)/0.021
Output current of upper and lower limit overflow alarm	IH=21mA、IL=3.8mA
Power supply	
Supply voltage	DC12-40V
Other parameters	
Temperature drift	0.02%FS/℃
Response time	Reach to 90% of the final value for 1s
Used environmental temperature	-40～80℃
Storage temperature	-40～100℃
Aseismicity	4g/2～150Hz
Installation angle	Unlimited
Installation area	B-type top cassette installation
Electromagnetic compatibility	Conform to GB/T18268 industrial equipment application requirements (IEC 61326-1)

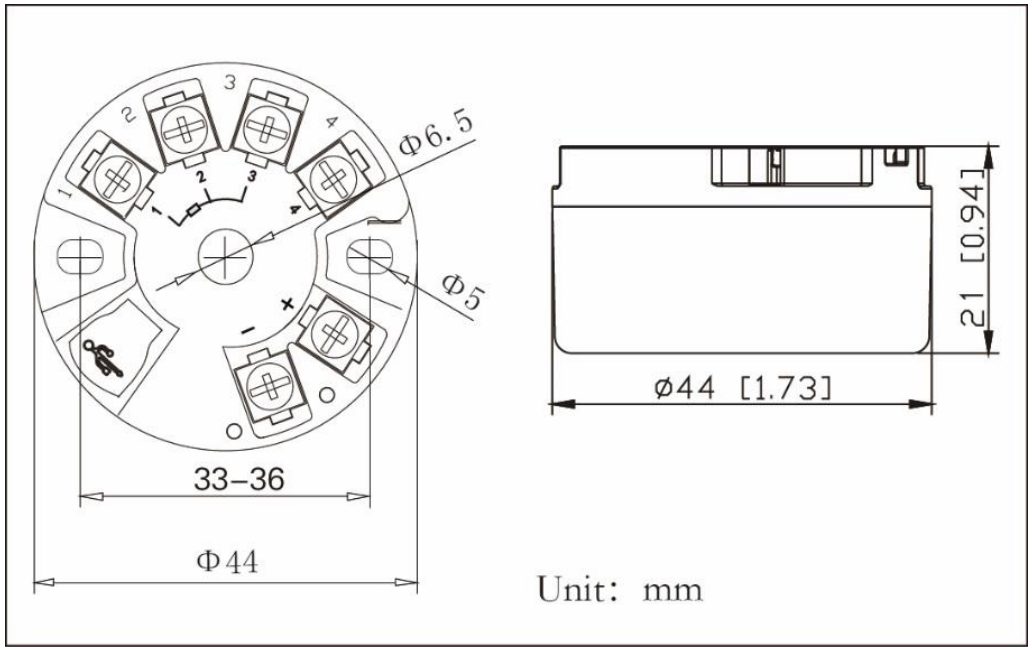
Input Type and Transmission Accuracy				
Model	Type	Measurement scope	Minimum measurement scope	Conversion accuracy
Resistance	Pt100	-200～850℃	20℃	±0.1%range Or±0.2℃
Temperature detector (RTD)	Cu50	-50～150℃	20℃	±0.1%range Or±0.2℃
Thermocouple (TC)	B	100～1820℃	500℃	±0.1%range Or±1.5℃
	E	-100～1000℃	50℃	±0.1%range Or±0.5℃
	J	-100～1200℃	50℃	±0.1%range Or±0.5℃

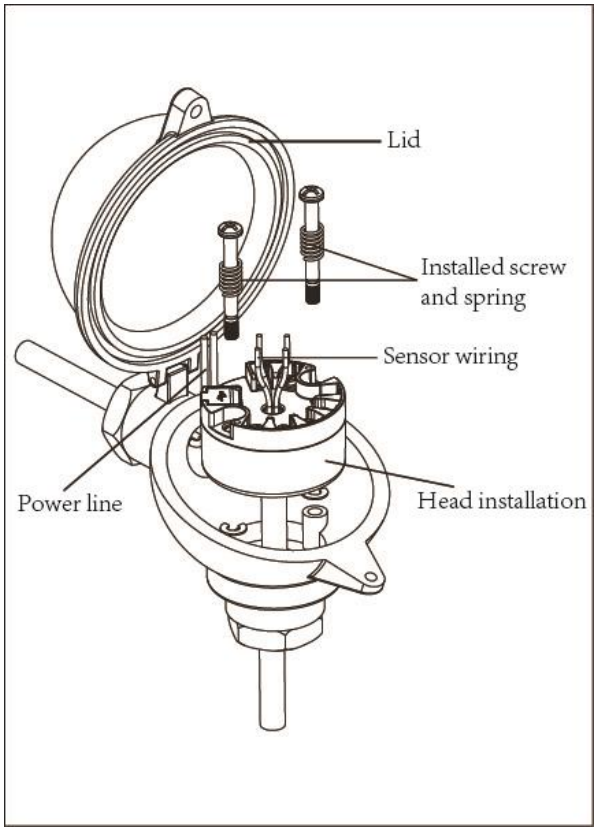
	K	-180～1372℃	50℃	±0.1%range Or±0.5℃
	N	-180～1300℃	50℃	±0.1%range Or±0.5℃
	R	-180～1300℃	500℃	±0.1%range Or±1.5℃
	S	-50～1768℃	500℃	±0.1%range Or±1.5℃
	T	-200～400℃	50℃	±0.1%range Or±0.5℃
	Wre3-25	0～2315℃	500℃	±0.1%range Or±1.5℃
	Wre5-26	0～2310℃	500℃	±0.1%range Or±1.5℃

Notes:

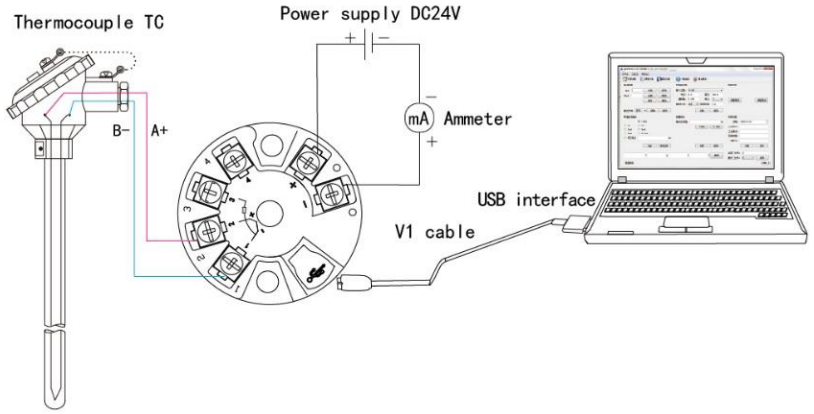
1. The above accuracy data was obtained by testing at an ambient temperature of 20 °C ± 2 °C.
2. The output precision “%” is relative to the set range.
3. The cold end compensation error needs to be added to the thermocouple measurement, and the internal cold end compensation error is ≤±1°C.

Appearance Structure Diagram

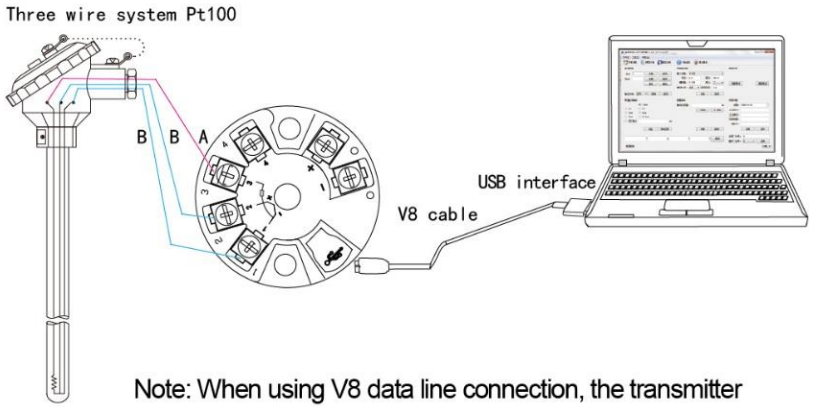



Lid
Installed screw
and spring
Sensor wiring
Power line
Head installation

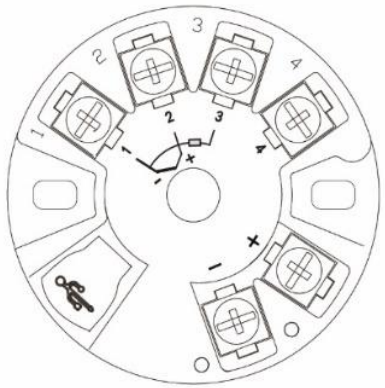
V1 data line connection mode:

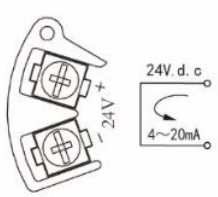


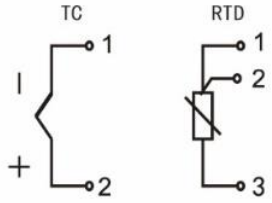
V8 data line connection mode:



Note: When using V8 data line connection, the transmitter is not allowed to connect 24V power supply.







Note: 1. For input of the two-wire heating resistor, terminals 1 and 2 must be shorted;
2, three wire heating resistance input: the resistance of the three wires should be the same as far as possible, each wireThe resistance cannot exceed 10Ω;
3, thermocouple input, compensation wire should be directly connected to the instrument input wiring terminal,Do not connect wires of other materials in the middle, otherwise it will cause measuring errors.

Contact us

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