BANNING
TEMPERATURE TRANSMITTER
TT100

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DESCRIPTION

The TT100 is a two-wire temperature transmitter that sets the measuring range through a dial switch, and also has a PC programmable function. It can accept thermal resistance signal input, linearize the input signal, output 4~20mA standard signal, and transmit it to DCS, PLC and other system control equipment;
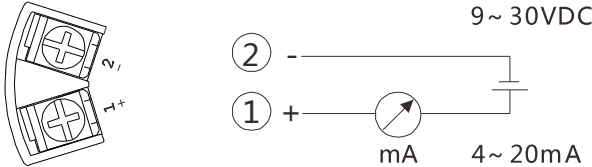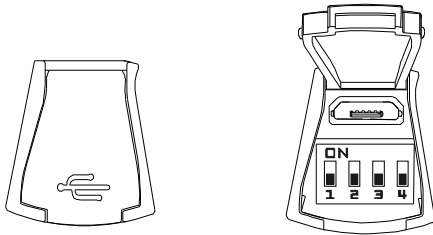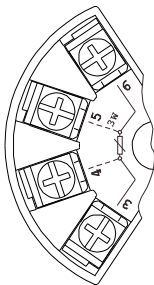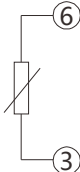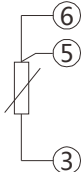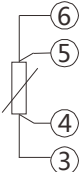
CHARACTERISTICS

- Circuit design using lightning protection and electrical fast transient (burst group) interference
- Ultra-low power design of internal circuit
- Adjust the position of the DIP switch to adjust the range
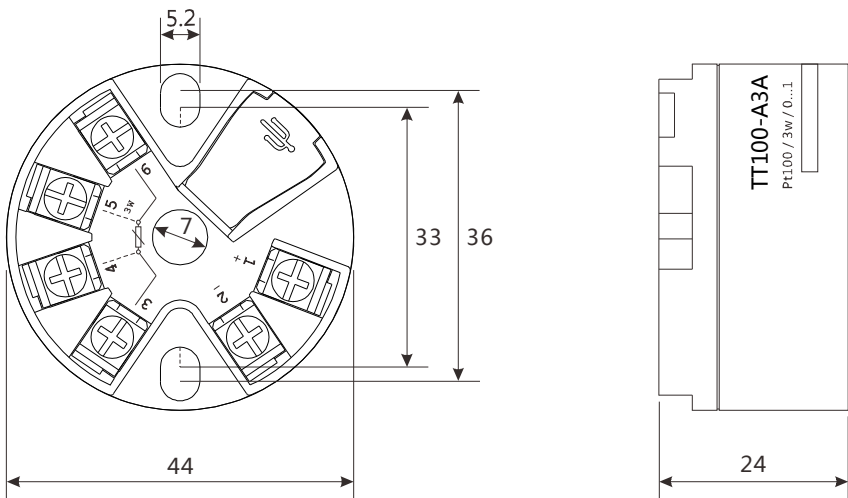- With PC programmable function

PREFORMANCE

Parameter	TT100
Configuration method	DIP switch + PC programmable (Dual mode)
Power supply debugging	No need
Input signal	Pt100、 Cu50、Pt1000
Measuring range	-200...+850℃
Conversion accuracy	≤ 0.2% or 0.2K
Output signal	Analog 4~20mA (two-wire system)
Alarm	When the sensor fails, the output drops to ≤ 3.6mA or the output rises to ≥ 21.5mA
Maximum load	(V power supply-9V) / 0.025A (output current)
Current limit	≤ 25mA
Voltage	9-30V DC
Response time	1S
Lightning protection	± 4000V (≤ 5 times)
Anti-burst group	± 4000V
Anti-radio frequency interference	>10V/m （80MHz~1000MHz)
Ambient temperature	-40~+85℃
Temperature drift	0.008% FS1 / ℃
Long-term stability	≤ 0.1℃/year or 0.05%/year

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ELECTRICAL CONNECTIONS

Name	TT100		
Power supply and current output	9~30VDC ② − ① + mA 4~20mA		
Range setting			
Sensor cable		2 wiring RTD ⑥ ③	3 wiring RTD ⑥ ⑤ ③	4 wiring RTD ⑥ ⑤ ④ ③

DIMENSIONS

5.2
33　36
44
24

TT100-A3A
Pt100 / 3w / 0...1

NOMENCLATURE

Series	—	Certification	Set up	Sensor index number	Range

TT100

A For non-explosion
-proof applications

3 Dual mode (dial
code + programming)

X Customer settings
(Limited to 15 ranges)

A Pt100
B Cu50
C Pt1000
X Customer settings

FOR EXAMPLE: TT100-A3A

The indicating series is TT100, used in non-explosion-proof occasions, dual-mode (dial code + programming),

Pt100, and the range is customized according to customer requirements.
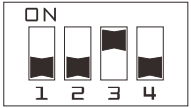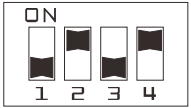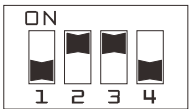
PRECAUTIONS

- Before installation, you should first check whether the purchased instrument is correct;

- For circuit wiring, please refer to the application guide in the manual;

- After the instrument is installed, the wiring must be checked to ensure that it is correct before it can be put into use;

REMARKS

- When ordering, please confirm the required measurement temperature range and input signal type;

- The required range is not included in the existing products, and can be proposed when ordering;

- The alarm mode is off by default, and special requirements can be put forward when ordering;

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RANGE SELECTION TABLE

DIP position	Measuring range	DIP position	Measuring range
ON 1 2 3 4	0~50℃	ON 1 2 3 4	-50~50℃
ON 1 2 3 4	0~100℃	ON 1 2 3 4	-50~100℃
ON 1 2 3 4	0~150℃	ON 1 2 3 4	-50~150℃
ON 1 2 3 4	0~200℃	ON 1 2 3 4	-50~200℃
ON 1 2 3 4	0~250℃	ON 1 2 3 4	-50~250℃
ON 1 2 3 4	0~300℃	ON 1 2 3 4	-50~300℃
ON 1 2 3 4	0~400℃	ON 1 2 3 4	-50~400℃
ON 1 2 3 4	0~500℃	ON 1 2 3 4	Software takes effect

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REMARKS

- The preset ranges are all three-wire heating resistance connections, and the sensor alarm is off;

- When the preset range can not meet the requirements, or when advanced settings are required, you can use the PC configuration tool to set through the software effective position of the dial switch;

INSTALLATION DIAGRAM
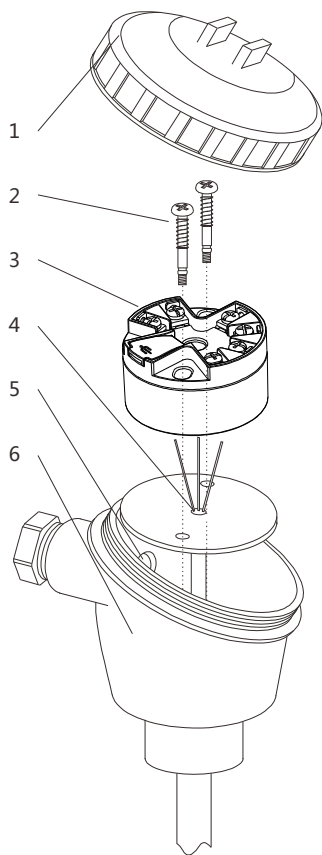
- 1. Watch cover

- 2. Mounting screws

- 3. Modular intelligent temperature transmitter

- 4. Sensor armor core connecting wire

- 5. Cable plug

- 6. Watch case

MOUNTING BRACKET

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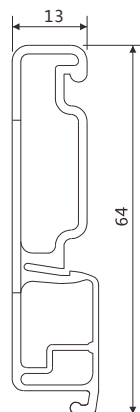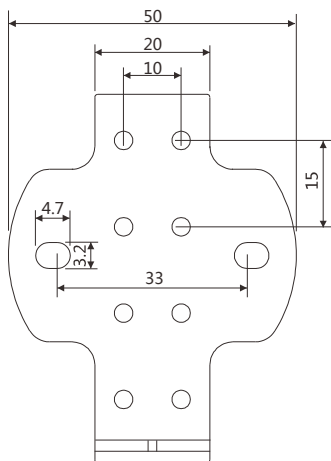
DISCLAIMER

⚠ Warning

LIFE OR PROPERTY RISK

- Please ensure that this product has been designed as part of whole system and already considered related risks, make sure the product has the correct ratings and is designed based on the entire system. It must not be used when applications related to serious life or property damage risks.

Failure to follow this instruction can result in death or serious injury.

⚠ Warning

PERSONAL INJURY

- DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to follow this instruction can result in death or serious injury.

⚠ Warning

MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to follow this instruction can result in death or serious injury.

Warranty/Remedy

Banning warrants goods of its manufacture as being free of defective materials and faulty workmanship during the appli cable warranty period. Banning's standard product warranty applies unless agreed to otherwise by Banning in writing; please refer to your order acknowledgment or consult your local sales office for specific warranty details. If warranted goods are returned to Banning during the period of coverage, Banning will repair or replace, at its option, without charge those items that Banning , in its sole discretion, finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Banning be liable for consequential special, or indirect damages.**

While Banning may provide application assistance personally, through our literature and the Banning web site, it is buyer's sole responsibility to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this writing. However, Banning assumes no responsibility for its use.

SALES & SERVICE

Banning serves its clients through a worldwide network of sales offices, agents and distributors. For application assistance specifications, prices or names with the nearest authorized dealer, please contact your sales specialist or contact us directly:

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Invoice

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