

WMT180A Intelligent Temperature Transmitter Module

WMT180A intelligent temperature transmitter module is a smart transmitter module with high precision and high stability. It can be installed in the case of a thermal resistor or thermocouple and functions as a converter to transmit the temperature signal to remote device. It inherits standard current or voltage output signal and can output HART protocol commands and some custom commands as well. It is compatible with more than ten types of thermocouple and thermal resistance signal transducers. This product USES 24 Σ - delta sampling chip, ensures high precision measurement. Anti-surge and anti-reverse connection design avoid mis-installation and mis-operation in engineering installation and enhanced software safety design is adopted to ensure long service life and stability.



Technical Parameters

Power: 12~35VDC

Output: HART, 4-20mA, and others

Precision: RTD 0.1%; TC 0.2%

Current Limit: 20.8mA

Excitation current: 210uA

Sensor: thermal resistors, thermocouples

Load: $\leq 500 \Omega$

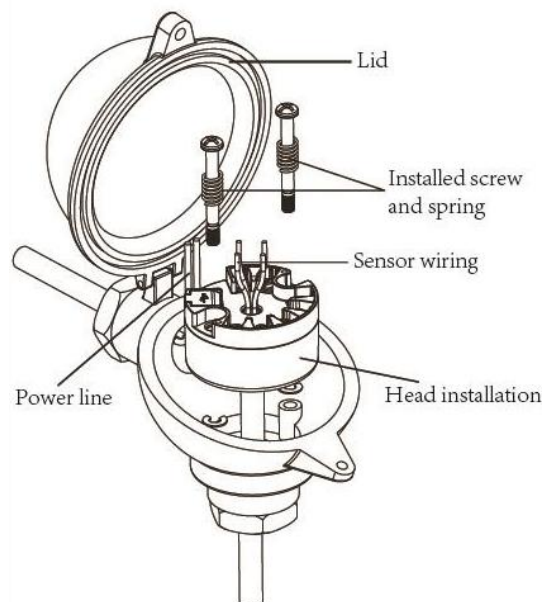
Stock Temperature: -40~120°C

Temperature coefficient: $\leq 25\text{ppm}/^\circ\text{C}$ F.S.

Shell Material: PA66

Working Temperature: -30~80°C

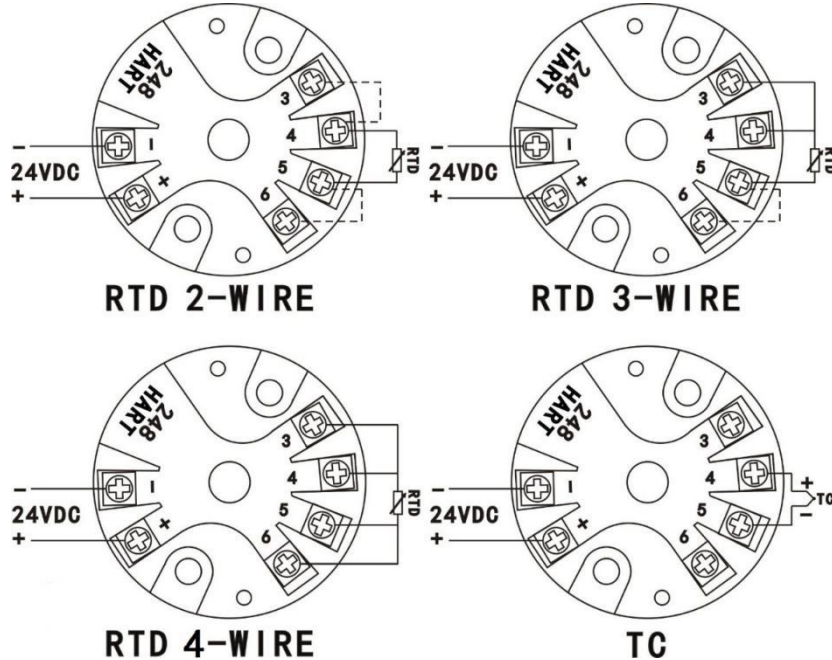
Installation Screw: M4*2



Temperature Sensor	Type	Temperature Range
Thermal Resistor (RTD)	Pt100	-200~800°C
	Cu50	-50~150°C
	Cu100	-50~150°C
	Pt1000 (Customized)	-50~200°C
Thermocouple (TC)	B	300~1800°C
	E	0~1800°C
	J	0~1200°C
	K	0~1300°C
	N	-200~1300°C
	R	0~1700°C
	S	0~1700°C

	T	-200~400℃
	Wre3-25 (Customized)	0~2300℃
	Wre5-26 (Customized)	0~2300℃

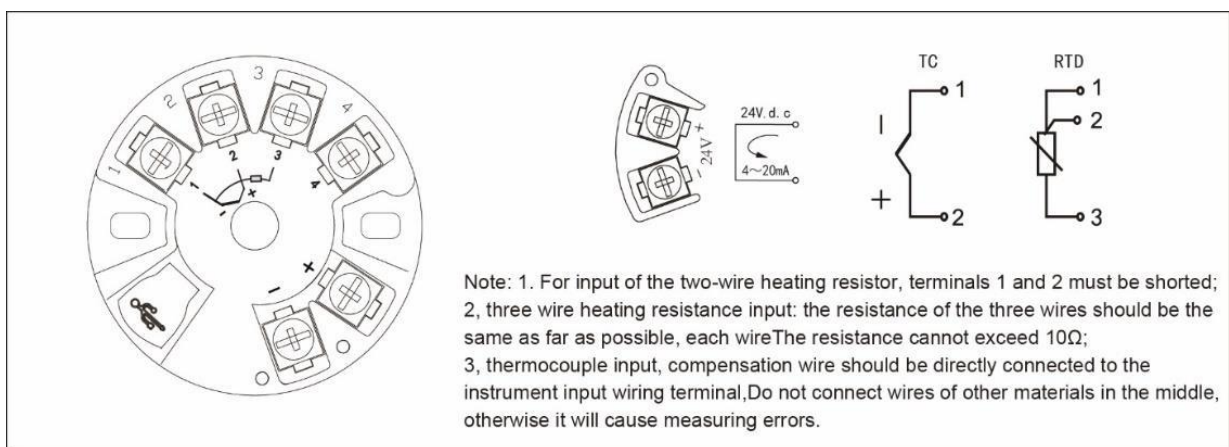
Connection Mode



A) Terminal 1 and terminal 2 are the positive and negative poles of 24V power respectively, and the module is equipped with anti-reverse connection function.

B) The thermal resistance connection supports two-wire, three-wire or four-wire system. The connection mode is shown in the figure above, in which the dashed line is the short connection at the end of the watch head, and the user needs to connect it by himself with a short wire.

C) The positive pole of the thermocouple can be connected with terminal 4, and the negative pole can be connected with terminal 5.



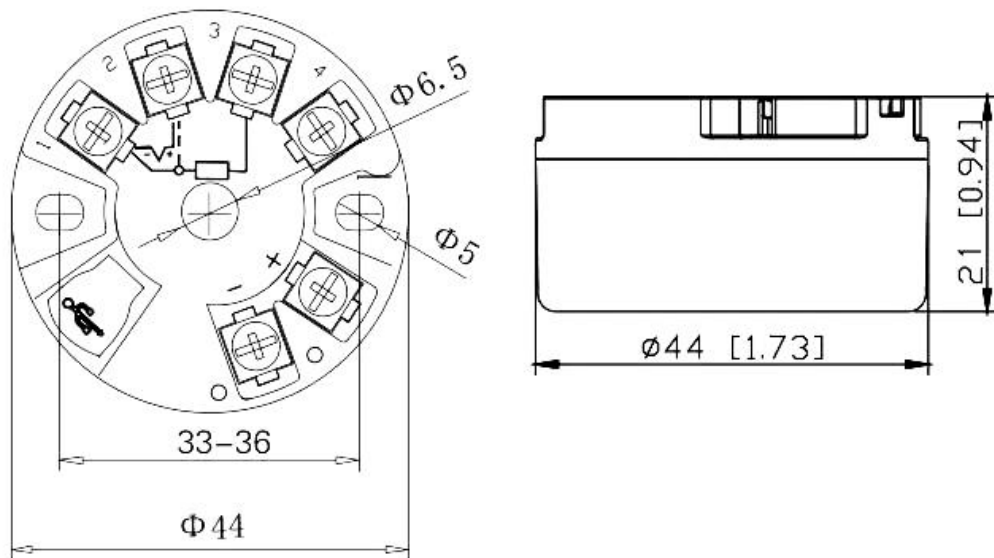
Model Selection

WMT180A	Temperature Transmitter Module	
-	Output	None: 4-20mA 2-wires H: 4-20mA + HART 2: 0-5V 3: 0-10V 4: 0-20mA 5: 1-5V 9: RS485 0: customer specified
-	(Default input type)	Pt100 Pt1000 Cu50 Cu100 B E J K N R S T WRe3-25 WRe5-26
-	(Temperature range)	e.g. (0-100°C) or (0-200°F) etc.
-D	Display	1: Without 2: LED 3: LCD

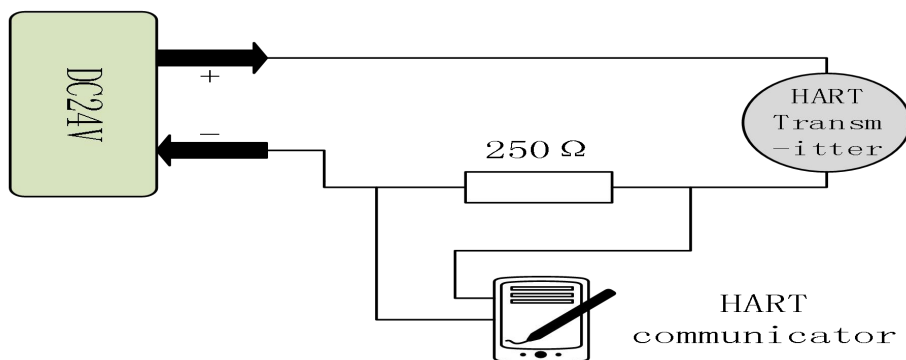
WMT180A

WMT180H

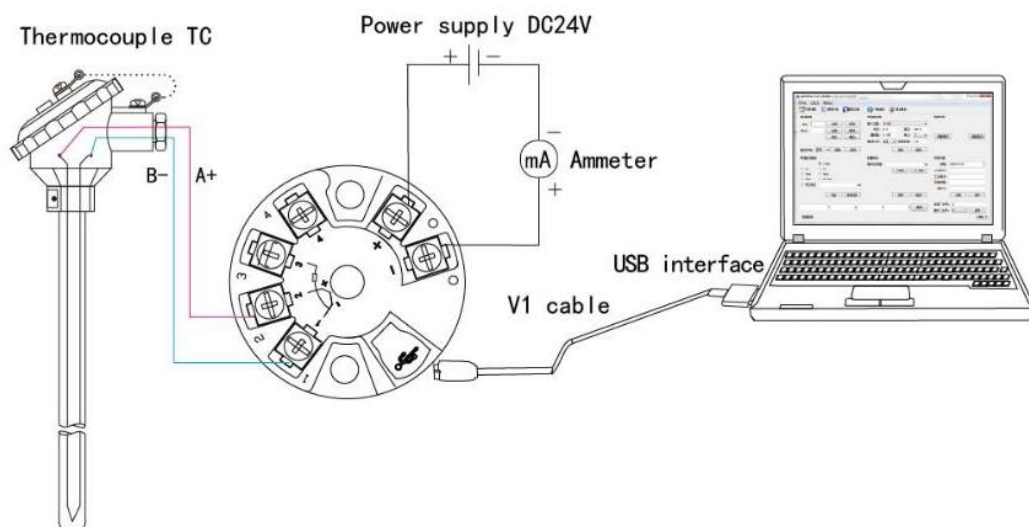

Dimensions



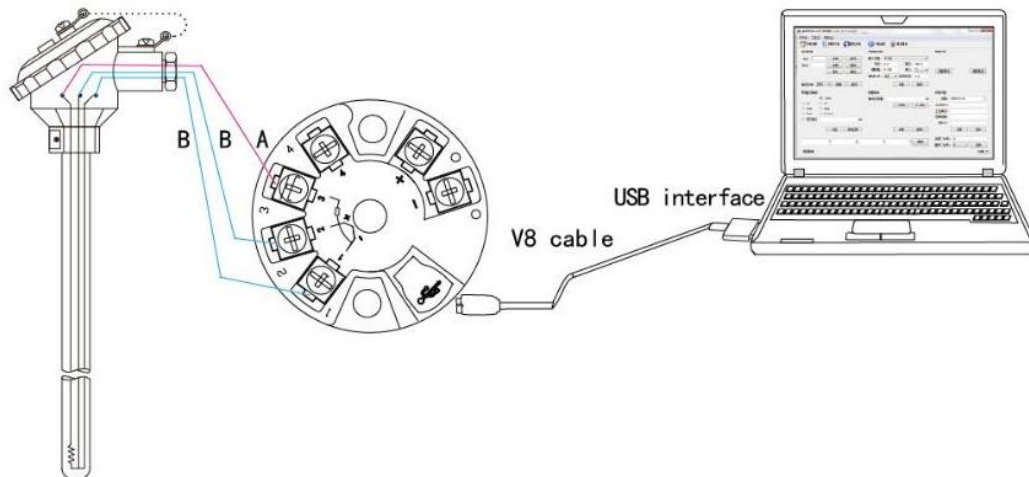
Hart Operator Connection Diagram



The module can be calibrate by computer:



Three wire system Pt100



The module can be calibrate by smart phone:

