

## TA7 Series Temperature Controller Instruction Manual

Thanks a lot for selecting the product!  
Before attempting to use this instrument, please carefully read this manual and fully understand its contents. If any problems, please contact the sales department or the distributor from whom you purchased.  
This manual is subject to change without prior notice.

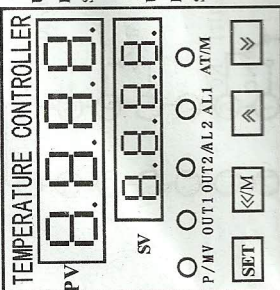
### Warning Cautions

- ★ The instrument should be installed in domestic environment.  
Please pre-heat for 15 minutes before use.
- ★ Ambient environment: temp: 0°C (32°F)~50°C (122°F), humidity: 35%~85%RH.
- ★ Fail to follow the below procedures may cause electrical shock, fire or other malfunctions.
  - ◇ Do not turn on the power until wiring is completed.
  - ◇ Do not turn on the power when cleaning.
  - ◇ Do not install in environment of dust or caustic gasses.
  - ◇ Do not install in environment of strong shock or concussion.
  - ◇ Do not install in environment of water or explosive gasses.
  - ◇ Do not have large gauge wire put together with the power supply to avoid electromagnetic interference.
- ★ Make sure work within the scope of its specifications.
- ★ If the instrument is used in a noisy environment such as motor, transformer, solenoid, etc., a current suppressor or noise filter should be used.
- ★ A recoverable fuse is built in the instrument to avoid damage caused by short-cut circuit. It recovers automatically when large current removes.

### Applications

TA series temperature controller is available for many TC & RTD input. Advanced technology such as a multi digital filter circuit, an autotune PID and fuzzy PID that make it very precise, stable, strong in anti-interference and simple to operate. The instrument is widely used in chinaware, light industry, metallurgy and petroleum chemical industry. It is also used in the production line of foodstuff, packing, printing, dryer machine, metal heat processes equipment to control temperature. For example, many homebrewers use the instrument to control mash temperature and systems of all electric brewing.

### Panel



**TEMPERATURE CONTROLLER**  
PV displays current temperature in F/°C  
SV displays preset output value

**UNDER PROGRAMMING MODE**  
PV displays parameter  
SV displays parameter preset value

**SET UNDER DISPLAY MODE, Access programming mode**  
UNDER PROGRAMMING MODE,  
a. Store selected parameter and index to next parameter (press <3s)  
b. Quick programming mode (press <3s)

**<<M UNDER DISPLAY MODE,**  
a. Access/Quick auto-tuning estate (press <3s, AT lamp ON/OFF)  
b. Access output preset value modification (press <3s)

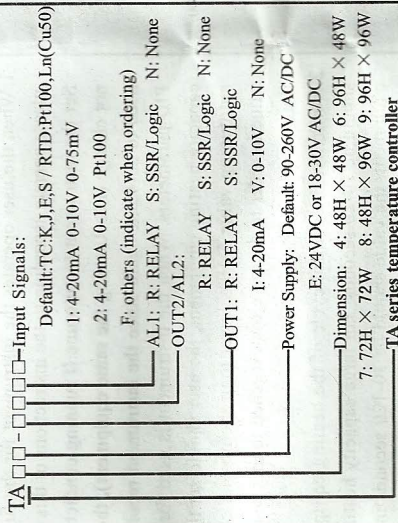
**UNDER PROGRAMMING MODE, shift the digit for modification**  
◇ : Increment  
◇ : Decrement  
**Indication lamp:** On: active Off: inactive  
**AT/M:** the auto-tuning operation  
**AL:** the 1st alarm

**OUT1:** Heating/Main control output  
**OUT2/AL2:** the 2nd control output or the 2nd alarm  
**P/MV:** of no use

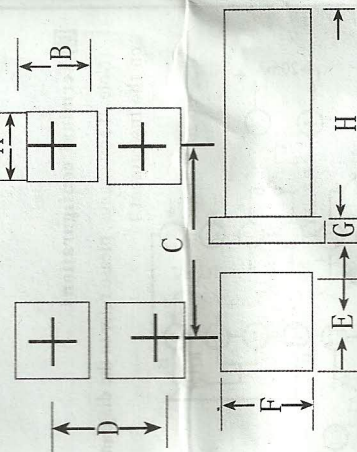
### Specifications

Power supply	90-260V AC/DC 50/60Hz
Consumption	≤5VA
Display range	-199~1800°C
Accuracy	0.3%F, S ± 2digit
Sampling cycle	≤ 300ms
Main output	RELAY:normal open AC 250V/3A DC 30V/3A COSφ=1 SSR/LOGIC: 24V DC ± 2V/ 20mA
Alarm	RELAY:normal open AC 250V/3A DC 30V/3A COSφ=1 SSR/LOGIC: 24V DC ± 2V/ 20mA
Input	T/C
	K 0~1300°C
	J 0~1200°C
	T -150~400°C (Special order)
Rt	S 0~1700°C
	E 0~1000°C
	Pt100 -199~600°C
Others Please mention when ordering	
Withstand voltage strength	1500V Rms (Between power terminal and the housing)
Insulation resistance	Min 50MΩ (500V DC) (Between power terminal and the housing)
Work Environment	Temp.: 0~50°C Humidity: 35~85%RH
Storage temperature	-10~60°C
Weight	≤ 350g

### Models



### Mounting and Sizes



Size/Model	A	B	C	D	E	F	G	H
TA4	44.5±0.5	45±0.5	65	65	48	48	8	80
TA6	43.5±0.5	91±0.5	65	115	48	96	12	80
TA7	91±0.5	91±0.5	115	115	96	96	12	100
TA8	91±0.5	43.5±0.5	65	115	96	48	12	80
TA9	67.5±0.5	67.5±0.5	95	95	72	72	12	100

### Parameter Setting

Press SET or <3s to enter the parameter setting menu.  
A: Press SET to select the parameter to be changed;  
B: Press <M key to select one of the digits of the setting(value) for change.  
C: Press >M to modify the value;  
D: Press SET to save and move to the next parameter.  
NOTE: SV window display conversion. Under display mode, press SET to convert display value for OUT or SV value.

Power on

