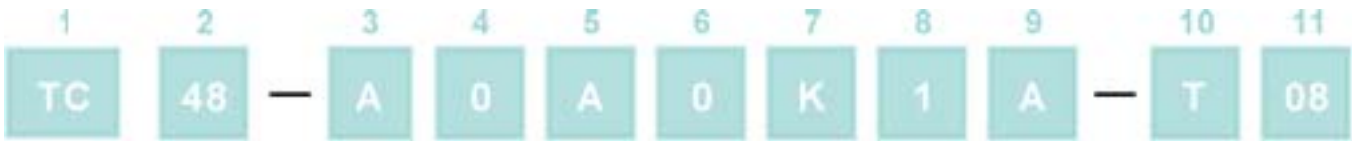


## Selection Guide For Type Number



### 1. TYPE:

TC temperature controller

### 2. DIMENSIONS:

48 48x48mm                      49 48x96mm                      72 72x72mm                      96 96x96mm  
 94 96x48mm

### 3. INDICATING:

A Non-indicating                                              B Deviation indicating with pointer  
 C Full indicating with pointer                                              D Single indicating with digit  
 E Full indicating with digital temperature value/setting value

### 4. SETTING:

0 Non-setting  
 1 Single setting with pointer  
 2 Single setting with digit  
 3 Main setting with pointer, optional hi or low limit with pointer  
 4 Main setting with digit, individual hi & low limit with pointer  
 5 Main setting with digit, optional hi or low with pointer  
 6 Dual setting, set-1 & set-2 with digit

### 5. OPERATING ACTION & SUB-CONTROL:

A Non-control  
 B ON-OFF action without sub-control  
 C P+D action without SUB-control  
 D Main control: ON-OFF action  
    SUB-control: ON-OFF action  
 E Main control: PID adjustable outside, SUB-Control: ON-OFF action  
 F PID adjustable outside without SUB-Control  
 G Main Control: P+D action SUB-Control: ON-OFF action

### 6. OUTPUT:

0 Non-output  
 1 Relay output without SUB-Control  
 2 SSR drive DC 24V without SUB-Control  
 3 4-20mA (DC) without SUB-Control  
 4 0-10mA (DC) without SUB-Control  
 5 Main control: relay, SUB-Control: Relay  
 6 Main control: 4-20mA, SUB-Control: Relay  
 7 Main control: SSR drive SUB-Control: Relay

## 7. INPUT:

K K(CA), Temperature range: -200 ~1300 (-25 ~500 )  
 J J(IC), Temperature range: -100 ~850 (-20 ~400 )  
 T T(CC), Temperature range: -200 ~400  
 E E(CRC), Temperature range: 0 ~600  
 L L, Temperature range: -100 ~850  
 U U, Temperature range: -200 ~400  
 N N, Temperature range: -200 ~1300  
 R Pr13%, Temperature range: 0 ~1700  
 S Pr10%, Temperature range: 0 ~1700  
 P P(PT100), Temperature range: 0 ~1300  
 B B, Temperature range: 100 ~1800  
 W W, Temperature range: 0 ~2300

## 8. ALARM FUNCTION:

0 Non-alarm  
 1 Heater broken alarm  
 2 Upper limited alarm  
 3 Lower limited alarm  
 4 Drifting value alarm  
 5 Absolute value alarm

## 9. POWER SUPPLY :

A 220VAC	B 110VAC	C 110V/220VAC
D 100V ~ 240VAC	E 85~265VAC	F 12V ~ 35VAC/DC

## 10. TERMINAL :

T Plug	P Connector
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## 11. OUT PINS :

08=8PIN	16=16PIN
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## ▶ P.I.D. Temperature Controller

● **TC49** series(48x96mm)

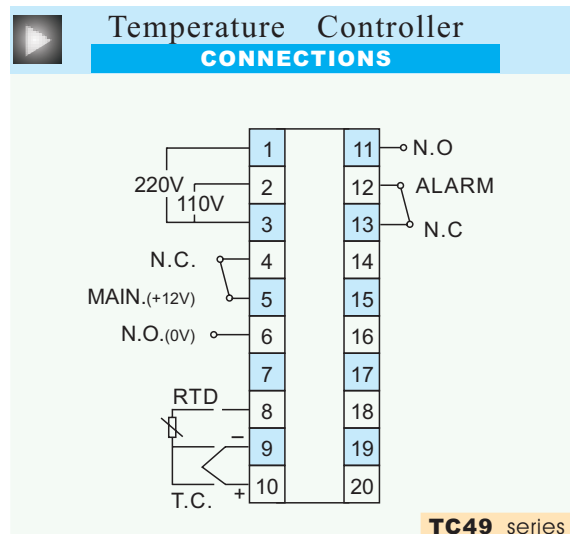
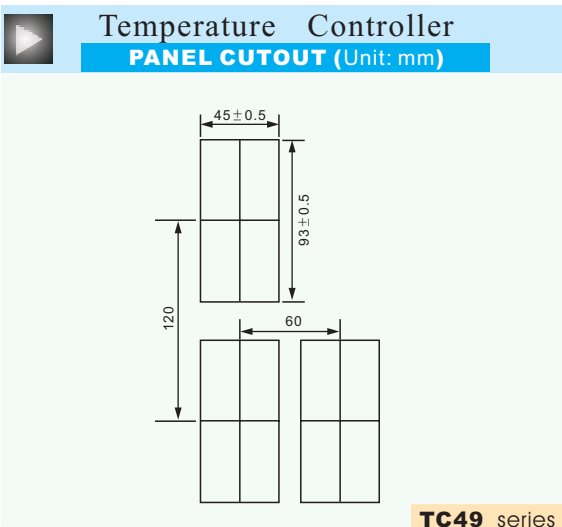


### FEATURES

- Double display (4 Digits)
- Push-button set-up
- Self tuning, auto tuning, MAN/AUTO
- Three output: MAIN, ALARM1, ALARM2
- Nine alarm output modes selectable








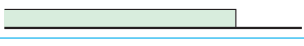
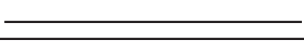
### ■ SPECIFICATION

Input Type	J, K, L, N...Pt 100Ω, 0~50mV, 0-1V, 0-10V, 0-20mA
Supply Frequency	50-60Hz
Main Output function	Heating or Cooling
Temperature scale      °C or °F	°C or °F
Output Type	Relay: 250V/7A ※ TC48-E5 AL2:250V/2A Voltage: 18V/20mA
Display	PV: 4 Digits High Efficiency Red SC: 4 Digits High Efficiency Green
Power Supply	100 ~ 240VAC 12 ~ 35V AC/DC



## ► P.I.D. Temperature Controller

**Table 1 Alarm function**

AL1(2)		Alarm output action
00		Lo and Hi deviation alarm
01		Hi deviation alarm
02		Lo deviation alarm
03		Absolute alarm
04		Lo and Hi deviation alarm with reverse output
05		Hi deviation alarm with reverse output
06		Lo deviation alarm with reverse output
07		Absolute alarm reverse output
08		No alarm

\* ▼ Setting value

Remark: \* Standard model

**Table 2 Input and range**

Symbol	05U	1U	10U	02A
Code	V0	V1	V2	A0
Input	0-50mV	0-1V	0-10V	0-20mA
Min	-1999	-1999	-1999	-1999
Max	9999	9999	9999	9999

Symbol	P	P.	J	J.	K	K.	L	L.	n	n.	T	T.	R	S	B
Code	P0	P1	J0	J1	K0	K1	L0	L1	n0	n1	T0	T1	R0	S0	B0
Input Sensor	Pt100	Pt100	Tc J	Tc J	Tc K	Tc K	Tc L	Tc L	Tc N	Tc N	Tc T	Tc T	Tc R	Tc S	Tc B
Min	-200	-199.9	0	0	0	0	0	0	0	0	0	0	0	0	0
Max	500	400	900	400	1300	400	900	400	1300	400	400	400	1760	1760	1810
Min	-328	199.9	0	-	0	-	0	-	0	-	0	-	0	0	0
Max	932	752	1652	-	2372	-	1652	-	2372	-	752	-	3200	3200	3290