

- High Reliability by S.M.T & TQC.
- With Cold Junction Compensation, Suited to Operated at $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$
- All type with Sensor Break Alarm LED.
- With P+D Control to Control Temperature Easily.
- High Accuracy of Displaying & Setting Less than 0.5% of F.S.
- With Stand-by/Over-heat Alarm.(Optioned).
- With Heater Break Alarm.(Optioned).
- 表面貼焊技術及全面品管，提供最可靠性產品
- 具冷接點補償，適用於周圍溫度 $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$
- 全機種具有測溫體斷線警報
- P+D控制易於控溫
- 高精度的顯示及設定精度，低於全刻度0.5%
- 具有待機/過熱警報功能(選擇機種)
- 具有加熱器斷線警報功能(選擇機種)



Guiding of Model

Ex. TC - 4896 DA - PT - R 3 - F - S - A
 ① ② ③④ ⑤ ⑥⑦ ⑧ ⑨ ⑩

① Product 產品代號

TC = Temperature Controller

② Outline 外型

48 = 48(W) X 48(H) mm X mm
 4896 = 48(W) X 96(H) mm X mm
 72 = 72(W) X 72(H) mm X mm
 96 = 96(W) X 96(H) mm X mm

③ Method of Setting 設定方式

D = Digital Swith
 A = Trimmer

④ Method of Display 顯示方式

A = Analog Deviation Meter
 D = Digital LED Display
 N = Without Display

⑤ Type of Sensor 感溫線種類

PT = RTD PT-100 Ω
 J = J Type Thermocouple
 Non = K Type Thermocouple

⑥ Method of Output 輸出方式

R = Relay (5A/250VAC)
 V = Voltage (20mA/12V)
 L = Linear (4~20mA)

⑦ Range of Setting 設定範圍

Digital Switch

0 = -99 ~ + 99
 1 = 0 ~ +199
 3 = 0 ~ +399
 5 = 0 ~ +599
 9 = 0 ~ +999
 11 = 0 ~ +1199

Trimmer

05 = -50 ~ +50
 1 = 0 ~ +100
 2 = 0 ~ +200
 4 = 0 ~ +400
 6 = 0 ~ +600
 12 = 0 ~ +1200

⑧ Unit of Degree 刻度單位

F = F
 non = C

⑨ Method of Control 控制方式

S = ON/OFF
 non = P+D ON/OFF

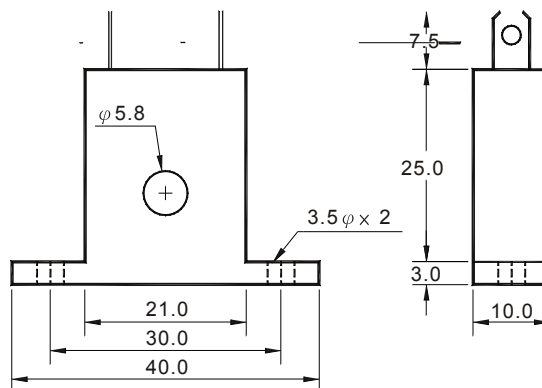
⑩ Alarm 警報

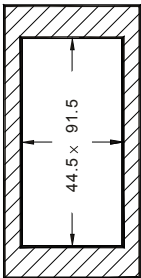
A = With Stand-by / Over Heat Alarm
 AH = With Stand-by / Over Heat Alarm
 & Heater Break Alarm
 Non = Without Alarm

General Data 共同規格	Sensor Type 感溫線	K < CA > , J < IC > or PT-100 Ω
	Output Method 輸出方式	Relay < 5A / 250VAC > , Voltage < 20mA / 12V > , Linear < 4~20mA >
	Control Method 控制方式	P+D ON/OFF , ON/OFF or Proportion
	Proportion Band 比例帶	Appro 2.5% of F.S.
	Cycle Time 動作週期	2 Sec or 20 Sec < ON+OFF >
	Manual Reset 偏移修正	Trimmer, Range $\pm 10^{\circ}$
	Unit of Degree 單位	$^{\circ}\text{C}$ or $^{\circ}\text{F}$
AL Alarm A1警報	Setting Method 設定方式	Trimmer (AL)
	Setting Range 設定範圍	$0 \sim +50^{\circ}$, $0 \sim -50^{\circ}$ or $-50^{\circ} \sim +50^{\circ}$ of Setting Value
	Output Method 輸出方式	Relay , 0.5A/250VAC
HB Alarm Hb警報	Setting Method 設定方式	Trimmer (HB)
	Setting Range 設定範圍	0.5A~25A ; 1.0A~50A
	Output Method 輸出方式	Relay , 0.5A/250VAC
Electrical Data 電氣規格	Power Supply 工作電壓	110 / 220 VAC $\pm 20\%$ 50 / 60Hz
	Current Consumption 耗電流	2.5VA max.
	Insulation Resistance 絕緣阻抗	Over 50M Ω /500 VDC Between Power And Another Terminal
	Dielectrical Strength 耐壓強度	Over 2.5KV / 1min Between Power And Another Terminal
Mechanical Data 機械規格	Operating Temp./Hum 工作環境	$-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$; 35%~85% RH
	Vibration Resistance 耐振動	10~55Hz / 1.5mm , 2Hrs in X.Y.Z Direction
	Panel Thickness 面板厚度	1.0~8.0mm

Attachment 附件

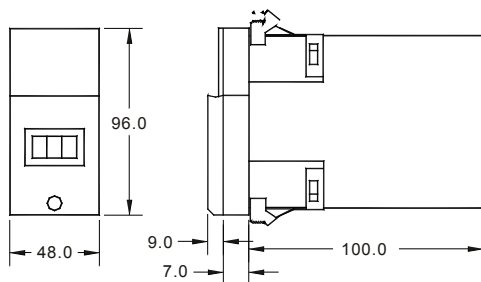
CT provided with Heater Break Alarm type only.
只有加熱器斷線警報功能機種附 CT



	Model	TC-4896-DA-□-□	TC-4896-DA-□-□-A	TC-4896-DA-□-□-AH
	DIN48 X 96 			
	Alarm 警報	Non	AL Alarm	AL+HB
Display 顯示方式	Method 方式	Analog Deviation Meter		
	Tolerance 誤差	1.0% of F.S.		
	Range 範圍	$\pm 40^{\circ}$		
Setting 設定方式	Method 方式	Digital Switch < 3 Digits >		
	Tolerance 誤差	0.5% of Setting Range		
	Range 範圍	-99~+99 , 0~199 , 0~399 , 0~599 , 0~999		

Dimension & Fixed Hold 外型及固定孔尺寸

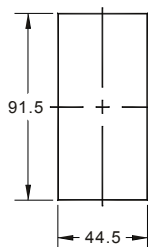
Outline



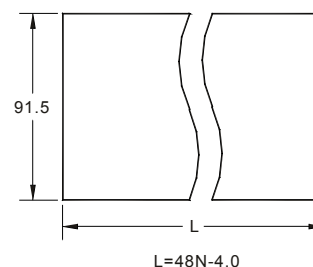
Fixed Hole (Thickness 1~8mm)

Single Cutout Multi Juxtaposed Cutout

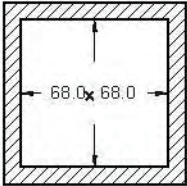
單個開孔

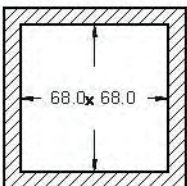


多個並排開孔



N	2	3	4	5	6
L	92.0	140.0	188.0	236.0	284.0

	Model	TC-72-AN-□-□	TC-72-AA-□-□	TC-72-AA-□-□-A
Outline 外型	DIN72 X 72 			
	Alarm 警報	Non	Non	AL Alarm
Display 顯示方式	Method 方式	Non	Analog Deviation Meter	
	Tolerance 誤差	Non	1.0% of F.S.	
	Range 範圍	Non	± 40°	
Setting 設定方式	Method 方式	Trimmer < Variable Resister >		
	Tolerance 誤差	1.0% of Setting Range		
	Range 範圍	0~100 , 0~200 , 0~400 , 0~600 , 0~1200		

	Model	TC-72-DN-□-□	TC-72-DA-□-□	TC-72-DA-□-□-A
Outline 外型	DIN72 X 72 			
	Alarm 警報	Non	Non	AL Alarm
Display 顯示方式	Method 方式	Non	Analog Deviation Meter	
	Tolerance 誤差	Non	1.0% of F.S.	
	Range 範圍	Non	± 40°	
Setting 設定方式	Method 方式	Digital Switch		
	Tolerance 誤差	0.5% of Setting Range		
	Range 範圍	-99 ~+99 , 0~199 , 0~399 , 0~599 , 0~999 , 0~1199		

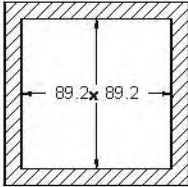
Dimension & Fixed Hole 外型及固定孔尺寸

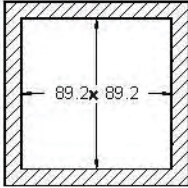
Outline 	Fixed Hole (Thickness 1~8mm)
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Model	TC-4896-DD-□-□	TC-4896-DD-□-□-A	TC-4896-DD-□-□-AH
Outline 外型 			
Alarm 警報	Non	AL Alarm	AL+HB
Display 顯示方式	14 mm 7 Segment Red LED		
Tolerance 誤差	0.5% of F.S. + 1 Digit		
Range 範圍	-99~+99 , 0~999		
Setting 設定方式	Digital Switch < 3 Digits >		
Tolerance 誤差	0.5% of Setting Range		
Range 範圍	-99~+99 , 0~199 , 0~399 , 0~599 , 0~999		

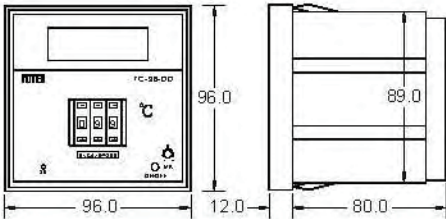
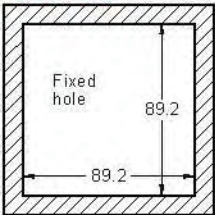
Output circuit & connection diagram 輸出回路及接線圖

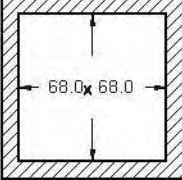
Thermocouple Type < K or J >	RTD PT-100 Ω Type	Voltage Output
		Linear Output

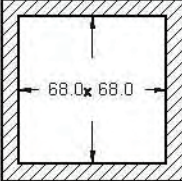
Model	TC-96-AD-□-□	TC-96-AD-□-□-A	TC-96-AD-□-□-AH
Outline 外型	   		
Alarm 警報	Non	AL Alarm	AL+HB Alarm
Display 顯示方式	Method 方式	14mm 7 Segment Red LED	
	Tolerance 誤差	0.5% of F.S.	
	Range 範圍	-99 ~+99 , 0~999 , 0~1200	
Setting 設定方式	Method 方式	Trimmer < Variable Resister >	
	Tolerance 誤差	1.0% of F.S.	
	Range 範圍	-50 ~+50 , 0~100 , 0~200 , 0~400 , 0~600 or 0~1200	

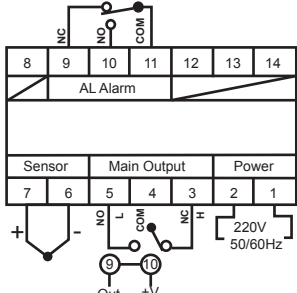
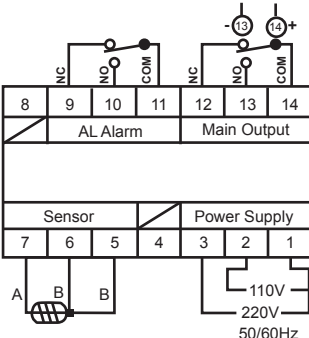
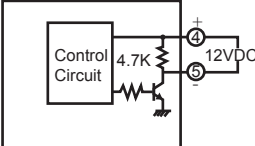
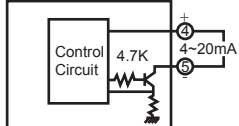
Model	TC-96-DD-□-□	TC-96-DD-□-□-A	TC-96-DD-□-□-AH
Outline 外型	   		
Alarm 警報	Non	AL Alarm	AL+HB Alarm
Display 顯示方式	Method 方式	14mm 7 Segment Red LED	
	Tolerance 誤差	0.5% of F.S.	
	Range 範圍	-99 ~+99 , 0~999 , 0~1200	
Setting 設定方式	Method 方式	Digital Switch	
	Tolerance 誤差	0.5% of F.S.	
	Range 範圍	-99 ~+99 , 0~199 , 0~399 , 0~599 , 0~999 , 0~1199	

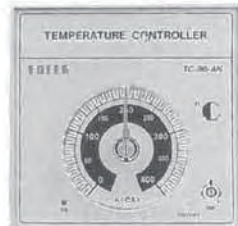
Dimension & Fixed Hold 外型及固定孔尺寸

Outline	Fixed Hole (Thickness 1~8mm)
 	

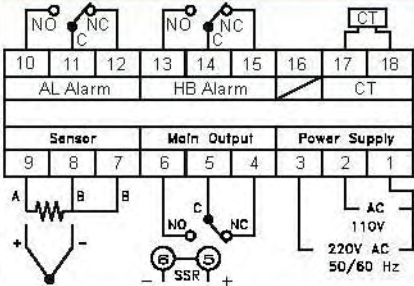
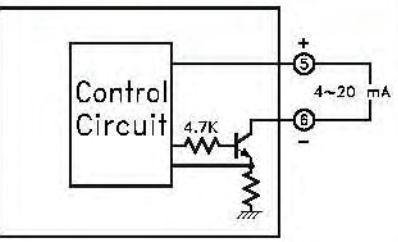
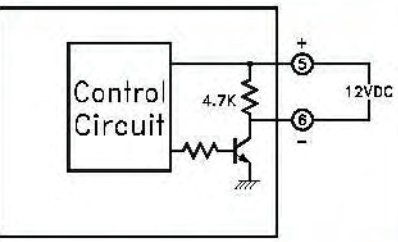
	Model	TC-72-AD-□-□	TC-72-AD-□-□-A
Outline 外型	DIN72 X 72		
			
	Alarm 警報	Non	AL Alarm
Display 顯示方式	Method 方式	14mm 7 Segment Red LED	
	Tolerance 誤差	0.5% of F.S.	
	Range 範圍	0~999 or 0~1999	
Setting 設定方式	Method 方式	Trimmer < Variable Resister >	
	Tolerance 誤差	1.0% of F.S.	
	Range 範圍	0~100 , 0~200 , 0~400 , 0~600 , 0~1200	

	Model	TC-72-DD-□-□	TC-72-DD-□-□-A
Outline 外型	DIN72 X 72		
			
	Alarm 警報	Non	AL Alarm
Display 顯示方式	Method 方式	14mm 7 Segment Red LED	
	Tolerance 誤差	0.5% of F.S.	
	Range 範圍	-99~99 , 0~999 or 0~1999	
Setting 設定方式	Method 方式	Digital Switch	
	Tolerance 誤差	0.5% of Setting Range	
	Range 範圍	-99 ~+99 , 0~199 , 0~399 , 0~599 , 0~999 , 0~1199	

K type	PT type	Voltage Output
 Standard Power Supply is 220VAC If Need 110 VAC, Please Change it		
		Linear Output
		

TC-96-AN-□-□	TC-96-AA-□-□	TC-96-AA-□-□-A	TC-96-AA-□-□-AH
			
Non	Non	AL Alarm	AL+HB Alarm
Non	Analog Deviation Meter		
Non	1.0% of F.S.		
Non	± 40°		
Trimmer < Variable Resister >			
1.0% of F.S.			
-50 ~+50 , 0~100 , 0~200 , 0~400 , 0~600 or 0~1200			

TC-96-DN-□-□	TC-96-DA-□-□	TC-96-DA-□-□-A	TC-96-DA-□-□-AH
			
Non	Non	AL Alarm	AL+HB Alarm
Non	Analog Deviation Meter		
Non	1.0% of F.S.		
Non	± 40°		
Digital Switch			
0.5% of F.S.			
-99 ~+99 , 0~199 , 0~399 , 0~599 , 0~999 , 0~1199			

Connection Diagram 接線圖	Linear Output 線性輸出	Voltage Output 電壓輸出
		

Control Output 控制輸出

ON/OFF LED Turn to Green Color , Control Output Turn ON.

綠色動作燈，表示控制輸出動作。

ON/OFF LED Turn to Red Color , Control Output Turn OFF.

紅色動作燈，表示控制輸出復歸。

but , Linear Output Type That ON/OFF LED Turn to Green Color.

但，線性輸出型，動作燈亮綠色。

Sensor Break Alarm (SB)測溫體斷線指示燈

SB LED Turn ON when Sensor Break測溫體斷線時，SB燈會亮著。

Stand-by/Over-heat Alarm(AL)待機/過熱警報

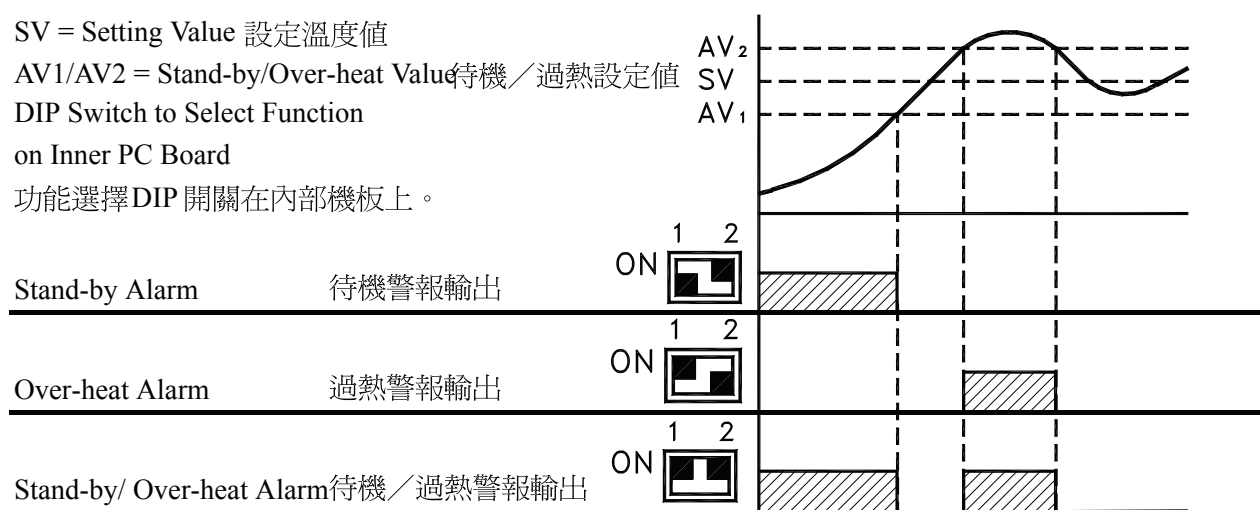
SV = Setting Value 設定溫度值

AV1/AV2 = Stand-by/Over-heat Value待機/過熱設定值

DIP Switch to Select Function

on Inner PC Board

功能選擇DIP 開關在內部機板上。



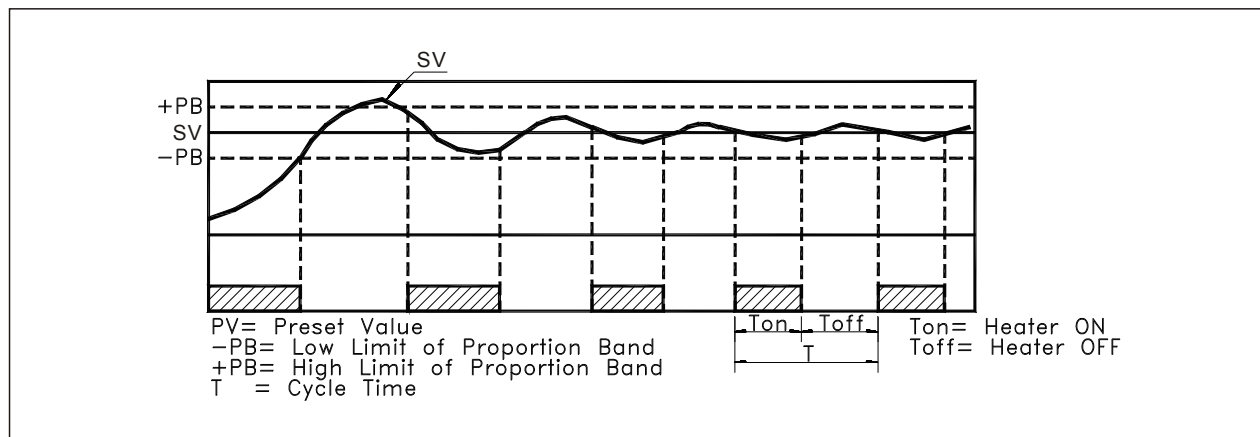
Heater Break Alarm(HB)加熱器斷線警報

Heater Break Alarm Output Turns ON when the Current of Heater Lower than Setting Value that may set at Front Panel. (0.5A~25A standard/1.0A~50A Optioned)

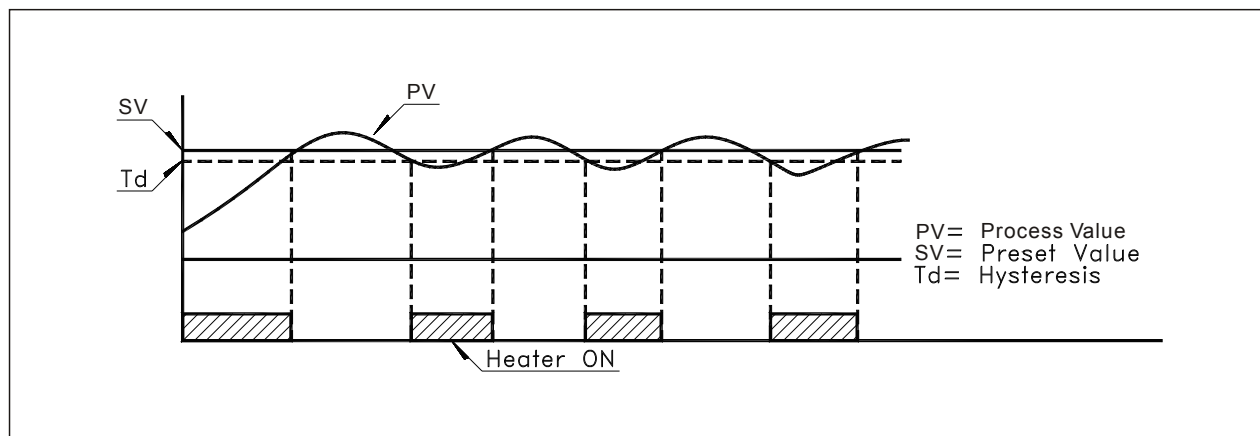
當加熱器電流低於設定值時，加熱器斷線警報即動作，設定值可在面板設定，標準 0.5A~25A，訂做 1.0A~50A

Illustration 說明

P+D ON/OFF



ON/OFF (S)



Proportion

