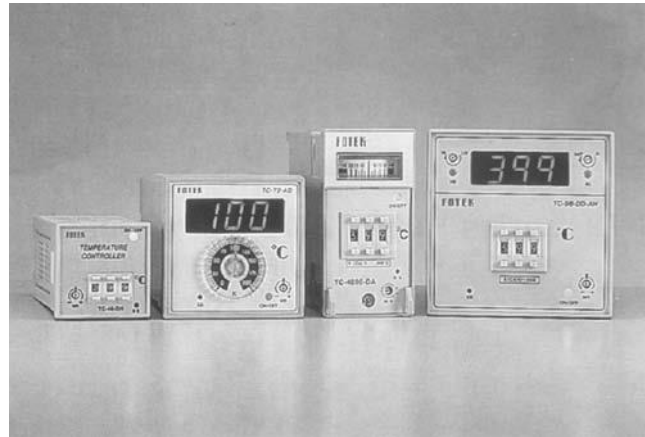


- * High Reliability by S.M.T. & TQC.
- * With Cold Junction Compensation, Suited to Operated at -20 C ~ +60 C
- * All type with Sensor Break Alarm LED.
- * With P+D Control to Control Temperature Easily.
- * High Accuracy of Displaying & Setting Less than 0.5% of F.S.
- * With Stand-by/Over-heat Alarm.(Optioned).
- * 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 C ~ +60 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

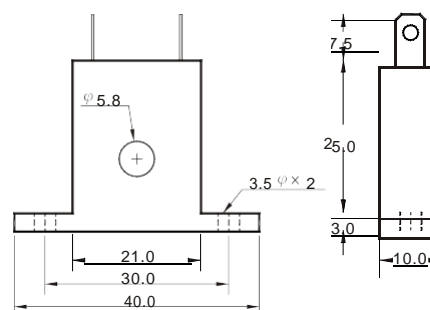
⑩ Alarm 警報

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 AI 警報 | Setting Method 設定方式 | Trimmer (AL) |
| | Setting Range 設定範圍 | 0 ~ +50 $^\circ$, 0 ~ -50 $^\circ$ or -50 $^\circ$ ~ +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 $^\circ\text{C}$ ~ +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 |

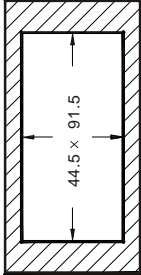
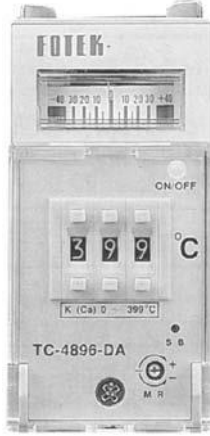
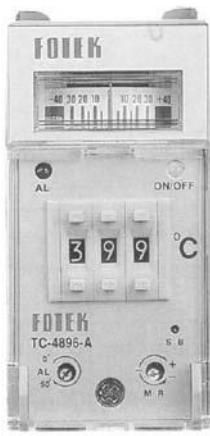
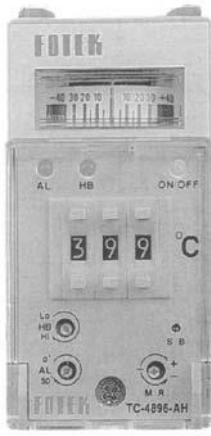
Attachment 附件

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



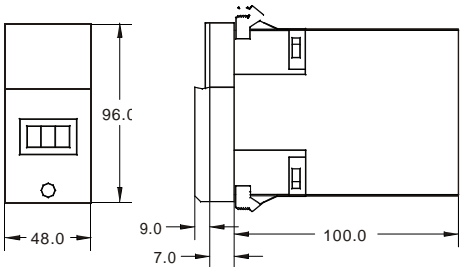
TC-4896 Series

DIN 48X96 Temperature Controller

| 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 | ±40° | |
| 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 | |

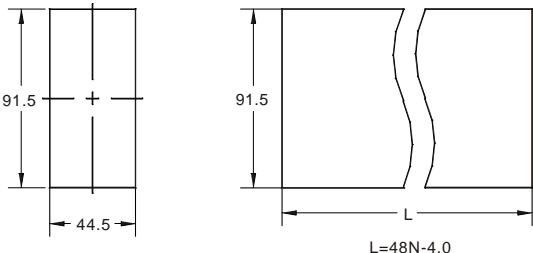
Dimension & Fixed Hole / 外型及固定孔尺寸

Outline



Fixed Hole (Thickness 1~8mm)

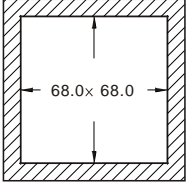
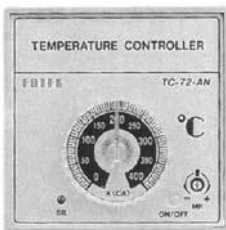
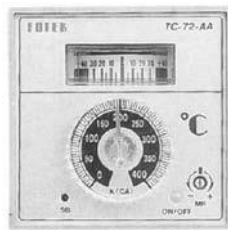

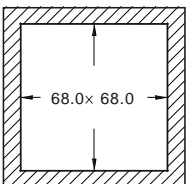


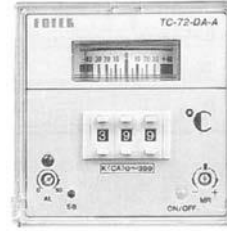
Single Cutout Multi Juxtaposed Cutout
 單個開孔 多個並排開孔



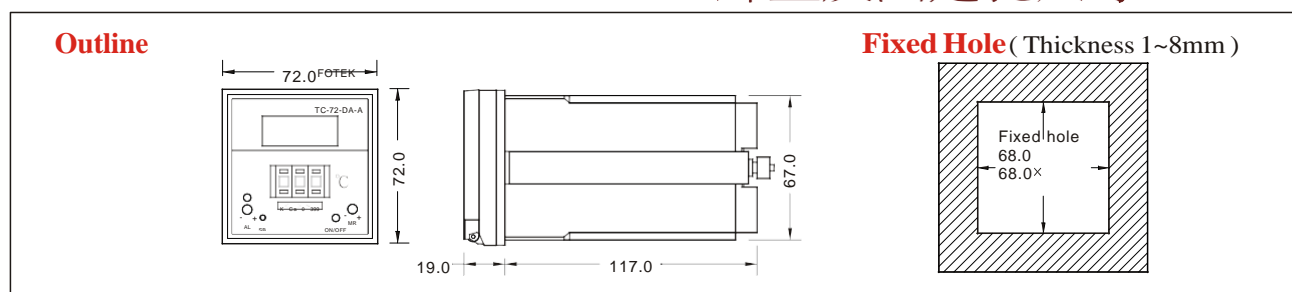
| N | 2 | 3 | 4 | 5 | 6 |
|---|------|-------|-------|-------|-------|
| L | 92.0 | 140.0 | 188.0 | 236.0 | 284.0 |

DIN 72X72 Temperature Controller

TC-72 Series

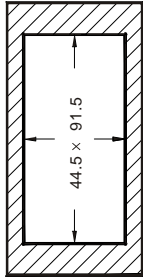


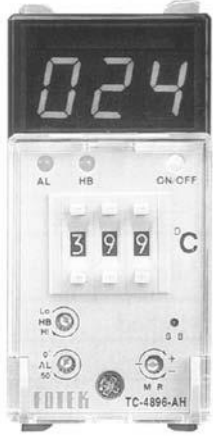
| | Model | TC-72-AN-□-□ | TC-72-AA-□-□ | TC-72-AA-□-□- A |
|-----------------|---|---|--|---|
| Outline 外型 | DIN72 X 72  |  |  |  |
| | Alarm 警報 | Non | Non | AL Alarm |
| Display 顯示方式 | Method 方式 | Non | Analog Deviation Meter | |
| | Tolerance 誤差 | Non | 1.0% of F.S. | |
| | Range 範圍 | Non | ±40° | |
| 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

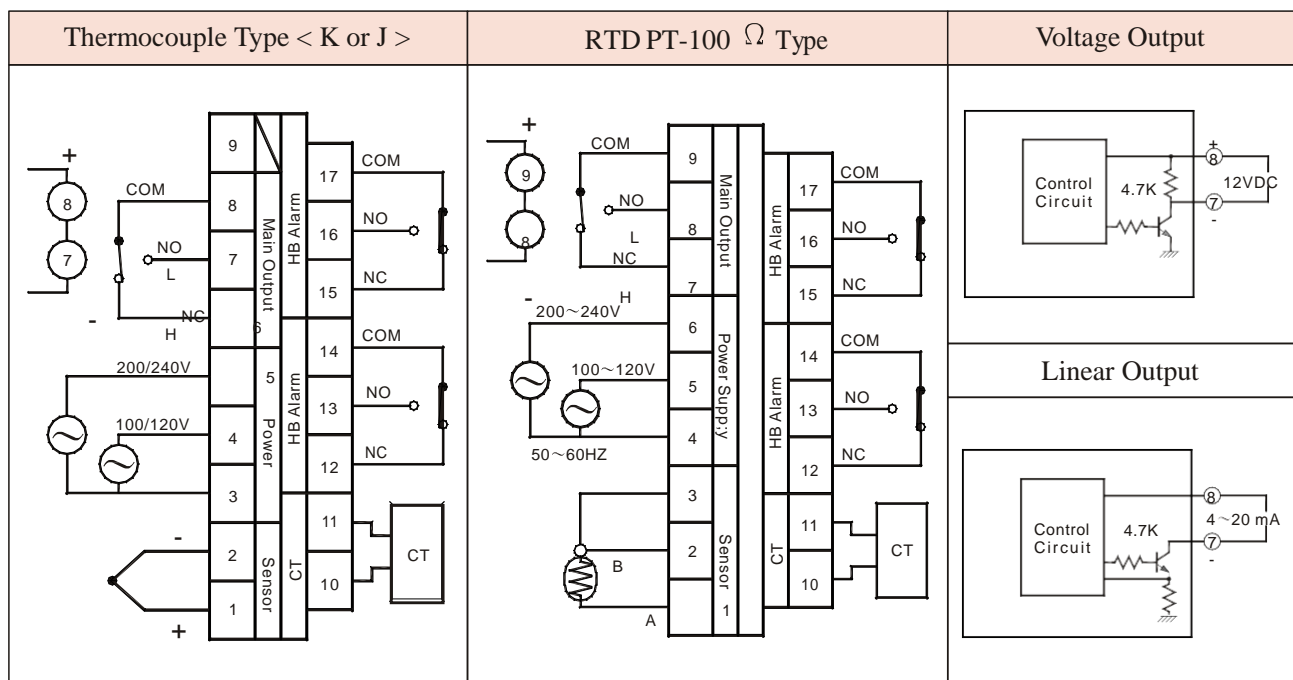


DIN 48X96 Temperature Controller

TC-4896 Series

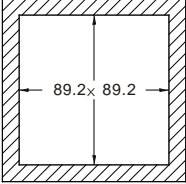



| | Model | TC-4896-DD-□-□ | TC-4896-DD-□-□-A | TC-4896-DD-□-□-AH |
|-----------------|---|---|--|---|
| Outline 外型 | DIN48 X 96  |  |  |  |
| | Alarm 警報 | Non | AL Alarm | AL+HB |
| Display 顯示方式 | Method 方式 | 14 mm 7 Segment Red LED | | |
| | Tolerance 誤差 | 0.5% of F.S. + 1 Digit | | |
| | Range 範圍 | -99~+99, 0~999 | | |
| Setting 設定方式 | 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 | | |

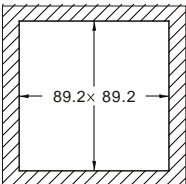



■ Connection Diagram & Output Circuit/接線圖及輸出回路



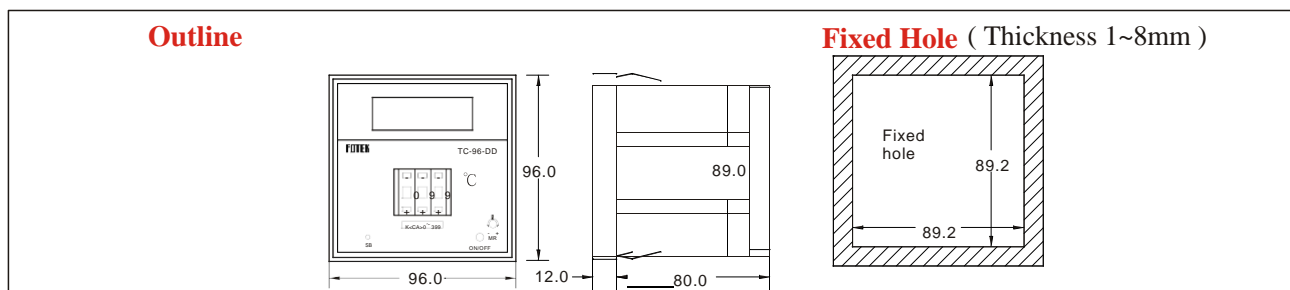
DIN 96X96 Temperature Controller

TC-96 Series

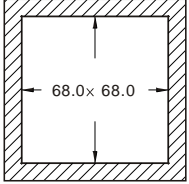


| | Model | TC-96-AD-□-□ | TC-96-AD-□-□-A | TC-96-AD-□-□-AH |
|-----------------|---|---|--|---|
| Outline 外型 | DIN96 X 96  |  |  |  |
| | Alarm 警報 | Non | AL Alarm | AL+HB Alarm |
| Display 顯示方式 | Method 方式 | 14mm 7 Segment Red LED | | |
| | Tolerance 誤差 | 0.5% of F.S. | | |
| | Range 範圍 | -99 ~+99 , 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 | | |

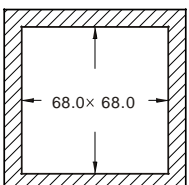


| | Model | TC-96-DD-□-□ | TC-96-DD-□-□-A | TC-96-DD-□-□-AH |
|-----------------|---|---|--|---|
| Outline 外型 | DIN96 X 96  |  |  |  |
| | Alarm 警報 | Non | AL Alarm | AL+HB Alarm |
| Display 顯示方式 | Method 方式 | 14mm 7 Segment Red LED | | |
| | Tolerance 誤差 | 0.5% of F.S. | | |
| | Range 範圍 | -99 ~+99 , 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 | | |

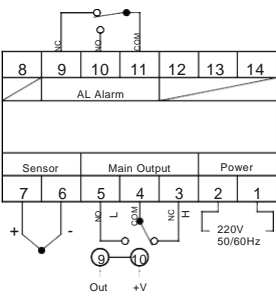
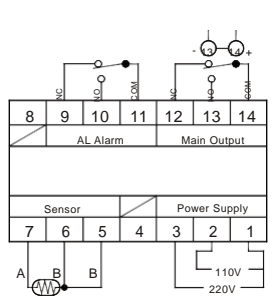
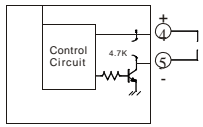
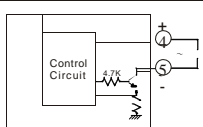
Dimension & Fixed Hole/外型及固定孔尺寸



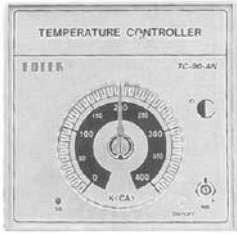



TC-72 Series





| Model | TC-72-AD-□-□ | TC-72-AD-□-□- A |
|--------------|--|--|
| Outline 外型 |    | |
| 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 Resistor > |
| | Tolerance 誤差 | 1.0% of F.S. |
| | Range 範圍 | 0~100 , 0~200 , 0~400 , 0~600 , 0~1200 |

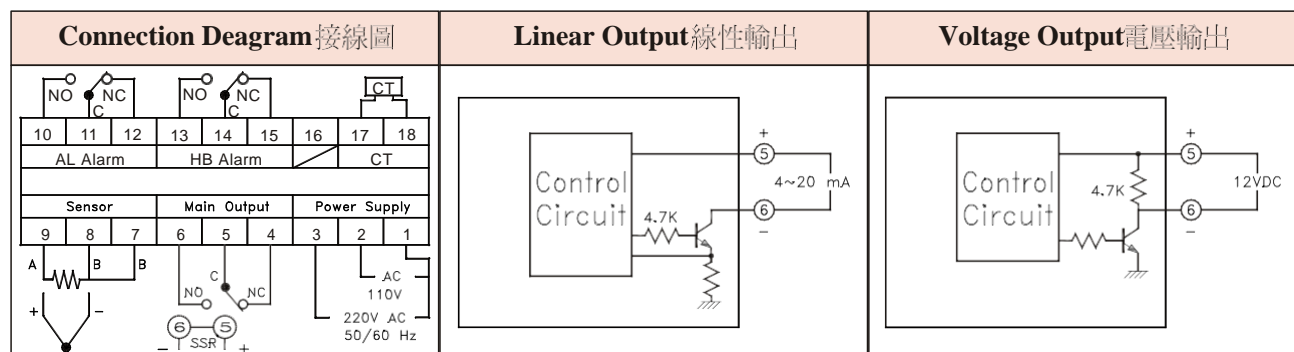
| Model | TC-72-DD-□-□ | TC-72-DD-□-□- A |
|--------------|--|---|
| Outline 外型 |    | |
| Alarm 警報 | Non | AL Alarm |
| Display 顯示方式 | Method 方式 | 14mm 7 Segment Red LED |
| | Tolerance 誤差 | 0.5% of F.S. |
| | Range 範圍 | -99~99 , 0~999 or 0~1999 |
| Setting 設定方式 | Method 方式 | Digital Switch |
| | Tolerance 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 |
|---|--|---|
|  <p>Standard Power Supply is 220VAC If Need 110VAC, Please Change It On, The Inner PC Board.</p> |  |  |
| | | Linear Output |
| | |  |

TC-96 Series

| 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 | $\pm 40^\circ$ | | |
| 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 | $\pm 40^\circ$ | | |
| Digital Switch | | | |
| 0.5% of F.S. | | | |
| -99 ~+99 , 0~199 , 0~399 , 0~599 , 0~999 , 0~1199 | | | |



■ 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

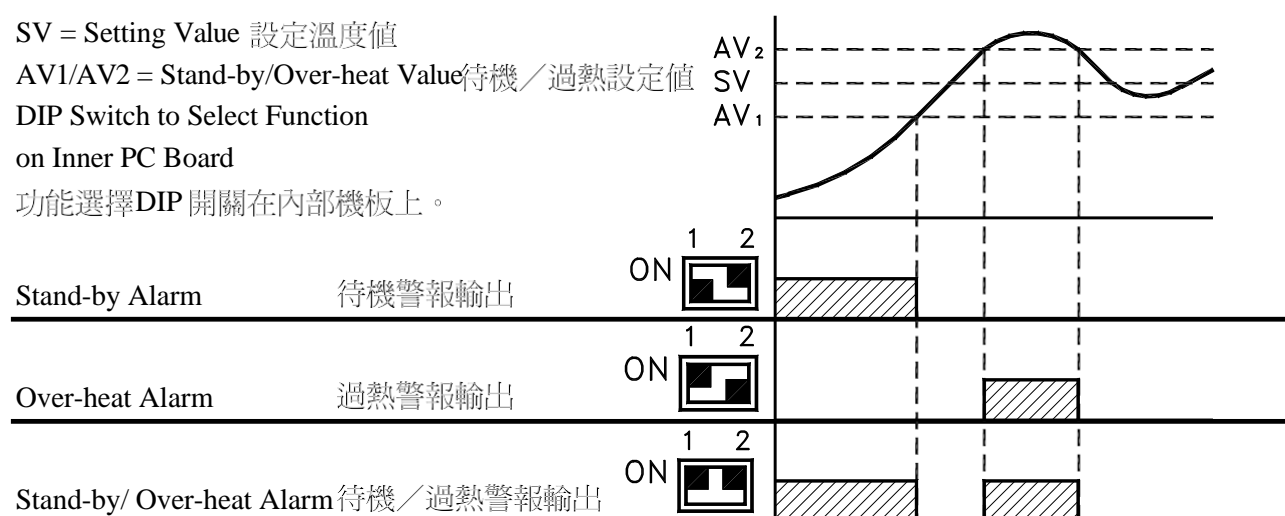
SV = Setting Value 設定溫度值

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。



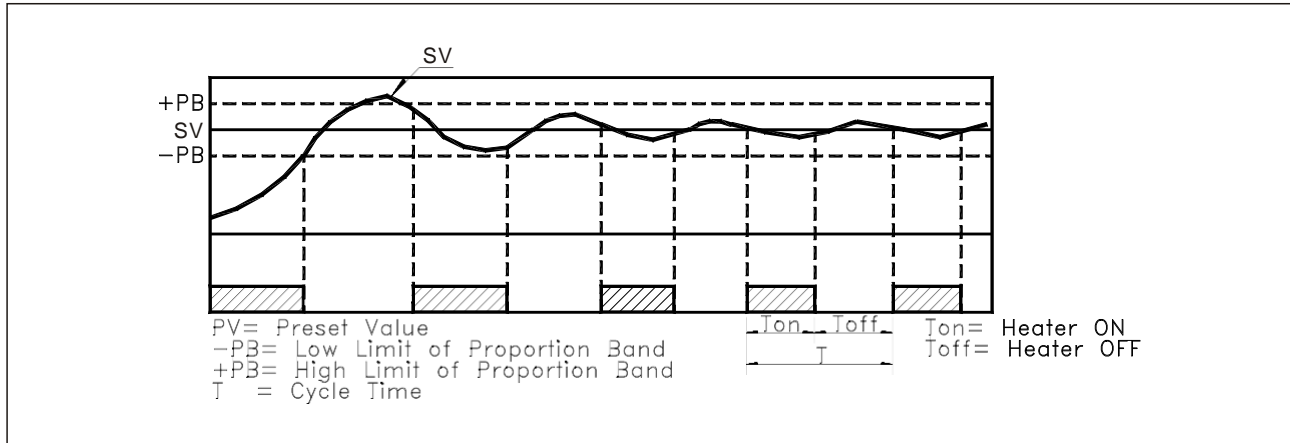
■ Heater Break Alarm (HB) 加熱器斷線警報

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)

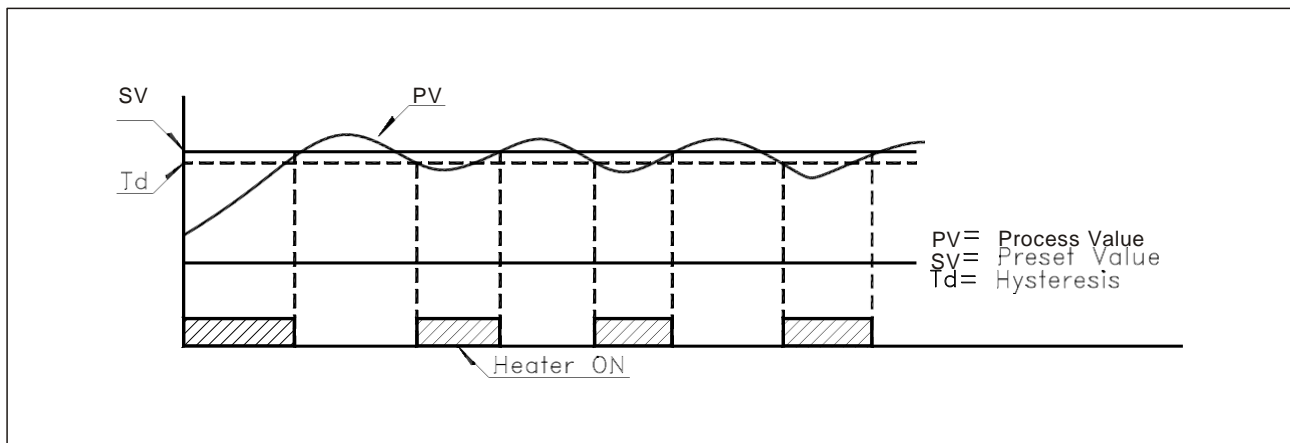
當加熱器電流低於設定值時，加熱器斷線警報即動作，設定值可在面板設定，標準 0.5A~25A，訂做 1.0A~50A

■ Illustration/説明

P+D ON/OFF



ON/OFF (S)



Proportion

