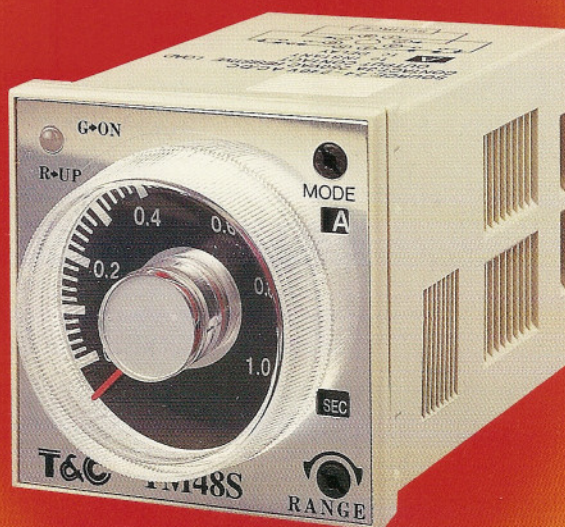


T & C

TAIWAN CHA CHEUN



Cosmosonics
-SSR, Controller

T&C
-TIMER

姜瑞哲

Rayjer Jiang

交直流SSR專業製造

限時繼電器專業製造

微電腦電子電路設計製造

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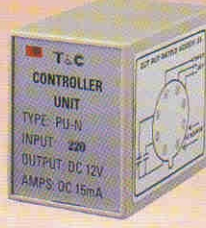
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統一編號：22992476

E-mail：ssr.tw@msa.hinet.net

TIMER

CLASSIFICATION 類 別		TIMER 限時繼電器		MULTI RANGE TIMER 多段式限時繼電器		
MODEL 型 號		TH3A-N□	TH3A-Y□	TH3M-N□	TH3M-Y□	
APPEARANCE 外 觀						
DIMENSIONS(mm) 尺 寸		50H×40W×57.5D	70H×47W×57.5D	50H×40W×57.5□	70H×47W×57.5D	
MOUNTING & SOCKET 安裝與其底座	SURFACE(-N) 露 出 型	PF085A		PF085A		
	FLUSH(-Y) 埋 入 型		US08 or P3G-08		US08 or P3G-08	
FULL TIMING RANGE 時 間 範 圍		SEC : 1, 3, 6, 12, 30, 60, 180 MIN : 3, 6, 12, 30, 60, 180 HR : 3, 6, 12, 24		A : 1S, 10S, 1M, 10M B : 3S, 30S, 3M, 30M C : 6S, 60S, 6M, 60M O : 1M, 10M, 1H, 10H E : 3M, 30M, 3H, 30H		
RATED VOLTAGE 額 定 電 壓		DC(V) : 12、24 AC(V) : 12、24、110、220、240、50/60HZ				
O/P C O N T A C T 點	MODEL 型 號	TH3A-NA	TH3A-NB	TH3C-NC	TH3M-N□	TH3M-Y□
	TIME LIMIT 限時 1 C	5A		5A		
	TIME LIMIT 限時 2 C		5A		5A	5A
	INSTANTENOUS 瞬時 1 C	5A				
L I F E	MECHANICAL 機 械	5×10 ⁶ times			5×10 ⁶ times	
	ELECTRICAL 電 氣	10 ⁵ times			10 ⁵ times	
A C C U R A C Y	REPEAT ERROR 往 復 誤 差	±1%max				
	SETTING ERROR 設 定 誤 差	±10%max				
	VOLTAGE ERROR 電 壓 誤 差	±1%max				
	TEMP. ERROR 溫 度 誤 差	±2%max				
RESET TIME 復 歸 時 間		0.1 sec max				
CONSUMED POWER 消 耗 功 率		2VA				
AMBIENT TEMPERATURE 使用周圍溫度		-10℃～+55℃				
AMBIENT TEMPERATURE 使用周圍濕度		45~85% RH				
WEIGHT 重 量		160g				

TIMER 限時繼電器			MULTI RANGE TIMER 多程式限時繼電器	FLICKER TIMER 閃爍繼電器	OFF DELAY RELAY 斷電延遲繼電器	CONTROLLER UNIT 電源供給繼電器
TH3A-Y□			TH3M-Y□	TH3A-NCF	TH3R	PU-N□
						
60H×50W×59D			60H×50W×59D	50H×40W×57.5D	50H×40W×57.5D	50H×40W×57.5D
				PF085A	PF085A	PF085A
TCC40 & US08 or TCC40 & P3G-08			TCC40 & US08 or TCC40 & P3G-08	TCC40 & US08 or TCC40 & P3G-08	TCC40 & US08 or TCC40 & P3G-08	TCC40 & US08 or TCC40 & P3G-08
SEC : 1, 3, 6, 12, 30, 60, 180 MIN : 3, 6, 12, 30, 60, 180 HR : 3, 6, 12, 24			A : 1S, 10S, 1M, 10M B : 3S, 30S, 3M, 30M C : 6S, 60S, 6M, 60M D : 1M, 10M, 1H, 10H E : 3M, 30M, 3H, 30H	SEC : 3S	100MS, 150MS, 200MS 300MS, 400MS, 500MS	PU-N(N-TYPE) (電流式) PU-NA(P-TYPE) (電壓式)
DC(V) : 12, 24 AC(V) : 12, 24, 110 220, 240 50/60HZ			DC(V) : 12, 24 AC(V) : 12, 24, 110 220, 240 50/60HZ	DC(V) : 12, 24 AC(V) : 12, 24, 110 220, 240 50/60HZ	DC(V) : 12, 24 AC(V) : 12, 24, 110 220, 240 50/60HZ	DC(V) : 12, 24 AC(V) : 12, 24, 110 220, 240 50/60HZ
TH3A-YA	TH3A-YB	TH3A-YC	TH3M-Y□	TH3A-NCF	TH3R	PU-N/PU-NA
5A		5A		5A		
	5A		5A		5A	5A
5A						
5×10 ⁵ times			5×10 ⁶ times	5×10 ⁶ times	5×10 ⁵ times	5×10 ⁶ times
10 ⁵ times			10 ⁵ times	10 ⁵ times	10 ⁵ times	2×10 ⁶ times
±1% max			±1% max	±2% max	±5% max	—
±10% max			±10% max	±10% max	—	—
±1% max			±1% max	±1% max	±3.5% max	—
±2% max			±2% max	±2% max	—	—
0.1sec max			0.1sec max	0.1sec max	—	—
2VA			2VA	2VA	2VA	2VA
-10℃ ~ +55℃			-10℃ ~ +55℃	-10℃ ~ +55℃	-10℃ ~ +55℃	-10℃ ~ +55℃
45~85%RH			45~85%RH	45~85%RH	45~85%RH	45~85%RH
160g			160g	150g	150g	150g

CLASSIFICATION 類 別		TIMER 限時繼電器			TWIN TIMER 雙設定限時繼電器		
MODEL 型 號		TSTP-N□		TSTP-Y□	TTDV-N		TTDV-Y
APPEARANCE 外 觀							
DIMENSIONS(mm) 尺 寸		61H×49W×92D		89H×57.5W×89D	61H×49W×92D		89H×57.5W×88D
MOUNTING & SOCKET 安裝與其底座	SURFACE(-N) 露 出 型	8PFA			8PFA		
	FLUSH(-Y) 埋 入 型			US08 or P3G-08			US08 or P3G-08
FULL TIMING RANGE 時 間 範 圍		SEC : 1, 3, 6, 12, 30, 60 MIN : 3, 6, 12, 30, 60 HR : 3, 6, 12, 24			SEC : 6×6, 6×60, 60×6, 60×60 MIN : 6×6, 6×60, 60×6, 60×60 HR : 6×6, 6×12, 6×24, 12×6 24×6, 12×12, 24×24		
RATED VOLTAGE 額 定 電 壓		DC(V) : 12, 24 AC(V) : 12, 24, 110, 220, 240, 50/60HZ			DC(V) : 12, 24 AC(V) : 12, 24, 110, 220, 240, 50/60HZ		
O/P C O N T A C T 點	MODEL 型 號	TSTP-A	TSTP-B	TSTP-C	TTDV-A	TTDV-B	TTDV-C
	TIME LIMIT 限時 1 C	5A		5A	5A		5A
	TIME LIMIT 限時 2 C		5A			5A	
	INSTANTENOUS 瞬時 1 C	5A			5A		
L I F E	MECHANICAL 機 械	5×10 ⁶ times			5×10 ⁶ times		
	ELECTRICAL 電 氣	10 ⁵ times			10 ⁵ times		
A C C U R A C Y	REPEAT ERROR 往 復 誤 差	±1% max			±2% max		
	SETTING ERROR 設 定 誤 差	±10% max			±20% max		
	VOLTAGE ERROR 電 壓 誤 差	±1% max			±1.5 max		
	TEMP. ERROR 溫 度 誤 差	±2% max			±2% max		
RESET TIME 復 歸 時 間		0.1 sec max			0.2 sec max		
CONSUMED POWER 消 耗 功 率		2VA			2VA		
AMBIENT TEMPERATURE 使用周圍溫度		-10℃～+55℃			-10℃～+55%		
AMBIENT TEMPERATURE 使用周圍濕度		45～85% RH			45～85%RH		
WEIGHT 重 量		220g			220g		

TIMER 限時繼電器			STAR-DELTA TIMER 馬達啟動限時繼電器	OFF DELAY 斷電延遲繼電器	FOR-REV RELAY 正逆轉用繼電器
TTDF-N		TTDF-Y	TSDT-N	TTRF	TTWB-N
					
60H × 48W × 79D		88H × 58W × 79D	61H × 49W × 92D	61H × 49W × 92D	61H × 49W × 92D
8PFA			8PFA	8PFA	8PFA
		US08 or P3G-08		US08 or P3G-08	US08 or P3G-08
SEC : 9.9, 99, 9.99, 99.9, 999 MIN : 9.9, 99, 99.9, 999 HR : 9.9, 99, 99.9, 999			12S, 30S, 60S Standard Change time : 0.1S	SEC : 3, 6, 12, 30, 60	FOR/REV : 30S fixed clients' request STOP : 3S fixed clients' request
DC(V) : 12, 24 AC(V) : 12, 24, 110, 220, 240, 50/60HZ			AC(V) : 110, 220, 240 380, 440, 50/60HZ	DC(V) : 24 AC(V) : 24, 110, 220 240, 50/60HZ	DC(V) : 12, 24 AC(V) : 12, 24, 110, 220 240, 50/60HZ
TTDF-A	TTDF-B	TTDF-C	TSDT-N	TTRF-□	TTWB
5A		5A	5A	5A	
	5A				5A
5A			5A		
5 × 10 ⁶ times			5 × 10 ⁸ times	5 × 10 ⁵ times	5 × 10 ⁸ times
10 ⁵ times			10 ⁵ times	10 ⁵ times	10 ⁵ times
± 0.05 sec			± 1% max	± 2% max	± 2% max
0			± 10% max	± 10% max	± 10% max
± 0.05 sec			± 1% max	± 2% max	± 2% max
± 0.05 sec			± 2% max	± 2% max	± 2% max
0.3 sec max			0.3 sec max	0.3 sec max	0.23 sec max
2VA			2VA	2VA	2VA
- 10℃ ~ + 55℃			- 10℃ ~ + 55℃	- 10℃ ~ + 55℃	- 10℃ ~ + 55℃
40~85% RH			40~85% RH	40~85% RH	40~85% RH
230g			230g	230g	230g

CLASSIFICATION 類 別		DIGITAL TIMER 數字式限時繼電器			DIGITAL TIMER 數字式限時繼電器		
MODEL 型 號		TH3D-N□		TH3D-Y□	TH2D-N□		TH2D-Y□
APPEARANCE 外 觀							
DIMENSIONS(mm) 尺 寸		60H × 48W × 79D		88H × 58W × 79D	60H × 48W × 79D		88H × 58W × 79D
MOUNTING & SOCKET 安裝與其底座	SURFACE(-N) 露 出 型	8PFA			8PFA		
	FLUSH(-Y) 埋 入 型			US08 or P3G-08			US08 or P3G-08
FULL TIMING RANGE 時 間 範 圍		SEC : 9.99, 99.9, 999 MIN : 99.9, 999 HR : 99.9, 999			SEC : 9.9, 99 MIN : 9.9, 99 HR : 9.9, 99		
RATED VOLTAGE 額 定 電 壓		DC(V) : 12, 24 AC(V) : 12, 24, 110, 220, 240, 50/60HZ			DC(V) : 12, 24 AC(V) : 12, 24, 110, 220, 240, 50/60HZ		
O/P 輸 出 接 點	MODEL 型 號	TH3D-A	TH3D-B	TH3D-C	TH2D-A	TH2D-B	TH2D-C
	TIME LIMIT 限時 1 C	5A		5A	5A		5A
	TIME LIMIT 限時 2 C		5A			5A	
	INSTANTENOUS 瞬時 1 C	5A			5A		
L I F E 壽 命	MECHANICAL 機 械	5 × 10 ⁶ times			5 × 10 ⁶ times		
	ELECTRICAL 電 氣	10 ⁵ times			10 ⁵ times		
A C C U R A C Y 精 確 度	REPEAT ERROR 往 復 誤 差	± 0.05 sec			± 0.05 sec		
	SETTING ERROR 設 定 誤 差	0			0		
	VOLTAGE ERROR 電 壓 誤 差	± 0.05 sec			± 0.05 sec		
	TEMP. ERROR 溫 度 誤 差	± 0.05 sec			± 0.05 sec		
RESET TIME 復 歸 時 間		0.3 sec max			0.3 sec max		
CONSUMED POWER 消 耗 功 率		3VA			3VA		
AMBIENT TEMPERATURE 使用周圍溫度		-10℃ ~ +55℃			-10℃ ~ +55℃		
AMBIENT TEMPERATURE 使用周圍濕度		45~85% RH			45~85% RH		
WEIGHT 重 量		230g			230g		

3 DIGITAL PRESENT COUNTER 3位數顯示預置型計數器		2 DIGITAL PRESENT COUNTER 2位數顯示預置型計數器		DIGITAL TIMER 循環計時顯示器
TH3C-N	TH3C-Y	TH2C-N	TH2C-Y	TH3D-YD
				
60H×48W×79D	88H×58W×79D	60H×48W×79D	88H×58W×79D	88H×58W×79D
8PFA		8PFA		
	US08 or P3G-08		US08 or P3G-08	US08 or P3G-08
功能特性	1.Count input : contact I/P 2.Counting Speed : 20CPS max 3.Preset System : Power off reset		1.Count input : contact I/P 2.Counting Speed : 20 CPS max 3.Reset System : power off reset	
DC(V) : 12,24 AC(V) : 12,24,110,220,240,50/60HZ		DC(V) : 12,24 AC(V) : 12,24,110,220,240,50/60HZ		DC(V) : 12,24 AC(V) : 12,24,110,220,240,50/60HZ
TH3C-N	TH3C-Y	TH2C-N	TH2C-Y	TH3D-YD
5A	5A	5A	5A	
5×10 ⁶ times		5×10 ⁶ times		5×10 ⁶ times
10 ⁵ times		10 ⁵ times		10 ⁵ times
—		—		±0.5sec
0		0		—
—		—		±0.5sec
—		—		±0.5sec
0.5 sec max		0.5 sec max		0.5 sec max
3VA		3VA		3VA
-10℃~+55℃		-10℃~+55℃		-10℃~+55℃
40~85% RH		40~85% RH		40~85% RH
230g		230g		230g

CLASSIFICATION 類 別		MULTI RANGE TIMER 多段式限時繼電器					SHOCK-PROOF TIMER 限時繼電器			DIGITAL TIMER 數字式限時繼電器		
MODEL 型 號		TM48S-□		TM48S-AB			TM48S-1			TD48-□		
APPEARANCE 外 觀												
DIMENSIONS(mm) 尺 寸		48H×48W×78D		48H×48W×78D			48H×48W×78D			48H×48W×97D		
MOUNTING & SOCKET 安裝與其底座	SURFACE(-N) 露 出 型	P2CF-08		P2CF-08			P2CF-08			P2CF-08		
	FLUSH(-Y) 埋 入 型	Y48 & P3G-08 or Y48 & US08		Y48 & P3G-08 or Y48 & US08			Y48 & P3G-08 or Y48 & US08			Y48 & P3G-08 or Y48 & US08		
FULL TIMING RANGE 時 間 範 圍		① 1S, 10S, 1M, 10M ② 3S, 30S, 3M, 30M ③ 6S, 60S, 6M, 60M ④ 3M, 30M, 3H, 30H					① 1S, 10S, 1M, 10M ② 3S, 30S, 3M, 30M ③ 6S, 60S, 6M, 60M ④ 3M, 30M, 3H, 30H			SEC : 99, 99, 999, 9, 9999 MIN : 99, 99, 999, 9, 9999 99, 59 HR : 9, 59		
RATED VOLTAGE 額 定 電 壓		24V~240V AC/DC					24V~240V AC/DC			24V~240V AC/DC		
O/P 輸 出 接 點	MODEL 型 號	TM48S-A	TM48S-B	TM48S-C	MODE A	MODE B	TM48S-A	TM48S-B	TM4S-C1	TD48-A	5D48-B	5D48-C
	TIME LIMIT 限 時 1 C	5A		5A	5A		8A		8A	5A		5A
	TIME LIMIT 限 時 2 C		5A			5A		8A			5A	
	INSTANTENOUS 瞬 時 1 C	5A			5A		8A			5A		
L I F E 壽 命	MECHANICAL 機 械	10 ⁶ times					10 ⁶ times			10 ⁶ times		
	ELECTRICAL 電 氣	10 ⁵ times					10 ⁵ times			10 ⁵ times		
A C C U R A C Y 精 確 度	REPEAT ERROR 往 復 誤 差	±1% max					±1% max			±0.05 sec		
	SETTING ERROR 設 定 誤 差	±10% max					±10% max			0		
	VOLTAGE ERROR 電 壓 誤 差	±1% max					±1% max			±0.05 sec		
	TEMP. ERROR 溫 度 誤 差	±2% max					±2% max			±0.05 sec		
RESET TIME 復 歸 時 間		0.1 sec max					0.1 sec max			0.1 sec max		
CONSUMED POWER 消 耗 功 率		2VA					2VA			2VA		
AMBIENT TEMPERATURE 使用周圍溫度		-10℃~+55℃					-10℃~+55℃			-10℃~+55℃		
AMBIENT TEMPERATURE 使用周圍濕度		45~85% RH					45~85% RH			45~85% RH		
WEIGHT 重 量		180g					180g			180g		

TH5C 數位式多功能限時繼電器



功能特性：

1. 具有11種輸出模式可供選擇使用，可廣泛應用於多種合。
2. LED螢幕顯示，清晰明確，易於辨視。
3. 功能參數可在面板上選單中選擇設定。
4. 可選擇的時間範圍，從0.001秒到9999小時，精密度可達0.001秒。
5. 具有4個階層的按鍵鎖定功能。
6. 可選擇動作方式為上數（增加）或下數（減少）。
7. 具有斷電記憶功能，斷電記憶為永久性。

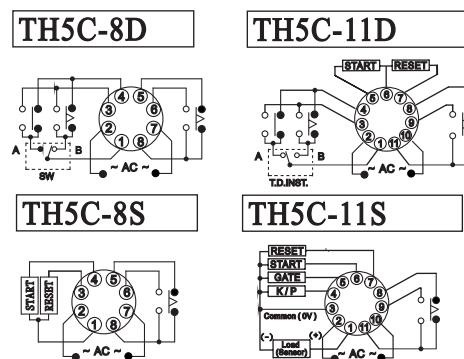
規格：

操作電壓	AC(V):100~240	*另有DC12V~24V版本
操作電壓範圍	額定操作電壓的85~110%	
電源頻率	50 / 60 Hz	
接點容量	250 VAC 5A 電阻性負載	
復歸時間	MAX 0.1sec	
消耗功率	約 2 VA	
使用壽命	機械:10,000,000 次 電氣:100,000次(額定容量內)	
使用周圍溫度	-10~+50℃	
使用周圍濕度	MAX 85 % RH	
重量	約 155 g	

型式分類：

型號	TH5C-8D	TH5C-8S	TH5C-11D	TH5C-11S
時間範圍	9.999s/99.99s/999.9s/9999s/999.9m/9999m/999.9h/9999h/99m59s/99h59m			
輸出接點	2C 或 1A1C	1C	2C 或 1A1C	1C
停電記憶		○	○	○
外部重置		○	○	○
外部啟動		○	○	○
外部暫停				○
外部按鍵鎖定				○

接線圖：



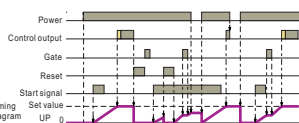
時序圖：

計時器操作

瞬時輸出
持續輸出

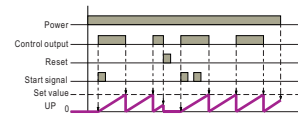
可以選擇瞬時輸出或持續輸出

A 輸出模式： 信號ON延遲1 (電源復歸動作)



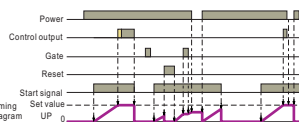
啟動信號 (Start signal) 輸入即開始計時。
在啟動信號 (Start signal) 輸入，而電源 (Source) 啟動及復歸 (Reset) 關閉時，開始計時。控制輸出 (Control output) 可選擇持續輸出或單擊輸出。

B-2輸出模式： 閃爍 ON start (電源復歸動作)



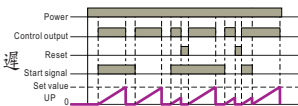
啟動信號 (Start signal) 輸入即開始計時。
計時完成時控制輸出 (Control output) 即轉態 (啟動時OFF)。在啟動信號 (Start signal) 輸入，而電源 (Source) 啟動及復歸 (Reset) 關閉時，開始計時。

A-1輸出模式： 信號ON延遲2 (電源復歸動作)



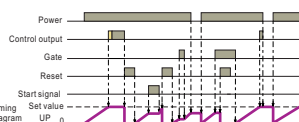
啟動信號 (Start signal) 輸入即開始計時，而信號中斷則復歸。在啟動信號 (Start signal) 輸入，而電源 (Source) 啟動及復歸信號 (Reset) 關閉時，開始計時。控制輸出 (Control output) 可選擇持續輸出或單擊輸出。

C 輸出模式： 信號ON/OFF延遲 (電源復歸動作)



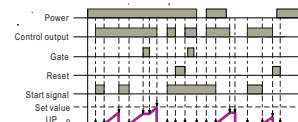
啟動信號 (Start signal) 輸入及關閉時都會啟動計時，且控制輸出 (Control output) 也同時輸出。

A-2輸出模式： 電源ON延遲1 (電源復歸動作)



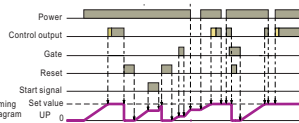
復歸信號 (Reset) 關閉即開始計時。啟動信號 (Start signal) 輸入，即計時停止。和開門 (Gate) 的功能相同。控制輸出 (Control output) 可選擇持續輸出或單擊輸出。

D 輸出模式： 信號OFF延遲 (電源復歸動作)



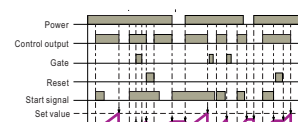
啟動信號 (Start signal) 輸入時，控制輸出 (Control output) 也同時輸出。(電源斷電及復歸信號輸入除外)。計時器計時完畢即復歸。

A-3輸出模式： 電源ON延遲2 (電源保持動作)



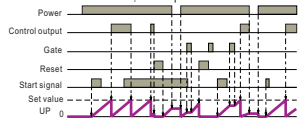
復歸信號 (Reset) 關閉即開始計時。啟動信號 (Start signal) 輸入，即計時停止。和開門 (Gate) 的功能相同。控制輸出 (Control output) 可選擇持續輸出或單擊輸出。

E 輸出模式： 區間 (電源復歸動作)



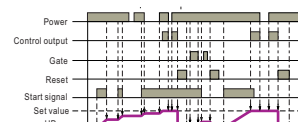
啟動信號 (Start signal) 輸入即開始計時。
計時完成時控制輸出 (Control output) 即復歸。在啟動信號 (Start signal) 輸入，而電源 (Source) 啟動及復歸 (Reset) 關閉時，開始計時。

B 輸出模式： 閃爍1 (電源復歸動作)



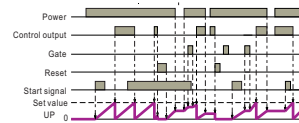
啟動信號 (Start signal) 輸入即開始計時。
計時完成時控制輸出 (Control output) 即轉態 (啟動時OFF)。在啟動信號 (Start signal) 輸入，而電源 (Source) 啟動及復歸 (Reset) 關閉時，開始計時。

F 輸出模式： 積算 (電源保持動作)



啟動信號 (Start signal) 輸入即開始計時。
但啟動信號 (Start signal) 中止或復歸 (Reset) 信號關閉時，即停止計時。控制輸出 (Control output) 持續輸出。

B-1輸出模式： 閃爍2 (電源保持動作)

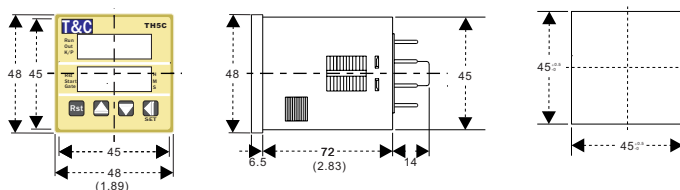


啟動信號 (Start signal) 輸入即開始計時。
計時完成時控制輸出 (Control output) 即轉態 (啟動時OFF)。在啟動信號 (Start signal) 輸入，而電源 (Source) 啟動及復歸 (Reset) 關閉時，開始計時。

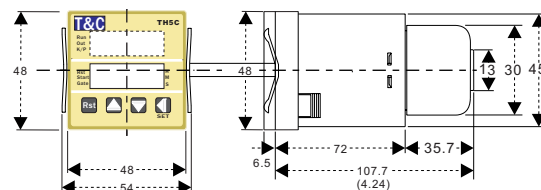
外觀尺寸

附註:除特別標示外，所有的單位都是厘米。

N型(露出型): 使用P2CF-08、PF085A座或PF113A座(TH5C-11S/11D)。



Y型(埋入型): 使用Y48 框架及US-08座，P3G-08座或P3G-11座(TH5C-11S/11D)



按鍵及面板功能說明

附註:使用前請先確認電源與規格相符。

LEDs

RUN : 當計時中為閃爍
OUT : 當控制輸出時為點亮
K/P : 當按鍵所定時為點亮
RESET : 當重置時為點亮
START : 當啟動時為點亮
GATE : 當停止時為點亮
H : 以小時為單位時點亮
M : 以分鐘為單位時點亮
S : 以秒為單位時點亮

Rest 鍵

用於輸出值重置或設定值的儲存
(儲存後即恢復運轉模式)



上層顯示幕

顯示PV值(計時的時間等)
或設定的項目

下層顯示幕

顯示SV值(設定的時間等)
或其他的參數值

◀▶ 鍵

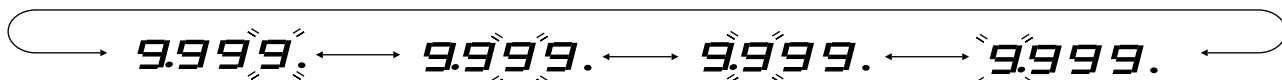
顯示位數的移位或顯示值的切換
(按住此鍵至少3秒即可進入設定模式)

▲ ▼ 鍵

用於增加或減少

更改設定時間:(1)計時停止時(2)計時中均可

按 ◀▶ 1秒,當數字閃爍,再使用 ▲ ▼ 調整時間數值



按 ◀▶ 一下往左進一位,循環進位

功能設定流程說明



進入更改設定功能模式:(1)計時停止時(2)計時中均可

◀▶ 按3秒,再使用 ▲ ▼ 調整設定模式

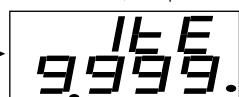
◀▶ 按3秒

無動作20S後回復

時間範圍清單

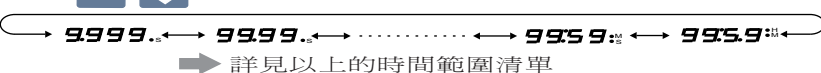
9.999.9	9.999秒
99.99.9	99.99秒
999.9.9	999.9秒
9999.9	9999秒
9999.9	999.9分
9999.9	9999分
9999.9	999.9時
9999.9	9999時
99.9.9	99分59秒
99.9.9	99時59分

功能設定畫面



時間範圍

使用 ▲ ▼ 設定時間範圍

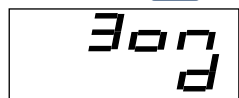
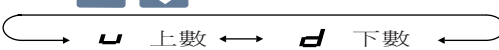


詳見以上的時間範圍清單



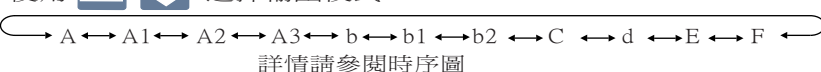
上數 / 下數

使用 ▲ ▼ 設定上數 / 下數



輸出模式

使用 ▲ ▼ 選擇輸出模式

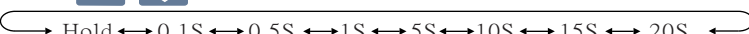


詳情請參閱時序圖

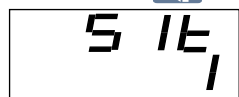


輸出時間

使用 ▲ ▼ 選擇輸出時間

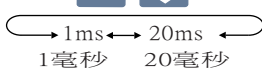


*當輸出模式為C,D,E,F模式時,輸出時間無作用



輸入信號時間

使用 ▲ ▼ 設定時間範圍



*1毫秒=1/1000秒
*TH5C-8無此選項

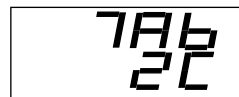


按鍵鎖定等級

使用 ▲ ▼ 選擇按鍵鎖定等級

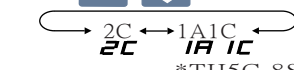


*平常使用時,同時按3秒鎖定



輸出接點

使用 ▲ ▼ 選擇輸出接點模式



*TH5C-8S 及TH5C-11S無此選項

▲ + ▼
啟動 / 解除保護鍵

TH5C Multifunction Digital Timer



Features:

- Eleven operating modes: settings of on-delay, off-delay, one-shot, accumulation and flicker
- Wide time ranges from 0.001second to 9999 hours
- Display of elapsed time(up count)/remaining time(down count)
- Battery-less memory retention
- Tamper-proof (K/P): providing four levels of key protection(TH5C-11S only)
- All function parameters are field selectable via the front panel keys
- All input signals are opto-isolated from AC power input
- Providing 12VDC/50mA insulated power source for external DC sensor(TH5C-11S only)

SPECIFICATION:

*DC model also available

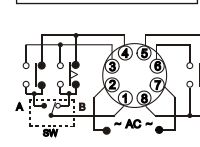
Rated supply voltage	AC(V):100VAC~240VAC
Operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	MAX 0.1sec
Power consumption	Approx. 2VA
Contact	Mechanical : 10,000,000 times Electrical :100,000 times(250VAC/5A, resistive load)
Ambient temperature	-10 ~ +50℃
Ambient humidity	MAX 85 % RH
Weight	Approx. 115g

Type Selection:

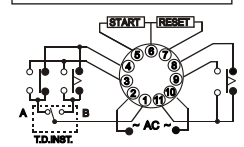
Type	TH5C-8D	TH5C-8S	TH5C-11D	TH5C-11S
Time range	9.999s/99.99s/999.9s/9999s/999.9m/9999m/999.9h/9999h/99m59s/99h59m			
Output contact	2C or 1A1C	1C	2C or 1A1C	1C
Memory		○	○	○
External Reset		○	○	○
External Start		○	○	○
External Gate				○
Key protect (K/P)				○

Wiring diagram:

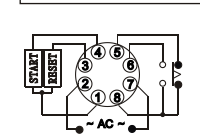
TH5C-8D



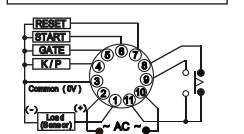
TH5C-11D



TH5C-8S



TH5C-11S



Timing Charts :

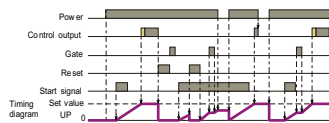
Timer Operation :

The gate input is not included in the TH5C- mode is

One-shot output
Sustained output
Either one-shot output or sustained output can be selected

Mode A :

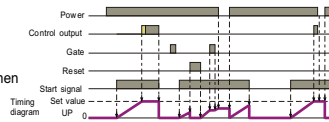
Signal ON Delay
(Timer resets when power comes on)



Timing starts when the start signal goes ON. While the start signal is ON, the timer starts when the power comes ON or when the reset input goes OFF. The control output is control led using a sustained or one-shot time period.

Mode A1 :

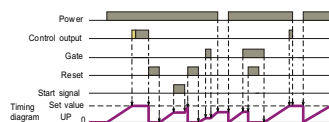
Signal ON Delay2
(Timer resets when power comes on or when START signal goes off)



Timing starts when the start signal goes ON, and is reset when the start signal goes OFF. While the start signal is ON, the timer starts when the power comes ON or when the reset input goes OFF. The control output is control led using a sustained or one-shot time period.

Mode A2 :

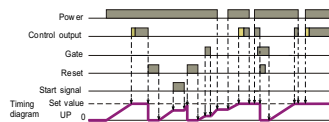
Power ON Delay
(Timer resets when power comes on)



Timing starts when the start signal goes ON. The start signal disables the timing function (i.e., same function as the gate input). The control output is control led using a sustained or one-shot time period.

Mode A3 :

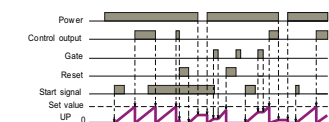
Signal ON Delay
(Timer does not reset s when power comes on)



Timing starts when the start signal goes ON. The start signal disables the timing function (i.e., same function as the gate input). The control output is control led using a sustained or one-shot time period.

Mode B :

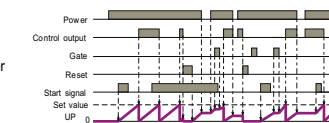
Repeat Cycle 1
(Timer resets when power comes on)
Output can be sustained or one-shot.



Timing starts when the start signal goes ON. The status of the control output is reversed when time is up (OFF at start). While the start signal is ON, the timer starts when the power comes ON or when the reset input goes OFF.

Mode B1 :

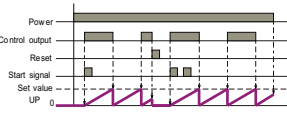
Repeat Cycle 2
(Timer does not reset when power comes on)
Output can be sustained or one-shot.



Timing starts when the start signal goes ON. The status of the control output is reversed when time is up (OFF at start). While the start signal is ON, the timer starts when the power comes ON or when the reset input goes OFF.

Mode B2 :

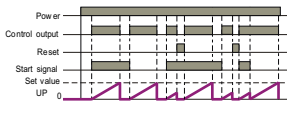
Repeat Cycle ON start
(Timer does not reset when power comes on)
Output can be sustained or one-shot.



Timing starts when the start signal goes ON. The status of the control output is reversed when time is up (OFF at start). While the start signal is ON, the timer starts when the power comes ON or when the reset input goes OFF.

Mode C :

Signal ON/OFF delay
(Timer reset when power comes on)



Timing starts when the start signal goes ON or OFF. The status of the control output is ON when the start signal goes ON or OFF.

Mode D :

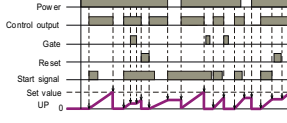
Signal OFF delay
(Timer reset s when power comes on)



The control output is ON when the start signal is ON (except when the power is OFF or the reset is ON).

Mode E :

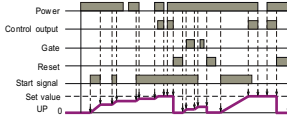
Interval
(Timer reset s when power comes on)



Timing starts when the start signal comes ON. The control output is reset when time is up. While the start signal is ON, the timer starts when the power comes ON or when the reset input goes OFF.

Mode F :

Cumulative
(Timer does not reset when power comes ON.)



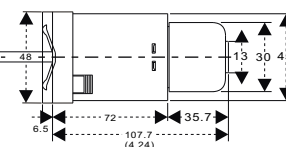
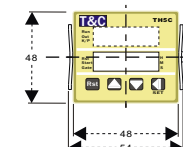
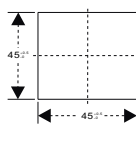
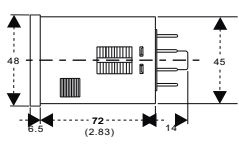
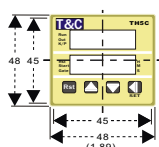
Start signal enables timing (timing is stopped when the start signal is OFF or when the power is OFF)
A sustained control output is used.

Dimensions

Unit : mm (inch)

N type (Surface Mounting) : Using P2CF-08, PF085A Socket or PF113A Socket (for TH5C-11S/11D use only)

Y type (Flush Mounting) : Using Y48 Frame & US-08 Socket , P3G-08 Socket or P3G-11 Socket (for TH5C-11S/11D use only)



Keypads And Display

LEDs

RUN: Flash as time is running
 OUT: Light when control output is ON
 K/P: Light as keypad is locked
 RESET: Light when RESET signal is ON
 START: Light when START signal is ON
 GATE: Light when GATE signal is ON
 H: Light when SV unit is HOUR
 M: Light when SV unit is MINUTE
 S: Light when SV unit is SECOND

Rst

reset PV value. Or store adjusted value in SV then go back to run mode directly.



Indicate PRESENT VALUE(PV) in run mode or SETUP ITEM in setup mode

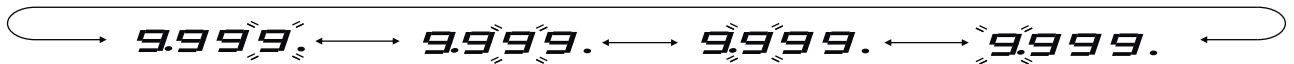
Indicate SET VALUE(SV) in run mode or SETUP VALUE in setup mode

In run mode, press this key for 1 second to start SV adjustment.
 When adjusting SV, press this key to shift adjusting digit.
 Or press this key for 3 seconds to enter setup mode.
 In setup mode, press this key to change setup item

increase or decrease setp value

How to adjust SV value:

Press for 1 second and wait for digit blink.

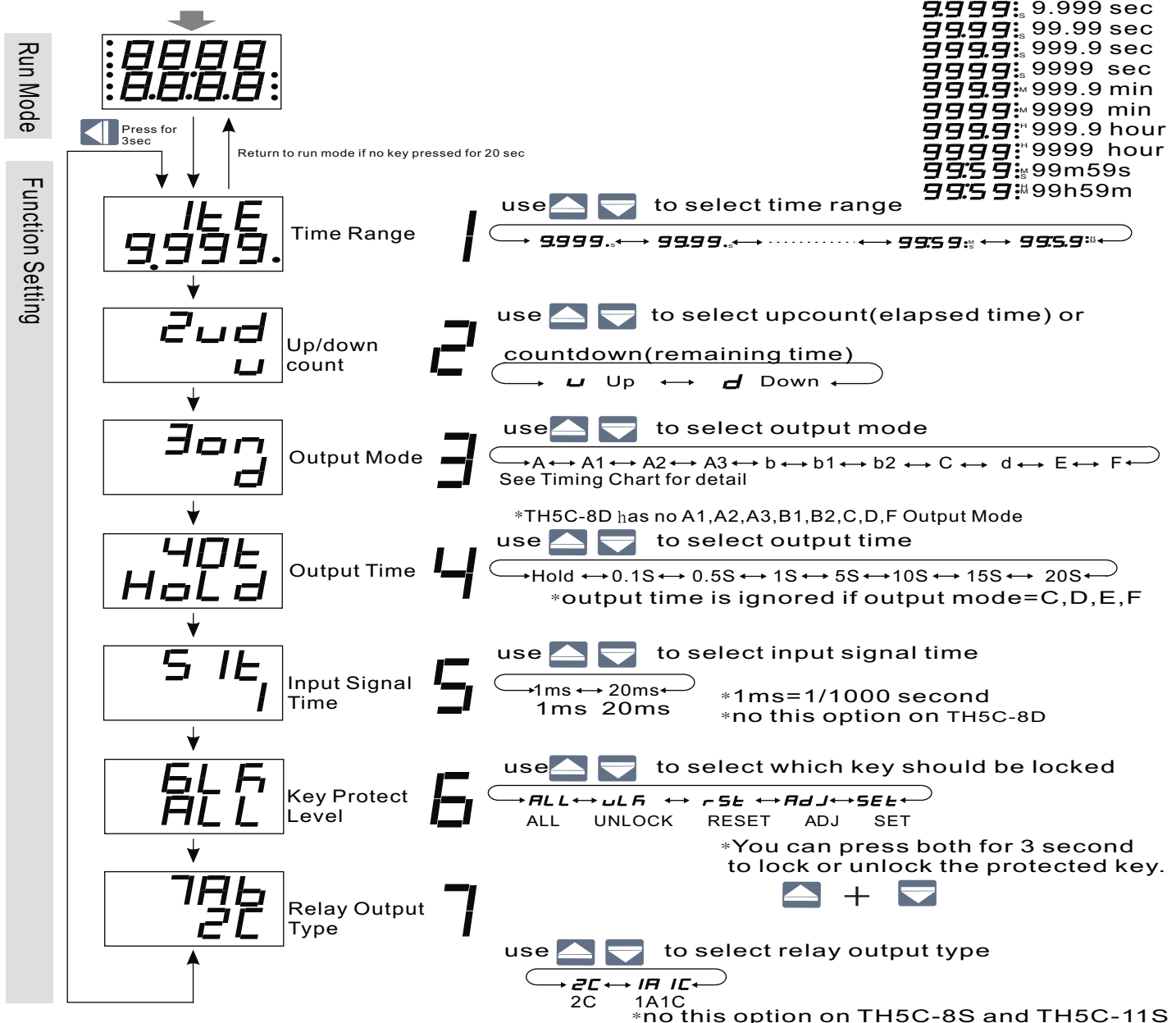


Press to shift digit Then use to adjust time value.(SV)

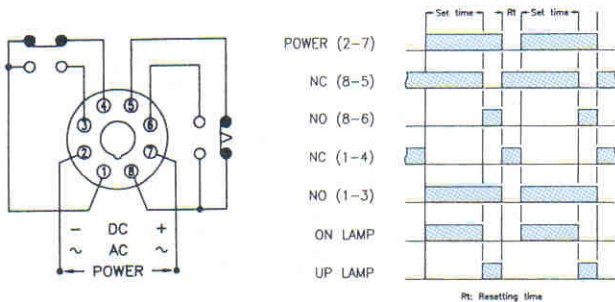
Advance Function Setup:

Time Range List:

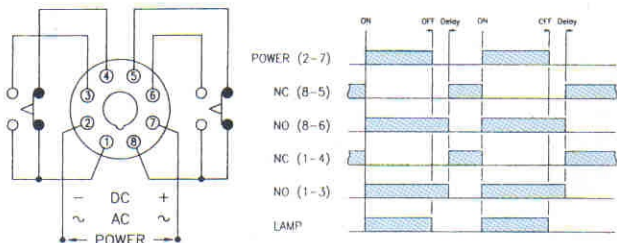
9999_S: 9.999 sec
 99.99_S: 99.99 sec
 999.9_S: 999.9 sec
 9999_S: 9999 sec
 999.9_M: 999.9 min
 9999_M: 9999 min
 999.9_H: 999.9 hour
 9999_H: 9999 hour
 99.59_M: 99m59s
 99.59_H: 99h59m



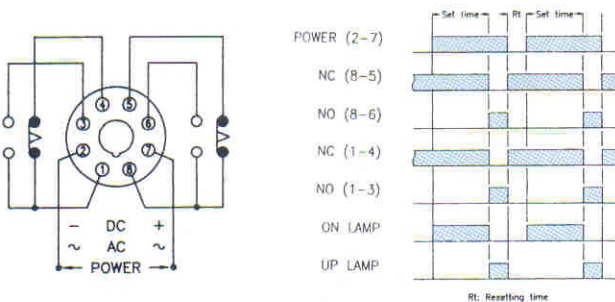
1 TH3A-NA TH3A-YA



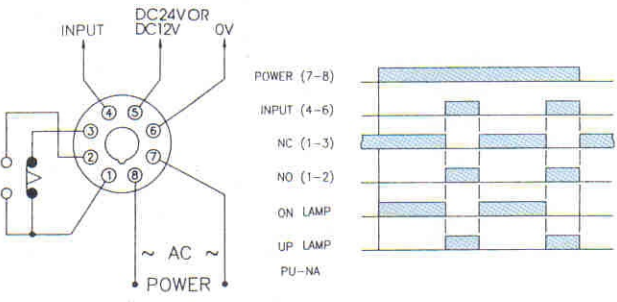
6 TH3R



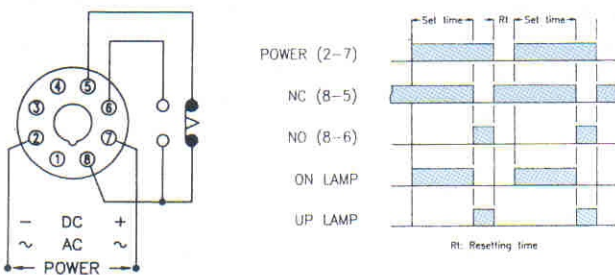
2 TH3A-NB TH3A-YB



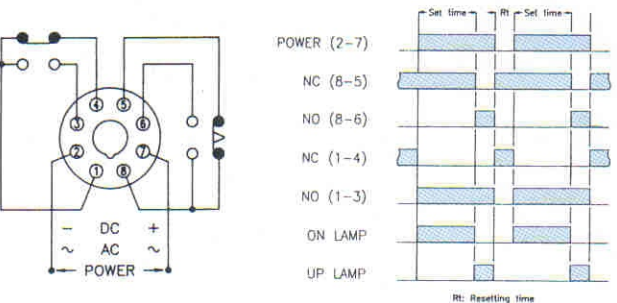
7 PU-N



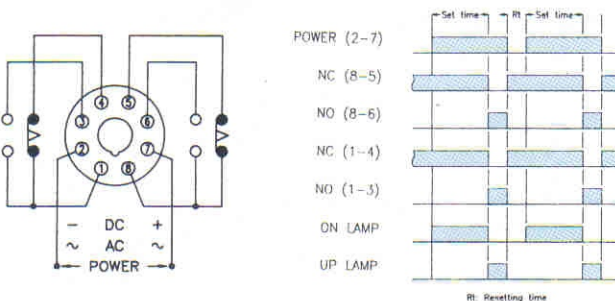
3 TH3A-NC TH3A-YC



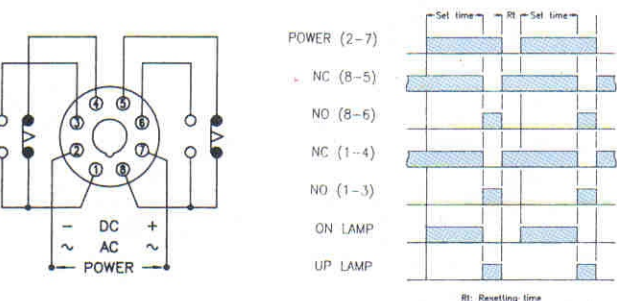
8 TSTP-NA TSTP-YA



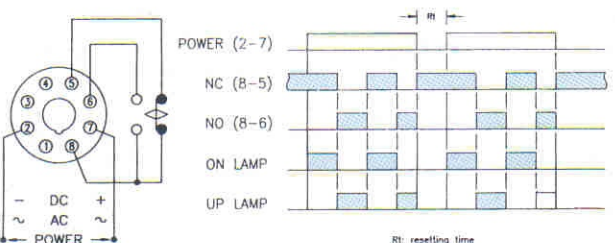
4 TH3M-N TH3M-Y



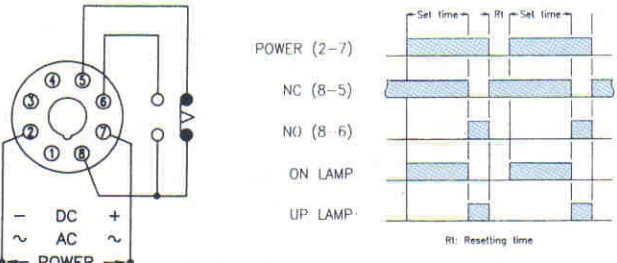
9 TSTP-NB TSTP-YB



5 TH3A-NCF

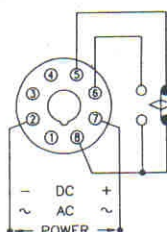


10 TSTP-NC TSTP-YC



11

TTDV-N TTDV-Y



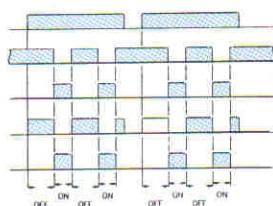
POWER (2-7)

OFF NC (8-5)

ON NO (8-6)

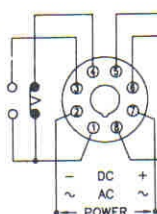
OFF LAMP

ON LAMP



16

TTWB



POWER (2-7)

NC (1-4)

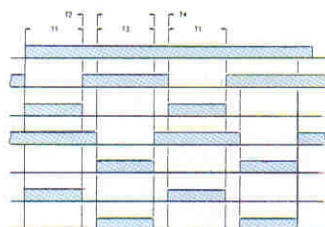
NO (1-3)

NC (8-5)

NO (8-6)

FOR LAMP

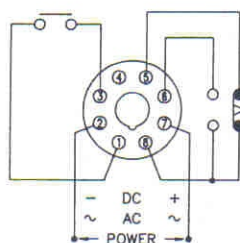
REV. LAMP



T1-T3 T2-T4

12

TSDT-N



POWER (2-7)

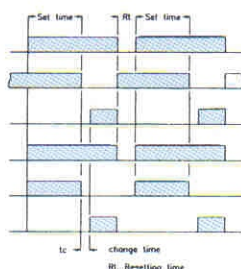
NC (8-5)

NO (8-6)

NO (1-3)

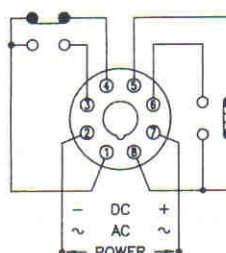
λ - LAMP

Δ - LAMP

tc change time
Rt: Resetting time

17

TM48S- Mode A



POWER (2-7)

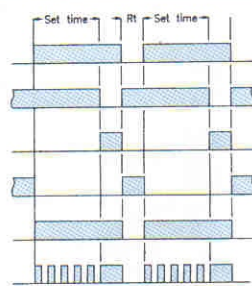
NC (8-5)

NO (8-6)

NC (1-4)

NO (1-3)

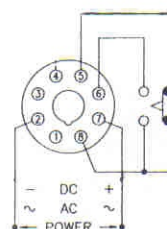
LAMP



Rt: Resetting time

13

TTRF-

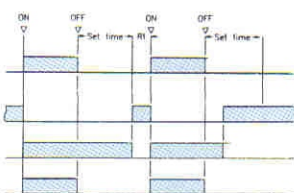


POWER (2-7)

NC (8-5)

NO (8-6)

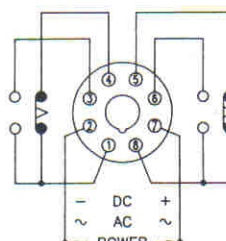
LAMP



Rt: resetting time

18

TM48S Mode B



POWER (2-7)

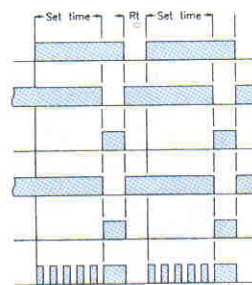
NC (8-5)

NO (8-6)

NC (1-4)

NO (1-3)

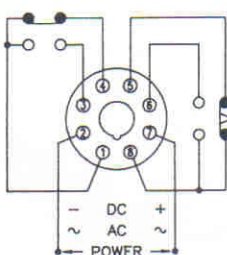
LAMP



Rt: Resetting time

14

TTDF-A TH3D-A TH2D-A



POWER (2-7)

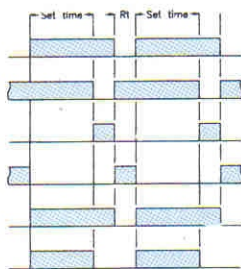
NC (8-5)

NO (8-6)

NC (1-4)

NO (1-3)

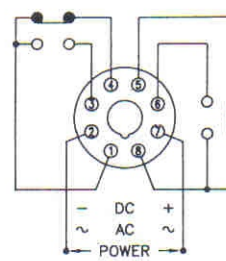
LAMP



Rt: Resetting time

19

TD48-A



POWER (2-7)

NC (8-5)

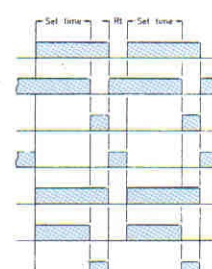
NO (8-6)

NC (1-4)

NO (1-3)

ON GREEN

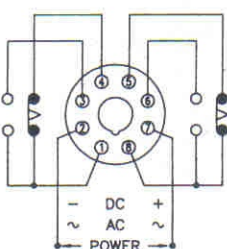
UP RED



Rt: Resetting time

15

TTDF-B TH3D-B TH2D-B



POWER (2-7)

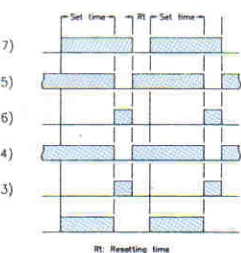
NC (8-5)

NO (8-6)

NC (1-4)

NO (1-3)

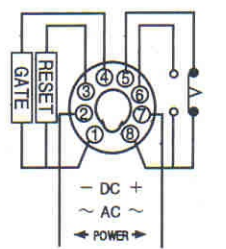
LAMP



Rt: Resetting time

20

TD48-C



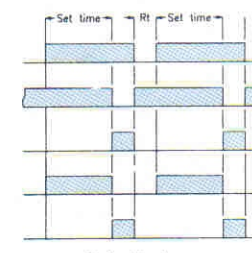
POWER (2-7)

NC (8-5)

NO (8-6)

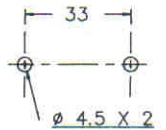
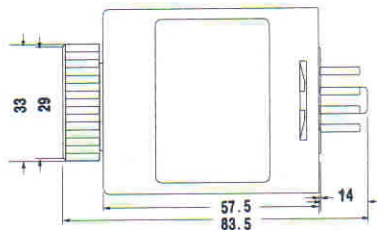
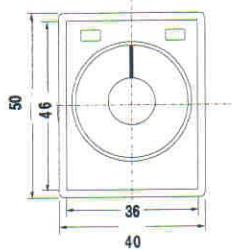
ON GREEN

UP RED

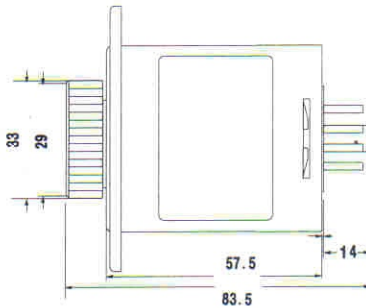
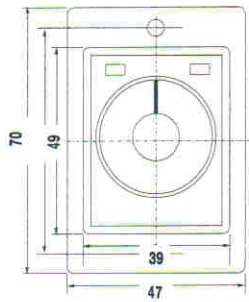


Rt: Resetting time

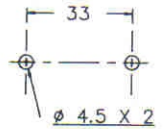
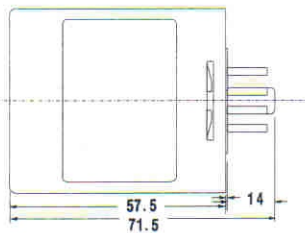
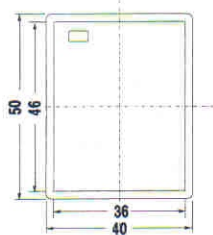
A TH3A-N TH3M-N TH3A-NCF



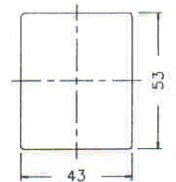
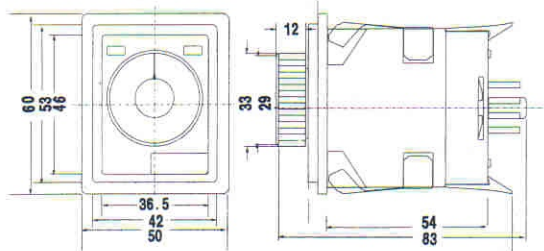
B TH3A-Y TH3M-Y



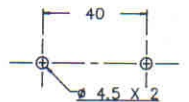
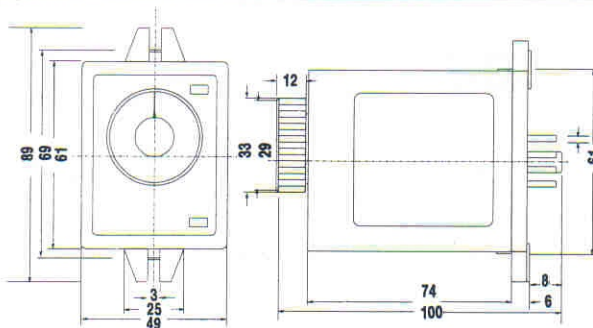
C TH3R PU-N



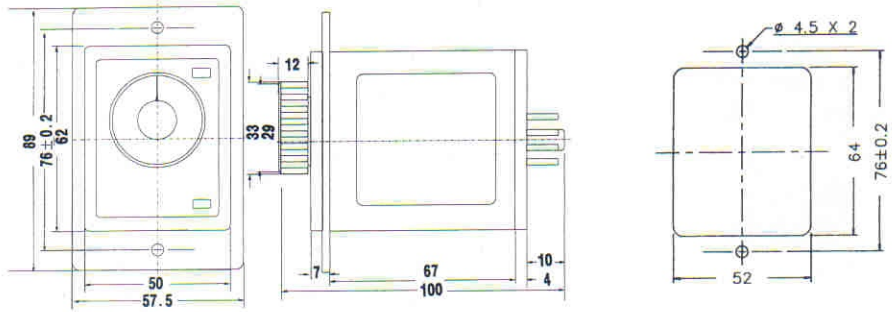
D TH3A-Y TH3M-Y



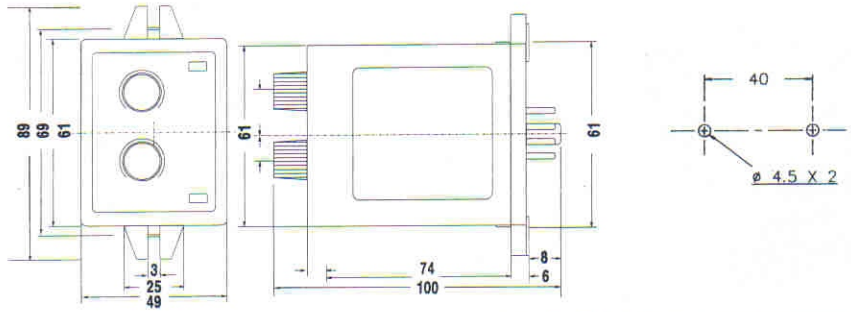
E TSTP-N TSDT-N TTRF-N



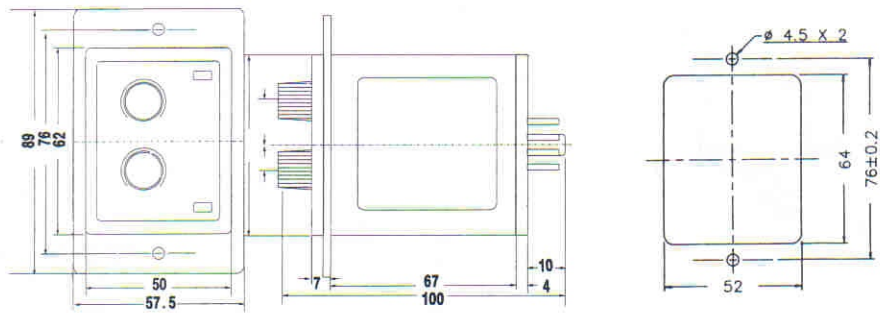
F TSTP-Y TTRF-Y



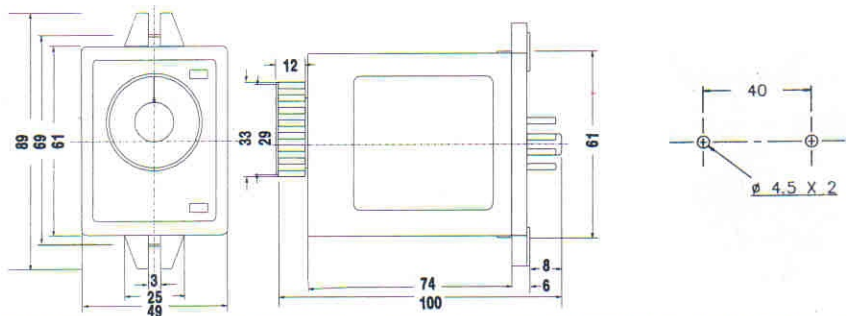
G TTDV-N



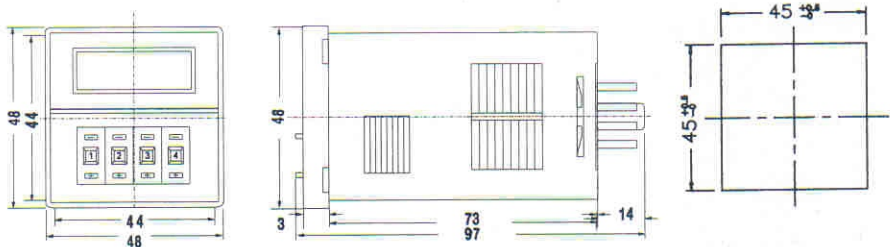
H TTDV-Y



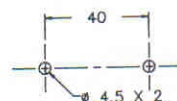
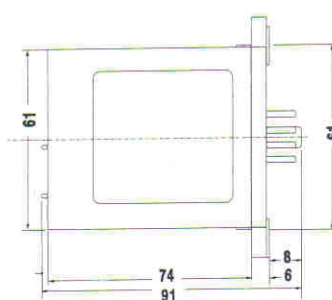
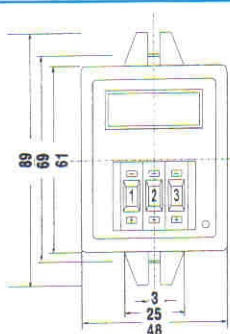
I TTWB-N



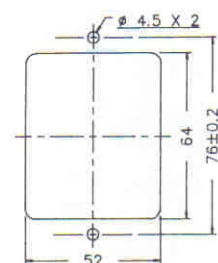
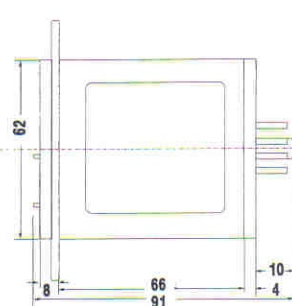
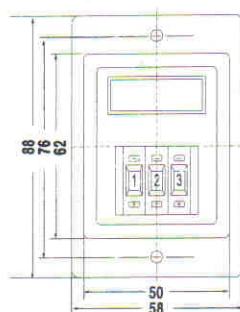
J TD48



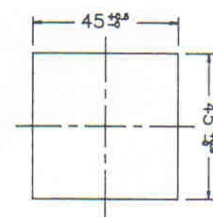
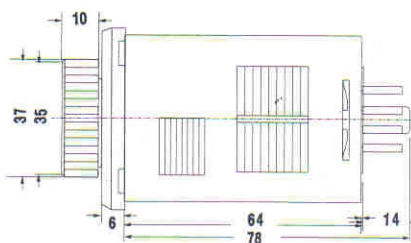
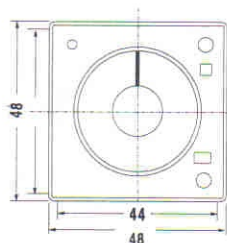
K TH3D-N TH3C-N TTDF-N



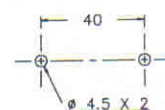
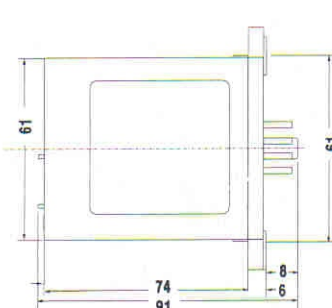
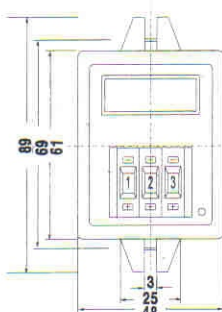
L TH3D-Y TH3C-Y TTDF-Y



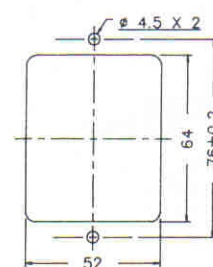
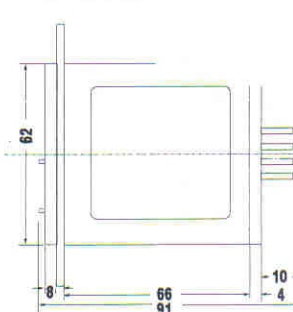
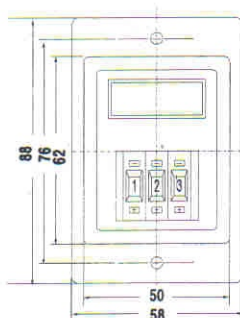
M TM48S TM48S-AB TM48S-1



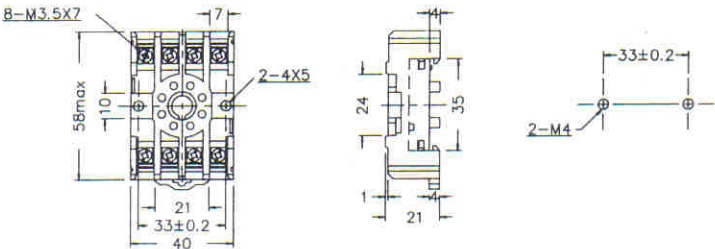
N TH2D-N TH2C-N



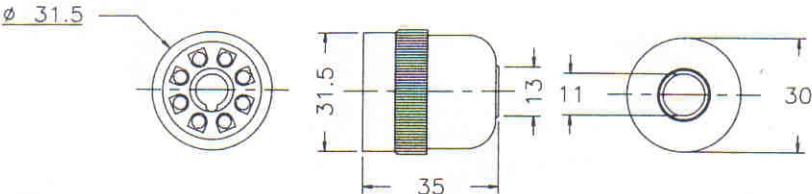
O TH2D-Y TH2C-Y



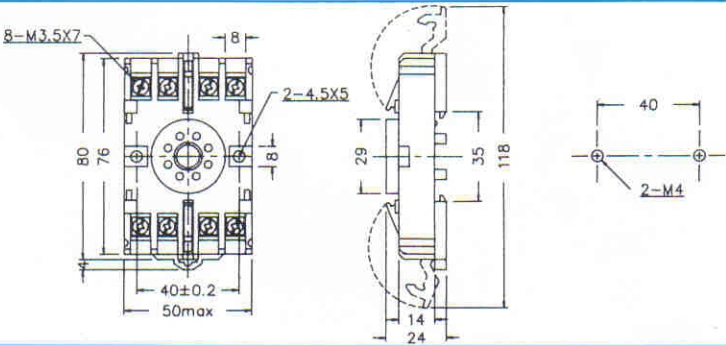
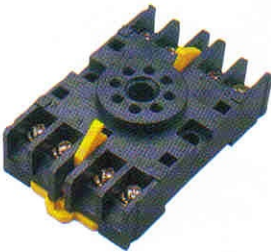
P PF085A



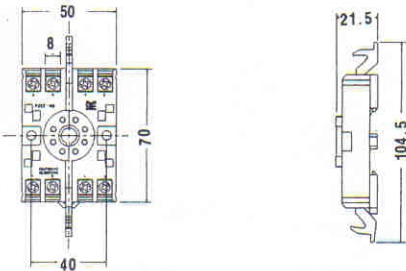
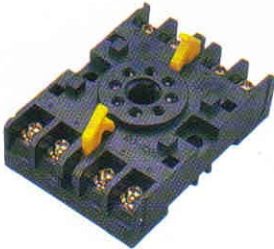
Q US08



R 8PFA



S P2CF-08



T P3G-08

