



Timers • Relays • S.S.R. • Temperature Controllers • Controllers



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仕通電機有限公司
STON ELECTRONICS CO., LTD.



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Timers. Relays. Temperature Controllers. Controllers

:: 公司簡介 ::::::::::::::::::::

仕通電機是一家專注於自動化控制器研發、製造的公司，主要從事自有品牌限時繼電器、馬達控制器、計數器、馬達欠逆相保護器、液位控制器、溫度控制器及繼電器、固態繼電器、限動開關等產品之研發、設計、行銷與服務。

本公司秉持客戶至上的精神，提供最完整的服務，配合陣容堅強的研發人員及完善之研發設備，可依照客戶之不同專用需求設計製造專用控制器，從設計線路、成品生產、組裝測試一貫作業，可降低機械成本，減少配電時間。

追求產品技術不斷創新及突破，持續降低製造成本及減少對環境的衝擊，提供令客戶滿意的產品。是我們責無旁貸的使命，今後我們仍將持續配合國內產業之升級及轉型，研發各項新產品與技術，擴展產品領域，提昇產品之附加價值，奠定公司永續經營之基礎。

:: 公司歷史 ::::::::::::::::::::

1993 成立仕通電機有限公司，廠址位於台北縣五股工業區，主力產品為限時繼電器，各類型控制器。

1994 加入台灣電子電機同業公會，全系列產品均通過 CE 認證 By MIKES(TUV product series)，產品投入國際化生產。

1996 外銷市場遍及義大利、西班牙、新加坡、香港、馬來西亞、泰國、越南、英國等 20 餘國。

1997 成立仕通電機台中分公司，拓展中台灣市場。

1998 公司擴大生產，遷廠於台北縣三重市臺灣工業大樓，全線自動化。OEM 日本 T 牌一級品製造。

1999 成立仕通電機高雄分公司，拓展南台灣市場。

2000 限時繼電器年產量超過 20 萬個。

2001 成立仕通電機東莞分公司，拓展大陸市場。

2002 成立仕通電機廈門分公司，及推動開關之製造。

2004 成立仕通電機上海分公司，拓展大陸市場。

2005 成立仕通電機二重正義二廠，以增加生產速度及種類，全力投入 ISO-9001 之規範認證。

2006 與大陸輝吉企業(士林電機集團)之銷售合作，為大陸區總代理，成為事業伙伴。

2008 與大陸輝吉企業(士林電機集團)之銷售合作結束，為期三年。

2009 成立仕通電機大陸深圳分公司，由總公司繼續經營，拓展大陸市場。

:: 經營理念 ::::::::::::::::::::

「日本品質、台灣生產、大陸價格」是仕通追求的經營目標。

高品質對於仕通來說是最重要的堅持，在每一個過程中時時檢討品質管理與細節，為了就是要讓客戶能享有符合經濟效益的高品質產品。

技術是仕通的核心，因為我們持續不斷的投入心血於產品的研究和發展，才能夠提供客戶創新的產品。所有仕通的員工都有著共同努力的目標，並在壓力之中學習成長，勇於接受挑戰，藉由全公司上下努力不懈完成使命，提昇公司產品形象。

今後本公司有更多新商品及新的折扣與服務，希望舊雨新知繼續支持指教，帶領公司更上一層樓，最後感謝客戶長期支持與愛護。



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Power Relay 中阻繼電器

S.S.R. 固態繼電器

Counter 計數器

Power/Y-△ Timer 控制單元/周邊啓動器

Voltage Controller

相序保護器及高低壓保護器

Motion Detector/

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OPERATION TYPE 操作種類

◎ ON-delay 通電延遲

Control output is turned on after set time.
設定時間到達後繼電器輸出。

◎ Flicker 閃爍延遲

Control output is repeatedly turned on and off. 繼電器往復輸出復歸。

◎ One-cycle 單一脈波

Control output is turned on for a specified time after the set time has elapsed.

設定時間到達後繼電器輸出一脈波。

◎ OFF-delay 斷電延遲

Control output is turned off after set time.
通電接點動作，斷電後開始計時，設定時間到達後繼電器復歸。

◎ One-shot 反動作

Control output is turned on for set time.
通電接點動作，時間到達後繼電器復歸。

 CONTROL OUTPUT & CHARACTERISTICS 控制輸出&特性

◎ Control Output Symbols 控制輸出符號

Operation Type	ON-delay One-shot,Cycle	OFF-delay	Flicker
Timed-out From A (normally open)			
Timed-out From B (normally closed)			
Timed-out From C (changeover)			

◎ Rated Control Capacity 額定控制容量

Contactor maximum value of the control output capacity.
繼電器輸出容量之最大值。

◎ Rated Control Capacity 最大耐流

Maximum current which can safely be switching by the control output.
繼電器承受電流之最大值。

◎ Expected Life 壽命

Mechanical[Electrical] 機械[電氣]
Maximum number of timers the timer can be operated under normal operating condition with no [full] load on the control output.
機械:空載下操作次數最小值。
電氣:滿載下操作次數最小值。

◎ Maximum Control Voltage 最大耐壓

The maximum open circuit voltage which can safely be switching by the control output.
繼電器承受電壓之最大值。

◎ Output Arrangement 輸出型態

Denotes the control output mechanism and number of control output sets in the timer circuit.
指定時器輸出之方式與型態。

 TIME PRECISION 時間精密度計算方式

max. value.....Maximum time by same scale test
min. value.....Minimum time by same scale test
max. setting time.....Maximum value by scale

T_1 = Average control time at $t^{\circ}\text{C}$. 在溫度 t 度時之平均時間。

T_{20} = Average control time at 20°C . 在溫度 20 度時之平均時間。

T_v = Average control time at V voltage. 在 V 伏特時之平均時間。

T_r = Average control time at rated operating voltage. 在額定電壓時之平均時間。

Power supply : Rated operating voltage

Power off time : 1s

Ambient temperature : 20°C

◎ Operating Time Fluctuation 【O.T.F.】 往復誤差公式

$$\text{O.T.E.} = \frac{1}{2} \times \frac{(\text{max. value}) - (\text{min. value})}{\text{max. setting time}} \times 100\%$$

◎ Setting Error 【S.E.】 設定誤差公式

$$\text{S.E.} = \frac{(\text{max. value}) - (\text{min. value})}{\text{max. setting time}} \times 100\%$$

◎ Temperature Error 【T.E.】 溫度引起之誤差公式

$$\text{T.E.} = \frac{T_1 - T_{20}}{\text{max. setting time}} \times 100\%$$

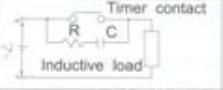
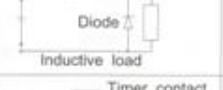
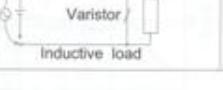
◎ Voltage Error 【V.E.】 電壓引起之誤差公式

$$\text{V.E.} = \frac{T_v - T_r}{\text{max. setting time}} \times 100\%$$

◎ Protection circle 保護電路

Use of output protective devices or protection circuits can suppress the counter EMF to a low level. However, note that incorrect use will result in an adverse effect. Typical output protection circuits are given in the table below.

使用輸出保護電路裝置或保護電路，可大大抑制誤動作之產生。下表將說明正確與錯誤之保護電路。

Circuit		Application		Device Selection
		AC	DC	
RC circuit		X	<input type="radio"/>	As a guide in selecting R and C. R: 0.5 to 1 per 1V contact voltage. C: 0.5 to 1 uF per 1A contact current. Use a capacitor with a breakdown voltage of 200 to 300V. Use AC type capacitors(non-polarized) for AC circuit. 電阻與電容之選擇方式： 電阻：每一伏特之接觸電壓，電阻多加一歐姆 電容：每一安培之接觸電流，電容多加一微法 電容需為無極性且耐壓為二百至三百伏特
		<input type="radio"/>	X	
Diode circuit		X	<input type="radio"/>	Use a diode with a reverse breakdown voltage at least 10 times the circuit voltage and a forward current at least as large as the load current. 二極體之逆向承受電壓需選擇的電路電壓之十倍，而順向電流至少需等於負載電流
Varistor circuit		<input type="radio"/>	<input type="radio"/>	This circuit also slightly delays the release time. 加上突波吸收器可防止接觸瞬間暫態引起之高電壓，可使電路更平順

(: GOOD X : NO GOOD)

◎ Expected Life壽命

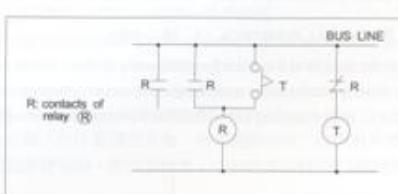
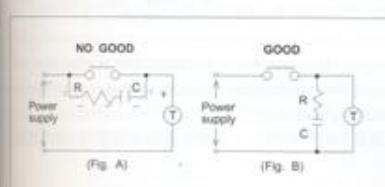
For connecting and disconnecting operating voltage to the timer, a circuit should be used, which will prevent the flow of leakage current. For example, a circuit for contact protection as shown in Fig. A. Will permit leakage current to flow through R and C, causing erroneous operation of the timer. Instead, the circuit shown in Fig. B should be used.

若要防止逆電流之產生，需避免如Fig. A之接線方式。
因Fig. A將有一個漏電流經過R和C流至定時器。
建議以Fig. B之接線方式，可避免漏電流之情況產生。

◎ Long Continuous Current Flow 定時器長時間供電

In order to maintain the characteristics of the timer, long continues current flow through the timer causing generation of heat initially, should be avoided because of the degradation it can cause. For such a long continuous operation, the circuit shown below should be use.

當定時器長時間連續使用時，定時器內部溫度將慢慢上升，並影響壽命。
建議以下圖之接法，可避免其情況產生。



◎ Special controllers order by custom (OEM or ODM) 客戶指定專用控制器

Your controllers have different from all standard model in machine, that you can make a special model for yourself.
任通電機可為客戶量身訂製專用控制器，全程保密並依照客戶須要限時達成。

INPUT TYPE 操作種類

Temperature controller input sensors are many kinds for custom to choice. We will suggest you how to choice the correct sensor for your Temperature controller.

溫度控制器之感溫器種類繁多，下列將常用之感溫器種類列出以利客戶便選擇訂購。

 PT100 (DIN or JIS) type

Temperature range is during -100°C~100°C.

溫度控制器之溫度介於-100°C~100°C。

 J type

Temperature range is during 200°C~800°C.

溫度控制器之溫度介於200°C~800°C。

 K type

Temperature range is during 100°C~600°C.

溫度控制器之溫度介於100°C~600°C。

 R type

Temperature range is during 700°C~1800°C.

溫度控制器之溫度介於700°C~1800°C。

 CONTROL OUTPUT 控制輸出 Relay Output 繼電器輸出

Contactor is 1 form C output. Maximum value of the control output capacity is 10A / 250V.

繼電器為一組C接點輸出，可承受電壓電流之最大值為10安培250伏特(業界最大容量)。

 S.S.R. Output 電壓輸出

Output DC24V voltage to S.S.R. when the Temperature controller is not up the set value.

輸出一組DC24V電壓給固態繼電器，當目前溫度未到設定值時。

 CONTROL MODE 控制模式 ON-OFF CONTROL 開-閉控制

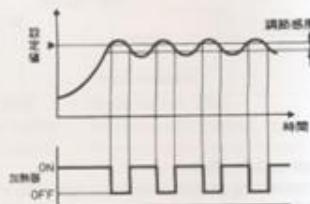
If temperature is higher than setting, output close completely;

If temperature is lower than setting, output all open.

But can't control setting accurately, will produce circulation function.

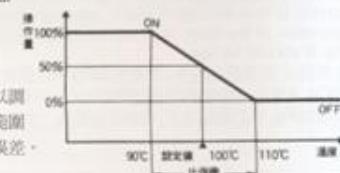
若溫度高於設定點，則輸出全關；若溫度低於設定點，則輸出全開。

但不能準確控制在設定點，會產生循環作用。

 PROPORTIONAL CONTROL ; P 比例控制

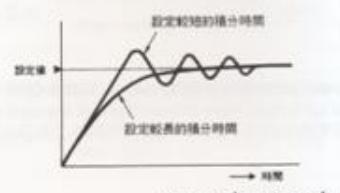
The output value that input and output in the ratio is called proportional control, this kind of proportion can be regulated, the range is called proportional band. When the system only has a proportion control, there will be steady-state errors in output.

輸出與輸入成比例之輸出量的控制動作比例控制，此種比例關係可以加以調節，其調節範圍稱為比例帶。所謂比例帶是控制閥從全開至全關的刻度範圍對測量計全刻度的百分比值。系統僅有比例控制時，輸出會存在穩態誤差。

 INTEGRAL CONTROL ; I 積分控制

In order to dispel the steady-state error in the control system, so join the integrator in the controller, if integrate the steady-state error over threshold value, integrator will promote the controller to make the steady-state error reduce, until equaling zero. But the transient response will be relatively bad.

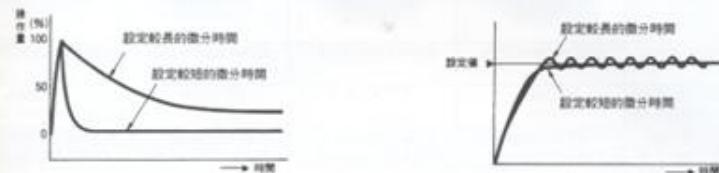
控制系統中為了消除穩態誤差，故在控制器中加入積分項，將誤差量對時間做積分，累加至超過一門檻值，即推動控制器輸出使穩態誤差減小，直到等於零。但是暫態反應會較差。



◎ DIFFERENTIAL CONTROL ; D 微分控制

Differential control differentiates the error in time domain, predict the trend that the error changes error amount to control. Replying slower shortcoming to the rapid temperature change , differential movements can be remedied, join the operation amount proportional to changing amount of temperature, carry out movements of revising, make it get back to the original control mode as soon as possible.

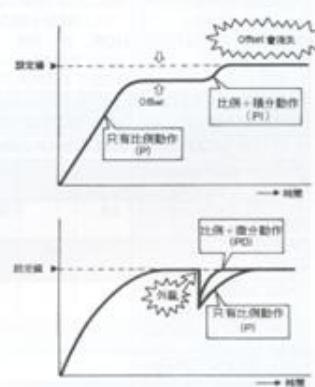
若系統存在較大慣性元件或物理特性行為總是滯後命令值，使控制系統克服誤差接近目標過程中，總是落後於誤差的變化，微分控制將誤差量對時間微分，預測誤差變化的趨勢。對急劇溫度變化應答較慢的缺點，微分動作可以彌補，加入與溫度變化量成比例的操作量，執行修正動作，使其盡快回到原本的控制模式。



◎ PROPORTIONAL-INTEGRAL CONTROL ; PI 比例積分控制

In order to dispel offset in the proportional control system, must be used reset device, so the proportion and integral control must combine to use, pass time, the offset will disappear, and controlling temperature will keep the same with setting value.

在比例控制的操作中有一明顯缺點，即操作程序有負載變化時，其變數有偏差的情形發生，為了修除偏差必須使用重置裝置，而將比例與積分控制器並用，隨著時間經過，偏差會消失，控制溫度會與設定值一致。



◎ PROPORTIONAL - DIFFERENTIAL CONTROL ; PD 比例微分控制

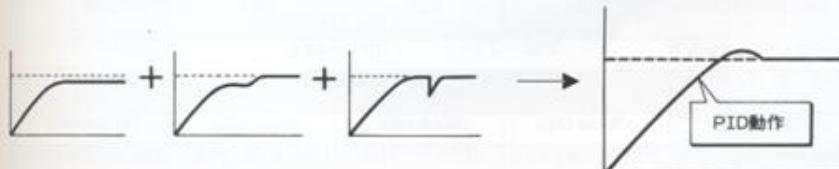
Proportion control combines with differentiator, as the error takes place, The differentiator compensates the backward procedure first, and then by the proportion controller correction error, the differential controls the helpful system steadily, but will amplify the interfering signal.

對於落後較大的程序，輸出的命令無法及時消除誤差，因此在比例控制後加微分器做預期誤差趨勢的動作，當誤差發生，微分器先抵銷落後的程序，再由比例控制器校正誤差，微分控制有助系統穩定，但也會將對干擾信號放大。

◎ PROPORTIONAL - INTEGRAL AND DIFFERENTIAL CONTROL ; PID 比例積分微分控制

In order to reach good and steady control, PID control technology combines the strong point that PI and PD control, The system controls and shortens the warm time of rising with the proportion, the integral control the deviation of dispelling . the differential control and narrows the surmounting amount to react with higher speed.

為了達到良好穩定的控制，PID控制技術結合PI與PD控制的長處，系統藉由比例控制縮短溫昇時間，積分控制消除偏差，微分控制縮小超越量加速反應。



CLASSIFICATION 類別		COMPACT SIZE ON TIMER		2 RANGE TIME ON TIMER		4 RANGE TIME ON TIMER		MULTI-SUPER ON TIMER	
ITEM NO. 型號		SH3-1/ SH3-2/SH3-3		SH3-A/SH3-B/SH3-C SH3-D/SH3-E/SH3-F		AH3-A/AH3-B/ AH3-C/AH3-D/AH3-E		NH3-C	
APPEARANCE 外觀									
DIMENSIONS(mm) 尺寸		50H×40W×57D		50H×40W×57D		50H×40W×57D		50W×40H×57D	
MOUNTING & SOCKET 安裝方式		Surface 露出 N Flush 埋入 Y		PF085A		PFO85A		PF085A	
TIME RANGE 時間範圍		SEC.: 1S, 3S, 6S, 10S, 30S, 60S MIN.: 3M, 6M, 10M, 30M, 60M HOR.: 3H, 6H, 10H, 30H		SH3-A : 1S / 1M SH3-B : 3S / 3M SH3-C : 6S / 6M SH3-D : 10S / 10M SH3-E : 30S / 30M SH3-F : 60S / 60M		AH3-A: 1S/1M/10S/10M AH3-B: 3S/3M/30S/30M AH3-C: 6S/6M/60S/60M AH3-D: 1M/10M/1H/10H AH3-E: 3M/30M/3H/30H		6S/60S/6M/60M	
RATED VOLTAGE 額定電壓		DC: 9, 12, 24, 48V AC: 100, 110, 120, 200, 220, 230, 240, 380, 415, 440V						AC/DC24~240V	
CONTACT CON-TACT		MODEL SH3-1 SH3-2 SH3-3		MODE A		MODE B		MODE A	
RATING 輸出 容量	Instantaneous 1 form C			5A		5A			
	Time-out 1 form C	5A		5A		5A		5A	
	Time-out 2 form C			5A		5A		5A	
	Instantaneous 2 form C							5A	
LIFE 壽命		MECHANICAL		5,000,000 times					
ELECTRICAL				100,000 times					
ACCURACY 精確度		REPEAT Error SETTING Error VOLTAGE Error TEMP. Error		± 1% ± 10% ± 1% ± 2%					
VOLTAGE RANGE 電壓使用範圍				DC: 85~110% AC: 80~110%					
RESET TIME 重置時間				0.1 seconds Max.					
CONSUMED POWER 消耗電力		2VA		2VA		2VA		2VA	
AMBIENT TEMP 環境溫度				-10°C ~ 55°C					
AMBIENT HUMIDITY 環境溼度				45~85%					
WEIGHT 重量		About 170g		About 180g		About 180g		About 130g	
DIAGRAM 接線時序圖		31-A 31-B 31-C		31-C 31-B		31-C 31-B		31-A 31-B 34-H 31-C	

CLASSIFICATION 類別		HIGH PERFORMANCE SOLID STATE TIMER	HIGH PERFORMANCE IC TIMER	MULTI-FUNCTION & RANGE IC TIMER	SUBMINIATURE ON TIMER								
ITEM NO. 型號		STP-N1/STP-N2 STP-N	SH2-N1/SH2-N2 SH2-N	SH2-AN/SH2-BN/ SH2-CN/SH2-DN	H3Y-2/H3Y-3 H3Y-4								
APPEARANCE 外觀													
DIMENSIONS(mm) 尺寸		61H×49W×70D	61H×49W×70D	61H×49W×70D	28H×21W×52D								
MOUNTING & SOCKET 安裝方式	Surface 露出 N	8PFA	8PFA	8PFA	PYF08A/ PYF-14A								
TIME RANGE 時間範圍	SEC.: 1S , 3S , 6S , 12S , 30S , 60S MIN.: 3M , 6M , 12M , 30M , 60M HOR.: 3H , 6H , 12H,30H			A: 1S/1M/10S/10M B: 3S/3M/30S/30M C: 6S/6M/60S/60M D: 1.2M/12M/1.2H /12H (Use switch change to FLICKER TIMER)	SEC.: 1S , 3S , 5S , 10S , 30S , 60S MIN.: 3M , 5M , 10M , 30M , 60M HOR.: 3H , 5H , 10H , 30H								
RATED VOLTAGE 額定電壓	DC: 9,12,24,48V AC: 12,24,48,100,110,120,200,220,230,240,380,415,440V			DC: 9,12,24,48V AC: 12,24,110,220V									
CONTACT 接點	MODEL	N1	N2	N	N1 N2 N MODE A MODE B H3Y-2 H3Y-3 H3Y-4								
Instantaneous 1 form C				5A		5A	5A			Time- Out 3			
Time-out 1 form C	5A		5A	5A		5A	5A			Form c 5A			
Time-out 2 form C		5A			5A			5A	5A	V.R. 8&12 PINS			
Time-out 4 form C										5A			
LIFE 壽命	MECHANICAL	5,000,000 times											
	ELECTRICAL	100,000 times											
ACCURACY	REPEAT Error	± 1%											
	SETTING Error	± 10%											
PRECISION	VOLTAGE Error	± 1%											
	TEMP. Error	± 2%											
VOLTAGE RANGE 電壓使用範圍	DC: 85~110% AC: 80~110%												
RESET TIME 重置時間	0.1 seconds Max.												
CONSUMED POWER 消耗電力	2VA		2VA		2VA		2VA						
AMBIENT TEMP 環境溫度	-10°C ~ 55°C												
AMBIENT HUMIDITY 環境溼度	45~85%												
WEIGHT 重量	About 230g		About 235g		About 235g		About 130g						
DIAGRAM 接線時序圖	31-A	31-B	31-C	31-A	31-B	31-C	31-C	31-B	34-D	34-N	34-E		

CLASSIFICATION 類 別		SURFACE MOUNTING ON TIMER	SURFACE MOUNTING MULTI-RANGE TIMER	SURFACE MOUNTING ON TIMER	SURFACE MOUNTING ON TIMER
ITEM NO. 型 號		SH3-1Y/ SH3-2Y/S _H 3-3Y	SH3-AY/S _H 3-BY/S _H 3-CY SH3-DY/S _H 3-EY/S _H 3-FY	STP-Y1 STP-Y2/STP-Y	SH2-Y1 SH2-Y2/S _H 2-Y
APPEARANCE 外 觀					
DIMENSIONS(mm) 尺 寸		88H×58W×50D	88H×58W×50D	88H×58W×68D	88H×58W×68D
MOUNTING & SOCKET 安裝方式		Flush 埋入 Y	US-08 or P3G-08	US-08 or P3G-08	US-08 or P3G-08
TIME RANGE 時間範圍		SEC.: 1S , 3S , 6S , 10S , 30S , 60S MIN.: 3M , 6M , 10M , 30M , 60M HOR.: 3H , 6H , 10H , 30H	SH3-AY: 1S / 1M SH3-BY: 3S / 3M SH3-CY: 6S / 6M SH3-DY: 10S / 10M SH3-EY: 30S / 30M SH3-FY: 60S / 60M	SEC.: 1S , 3S , 6S , 12S , 30S , 60S MIN.: 3M , 6M , 12M , 30M , 60M HOR.: 3H , 6H , 12H , 30H	
RATED VOLTAGE 額定電壓		DC: 9,12,24,48V AC: 12,24,48,100,110,120,200,220,230,240,380,415,440V			
CONTACT 瞬接點	MODEL	SH3-1Y SH3-2Y SH3-3Y	MODE A	MODE B	STP-Y1 STP-Y2 STP-Y
	Instantaneous 1 form C		5A	5A	
RATING 輸出容量	Time-out 1 form C	5A		5A	5A
	Time-out 2 form C			5A	
LIFE 壽命	Instantaneous 2 form C				5A
	MECHANICAL			5,000,000 times	
ELECTRICAL	ELECTRICAL			100,000 times	
	REPEAT Error			± 1%	
PRECISION 精確度	SETTING Error			± 10%	
	VOLTAGE Error			± 1%	
TEMP. Error				± 2%	
VOLTAGE RANGE 電壓使用範圍			DC: 85~110%		
RESET TIME 重置時間			AC: 80~110%		
			0.1 seconds Max.		
CONSUMED POWER 消耗電力		2VA	2VA	2VA	2VA
AMBIENT TEMP 環境溫度			-10°C ~ 55°C		
AMBIENT HUMIDITY 環境濕度			45~85%		
WEIGHT 重量		About 215g	About 215g	About 240g	About 245g
DIAGRAM 接線時序圖		31-A 31-B 31-C	31-C 31-B	31-A 31-B 31-C	31-A 31-B 31-C

CLASSIFICATION 類 別		HIGH PERFORMANCE MULTI-FUNCTION TIMER	MULTI-FUNCTION 1 DIGITAL TIMER	MULTI-FUNCTION 2 DIGITAL TIMER	MULTI-FUNCTION 3 DIGITAL TIMER
ITEM NO. 型 號		SH2-AY/SH2-BY SH2-CY/SH2-DY	ASY-1DX/ASY1DY ASY-1DZ	ASY-2DX/ASY-2DY ASY-2DZ	ASY-3DX/ASY-3DY ASY-3DZ
APPEARANCE 外 觀					
DIMENSIONS(mm) 尺 寸		88H×58W×68D			
MOUNTING & SOCKET 安裝方式	Flush 埋入 Y	US-08 or P3G-08			
TIME RANGE 時間範圍	A: 1S/1M/10S/10M B: 3S/3M/30S/30M C: 6S/6M/60S/60M D: 1.2M/12M/1.2H /12H (Use switch change to FLICKER TIMER)	X: 9S Y: 9M Z: 9H	X: 0.99S/9.9S/99S Y: 9.9S/99S/9.9M /99M Z: 9.9M/99M/9.9H /99H	X: 0.99S/9.9S/99S Y: 9.9S/99S/99.9M /999M Z: 9.9M/99M/99.9H /999H	X: 0.99S/99.9S/999S Y: 99.9S/999S/99.9M /999M Z: 99.9M/999M/99.9H /999H
RATED VOLTAGE 額定電壓	DC: 9,12,24,48V AC: 12,24,48,100,110,120,200,220,230,240,380,415,440V				
CONTACT 接點	MODEL	MODE A	MODE B	UP	DOWN
Instantaneous 1 form C		5A		5A	5A
Time-out 1 form C		5A		5A	5A
Time-out 2 form C			5A	5A	5A
Time-out 4 form C					
LIFE 壽命	MECHANICAL	5,000,000 times			
ELECTRICAL		100,000 times			
ACCURACY 精確度	REPEAT Error SETTING Error	$\pm 1\%$			
VOLTAGE Error		$\pm 1\%$			
TEMP. Error		$\pm 2\%$			
VOLTAGE RANGE 電壓使用範圍		DC: 85~110% AC: 80~110%			
RESET TIME 重置時間		0.1 seconds Max.			
CONSUMED POWER 消耗電力	2VA	3VA			
AMBIENT TEMP 環境溫度		-10°C ~ 55°C			
AMBIENT HUMIDITY 環境濕度		45~85%			
WEIGHT 重量	About 245g	About 310g			
DIAGRAM 接線時序圖	31-C 31-B	31-C 31-B	31-C 31-B	31-C 31-B	31-C 31-B

CLASSIFICATION 類 別		DIN SIZE 48x48 IC TIMER		DIN SIZE 48x48 MULTI-FUNCTION TIMER		DIN SIZE 48x48 DIGITAL TIMER		DIN SIZE 48x48 DIGITAL TIMER							
ITEM NO. 型 號		H3CT		H3CT-A/H3CT-B H3CT-C		H5CN-A		H5CN-B							
APPEARANCE 外 觀															
DIMENSIONS(mm) 尺 寸		48H×48W×68													
MOUNTING & SOCKET 安裝方式		Surface 露 出 N Flush 埋 入 Y N: P2CF-08 Y: US-08 or P3G-08 + Y-48													
TIME RANGE 時 間 範 圍		SEC.: 1S , 3S , 10S , 30S	H3CT-A: 1S/10S /1M/10M	MIN.: 1M , 3M , 10M 30M	H3CT-B: 3S/30S /3M/30M	HOR.: 1H , 3H , 10H 30H	H3CT-A: 1M/10M /1H/10H	99.99S/99M99S/99H99M							
RATED VOLTAGE 額 定 電 壓		DC:12,24,48V (multi-voltage AC/DC24-240) AC: 12,24,48,100,110,220,240,380,440V													
CONTACT 接 点	MODEL	MODE A	MODE B	MODE A	MODE B	MODE A	MODE B	H5CN-B							
	Instantaneous 1 form C	5A		5A		5A		5A							
RATING 輸 出 容 量	Time-out 1 form C	5A		5A		5A									
	Time-out 2 form C		5A		5A		5A								
LIFE 壽 命	MECHANICAL	5,000,000 times													
	ELECTRICAL	100,000 times													
ACCURACY 精 确 度	REPEAT Error	± 1%													
	SETTING Error	± 10%				± 0.1%									
VOLTAGE Error	± 1%														
	TEMP. Error	± 2%													
VOLTAGE RANGE 電 慈 使 用 範 圍		DC: 85~110% AC: 80~110%													
RESET TIME 重置時間		0.1 seconds Max.													
CONSUMED POWER 消 耗 電 力		2VA				3VA									
AMBIENT TEMP 環 境 溫 度		-10°C ~ 55°C													
AMBIENT HUMIDITY 環 境 濕 度		45~85%													
WEIGHT 重 量		About 215g / Multi-voltage series is 135g				About 150g									
DIAGRAM 接線時序圖		31-C	31-B	31-C	31-B	31-C	31-B	31-G							

CLASSIFICATION 類 別		FLICKER RELAY	MULTI-VOLTAGE TWIN TIMER	Surface TWIN TIMER		Flush TWIN TIMER				
ITEM NO. 型 號		AFK	TDV	STDV-N1 STDV-N2/STDV-N		STDV-Y1 STDV-Y2/STDV-Y				
APPEARANCE 外 觀										
DIMENSIONS(mm) 尺 寸		50H×40W×57D	50H×40W×57D	61H×49W×70D		88H×58W×68D				
MOUNTING & SOCKET 安裝方式	Surface 露岀 N	PF085A	PF085A	8PFA						
	Flush 埋入 Y					P3G-08 or US-08				
TIME RANGE 時 時 範 圖		SEC.: 1S, 3S, 6S, 10S, 30S, 60S MIN.: 3M, 6M, 10M, 30M, 60M HOR.: 3H, 6H, 10H, 30H	OFF: 3S, 6S, 12S, 30S, 60S, 3M, 6M, 12M, 30M, 60M, 3H, 6H, 12H, 30H ON: 3S, 6S, 12S, 30S, 60S, 3M, 6M, 12M, 30M, 60M, 3H, 6H, 12H, 30H							
RATED VOLTAGE 額 定 電 壓		DC: 9, 12, 24, 48V AC: 110, 220, 380, 440	AC/DC: 24~240V	DC: 9, 12, 24, 48V AC: 12, 24, 48, 100, 110, 200, 220, 240, 380, 440						
CONTACT 接 触	MODEL	AFK	TDV	N1	N2	N	Y1	Y2	Y	
	Instantaneous 1 form C					5A			5A	
RATING 輸 出 容 量	Time-out 1 form C	5A	5A	5A		5A		5A		
	Time-out 2 form C				5A			5A		
LIFE 壽 命	Time-out 4 form C									
	MECHANICAL	5,000,000 times								
ACCURACY 精 度	ELECTRICAL	100,000 times								
	REPEAT Error	± 1%								
SETTING Error		± 10%								
	VOLTAGE Error	± 1%								
TEMP. Error		± 2%								
	VOLTAGE RANGE 電 壓 使 用 範 圖	DC: 85~110% AC: 80~110%								
RESET TIME 重置時間		0.1 seconds Max.								
CONSUMED POWER 消 耗 電 力		2VA	2VA	2VA		2VA				
AMBIENT TEMP 環境溫度		-10°C ~ 55°C								
AMBIENT HUMIDITY 環 境 濕 度		45~85%								
WEIGHT 重 量	About 170g	About 130g	About 235g			About 245g				
DIAGRAM 接線時序圖	31-F	31-F	31-F	31-D	31-E	31-F	31-D	31-E		

• TWIN TIMER /OFF TIMER 雙調型限時繼電器/斷電延遲繼電器 STON

CLASSIFICATION 類 別	MULTI-FUNCTION Surface TWIN TIMER	MULTI-FUNCTION Flush TWIN TIMER	True OFF DELAY RELAY	DIN SIZE 48x48 True OFF TIMER		
ITEM NO. 型 號	STDV-AN/STDV-BN STDV-CN/STDV-DN	STDV-AY/STDV-BY STDV-CY/STDV-DY	TRF-V TRF-V2	H3CT-V H3CT-V2		
APPEARANCE 外 観						
DIMENSIONS(mm) 尺 寸	61H×49W×70D	88H×58W×68D	50H×40W×57D	48H×48W×68D		
MOUNTING & SOCKET 安裝方式	Surface 露出 N Flush 埋入 Y	8PFA P3G-08 or US-08	PF085A P3G-08 or US-08 & Y-48 adapter	P2CF-08A		
TIME RANGE 時 間 範 圍	A: ON/OFF 1S,10S,1M,10M B: ON/OFF 3S,30S,3M,30M C: ON/OFF 6S,60S,6M,60M D: ON/OFF 1M,10M,1H,10H E: ON/OFF 3M,30M,3H,30H		SEC.:1S,3S,6S,10S,30S,60S, MIN.:3M,6M,10M,30M			
RATED VOLTAGE 額 定 電 壓	DC: 9,12,24,48V AC: 12,24,48,100,110,120,200,220,230,240,380,415,440V					
CONTACT 接 觸	MODEL STDV-A/B/C/DN	STDV-A/B/C/DY	TRF-V	TRF-V2	H3CT-V	H3CT-V2
Rating 輸出 容量	Instantaneous 1 form C					
	Time-out 1 form C	5A	5A	5A		5A
	Time-out 2 form C			5A		5A
LIFE 壽 命	MECHANICAL		5,000,000 times			
	ELECTRICAL		100,000 times			
PRECISION 精 度	REPEAT Error SETTING Error		± 1%			
	VOLTAGE Error		± 10%			
	TEMP. Error		± 1%			
VOLTAGE RANGE 電 壓 使 用 範 圍		DC: 85~110% AC: 80~110%				
RESET TIME 重置時間			0.1 seconds Max.			
CONSUMED POWER 消 耗 電 力			2VA			
AMBIENT TEMP 環境溫度			-10°C ~ 55°C			
AMBIENT HUMIDITY 環 境 溼 度			45~85%			
WEIGHT 重 量	About 235g	About 245g	About 170g	About 170g		
DIAGRAM 接線時序圖		32-A	32-B	32-C	32-B	32-C

CLASSIFICATION 類別	PC BOARD RELAY	PC BOARD RELAY	PC BOARD RELAY	PC BOARD RELAY		
ITEM NO. 型號	G6B	SR512	SK512	SK601		
APPEARANCE 外觀						
DIMENSIONS(mm) 尺寸	18L×10W×15H	19.8L×16W×15H	29L×12.5W×15.5H	29L×12.5W×15.5H		
SOCKET 搭配基座	P6B-04P(1A) P6B-06P(1C)	NONE	RP 78 602	RP 78 602		
SOCKET APPEARANCE 基座外觀		WIRING DIAGRAM (BOTTOM VIEW) 				
RATED VOLTAGE 額定電壓	DC: 5,12,24,48v					
CONTACT CON-TACT	MODEL	G6B-1A	G6B-1C	SR512	SK512	SK601
Instantaneous 1 form A		5A				
Instantaneous 1 form C			5A	10A		12A
Time-out 2 form C					5A	
Time-out 3 form C						
LIFE 壽命	MECHANICAL	10,000,000 times				
	ELECTRICAL	100,000 times				
Insulation Resistance		100MΩ Min.(DC500V)				
Contact Material		Ag. alloy.銀合金				
Contact Resistance		100 milliohms max. (initial value)				
Operation time		8ms		15ms		
VOLTAGE RANGE 電壓使用範圍		80~110%				
Release Time 重置時間		8ms		10ms		
CONSUMED POWER 消耗電力	200mW	360mW	540mW	540mW		
AMBIENT TEMP 環境溫度	-10°C ~ 55°C					
AMBIENT HUMIDITY 環境濕度	45~85%					
WEIGHT 重量	About 8g	About 9g	About 17g	About 17g		

CLASSIFICATION 類別		POWER RELAY		POWER RELAY		POWER RELAY					
ITEM NO. 型號		MY2SN/MY4SN		LY2SN		LY4SN					
APPEARANCE 外觀											
DIMENSIONS(mm) 尺寸		28H×21W×35D		28H×21W×35D		42H×28W×35D					
MOUNTING & SOCKET 安裝方式	Surface 露出 N	PYF-08A(MY2SN) PYF-14A(MY4SN)		PTF-08A		PTF-14A					
SOCKET APPERANCE 基座外觀		Page 36									
RATED VOLTAGE 額定電壓		DC: 12,24,48V AC: 12,24,48,110,220V									
CONTACT RATING 輸出容量	MODEL	MY2SN	MY4SN	LY2SN	LY4SN	MK2P	MK3P				
	Instantaneous 1 form C										
	Instantaneous 2 form C	10A		10A		10A					
	Instantaneous 3 form C						10A				
	Instantaneous 4 form C		5A		10A						
LIFE 壽命	MECHANICAL	10,000,000 times									
	ELECTRICAL	100,000 times									
Insulation Resistance		100MΩ Min.(DC500V)									
Contact Material		Ag alloy.銀合金									
Contact Resistance		100 milliohms max. (initial value)									
Operation time		10ms		15~20ms							
VOLTAGE RANGE 電壓使用範圍		DC: 85~110% AC: 80~110%									
RESET TIME 重置時間		8ms		10ms							
CONSUMED POWER 消耗電力		1VA	1VA	2VA	2VA						
AMBIENT TEMP 環境溫度		-10°C ~ 55°C									
AMBIENT HUMIDITY 環境濕度		45~85%									
WEIGHT 重量		About 32g		About 34g	About 68g	About 85g					
DIAGRAM 接線時序圖		34-D	34-E	34-F	34-G	34-H	34-I				

CLASSIFICATION 類 別		SOLID STATE RELAY			
ITEM NO. 型 號	G3NA-DA□	G3NA-AA□	G3NA-DD□	G3NA-VA□	
APPEARANCE 外 観					
DIMENSIONS(mm) 尺 寸	57H×43W×28D				
HEAT SINK 搭配散熱座					
SOCKET APPERANCE 基 座 外 觀					
	SHS-□ (□=1~6)				
RATED VOLTAGE 額 定 電 壓	INPUT:3~32VDC OUTPUT:48~480VAC	INPUT:80~280VAC OUTPUT:48~480VAC	INPUT:3~32VDC OUTPUT:5~200VDC	INPUT: Resistance OUTPUT:48~480VAC	
MODEL	G3NA-DA□	G3NA-AA□	G3NA-DD□	G3NA-VA□	
CONTACT 接 触	12A	12A	1A	12A	
RATING 輸 出 量	Instantaneous 1 form a	25A	25A	5A	
	40A	40A	10A	40A	
	50A	50A	20A	50A	
	75A	75A	40A	75A	
Output control mode	Zero Cross trigger (but can order Non-zero cross trigger)				
Trigger voltage 啓動電壓	2.8VDC	60VAC	2.8VDC	NONE	
Release volt. 釋放電壓	1.2VDC	18VAC	1.2VDC	NONE	
Output rate frequency	50~60Hz	50~60Hz	-----	50~60Hz	
Contact Resistance	Rds on about 1~2Ω	Rds on about 1~2Ω	Rds on about 2~3Ω	Rds on about 1~2Ω	
Operation time	3~5ms				
OUTPUT LEAKAGE 輸出漏電流	About 10mA				
Release Time 重置時間	Less than 80ms				
CONSUMED POWER 消耗電力	0.2VA	0.2VA	0.2VA	0.2VA	
AMBIENT TEMP 環境溫度	-10°C ~ 55°C				
AMBIENT HUMIDITY 環境濕度	45~85%				
WEIGHT 重 量	About 130g				
DIAGRAM 接線時序圖	35-A				

CLASSIFICATION 類 別		1 DIGITAL COUNTER	2 DIGITAL COUNTER	3 DIGITAL COUNTER	4 DIGITAL COUNTER				
ITEM NO. 型 號		ASK-1D	ASK-2D	ASK-3D	H7CN-A				
APPEARANCE 外 觀									
DIMENSIONS(mm) 尺 寸		88H×58W×68D		48H×48W×68D					
MOUNTING & SOCKET 安裝方式	Flush 埋入 Y	P3G-08 or US-08							
COUNTER RANGE 計 數 範 圍		0~9	0~99	0~999	0~9999				
RATED VOLTAGE 額 定 電 壓	DC: 12,24,48V AC: 12,24,48,100,110,120,200,220,230,240,380,415,440			DC: 12,24,48V AC: 80~240V					
CONTACT 接 觸	MODEL	ASK-1D	ASK-2D	ASK-3D	H7CN-A				
RATING 輸 出 容量	Instantaneous 1 form C	5A	5A	5A	5A				
	Instantaneous 2 form C								
	Instantaneous 3 form C								
	Instantaneous 4 form C								
LIFE 壽 命	MECHANICAL	5,000,000 times							
	ELECTRICAL	100,000 times							
Cycle per second		20cps							
INPUT mode 輸入模式	Approx. switch or Photo switch or contact Input N 型光電或近接開關輸入或乾接點輸入								
RESET MODE 復歸	Auto Reset (0.1 or 0.2 seconds)or Power Reset 自動復歸 0.1/0.2 秒或斷電復歸可切換								
COUNTER MODE 計 數 模 式	UP Count 上數 (Down count can be order 下數可訂製)			Mode A : UP 上數	Mode B : Down 下數				
VOLTAGE RANGE 電 壓 使用 範 圍	DC: 85~110% AC: 80~110%								
RESET TIME 重置時間	Less than 30ms								
CONSUMED POWER 消 耗 電 力	3VA	3VA	3VA	3VA					
AMBIENT TEMP 環 境 溫 度	-10°C ~ 55°C								
AMBIENT HUMIDITY 環 境 溼 度	45~85%								
WEIGHT 重 量	About 290g	About 300g	About 300g	About 135g					
DIAGRAM 接線時序圖	33-E & 33-F			33-G & 33-H					

CLASSIFICATION 類別		CONTROL UNIT (Power Supply) PU-NC	COMPACT STAR-DELTA TIMER SRD-N	STAR-DELTA TIMER TRD-N	SUPER STAR-DELTA TIMER TRD-NX
ITEM NO. 型號					
APPEARANCE 外觀					
DIMENSIONS(mm) 尺寸		50H×40W×57D	50H×40W×57D	61H×49W×70D	61H×49W×70D
MOUNTING & SOCKET 安裝方式	Surface 露出 N	PF085A	PF085A	8PFA	8PFA
TIME RANGE 時間範圍		—	30S CHANGE TIME: 0.1/0.2/0.3/0.4/0.5S 轉換時間標準品為 0.1S 客戶可訂購 0.2/0.3/0.4/0.5S	30S CHANGE TIME: 0.1/0.2/0.3/0.4S can be changeable with panel switch 可在面板上調整 轉換時間	
RATED VOLTAGE 額定電壓	DC: 24,48V AC: 24,110,220,380V	DC: 9,12,24,48V AC: 12,24,48,100,110,120,200,220,240,380,415,440V			
CONTACT 接觸	MODEL Instantaneous 1 form C	PN-NC 5A	SRD-N 5A	TRD-N 5A	TRD-NX 5A
RATING 額定	Time-out 1 form C		5A	5A	5A
	Time-out 2 form C				
	Time-out 4 form C				
LIFE 壽命	MECHANICAL	5,000,000 times			
	ELECTRICAL	100,000 times			
ACCURACY 精度	REPEAT Error	± 1%			
	SETTING Error	± 10%			
	VOLTAGE Error	± 1%			
	TEMP. Error	± 2%			
VOLTAGE RANGE 電壓使用範圍		DC: 85~110% AC: 80~110%			
RESET TIME 重置時間		0.1 seconds Max.			
CONSUMED POWER 消耗電力	2VA	2.5VA	2.5VA	2.5VA	
AMBIENT TEMP 環境溫度		-10°C ~ 55°C			
AMBIENT HUMIDITY 環境濕度		45~85%			
WEIGHT 重量	About 155g	About 180g	About 245g	About 245g	
DIAGRAM 接線時序圖	34-C	32-D			

CLASSIFICATION 類 別		PHASE REVERSAL RELAY	PHASE REVERSAL & CUT OFF RELAY	PHASE FAIL & HIGH & UNDER VOLTAGE	PHASE FAIL & HIGH & UNDER VOLTAGE
ITEM NO. 型 號		APR-3	APR-3L	SVD/SVD-X	SVDD-1
APPEARANCE 外 観					
DIMENSIONS(mm) 尺 寸		50H×40W×57D	50H×40W×57D	N型: 61H×49W×70D Y型: 88H×58W×68D	96H×96W×51D
MOUNTING & SOCKET 安裝方式	Flush 埋入 Y	PF085A	PF085A	N type: 8PFA Y type: P3G-08	-----
RELAY ACTION TIME 繼電器動作時間		0.5S	OFF->ON 0.5S ON->OFF 1.5S	SVD OFF->ON 1.5S ON->OFF 2.5S SVD-X OFF->ON 0~12S 可調 ON->OFF 0~12S 可調 ON->OFF 0~12S 可調	OFF->ON 0~12S 可調 ON->OFF 0~12S 可調 ON->OFF 0~12S 可調
RATED VOLTAGE 額 定 電 壓	AC:220,380,440V 50/60HZ	AC100~480V 50/60HZ		AC: 100,110,220,230,240,380,415,440V 50/60HZ	
PRO- TACT	MODEL	APR-3	APR-3L	SVD/SVD-X	SVDD-1
RAN- GE 保 護 範 围	Phase reversal	✓	✓	✓	✓
	Phase cut off		✓	✓	✓
	High voltage & Under voltage			✓	✓
	Voltage display				✓
LIFE	MECHANICAL	5,000,000 times			
	ELECTRICAL	100,000 times			
Detect time	值測時間	Less than 0.5 seconds			
Output mode	輸出模式	Relay out 1 form C			
ORDER SINGLE PHASE			✓	✓	
OUTPUT CAPACITY 輸 出 容 量	250VAC / 10A				
VOLTAGE RANGE 電 壓 使 用 範 圍	DC: 85~110% AC: 80~110%				
RESET TIME 重置時間	Less than 20ms				
CONSUMED POWER 消 耗 電 力	2VA	2VA	3VA	4VA	
AMBIENT TEMP 環境溫度	-10°C ~ 55°C				
AMBIENT HUMIDITY 環 境 溼 度	45~85%				
WEIGHT 重 量	About 100g	About 100g	About 240g	About 370g	
DIAGRAM 接線時序圖	32-E	32-F	33-J & 33-K	ORDER	

CLASSIFICATION 類 別		MOTION DETECTOR		WASH & DRYER MACHINE CONTROLLER				
ITEM NO. 型 號		SH2-ND	SH2-YD	SH2-NM/STDV-NM	SH2-YM/STDV-YM			
APPEARANCE 外 觀								
DIMENSIONS(mm) 尺 寸		61H×49W×70D	88H×58W×68D	61H×49W×70D	88H×58W×68D			
MOUNTING & SOCKET 安裝方式	Surface 露 出 N	8PFA	P3G-08 or US-08	8PFA	P3G-08 or US-08			
TIME RANGE 時 間 範 圍		SEC.: 1S, 3S, 6S, 12S, 30S, 60S ●輸入之光電或近接開關應接 N 型	ON-OFF TIME SEC.: 1S, 3S, 6S, 12S, 30S, 60S MIN.: 3M, 6M, 12M, 30M, 60M HOR.: 3H, 6H, 12H, 30H REST TIME SEC.: 1S, 3S, 6S, 12S, 30S, 60S					
RATED VOLTAGE 額 定 電 壓		DC: 9, 12, 24, 48V AC: 12, 24, 48, 100, 110, 120, 200, 220, 240, 380, 415, 440V						
CONTACT 接 触	MODEL 1 form C	SH2-ND	SH2-YD	SH2-NM/STDV-NM	SH2-YM/STDV-YM			
RATING 额定容量	Time-out 1 form C	5A	5A	5A	5A			
	Time-out 2 form C							
	Time-out 4 form C							
LIFE 壽命	MECHANICAL	5,000,000 times						
	ELECTRICAL	100,000 times						
ACCURACY	REPEAT Error	± 1%						
	SETTING Error	± 10%						
VOLATGE 電壓	Error	± 1%						
	TEMP. Error	± 2%						
VOLTAGE RANGE 電壓 使用 範 圍		DC: 85~110% AC: 80~110%						
RESET TIME 重置時間		0.2 seconds Max.						
CONSUMED POWER 消耗 電 力		2VA	2.5VAC					
AMBIENT TEMP 環境溫度		-10°C ~ 55°C						
AMBIENT HUMIDITY 環境 濕 度		45~85%						
WEIGHT 重 量	About 235g	About 245g	About 245g	About 255g				
DIAGRAM 接線時序圖	33-I		34-A					

CLASSIFICATION 類 別		FLOATLESS RELAY		EXCHANGE RELAY							
ITEM NO. 型 號		SFR-1/SFR-12	AFR-1/AFR-12	G4Q-212S	G4Q-112/G4Q-112C G4Q-312						
APPEARANCE 外 観											
DIMENSIONS(mm) 尺 寸		50H×40W×57D		61H×49W×70D							
MOUNTING & SOCKET 安裝方式	Surface 露 出 N	PF085A		8PFA							
CONTROL RANGE 控 制 範 圖	Input Resistance 輸入阻抗: 0~4KΩ Release Resistance 釋放阻抗: 15K 以上 Can order high sensitive 可訂購超高靈敏: About 300KΩ			Control Mode 控制模式: Exchange by Power 利用電源 ON 時改變 接點, 電源斷電時接點 將保持住。	Control Mode 控制模式: Exchange by contact 利用 1-3 腳短路時, 改 變接點, 電源斷電時接 點將無法保持住。						
RATED VOLTAGE 額 定 電 壓	AC: 12,24,48,100,110,120,200,220,230, 240,380,415,440			DC: 12,24,48V AC: 12,24,48,110,220,,240,380,415,440V							
CONTACT CON-	MODEL	SFR-1/SFR-1	AFR-1/AFR-1	G4Q-212S	112	112C 312					
RATING 輸出 容量	Instantaneous 1 form C	5A	5A								
	Instantaneous 2 form C			5A							
	Instantaneous 2 form A				5A						
LIFE 壽 命	MECHANICAL	5,000,000 times									
	ELECTRICAL	100,000 times									
CYCLE PER SECOND	10cps		5cps	10cps							
INPUT MODE 輸 入 模 式	Liquid of electric conduction 可導電液體			Power sensor 電源為訊號	Contact sensor 接點輸入為訊號						
OPERATION TIME 操 作 時 間	10ms		20ms	10ms							
VOLTAGE RANGE 電 壓 使 用 範 圍	DC: 85~110% AC: 80~110%										
RESET TIME 重置時間	Less than 20ms		40ms	20ms							
CONSUMED POWER 消 耗 電 力	3VA	3VA	3VA	3VA							
AMBIENT TEMP 環境溫度	-10°C ~ 55°C										
AMBIENT HUMIDITY 環 境 溼 度	45~85%										
WEIGHT 重 量	About 200g	About 240g	About 190g	About 250/270g							
DIAGRAM 接線時序圖	32-G		33-A	33-B	33-C						

CLASSIFICATION 類 別		48x48 TEMPERATURE CONTROLLER					
ITEM NO. 型 號		STC-400	STC-401	STC-402	STC-403		
APPEARANCE 外 観							
DIMENSIONS(mm) 尺 寸		48H×48W×68D					
MOUNTING & SOCKET 安裝方式	Surface 露出 N Flush 埋入 Y	P2CF-08		US-08 or P3G-08 + Y-48 Adapter			
Temperature RANGE 溫 度 範 圍		120°C 200°C 400°C	Only Display 0~999°C	199°C 399°C 999°C			
RATED VOLTAGE 額 定 電 壓		DC: 24,48V AC: 24,48,100,110,120,200,220,230,240,380,415,440V					
SET & DISP- LAY MODE	MODEL	STC-400	STC-401	STC-402	STC-403		
旋鈕 滑輪 LED 7seg.	KNOB SET 旋鈕設定	✓					
	WHEEL SW. 滾輪指撥設定			✓	✓		
顯示 模式	LED DISPLAY LED 顯示	✓		✓			
	7seg. DISPLAY 七段顯示器		✓		✓		
LIFE	MECHANICAL	5,000,000 times					
	ELECTRICAL	100,000 times					
Input mode 輸入方式		PT100, K, J, R TYPE					
Output mode 輸出方式		Relay output or S.S.R.					
Control mode 控制方式		ON/OFF or PD					
Setting Error 設定誤差		± 3%		± 1%			
VOLTAGE RANGE 電壓 使用 範 圍		DC: 85~110% AC: 80~110%					
RESET TIME 重置時間		Less than 20ms					
CONSUMED POWER 消耗 電 力		2VA		3VA			
AMBIENT TEMP 環境溫度		-10°C ~ 55°C					
AMBIENT HUMIDITY 環境 溼 度		45~85%					
WEIGHT 重 量		About 190g					
DIAGRAM 接線時序圖		34-J		(STC-401 No output)			

• 48x96 & 72x72 TEMPERATURE CONTROLLER 溫度控制器 STON

CLASSIFICATION 類 別		48x96 TEMPERATURE CONTROLLER		72x72 TEMPERATURE CONTROLLER					
ITEM NO. 型 號		STC-506	STC-503	STC-700	STC-701				
APPEARANCE 外 觀									
DIMENSIONS(mm) 尺 寸		48H×96W×50D		72H×72W×70D					
MOUNTING & SOCKET 安裝方式	Flush 埋入 Y	本體與底座一體成型							
Temperature RANGE 溫 度 範 圍		199°C 399°C 999°C		200°C 400°C 800°C					
RATED VOLTAGE 額 定 電 壓		DC: 24,48V AC: 24,48,100,110,120,200,220,230,240,380,415,440V							
SET & DISP- LAY MODE	MODEL KNOB SET 旋鈕設定	STC-506	STC-503	STC-700	STC-701				
WHELL SW. 滾輪指撥設定	▼	▼							
LED DISPLAY 顯示	▼			▼					
7seg. DISPLAY 七段顯示器		▼			▼				
LIFE 壽命	MECHANICAL	5,000,000 times							
	ELECTRICAL	100,000 times							
Input mode 輸入方式	PT100, K, J, R TYPE								
Output mode 輸出方式	Relay output or S.S.R.								
Control mode 控制方式	ON/OFF or PD								
Setting Error 設定誤差	± 3%		± 1%						
VOLTAGE RANGE 電壓 使用 範 圍	DC: 85~110% AC: 80~110%								
RESET TIME 重置時間	Less than 20ms								
CONSUMED POWER 消 耗 電 力	3VA		2VA	2VA	3VA				
AMBIENT TEMP 環境溫度	-10°C ~ 55°C								
AMBIENT HUMIDITY 環 境 溼 度	45~85%								
WEIGHT 重量	About 250g		About 260g						
DIAGRAM 接線時序圖	34-K		34-L						

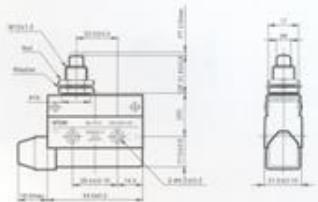
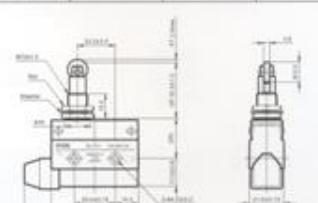
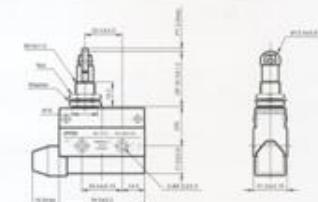
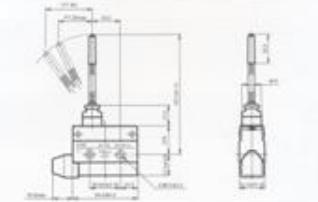
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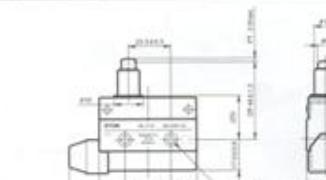
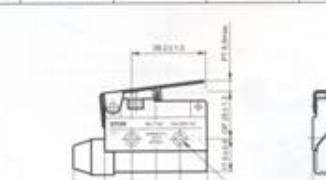
- 72x72 & 96x96 TEMPERATURE CONTROLLER 溫度控制器

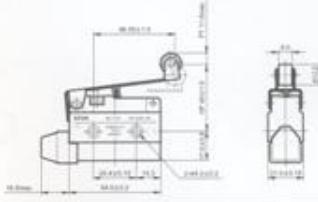
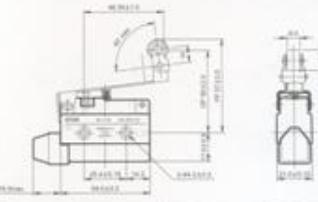
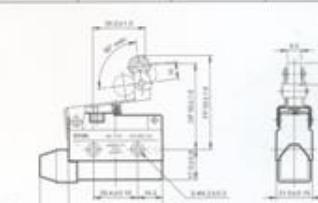
CLASSIFICATION 類 別		72x72 TEMPERAT- URE CONTROLLER			96x96 TEMPERATURE CONTROLLER		
ITEM NO. 型 號		STC-703	STC-900	STC-901	STC-903		
APPEARANCE 外 觀							
DIMENSIONS(mm) 尺 寸		72H×72W×70D	96H×96W×50D				
MOUNTING & SOCKET 安裝方式	Flush 埋入 Y	本體與底座一體成型					
Temperature RANGE 溫 度 範 圍		199°C 399°C 999°C	200°C 400°C 800°C	200°C 400°C 800°C	199°C 399°C 999°C		
RATED VOLTAGE 額 定 電 壓	DC: 24,48V AC: 24,48,100,110,120,200,220,230,240,380,415,440V						
MODEL	STC-703	STC-900	STC-901	STC-903			
SET & KNOB SET DISP- LAY MODE	旋鈕設定	✓	✓				
WHEEL SW.	滾輪指標設定	✓			✓		
LED DISPLAY 顯示	LED 顯示		✓				
7seg. DISPLAY 七段顯示器	七段顯示器	✓		✓	✓		
LIFE	MECHANICAL	5,000,000 times					
ELECTRICAL		100,000 times					
Input mode	輸入方式	PT100, K, J, R TYPE					
Output mode	輸出方式	Relay output or S.S.R.					
Control mode	控制方式	ON/OFF or PD					
Setting Error	設定誤差	± 1%	± 3%	± 2%	± 1%		
VOLTAGE RANGE 電壓 使用 範 圍		DC: 85~110% AC: 80~110%					
RESET TIME	重置時間	Less than 20ms					
CONSUMED POWER 消 耗 電 力	3VA	2VA	3VA				
AMBIENT TEMP 環境溫度		-10°C ~ 55°C					
AMBIENT HUMIDITY 環 境 溼 度		45~85%					
WEIGHT 重 量		About 260g					
DIAGRAM 接線時序圖	34-L		34-M				

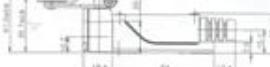
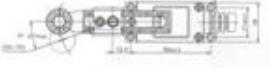
• ML series LIMIT SWITCHES 限動開關

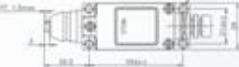
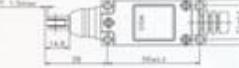
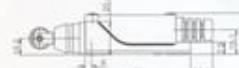
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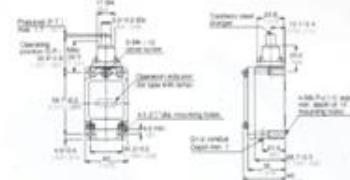
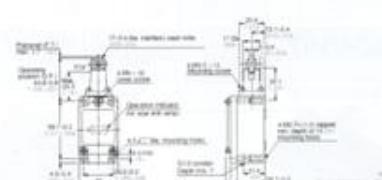
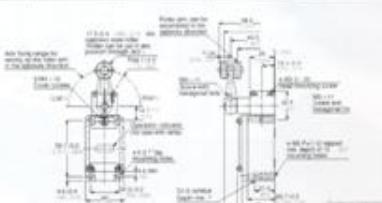
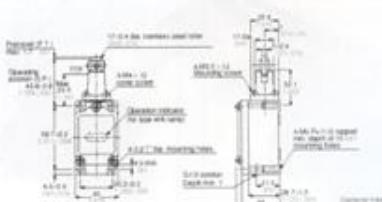
ML-7310	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Panel mount plunger	5.88(600)	0.98(100)	2.0	0.8	6.0	21.8±0.8
						
ML-7311	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Panel mount roller plunger	5.88(600)	0.98(100)	2.0	0.8	6.0	33.3±0.8
						
ML-7312	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Panel mount cross roller plunger	5.88(600)	0.98(100)	2.0	0.8	6.0	33.3±0.8
						
ML-7166	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Flexible rod	1.18(120)	-	25.0	-	11.0	36.0
						

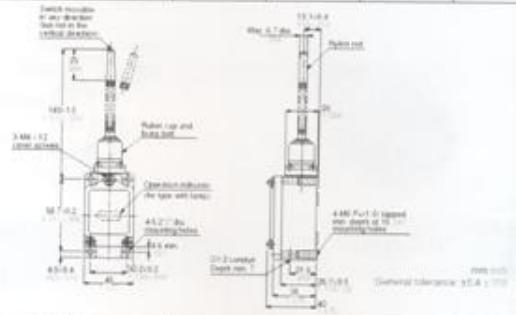
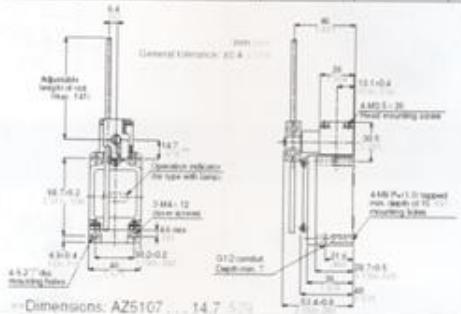
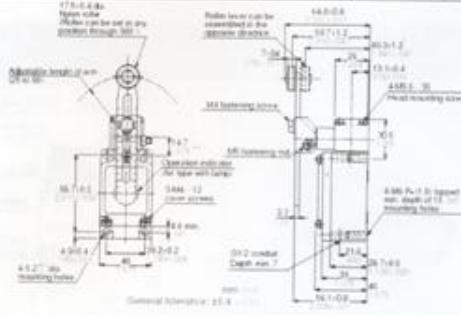
ML-7100	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Short push plunger	5.88(600)	0.98(100)	2.0	0.8	0.8	30±0.8
						
ML-7110	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Push plunger	5.88(600)	0.98(100)	2.0	0.8	5.0	44±1.2
						
ML-7120	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Hinge level	1.47(150)	0.39(40)	13.5	3.2	4.0	25±2.0
						
ML-7140	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
One-way action short hinge roller level	2.16(220)	0.59(60)	8.5	2.0	2.5	25±1.3
						

ML-7121	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Short hinge roller level	1.77(180)	0.49(50)	11.0	2.4	3.0	40±1.9
						
ML-7141	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Short roller level	2.35(240)	0.78(80)	6.5	1.5	2.0	40±1.6
						
ML-7124	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
One-way action hinge roller level	1.96(200)	0.59(60)	8.5	2.0	2.5	25±1.3
						
ML-7144	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
One-way short roller level	2.75(280)	0.98(100)	6.5	1.5	2.0	50±1.6
						

VL-8104	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Roller arm	5.88(600)	0.49(50)	20°	10°	75°	95°
	 					
VL-8108	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Adjustable roller arm	3.35(342)~ 7.84(800)	0.21(21)~ 0.49(50)	20°	10°	75°	95°
	 					
VL-8166	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Flexible rod	0.88(90)	-	30	-	20	50
	 					
VL-8169	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Spring wire	0.88(90)	-	30	-	20	50
	 					

VL-8111	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Push plunger	8.83(900)	1.47(150)	1.5	0.7	4.0	5.5
	 					
VL-8112	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Roller plunger	8.83(900)	1.47(150)	1.5	0.7	4.0	5.5
	 					
VL-8122	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Cross roller level	8.83(900)	1.47(150)	1.5	0.7	4.0	5.5
	 					
VL-8107	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Adjustable rod	1.99(203)~ 7.84(800)	0.12(12)~ 0.49(50)	20°	10°	75	95°
	 					

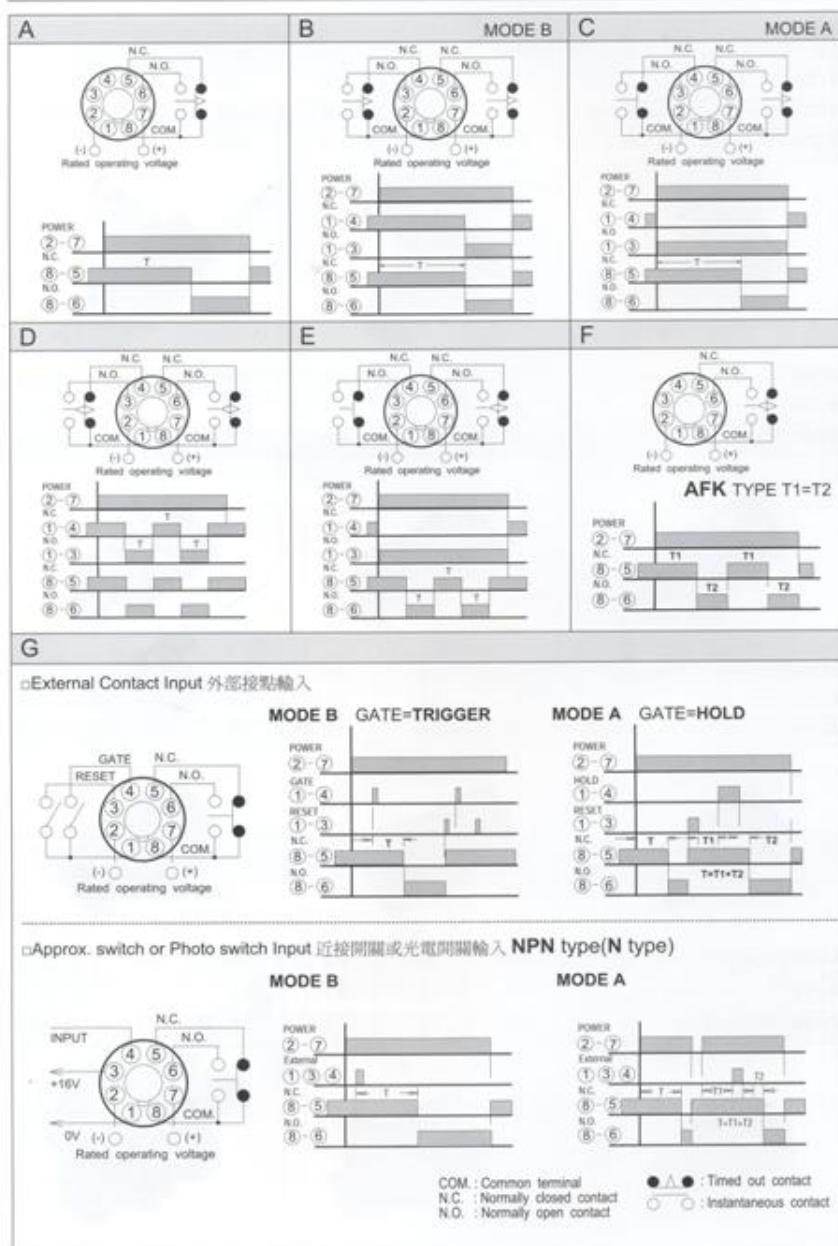
AZ-5101	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Push plunger	2720	910	1.7	1.0	6.4	0.1
						
AZ-5102	2720	910	1.7	1.0	5.6	0.1
Roller plunger						
AZ-5104	1360	227	15±5°	12°	-	1°
Roller arm						
AZ-5122	2720	910	1.7	1.0	5.6	0.1
Roller cross plunger						

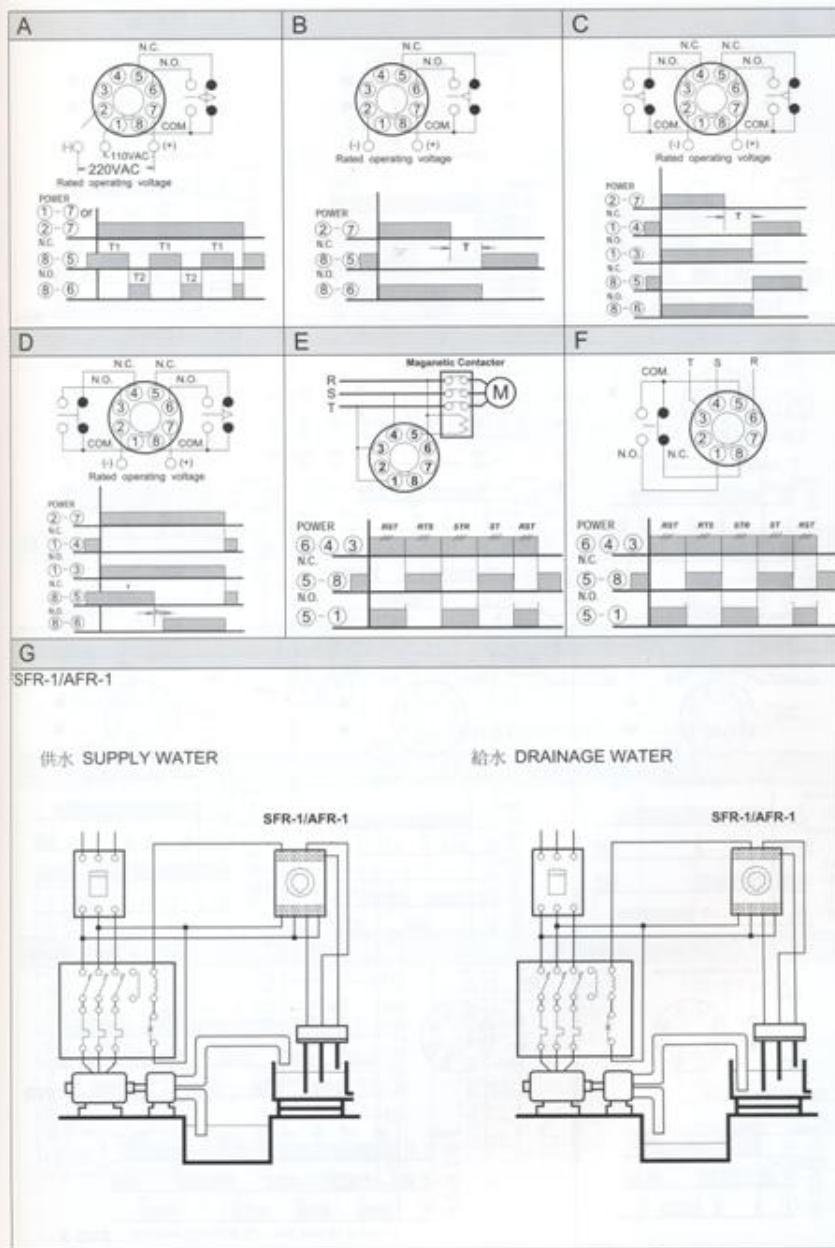
AZ-5106	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Flexible rod	142	-	$20 \pm 10^\circ$	-	-	1°
						
AZ-5107	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Adjustable rod	142	28	$15 \pm 5^\circ$	12°	-	1°
						
AZ-5108	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
Adjustable roller arm	1360	227	$15 \pm 5^\circ$	12°	-	1°
						

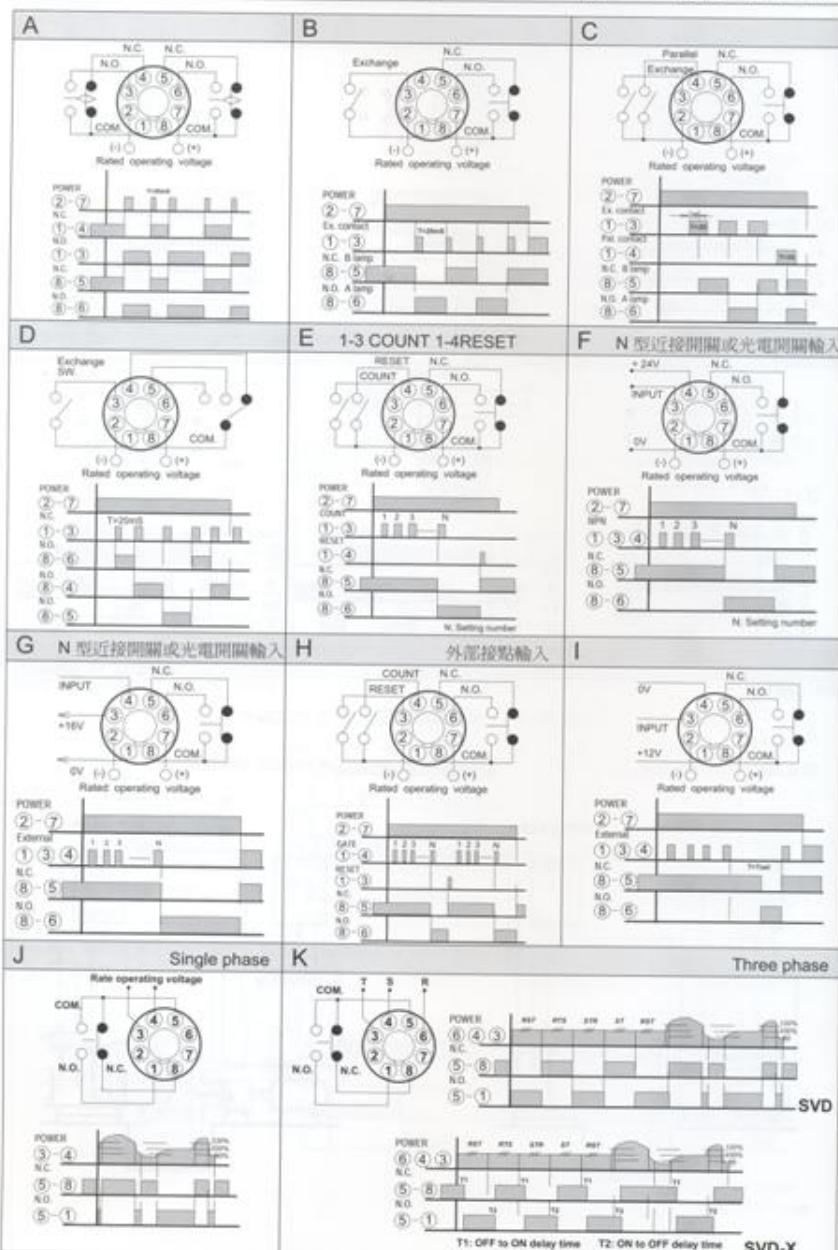
STON

• AM series MICRO SWITCHES 微動開關

Type 型式	Actuator type 促動機構	O.F.(N/gf) Max.	R.F.(N/gf) Min.	P.T.(mm) Max.	M.D.(mm) Max.	O.T.(mm) Min.	O.P.(mm)
AM1307	Panel mount push plunger	350	114	0.4	0.05	5.5	218.8±0.8
AM1308	Panel mount roller plunger	350	114	0.4	0.05	3.58	33.4±1.2
AM1309	Panel mount cross roller plunger	350	114	0.4	0.05	3.58	33.4±1.2
							
AM1300	Short push plunger	350	114	0.4	0.05	0.13	15.9±0.4
AM1306	Short push plunger	350	114	0.4	0.05	1.6	21.5±0.5
AM1305	Push plunger	350	114	0.4	0.8	0.05	28.2±0.5
							
AM1301	Hinge level no fulcrum	150	14	4.0	1.3	1.6	17.4±0.8
AM1701	Hinge level	70	14	10.0	1.27	5.6	19.0±0.8
AM1702	One-way short hinge level	100	28	5.0	1.0	2.0	19.0±0.8
							
AM1703	Roller level no fulcrum	160	22	7.1	1.02	4.0	30.2±0.8
AM1704	Short roller level	160	42	2.7	0.5	2.4	30.2±0.4
AM1744	One-way short roller level	160	42	2.7	0.5	2.4	43.1±0.8
							

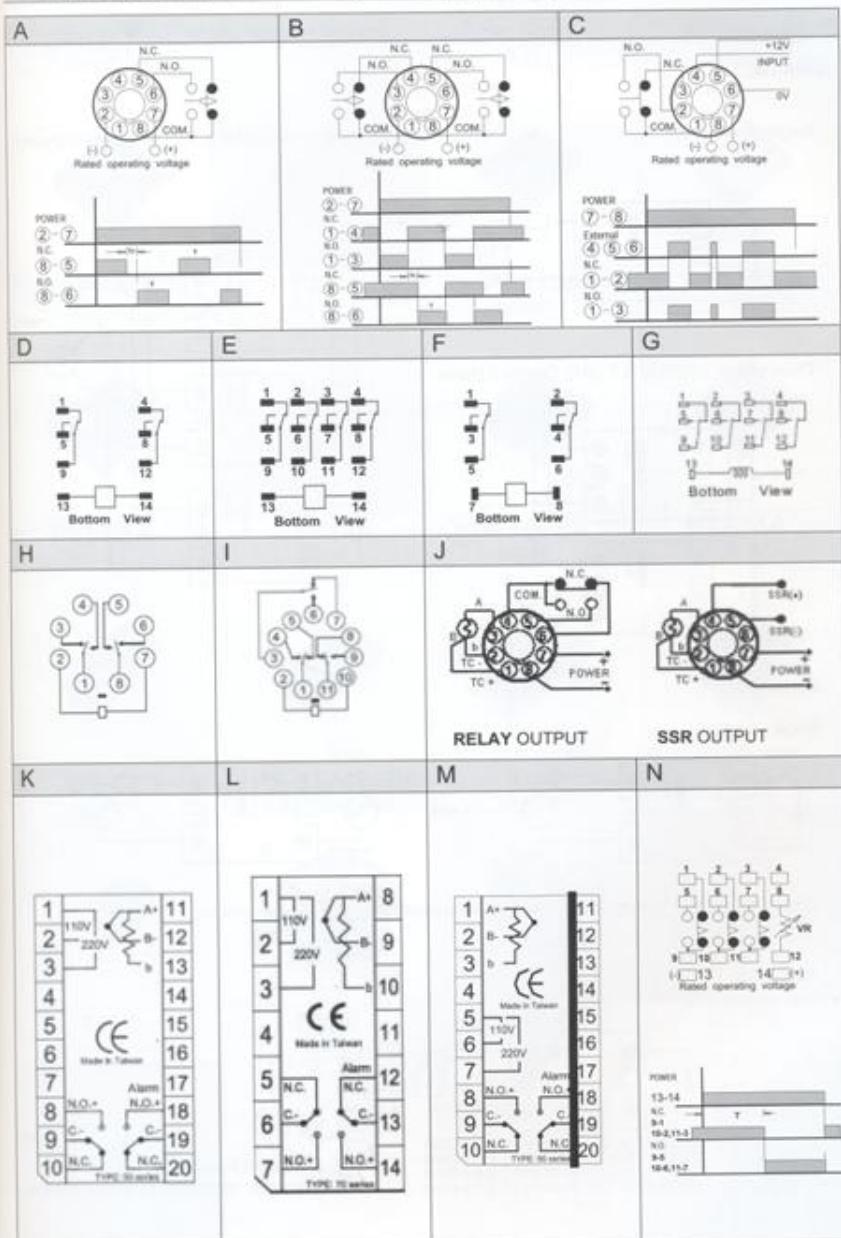






• Connection Diagrams & Timing Chart 接線圖&時序圖

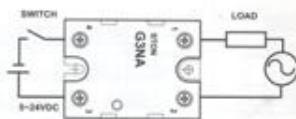
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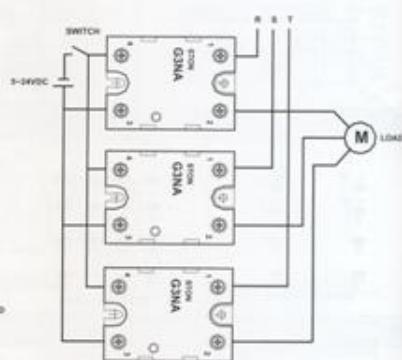
A

G3NA-DA□

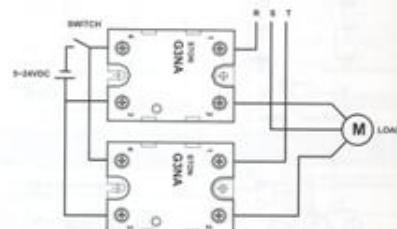
Single phase 單相



Three phase 三相(控制 R S T 三相 Control 3 phase)

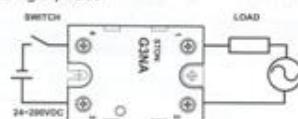


Three phase 三相(控制 R T 兩相 Control 2 phase)

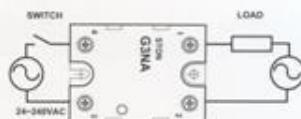


G3NA-MA□

Single phase



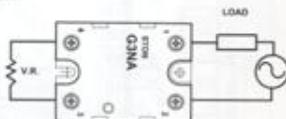
OR



Three phase 三相 請參考 G3NA-DA 接法(Reference G3NA-DA□ three phase)

G3NA-RA□

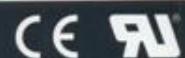
Single phase 單相



OUTPUT SOURCE=110VAC V.R.=100K
 OUTPUT SOURCE=220VAC V.R.=250K
 OUTPUT SOURCE=380VAC V.R.=390K
 OUTPUT SOURCE=440VAC V.R.=500K

依照不同輸出電壓決定可調式電阻
 (choice variable resistance by output voltage)

PF085A SOCKET	PF085AE SOCKET	PF083A SOCKET	PF083AE SOCKET
			
8PFA SOCKET	P3G-08 SOCKET	PF113A SOCKET	PF113AE SOCKET
			
PYF08A SOCKET	PYF14A SOCKET	PTF08A SOCKET	PTF14A SOCKET
			
US-08 SOCKET	PS-3S/4S/5S ELECTRONIC HOLE	Y-40 ADAPTER	Y-48 ADAPTER
			
FH-3 CONNECT HOOK	FM-2 CONNECT HOOK	SHS-0□ HEAT SINK □=1~6	GTHS-1 CONDUCTION PAD
			



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