

# 4 位數一段設定按鍵式計數器

## 4 Digit One Preset Keyboard Counter

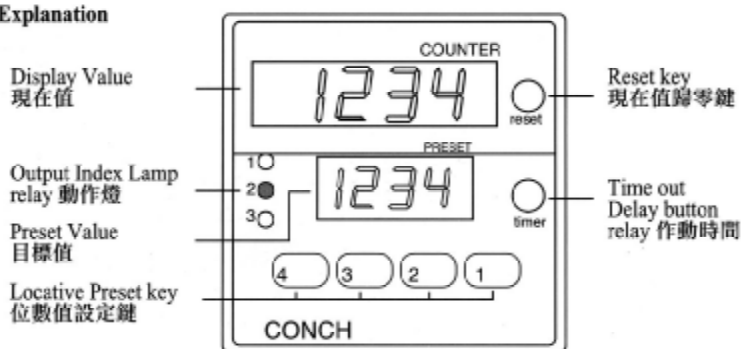


CA-41K

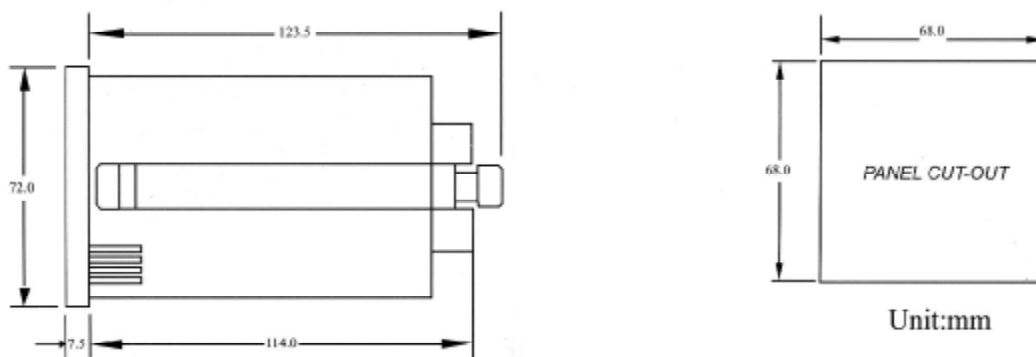
### 產品規格 Specification

|  |   |                                 |
|--|---|---------------------------------|
| 型號<br>Item No                          | CA-41K  |                                 |
| 顯示範圍<br>Display Range                  | -999~9999   |                                 |
| 設定範圍<br>Setting Range                  | 1~9999  |                                 |
| 字型尺寸<br>Character Height               | Count LED 0.56" (orange) Preset LED 0.3" (Green)              |                                 |
| 計數輸入<br>Input Signal Mode              | 有接點輸入<br>Contact input:25HZ                                   | 無接點輸入<br>non-contact input:3KHZ |
| 輸出方式<br>Output System                  | 1Relay output (1a,b AC250V/3A)                                |                                 |
| 輸出時間<br>Output Hold time               | 0.1~9.9 seconds (variable)                                    |                                 |
| 復歸方式<br>Reset System                   | External, Manual, Auto Reset                                  |                                 |
| 輸入信號<br>Input level                    | NPN, open collector   |                                 |
| 停電記憶<br>Power Failure Memory           | EEPROM memory keep ten years                                  |                                 |
| 信號電源<br>DC Out for Sensor              | 12VDCV ± 5% Max electric current capacity 100mA               |                                 |
| 電源電壓<br>Power Supply                   | AC 110V/220V ± 15% 50Hz/60Hz                                  |                                 |
| 消耗電力<br>Power Consumption              | 5.5VA   |                                 |
| 耐溫濕度<br>Operating Temperature Humidity | -10°C~+50°C 35%~85% RH  |                                 |
| 尺寸規格<br>External Dimensions            | 72mm × 72mm × 145mm(盤面開孔Mounting flush dimension:68mm × 68mm) |                                 |

### 面板說明 Panel Explanation



### 外形尺寸圖 Dimension Diagram



## 位數值設定鍵

CA-41K面板下方有編號1-4個按鍵,分別代表“個”“拾”“佰”“仟”位數,若是要改變目標值按下欲設定位數之鍵,當按下欲設定位數之鍵,此位數變為閃爍狀態,若一直按著,數字由0至9往上連續改變直到欲設定之設定值,放開按鍵3秒後即設定完成。

## Locative Preset Key

There are four numbers, four buttons on the front panel. To change the preset value you can change them by pressing the pushbutton directly below it. And release the pushbutton when the digit reaches the desired value. Pressing the “DISP” button or release the button through 3 seconds then the mode will be set.

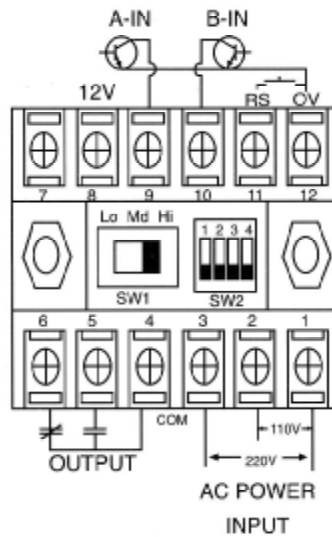
## reset 鍵

在按下此鍵時,現在值清除為零。

## Reset Key

Press the reset key to clean the current displayed value.

## 端子說明 Terminal Wiring Diagram



## 信號輸入方式

端子A-in,B-in,RS 輸入方式皆為NPN輸入(無電壓入力)。

## Signal Input Type

The signal input way of the terminal A-in,B-in and RS all are “NPN” input.

### 一、SW1:輸入頻率開關

SW1-Hi:信號無濾波電容,頻率可達3KHz。

SW1-Md:信號有濾波電容,頻率可達300Hz。

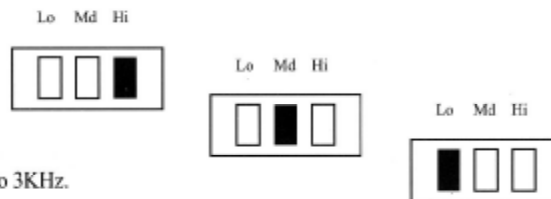
SW1-Lo:信號有濾波電容,頻率可達25Hz。

SW1:Response Time Switch

SW1-Hi:Removes damping capacitor and allows operation up to 3KHz.

SW1-Md:Connects small damping capacitor and limits counter frequency to 300Hz.

SW1-Lo:Connects small damping capacitor and limits counter frequency to 25Hz.



### 二、SW2開關 SW2 switch

1. Relay 復歸 N.R.C.

1. Relay return N.R.C.

a. N:手動 (MANUAL) SW2-3 ON

計數值等於設定值時Relay ON,計數繼續上數,直到手動或外部復歸,Relay才復歸,計數值歸零。

a. N:Manual

When the counting value is equal to the preset value, the relay will turn on. The counter keeps or connects the terminal 12 & 11 together at the same time then the display value will return to zero.

b. R:回歸(RETURN) SW2-2 ON

計數值等於設定值時Relay ON,計數繼續上數,待T時間後(time鍵設定)Relay復歸,計數值歸零。

b. R:Return

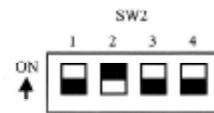
When the counting value is equal to the preset value, the relay will turn on. The counter will keep counting up, but after several seconds, the relay returns to the original condition and the display value will return to zero.

c. C:繼續 (CONTINUE) SW2-1 ON

計數值等於設定值時Relay ON,計數值立即歸零後再繼續上數,而Relay在T時間後(time鍵設定)才會復歸。

c. C:Continue

When the counting value is equal to the preset value, the relay will turn on and the display returns to zero at once. Then the counter will keep on counting, and the relay will return to the original condition after several seconds.

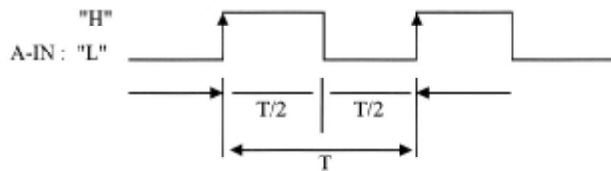


2. 計數方式 Counting Method:

a. 加算(單相入力)SW2-4 OFF

a. addition (single phase)

A-IN:加算入力 (Addition input)

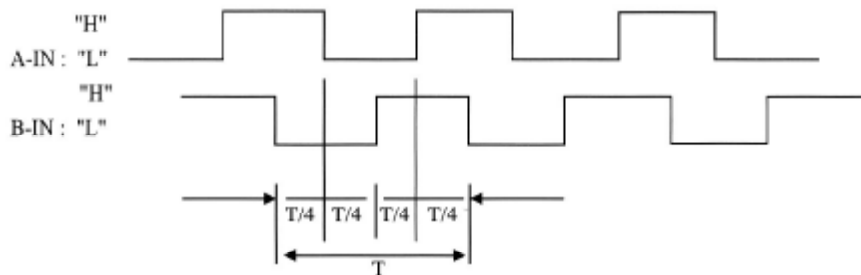


B-IN:為gate功能(暫時停止信號入力)

B-IN:Gate function (to stop signal input temporarily)

b. 加減算 (90°相位差輸入) SW2-4 ON

b. addition and subtraction (Quadrature input)



此計數模式最常配合譯碼器(encoder)使用,或配合兩個sensor,但請注意相位儘量要為90°。

This quadrature counting mode can be implemented by the rotary encoder or 2 sets of photoelectric sensors.

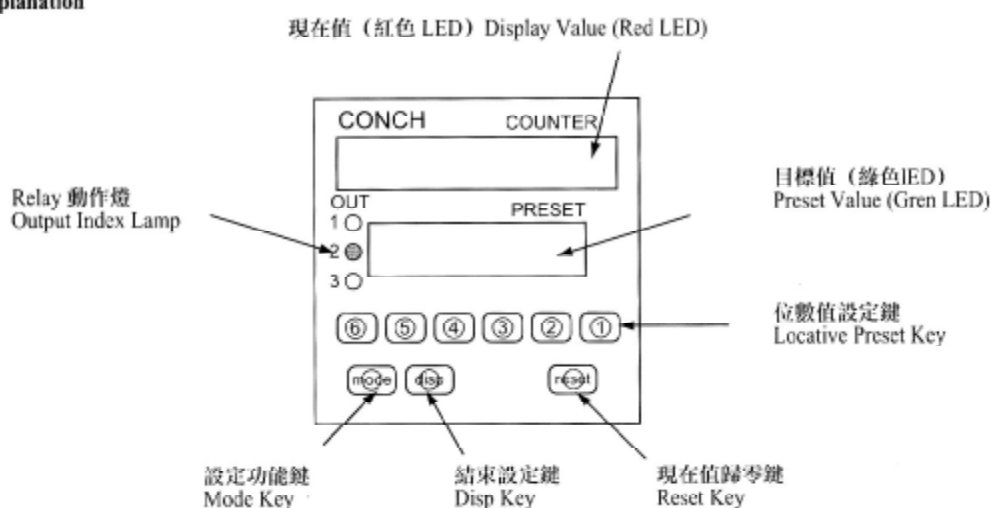
c. 注意:在改變計數模式後,必須切掉電源再重新開機。

c. You must turn on the counter again when change the mode of the counter.

## 產品規格 Specification

|  |   |                                 |
|--|---|---------------------------------|
| 型號<br>Item No                          | CA-61K  |                                 |
| 顯示範圍<br>Display Range                  | -99999~999999   |                                 |
| 設定範圍<br>Setting Range                  | 1~999999  |                                 |
| 字型尺寸<br>Character Height               | Count LED 0.4" (orange) Preset LED 0.3" (Green)         |                                 |
| 計數輸入<br>Input Signal Mode              | 有接點輸入<br>Contact input:25HZ                             | 無接點輸入<br>non-contact input:3KHz |
| 輸出方式<br>Output System                  | 1 Relay output (1a,b AC 250V/3A)                        |                                 |
| 輸出時間<br>Output Hold time               | 0.1~9.9 seconds (variable)                              |                                 |
| 復歸方式<br>Reset System                   | External, Manual, Auto Reset                            |                                 |
| 輸入信號<br>Input level                    | NPN, open collector                                     |                                 |
| 停電記憶<br>Power Failure Memory           | EEPROM Memory keep ten years                            |                                 |
| 信號電源<br>DC Out for Sensor              | 12VDCV±5% Max electric current capacity 100mA           |                                 |
| 電源電壓<br>Power Supply                   | AC 110V/220V±15% 50Hz/60Hz                              |                                 |
| 消耗電力<br>Power Consumption              | 5.5VA   |                                 |
| 耐溫濕度<br>Operating Temperature Humidity | -10°C~+50°C 35%~85% RH                                  |                                 |
| 尺寸規格<br>External Dimensions            | 72mm×72mm×145mm(盤面開孔Mounting flush dimension:68mm×68mm) |                                 |

## 面板說明 Panel Explanation



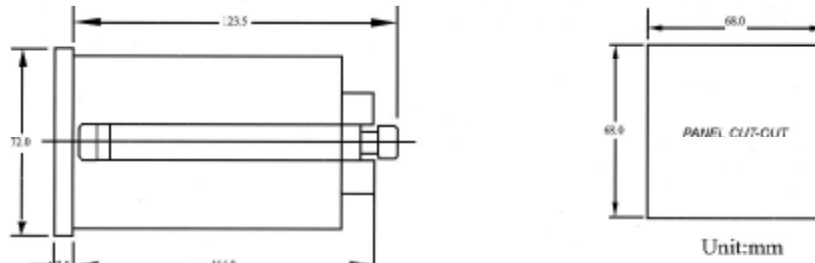
## 位數值設定鍵

CA-61K面板下方有編號1~6個按鍵,分別代表“個”“拾”“佰”“仟”“萬”“拾萬”位數。若是要改變目標值,按下欲設定位數之鍵。當按下設定位數之鍵,此位數變為閃爍狀態,若一直按著,數字由0至9往上連續改變直到欲設定之設定值,放開按鍵3秒後即設定完成。

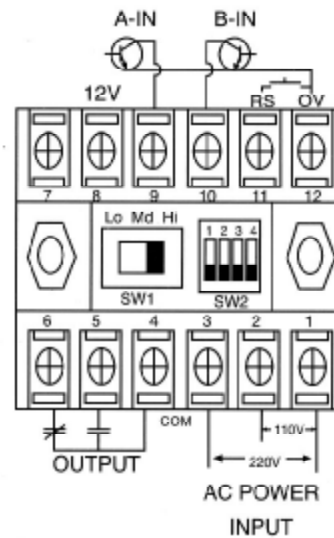
## Locative Preset Key

There are six numbers, six buttons on the front panel. To change the preset value you can change them by pressing the pushbutton directly below it. And release the pushbutton when the digit reaches the desired value. Pressing the "DISP" button or release the button through 3 seconds then the mode will be set.

## 外形尺寸圖 Dimension Diagram



## 端子說明 Connection Diagram



### 信號輸入方式

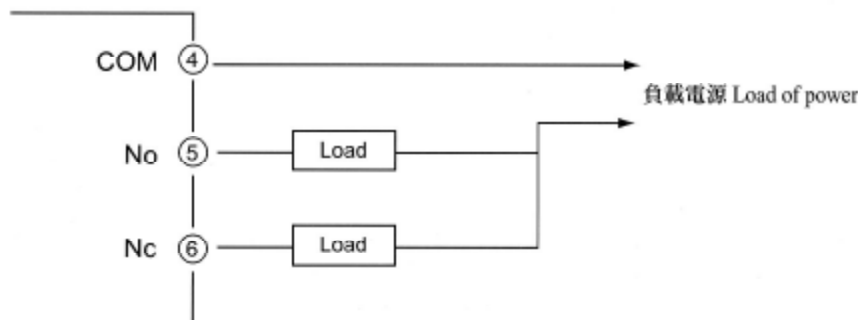
端子A-in,B-in,RS輸入方式皆為NPN輸入(無電壓入力)

### Signal Input Type

The signal input way of the terminal A-in,B-in and RS all are "NPN" input.

### Relay 接點

### Relay contact



### Mode 鍵

mode:選擇設定功能類別

- (1) : relay 動作保持時間,範圍0.1~9.9sec。
- (2) : 倍率設定,範圍0.0001~99.9999。
- (3) : 小數點位置設定。

### Mode key

Mode: used to change display mode or operation mode

- (1) : Relay action, hold time, range 0.1~9.9 sec.
- (2) : Percentage setup, range 0.0001~99.9999.
- (3) : Decimal point setup.

disp 鍵

在於欲結束設定功能時,請按此鍵或3秒內未再按任何鍵,即自動結束設定。

Disp key

When the function setups over, please press the "DISP" key. Or not press any key through 3 seconds, then the function will be set automatically.

| 設定類別<br>Setup type  | 步驟 step   |
|---------------------|---|
| 目標值<br>Preset Value |   |
| 比率值                 | mode →  |
| SICL                | mode → mode →   |
| FOURTE              | mode → mode → mode →<br><small>當需要在小數點後2位,請按此鍵<br/>Press the digit button which corresponds to the first and second decimal position.</small> |

Reset 鍵

在按下此鍵時,現在值清除為零。

Reset key

Press the reset key to clean the current displayed value.

一、SW1:輸入頻率開關

SW1-Hi:信號無濾波電容,頻率可達3KHz。

SW1-Md:信號有濾波電容,頻率可達300Hz。

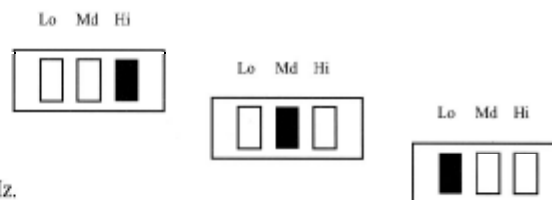
SW1-Lo:信號有濾波電容,頻率可達25Hz。

SW1:Response Time Switch

SW1-Hi:Removes damping capacitor and allows operation up to 3KHz.

SW1-Md:Connects small damping capacitor and limits counter frequency to 300Hz.

SW1-Lo:Connects small damping capacitor and limits counter frequency to 25Hz.



二、SW2開關SW2 switch

1. SW2-1 ON時無法選擇設定功能,SW2-1 OFF時方可選擇設定功能,在選擇設定功能完成後,儘量保持SW2-1在ON的狀態,以免人為操作失誤,增加其困擾。

When SW2-1 is ON, the function can't be set. Just as SW2-1 is OFF, then the function can be selected. When the function mode is selected, trying to hold SW2-1 in the "ON" condition to keep from man-made mistakes.

2. Relay 復歸 N.R.C.

Relay return N.R.C.

SW2-2 OFF

a. N:手動 (MANUAL) SW2-3 OFF

計數值等於設定值時Relay ON,計數繼續上數,直到手動或外部復歸,Relay才復歸,計數值歸零。

When the counting value is equal to the preset value, the relay will turn on. The counter keeps counting up until we press down the "RES" button or connects the terminal 12 & 11 together at the same time, then the display value will return to zero.

b. R:回歸 (RETURN) SW2-2 OFF  
SW2-3 ON

計數值等於設定值時Relay ON,計數繼續上數,待T時間後(計數設定)Relay復歸,計數值歸零。

When the counting value is equal to the preset value, the relay will turn on. The counter will keep counting up, but after several seconds, the relay returns to the original condition and the display value will return to zero.

c. C:繼續 (CONTINUE) SW2-2 ON  
SW2-3 OFF

計數值等於設定值時Relay ON,計數值立即歸零後再繼續上數,而Relay在T時間後(設定)才會復歸。

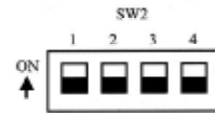
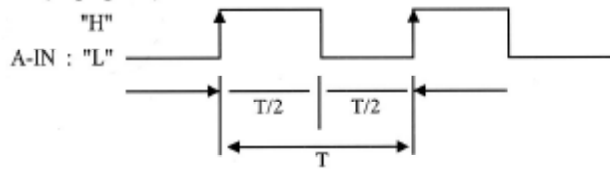
When the counting value is equal to the preset value, the relay will turn on and the display returns to zero at once. Then the counter will keep on counting, and the relay will return to the original condition after several seconds.



3. 計數方式(Counting Method)

a. 加算(單相入力) SW2-4 OFF

a. addition(single phase)

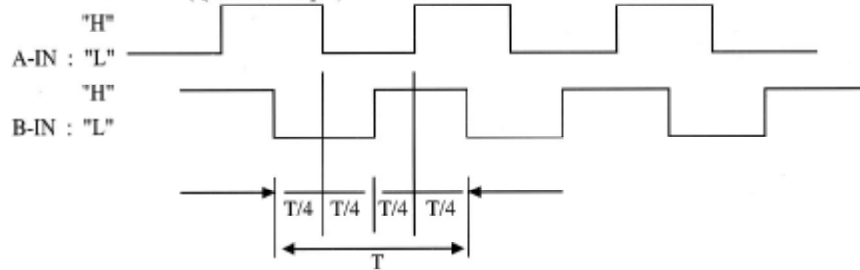


B-IN:為gate功能(暫時停止信號入力)

B-IN:Gate function(to stop signal input temporarily)

b. 加減算(90°相位差輸入)SW2-4 ON

b. addition and subtraction (Quadrature input)



此計數模式最常配合譯碼器(encoder)使用,或配合兩個sensor,但請注意相位儘量要為90°。

This quadrature counting mode can be implemented by the rotary encoder or 2 sets of photoelectric sensors.

c. 注意:在改變計數模式後,必須切掉電源再重新開機。

c. You must turn on the counter again when change the mode of the counter.