

# 6位數微電腦型多功能計數器/計時器(48x48mm)

## (6 DIGIT MULTI-FUNCTION MICROPROCESS COUNTER/TIMER , 48X48mm)

**MODEL  
MM48**



### ■特點(FEATURES)

- 高警報效果,當警報2動作時顯示幕自動變換顏色(紅/綠/橘色)  
(Auto.change red or green or orange display when alarm status changes)
- 可選擇計數器或計時器功能(Counter and timer function can be selective)
- 脈波輸入型式 NPN/PNP 可選擇(Pulse input type NPN/PNP can be modified)
- 計數速度50/10000 脈波/秒可選擇(Accept input rates 50 or 10000 CPS can be modified)
- 五種計數輸入模式可選擇(前/後緣觸發加算,減算,加減算,方向性加減算,90度相位差加減算)(Five counting input modes Front/after edge-up, down,up/down,direct-up/down,quadrature-up/down can be modified)
- 計數器10種警報輸出模式(N/F/R/Q/C/P/K/A/L/H)可選擇  
(Ten output mode N/F/R/Q/C/P/K/A/L/H can be modified)
- 12種計時時間範圍(999.999秒至999999小時)可選擇  
(Twelve timer counting range form 999.999 second to 999999 hour can be modified)
- 計時器11種輸出模式(A/A1/A2/A3/B/B1/B2/C/D/E/F)可選擇  
(Timer eleven output mode A/A1/A2/A3/B/B1/B2/C/D/E/F can be modified)
- 2組警報功能(Two alarm function)

**1.MODEL:MM48-**    X=Input type and output type,reference the connection diagram-back view  
(選購型號)

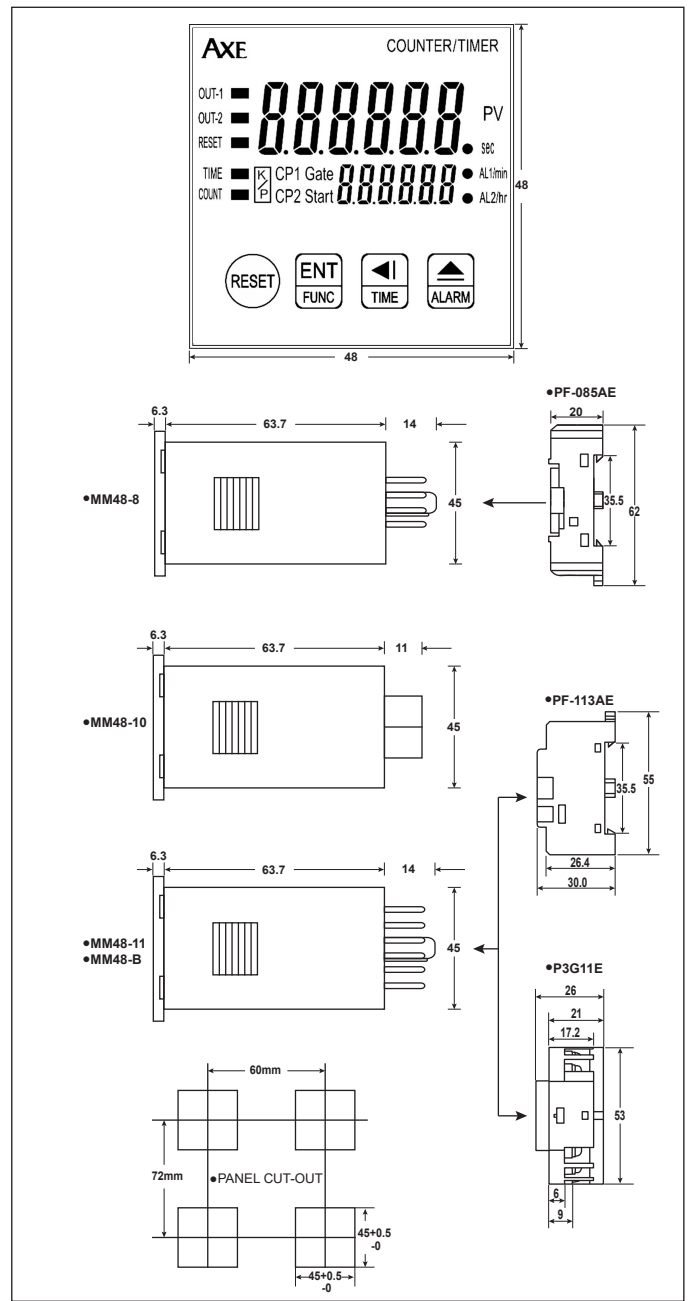
NO	External Connection	NO	External Connection	NO	Source
8	8-pin socket	A	11-pole back connecting socket	A	AC/DC12~48V(<2VA)
10	10-pin terminal	B	11-pole back connecting socket	B	AC/DC18~60V(<2VA)
11	11-pin socket	C	11-pole back connecting socket	C	AC/DC90~260V(<2VA)

### 2.SPECIFICATION(主要規格)

- Source (輔助電源) :AC/DC12~48V±5%(input & power non-isolating)  
AC/DC18~60V & 90~260V(input & power isolating)
- Pulse input type (脈波輸入型式) :NPN/PNP can be modified
- Count input trigger levels (脈波觸發電位) :High level:V<sub>IH</sub>=DC4~30V(Pulse)  
Low level:V<sub>IL</sub>=DC0~2V(Pulse)
- Count input mode (計數器輸入模式) :Front/after edge-up, Front/after edge-down,  
Front/afterup/down,Front/afterDirect-up/down,  
Quadrature-up/downcan be modified
- Maximum.count rates (最高輸入頻率) :<10KHz(up,down,up/down,direct-up/down mode)  
<5KHz(quadrature-up/down mode)
- Readout (Alarm)range (顯示值(警報值)範圍) :-199999~999999 digit (Counter)  
0~999999 digit adjustable(Timer)
- Count Output mode (計數器輸出模式) :N/F/R/Q/C/P/K/A/L/H can be modified
- Timer counting range (計時器計時範圍) :999.999s/9999.99s/99999.9s/999999s/99M59.99s/  
999M59.9s/99999.9M/999999M/99H59M59s/  
9999H59M/99999.9H/999999H can be modified
- Timer output mode (計時器輸出模式) :A/A1/A2/A3/B/B1/B2/C/D/E/F can be modified
- Output hold/one-short time (輸出動作/單觸發時間) :0 to 99.9 second adjustable
- Relay contact output (繼電器容量) :AC250V-5A,DC30V-5A
- Display (顯示幕) :Bright red/green/orange LEDs high 10.16mm(0.4")(PV)  
Bright green LEDs high 5.60mm(0.22")(SV)
- Parameter setting (參數設定方式) :Touch switches
- Sensor power supply (感應器電源) :12VDC ±3%(<60mA)  
10VDC ±3%(<60mA)(Source AC/DC 12V)
- Memory mode (記憶型式) :Non-volatile E<sup>2</sup>PROM memory
- Dielectric strength (絕緣耐壓能力) :2KVac/1 min.(input/output/power)(MM48-xxB/C)
- Operating condition (使用環境條件) :0~50°C (20 to 90% RH non-condensed)
- Storage condition (存放環境條件) :0~70°C (20 to 90% RH non-condensed)
- CE EMC Certification (CE 認證) :EN 55022:1998/A1:2000 Class A  
EN 61000-3-2:2000  
EN 61000-3-3:1995/A1:2001  
EN55024:1998/A1:2001

### 3.OUTSIDE DIMENSION(unit=mm) AND CONNECTION DIAGRAM

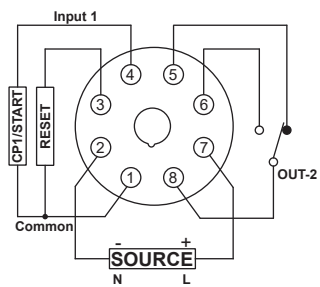
(外型尺寸(unit=mm)與開孔尺寸與配線圖)



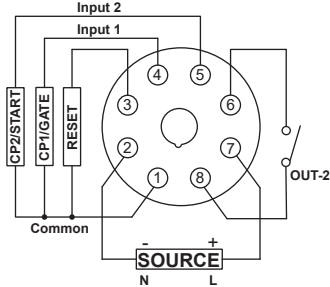
#### 4.CONNECTION DIAGRAM-Back View

(配線底視圖)

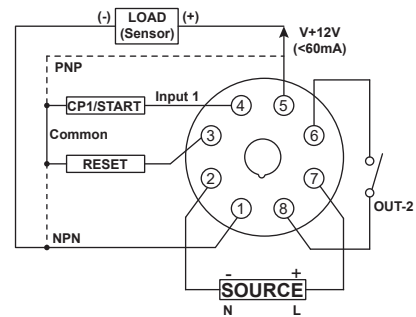
MM48-8A□



MM48-8B□

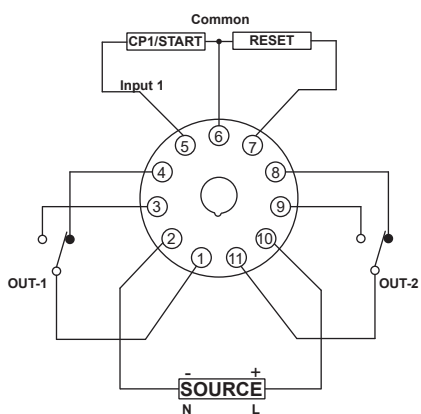


MM48-8M□



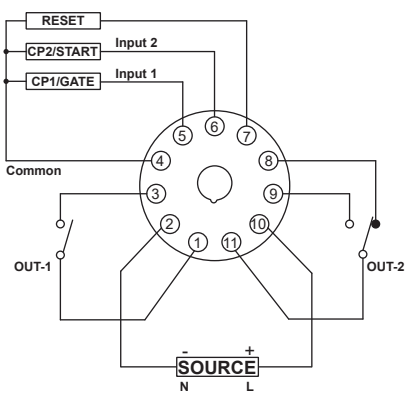
MM48-11A□

MM48-BA□



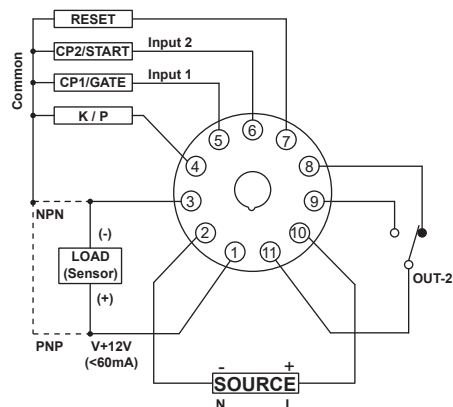
MM48-11B□

MM48-BB□

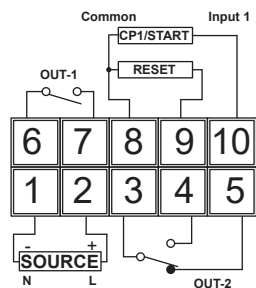


MM48-11M□

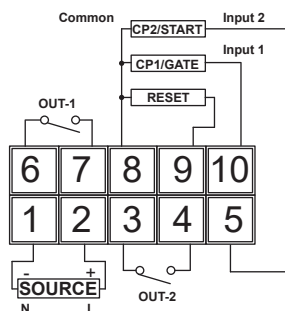
MM48-BM□



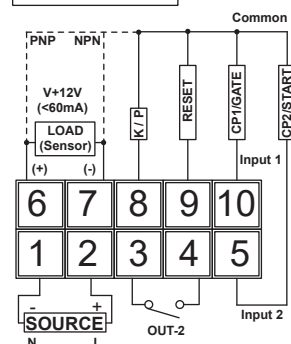
MM48-10A□



MM48-10B□



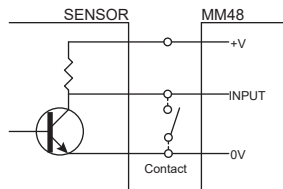
MM48-10M□



Note1:For "NPN" input, the counter parameter- and the time parameter step-select counter "NPN" input (common=0V)  
 Note2:For "PNP" input, the counter parameter- and the time parameter step-select counter "PNP" input (common=V+12V)  
 Note3:When the MM48-11M & MM48-10M the K/P key is ON,Lock the all push-button

#### ■Schematic of MM48-8M□ / 10M□ / 11M□ BM□ with sensor or contact (MM48-8M□ / 10M□ / 11M□ BM□ 接感應器或開關的方法)

●NPN type



●PNP type

