# CT\_\_\_\_SAINT WIEN PROGRAMMABLE COUNTER/TIMER

P1/4

**CT\_ COUNTER/TIMER** CT- SERIES ARE A PROGRAMMABLE OF COUNTER, TIMER INDICATION/CONTROL METER. 1 UNIT IS GOOD FOR BOTH COUNTER & TIMER.3 COUNTING VERSIONS, 4 COUNTING SPEEDS FOR COUNTER. 4 TIMER RANGES FOR M CT3-TIMER. ALL UNIT PROVIDES AUTO/MAN/POWER OFF RESET, EEPROM MEMO, OFFSET, GATE FUNCTIONS. CT1-THERE ARE ALSO WIDE PRE SCALE FACTOR FOR COUNTER. 1 ELECTRICAL & GENERAL CHARACTERISTIC 1 SUPPLY VOLTAGE: 24,110,220VAC 50/60HZ 2 OPERATING VOLTAGE: 90~110% SUPPLY VOLTAGE 3 POWER CONSUMPTION: APPROX. 3VA~7VA UP/REVERSIBLE COUNT. 1/2 PRESET. PRESCALE. 30HZ~FREE NCR AUTO RESET 0.0015~999.9995. 4 AMBIENT CONDITIONS: -10~55oC. 35~85%RH TIMER RANGE:999.9995,99999.95,9999M595,9999H59M 5 WEIGHT: APPROX. 3~500g NCR AUTO RESET 0.0015~999.9995. 6 SETTING METHOD: uR[R], MODE[M], SHIFT[<] & UP[^] 4 KEYS TO SET/PROGRAMME uR [uR]:(A) TO RESET COUNTER, TIMER, RATE METER (B) TO SELECT DP INCORPORATE WITH [<] (EXCEPT TIMER) (C) TO SAVE SETTING VALUE MODE [M]:TO CHECK/SET SHIFT [<]:(A) TO SHIFT DIGIT (B) TO CHECK/SET OFST, IN, DSP INCORPORATE WITH [M] UP [^]:(A) TO INCREASE NUMERAL (B) TO CHECK/SET COUNT SPEED, TIMER RANGE, NCR, DEL & HYS **INCORPORATE WITH MODE [M]** (C) TO CHECK/SET FUNCTION MODEL INCORPORATE WITH [<] 7 SETTING ACCURACY: 0%

8 INDICATION METHOD: 4 OR 6 DIGITS 1 SET OF DIGITAL DISPLAY, CHARACTER HEIGHT CT1-=14.2mm(4D,6D); CT2-=14.2mm(4D), 10mm(6D); CT3-=7.6mm(4D)

9 SIGNAL INPUT: HIGH ACTIVE 6~30VDC 3K3 OHM

	COUNTER		TIMER	SIGNAL FUNCTION		
CP1	PHASE IN A	SIGNAL IN	NO USE	SIGNAL IN		
CP2/G	PHASE IN B	GATE IN	GATE IN	SIGNAL IN/INHIBIT		
uR IN	RESET IN	RESET IN	RESET IN	1.PV=0, 2.OUTPUT OFF		
GATE	GATE IN	NO USE	NO USE	INHIBIT CP1,CP2 IN		

10 CONTROL OUTPUT: (A) RELAY: 3A250VAC RESISTIVE LOAD

(B) VOLTAGE: 12VDC+-10% 4K7 FOR P1 ONLY

11 POWER FOR SENSOR: (A) CT1-, CT2-:12VDC 60mA (B) CT3-:12VDC 20mA

12 PROTECTION: (A) EEPROM MEMORY BACKUP. (B) WATCHDOG. (C) CPU IN CASE OF BREAKDOWN: HOLD[M] [<] [^] 3 KEYS PRESSED AND POWER ON AGAIN. AFTER THE METER RESTORE TO NORMAL OPERATION. RE-CONFIGURE THE METER FOR SPECIFY FUNCTIONS

2 SPECIFICATIONS

\* COUNTER

1 3 COUNTING VERSIONS(FIG 1C,1D); 4 COUNTING SPEEDS(FIG 5A,5B).

1) ONE WAY(UP COUNTING): 30,100,300,FREE(3000HZ)

2) PHASE IN CYCLE COUNT: 15,50,150, FREE(2000HZ, CYCLE COUNTx1=2,000 COUNT)

3) PHASE IN EDGE COUNT : 15,50,150,FREE(1000HZ, EDGE COUNTx4=4,000 COUNT)

2 PRE SCALE FACTOR(DSP): 000.000  $\sim$  999.999(EXCEPT FREE COUNTING SPEED INPUT)

EACH INCREMENT OR DECREMENT IS DSP VALUE. PV DISPLAY INTEGRAL PARTS ONLY.

**3 1 OR 2 PRESET OR INDICATION ONLY** 

4 RESET MODES: N.C.R 000.000  $\sim$  999.999S ADJUSTABLE FOR AUTO RESET C.R. MODES

5 OFFSET(OFST) LOADING: 0  $\sim$  999999. COUNTER START FROM OFST, INSTEAD OF 0

WHEN MANUAL RESET THE COUNTER

6 GATE IN: COUNTING INHIBIT

7 DECIMAL POINT:3 POSITIONS FOR PV,P1,P2,OFST.HOLD [<] USE [uR] TO SELECT DP

8 MINUS(-) SIGN: THE DP OF LEAST SIGNIFICANT DIGIT ACT AS A MINUS (-) SIGN WHEN CP1 LEADING BECOME LAGGING AND DRIVE COUNTER BEYOND 0. PRESET ABSOLUTE PV ONLY & DON'T CARE OF MINUS (-) SIGN.

- \* TIMER
  - 1 4 TIMER RANGES & ACCURACY: (AT 25oC)
    - 1) 9999H59M: +-0.1S+-50PPM/oC
    - 2) 9999M59S: +-1mS+-50PPM/oC
    - 3) 99999.9S: +-1mS+-50PPM/oC
    - 4) 999.999S: +-1mS+-50PPM/oC

2 1 OR 2 PRESET OR TWIN PRESET RE-CYCLE TIMER (FIG 2) OR INDICATION ONLY

3 OFFSET(OFST) LOADING:  $0 \sim$  9999999. TIMER START FROM OFST, INSTEAD OF 0 WHEN

### MANUAL RESET THE TIMER

4 RESET MODES: N.C.R 000.000  $\sim$  999.999S ADJUSTABLE FOR AUTO RESET C.R. MODES 5 GATE IN: TIMING INHIBIT

■3 MODELS PROGRAMMING (FOR COUNTER/TIMER ONLY, USE [<]+[^]) FIG 1~2

1 HOLD SHIFT [<] THEN PRESS UP [^] TO MODEL DISPLAY.

2 USE UP [^] TO SELECT PROPER MODEL.

NOTE:1) NO MODEL'S DISPLAY IF OPTION OF C.T./R AT R INTERNALLY(MINI JUMPER) 3 PRESS [M] TO PV AFTER MODEL SELECTED.

\* MODELS PROGRAMMING FIG 1



## FIG 1B

TYPE	2P		1P	0P	PRES	ET NOS.	
CT	6D2		6D1	6D0	6D	FUNCTION	
	4D2		4D1	4D0	4D	DESCRIPTION	
FUNCTION	с_	15_	c_  _	c	ONE WAY IN		
SYMBOLS	c I	12	'c    _	c !	PHAS	E IN x1	
	сΥ	12	c41_	сЧ	PHAS	E IN x4	
	Ł _	12	E_ !_	٤	TIMEF	R	
	ŁŁ	12			TWIN	TIMER	
1							



# FIG1C cli2 cli\_ cl\_\_



# FIG 2 6612

TIMINO	<u>, , _ , , , , , , , , , , , , , , , , ,</u>
ΡV	0_1P1-1 0 1P2-10 1P1-1
uR	MAN RESET PV=0 DR DFST
D/P	- P1 - P2 -
	TT12 TWIN TIMER



FIG 8

FIG 6 FIG 7



#### #2 #1 NC COM NO NC COM NO GATE Vol 9 10 11 12 13 14 15 16 17 0 0 Ь. Ь 0 2 З 4 5 6 8 1 CP2 CP1 +12V ΟV uR 110VAC

>0-+	+uR IN	+ Vol	+CP2 IN	+CP1 IN	+ +12V	+C IN		
9	10	11	12	13	14	15	16	
	-							
1	2	3	4	5	6	7	8	

FIG 11A FOR CT3-

9 DIMENSIONS (mm)

220VAC

FIG 11 FOR CT1-





#### ■10 ORDERING INFORMATIONS



P4/4

FIG 9A