



**Microprocessor based  
solid state timer/  
counter... housed in  
CYCL-FLEX® case**



The CX200 is a microprocessor based timer/counter housed in a standard 15 terminal CYCL-FLEX® plug-in case. Time or count operation, time range, and standard or reverse start operation is selected by 7 miniature rocker switches located inside the unit housing. Time or count setpoints are entered into the unit using a sealed membrane keypad on the front of the unit. Each digit in the setpoint is individually increased or decreased by pressing the appropriate keypad switch. Time or count setpoint and progress is displayed on the front of the unit by a 4 1/2 digit liquid crystal display with .5 inch digits. Time or count subtracts from the setpoint and the output changes state at zero. Operational mode annunciators also appear in the display area on the front of the unit. The mode annunciator flashes when the unit is timing or counting.

- Five time ranges from 19.999 sec. to 199 hrs.: 59 min.
- Two count rates - accept and display counts from 1 to 19999
- Two relay outputs - socket mounted for easy replacement
- Two form C instantaneous contacts and two form C programmed contacts
- N.O. solid state MOSFET, delayed action switch rated at 1 ampere continuous load current, 0-264 VAC 50/60 Hz or DC
- Ideal output for switching low level signals and high voltage loads due to MOSFET output's ON resistance of 0.5 ohm and very low OFF leakage
- Programmed outputs operate in one of four load sequences; OOX, OXO, OOX with pulse output, and OOX pulse output with repeat cycle operation
- Standard start is defined as ON delay reset timer or counter
- For standard start units, timer/counter resets on power failure
- Reverse start or OFF delay units will not reset on power failure and will continue cycle when power is restored
- Non-volatile memory data retention

## SPECIFICATIONS

### Time/Count Ranges:

Sym.	Maximum Range	Minimum Setting	Count Rate
1	19999 Cts.	1 Ct.	500/Min. AC.
2	19999 Cts.	1 Ct.	5000/Min. AC
3	199.99 Sec.	.01 Sec.	
4	1999.9 Sec.	.1 Sec.	
5	19.999 Sec.	.001 Sec.	
6	199 Min.: 59 Sec.	1 Sec.	
7	199 Hr.: 59 Min.	1 Min.	

**Operating Voltage/Frequency:** A6 - 120 VAC, 50/60 Hz  
B6 - 240 VAC, 50/60 Hz  
K6 - 208 VAC, 50/60 Hz

**Time Inhibit/Count Line Voltage/Frequency:**  
A6 - 120 VAC 50/60 Hz  
B6 - 240 VAC 50/60 Hz  
K6 - 208 VAC 50/60 Hz

**Setting Accuracy:** Time:  $\pm 0.1\%$  or 50 ms, whichever is larger (0° to 60°C)  
Count: 100%

**Repeat Accuracy:**  
Time:  $\pm 0.001\%$  of setting or 35 ms, whichever is larger (0° to 60°C)  
Count: 100%

**Reset Time:** 30 ms following voltage removal from simulated clutch input (CR1)

**Power on Response:** 300 ms maximum after voltage applied to terminal 11

**Operating Temperature:** +32° to +140°F (0° to +60°C)

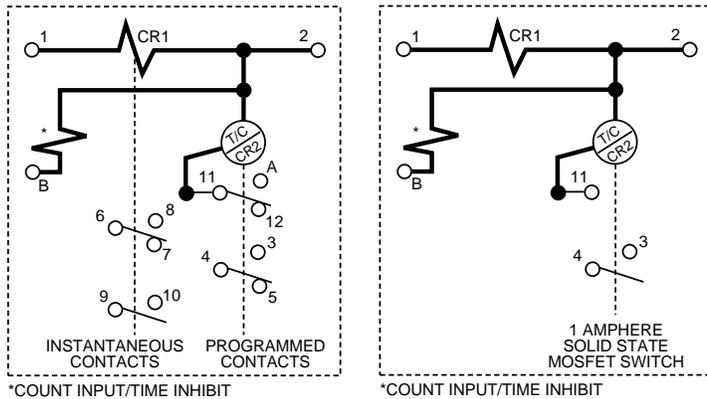
**Output Rating:** Relay: 10 amp (resistive), 120 VAC  
Mechanical Life: 20 million operations  
Electrical Life: contingent upon controlled load  
Solid State: 1 amp, 0-264 VAC, VDC

**Vibration:** Unit function is unaffected by 2.5G sinusoidal vibration magnitude in both directions of the perpendicular mounting axes imposed from 10 to 100 Hz

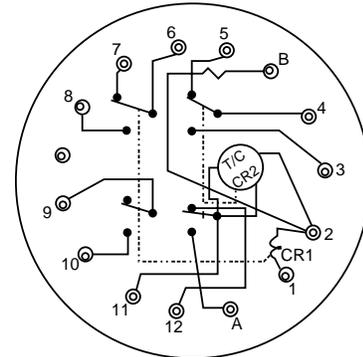
**Static Discharge:** Unit function is unaffected by a constant 3600 volt peak, 60 Hz discharge applied to the grounded front plate at a relative humidity of less than 25%

**Agency Approvals:** UL Recognition E96337  
CSA Certification LR26861

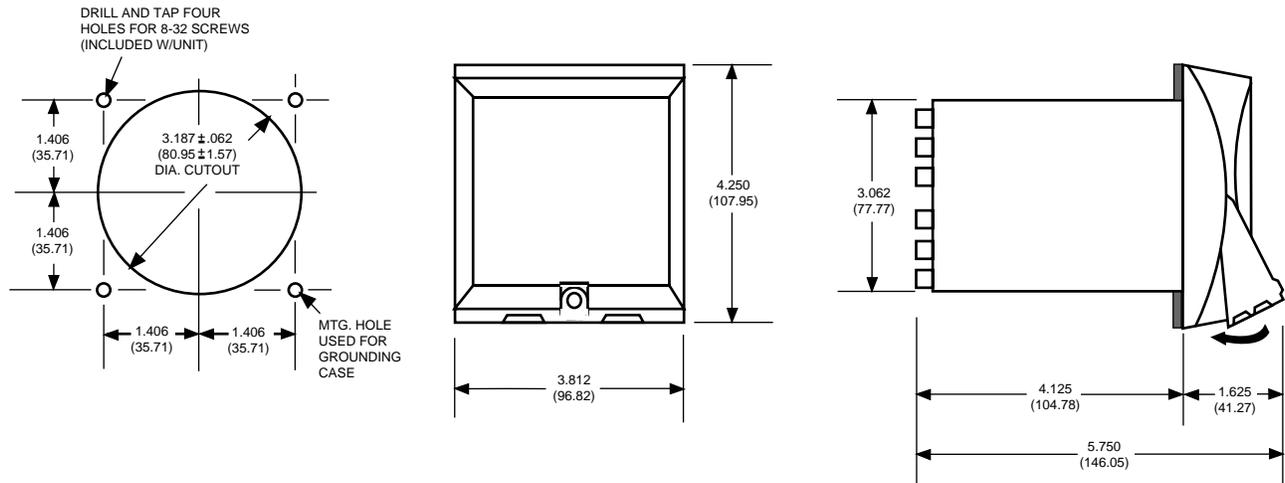
### CX200 TERMINAL ASSIGNMENTS



### TERMINALS AND WIRING DIAGRAM ON REAR OF TIMER CASE



### MOUNTING



### ENCLOSURES

Model No.	NEMA Class	Description
HN308	1	Surface Mtg. with terminal block
HN364	1	Surface Mtg. without terminal block
HN370	1A	Dual unit cabinet less unit cases and toggle switch, with 9 terminal block

### ACCESSORIES

Model No.	Description
H-5331	Mounting Brackets 2 req'd per timer
HP50-31	One Hole Mounting Ring
HP50-131	CYCL-FLEX Water-Sealed Housing
HP50-133	Surface Mounting Adapter to use in place of brackets
PDM-534	1/4 DIN Adapter Plate

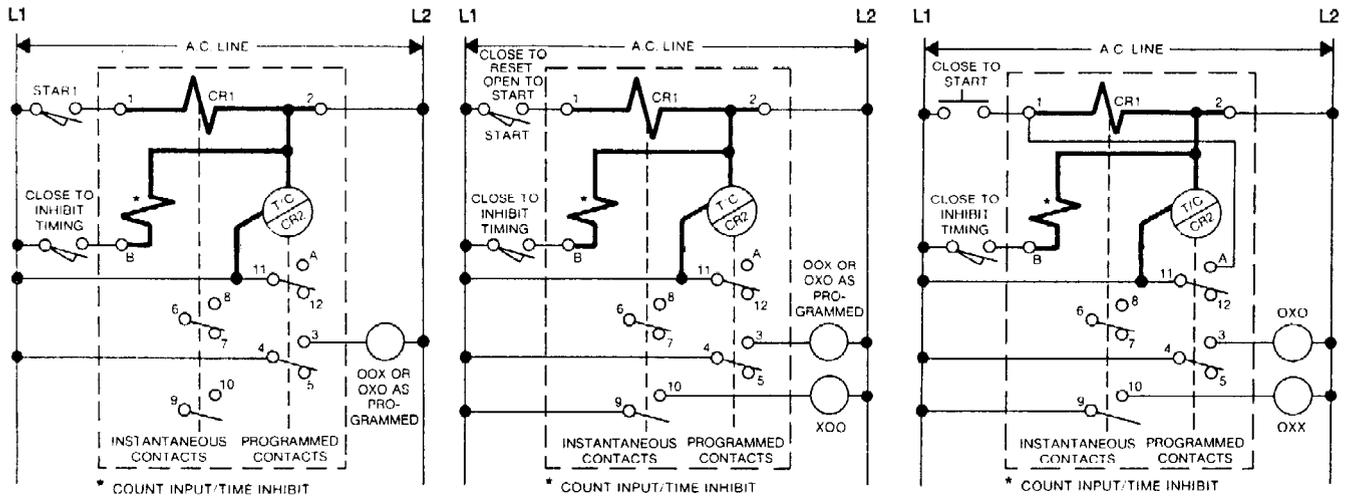
### ORDERING INFORMATION

OUTPUT TYPE		CX2	02	A6	VOLTAGE & FREQUENCY	
Sym.	Description				Sym.	Description
02	10 amp Relay Output				A6	120 VAC, 50/60 Hz
42	1 amp Solid State MOSFET				B6	240 VAC, 50/60 Hz
					K6	208 VAC, 50/60 HZ

## WIRING DIAGRAMS

**Bold Lines are Internal Wiring**

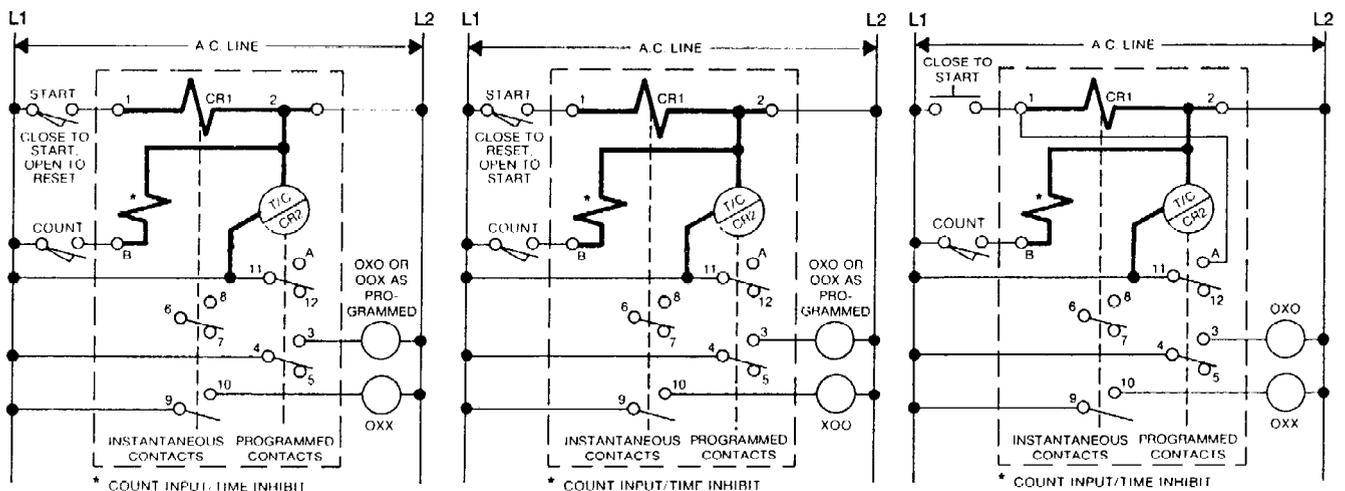
Power to unit is applied to terminal 11 and 2. The unit is started by applying power to terminals 1 and 2. **Power must be applied to terminal 11 at least 300 milliseconds before power is applied to terminal 1.** An isolated input is provided on terminal B which functions as a count input when the unit is used as a counter or as a time inhibit input when the unit is programmed to operate as a timer. Two sets of instantaneous contacts are provided which transfer whenever terminal 1 is energized. In addition, two sets of programmed contacts are provided. When programmed for Reverse Start, the unit will start when voltage is removed from terminal 1.



**Standard Start** — Close start switch to time; open to reset. Cycle progress is stopped without reset by closing inhibit switch. Unit resets on power failure. Setpoint is maintained by battery. Instantaneous contacts actuate with start switch. The programmed contacts actuate as programmed by rocker switches 3-5.

**Reverse Start** — Open switch to time; close to reset. Cycle progress is stopped without reset by closing inhibit switch. Unit does not reset on power failure. Battery retains cycle progress and setpoint.

**Momentary Start** — Close to time. Automatic reset at end of timing period. (Programmed for OXO output ONLY).



**Standard Start** — Close start switch to start, open to reset. Counts are registered when count switch opens. Unit resets on power failure. Setpoint is maintained.

**Reverse Start** — Close start switch to reset, open to start. Unit does not reset on power failure. Battery retains cycle progress and setpoint.

**Momentary Start** — Close to count. Automatic reset at end of counting period. (Programmed for OXO output ONLY).

