



*Repeat cycle timer  
features separate dial  
scales for ON and  
OFF time*



6

ELECTRIC  
TIMERS

The HG1 is an ON-OFF repeat cycle timer engineered with the same features as the rest of the CYCL-FLEX® family.

- Repeat cycle, two circuit timer housed in CYCL-FLEX® plug-in case
- Separate dial scale for ON time and OFF time
- Individually adjustable ON and OFF time intervals via concentric knobs on front of unit
- Combination of ON and OFF time equals total time cycle of unit

## OPERATION

A cycle progress pointer oscillates between the ON and OFF time setpoints. As this pointer crosses the zero point on the dial, two internal 10 amp SPDT output switches transfer. The transfer point of the output switches is adjustable to allow a make before break (overlap) or a break before make (dwell) switch action. The overlap or dwell time interval is limited to 1.5% of the total (ON plus OFF) time cycle.

A synchronous unidirectional motor drives the unit through precision gearing. Instant reversing of the progress pointer is accomplished by positive mechanical action.

## SPECIFICATIONS

**Time Ranges:**

| Sym. | Dial Range | Minimum Setting | Max. Dwell or Overlap |
|------|------------|-----------------|-----------------------|
| 00   | 30 Sec.    | .5 Sec.         | .5 Sec.               |
| 01   | 60 Sec.    | 1 Sec.          | 1 Sec.                |
| 02   | 150 Sec.   | 2 Sec.          | 2 Sec.                |
| 03   | 5 Min.     | 5 Sec.          | 5 Sec.                |
| 04   | 10 Min.    | 10 Sec.         | 10 Sec.               |
| 05   | 30 Min.    | 30 Sec.         | 30 Sec.               |
| 06   | 60 Min.    | 1 Min.          | 1 Min.                |
| 07   | 150 Min.   | 2 Min.          | 2 Min.                |
| 08   | 5 Hr.      | 5 Min.          | 5 Min.                |
| 09   | 10 Hr.     | 10 Min.         | 10 Min.               |
| 10   | 30 Hr.     | 30 Min.         | 30 Min.               |

**Voltage/Frequency:** 120V, 60 Hz  
240V, 60 Hz

**Burden:** 2.5 VA @ 120V AC

**Output Rating:** 10 amp 120 VAC, 5 amp 240 VAC Resistive  
Mechanical Life: 10,000,000 operations  
Switch Life: 250,000 under 10 amp, 120 VAC resistive load  
1,000,000 under 5 amp, 120 VAC resistive load

**Repeat Accuracy:** 1/2 of 1% of dial

**Temperature Range:** -20° to 140°F

**Agency Approvals:** UL Recognition E61735  
CSA Certification LR26861

## OPERATION

### To Set

Move the black pointer to the desired OFF setting and the orange pointer to the desired ON setting (as shown in Figure 1). The sum of these ON and OFF intervals cannot exceed the total time of one scale. Switch contacts are tripped open or closed each time the indicator pointer passes 0. When the indicator pointer is in the OFF scale to the left of 0 contacts 4-3 and contacts 6-8 are closed and 4-5 and 6-7 are open. When the indicator pointer is in the ON scale to the right side of 0 contacts 4-5 and 6-7 are closed and 4-3 and 6-8 are open. The indicator pointer must travel to the preset limit and back to 0 to complete the total ON or OFF interval. The two switches can operate together or be set to allow a break before make (dwell) interval or make before break (overlap) between ON-OFF switching. Refer to the standard time range chart under specifications for the maximum dwell or overlap interval for each time range. Figure 2 illustrates the path of the indicator pointer and the switch action each time the zero point is passed. Figure 3 illustrates the terminal location on the rear of the unit case.

## WIRING

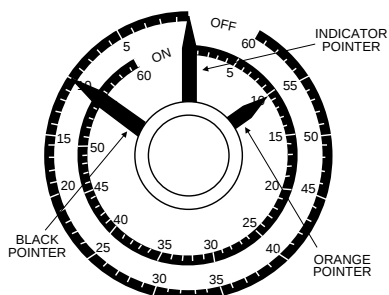


Figure 1

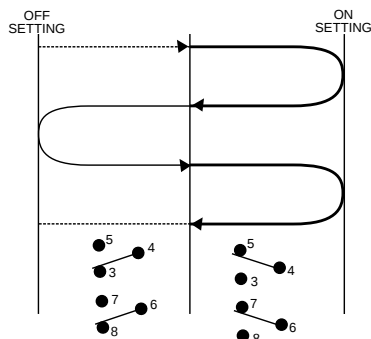


Figure 2

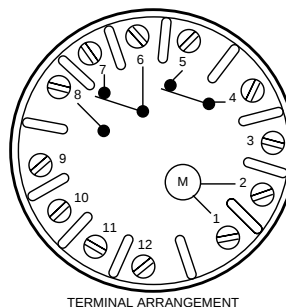
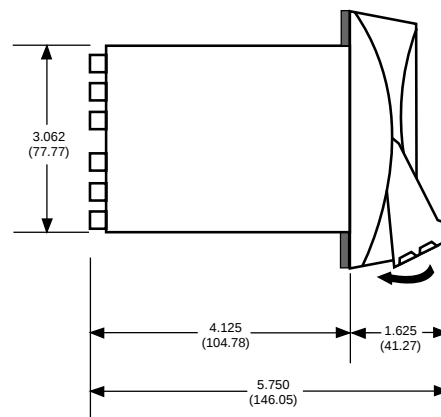
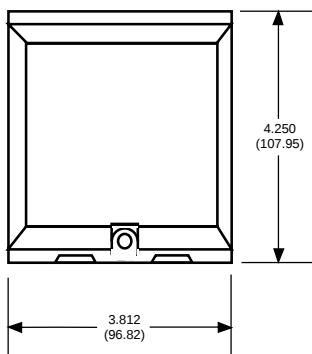
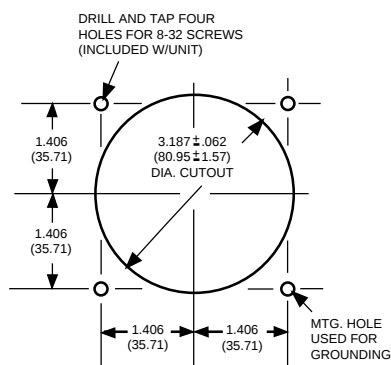


Figure 3  
TERMINAL ARRANGEMENT  
CONTACTS SHOWN IN  
"ON" POSITION

## 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                               |
| HP50-133  | Surface Mounting Adapter to use in place of brackets |

## ORDERING INFORMATION

Consult Customer Service for availability of other time ranges, voltages, and frequencies.

