

Cycle Timers

SERIES C10/C11

For Control of multiple time-related functions in machinery or appliances.

These traditional "repeat cycle timers" consist of one or more load switches actuated by synchronous motor driven cams. The sequence and duration of operation is governed by adjusting the cams and the rotational speed of the cam shaft. If desirable, cut cams can be provided to eliminate the necessity for adjustment. C10 features replaceable switches for ease of field service.

PERFORMANCE DATA

Standard Cycle Times

1 revolution in:

Seconds — 5, 6, 10, 12, 15, 20, 30, 40, 45

Minutes — 1, 1 1/2, 2, 2 1/2, 3, 4, 5, 6, 7 1/2, 10, 15, 20, 30, 40, 45

Hours — 1, 1 1/2, 2, 2 1/2, 3, 4, 5, 6, 7 1/2, 10, 12, 15, 24

Fastest Operating Speeds Recommended with standard motor

Switch arms climbing Cycle time — For each additional switch arm, add two seconds. For higher speeds use higher torque motors and/or special switches.

rise at one time 1 rev. / sec.

1

5

2

7

AC Power Timer Size

120V, 60Hz, others available. C11: 1 thru 3 poles. C10: 3 thru 24 poles.

Repeat accuracy: ±0.5% of cycle on continuous cycling.

Setting accuracy on cams: ±3° at any one operating point.
±6° between any two operating points.

Switch rating: Resistive AC: 10A @ 120V, 240V. 1/3HP @ 120V, 240V.
Resistive DC: 1/2A @ 120V. 1/4A @ 240V.
(15A, 1/2HP switch available.)

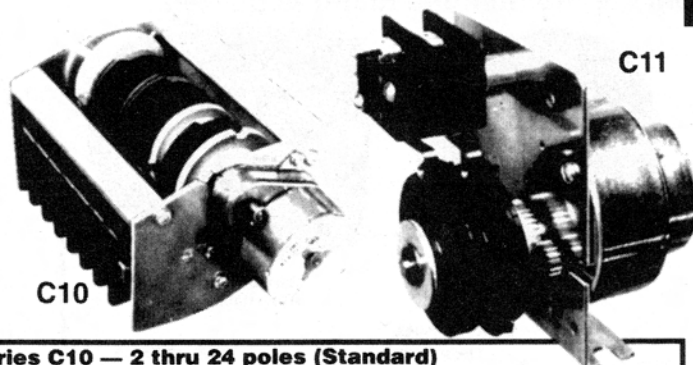
Switch terminals: Std — 3/16 in. male; 1/4 in. male optional

Life expectancy: Mechanical — Over 5 million operations.

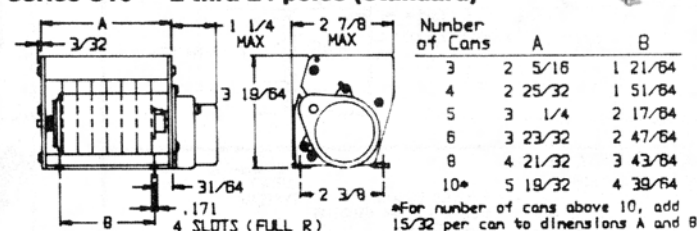
Electrical — Over 1 million cycles at 80% of rated load.

Power consumption: Approx. 3 watts. UL Listed, CSA Approved.

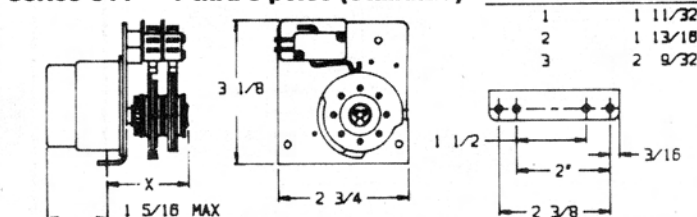
Variations: Non-standard voltages, frequencies. Non-standard time ranges. Shaft extensions, dial and knob.
Hysteresis Synchronous Motor.



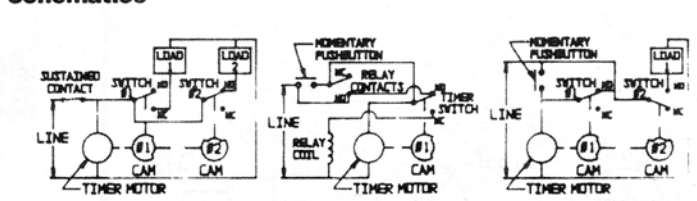
Series C10 — 2 thru 24 poles (Standard)



Series C11 — 1 thru 3 poles (Standard)

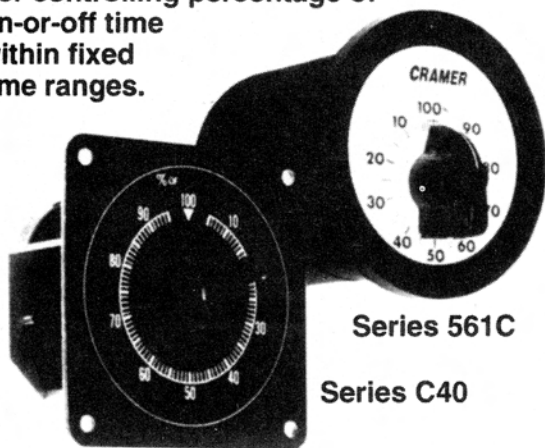


Schematics



Percentage Timers

For controlling percentage of on-or-off time within fixed time ranges.

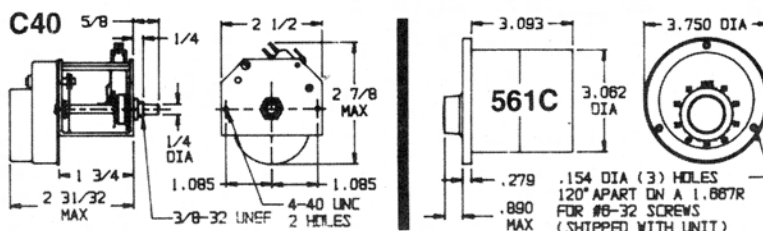


Applications

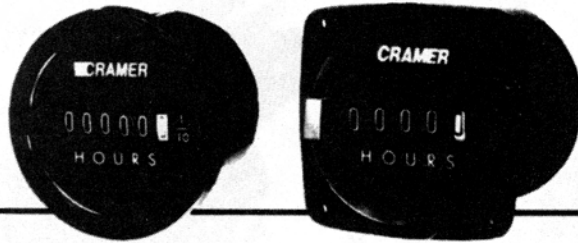
- Irrigation control.
- Commercial and industrial heating applications.
- Pump cycling.

PERFORMANCE DATA

	561C	C40
Time Ranges	15, 30, 60 Sec. 2, 5 Min.	15, 30, 60 Sec. 15, 30, 60 Min.
Mounting	Panel Mount	Panel Mount
Settings	4% - 96% or 100% "ON"	5% - 95% or 100% "ON"
Control Rating	20 Amp Resistive	10 Amp Resistive
Repeat Accuracy	2% of Full Scale	1% of Full Scale
AC Power	120V 60 Hz	120V 60 Hz
Optional Power	24, 220V 50 or 60 Hz	24, 220V 50 or 60 Hz

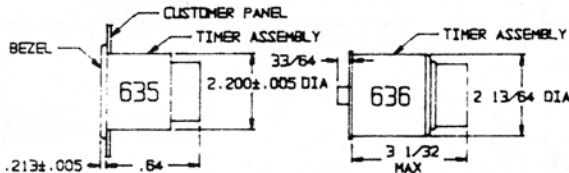


Designed to show amount of time used from the moment the meter is started.



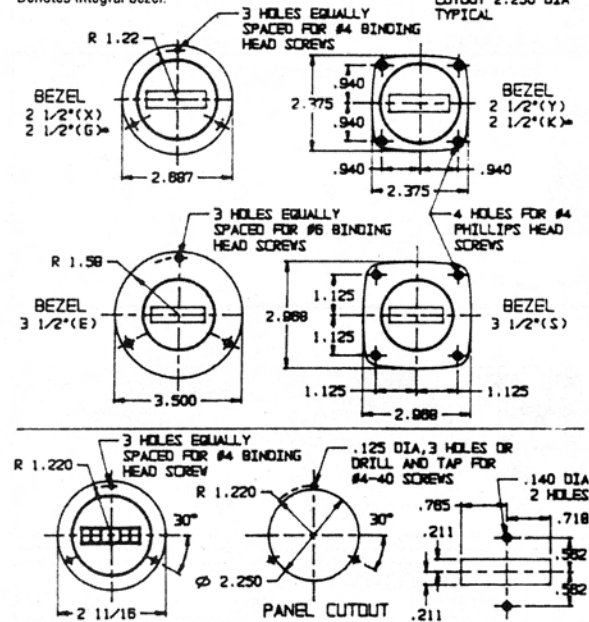
Series 635
(Non-resettable)

Series 636
(Resettable)



SELECTING THE BEZEL

* Denotes integral bezel.



PERFORMANCE DATA

Time registration : 635—99999.9 min or hrs/636—9999.9 sec, min or hrs.
Motor Ratings : 24, 120, 240VAC / 50 or 60 Hz.
Power Consumption : 2.7 watts (electrical connections 6 inch leads)
Ambient temperature : -20°C to +55°C
 UL Listed and CSA Approved.

For controlling length of procedures or delaying the start of a procedure.

Cramer Interval Timers are designed specifically to time the period during which a load is energized. All series available with either manual or automatic reset.

	Series 241 Time Ranges: 6 sec to 120 hours. Load Switch: 15 Amp — 125V 10 Amp — 250V	Controls a wide range of electrically operated equipment, such as copying machines, mixers, ovens, tumbling and plating machines and insulation testing machines. Available from stock for immediate shipment.
	Series 271 Time Ranges: 60 sec to 72 hours. Load Switch: 15A 115V Resistive or 115V 1/3 HP	Primarily for built-in applications. Available with or without standard dial and pointer-knob. In two-pole units, second cam is factory set to operate immediately prior to the first.
	Series N30 Time Ranges: 6 sec to 3 days. Load Switch: 1 or 2, SPDT-10A	An inexpensive manual-set unit engineered for easy panel mount. Smooth internal friction for ease of setting regardless of time range. Dust cover optional for flange-mounted units.
	Series D10J-K Time Ranges: 15 sec to 3 days. Load Switch: 1 or 2, SPDT-10A	Relay Timer for use either as a delay function or interval function where remote actuation is required. Usually triggered by independent action rather than operator.
	Series 472 Time Ranges: .4-6 sec to 96 min. - 24 hours. Load Switch: 1 or 2, SPDT-10A	Designed for interval or delay timing with 3 switches, motor and clutch wired to 8-place terminal block. Permits momentary or sustained contact control.