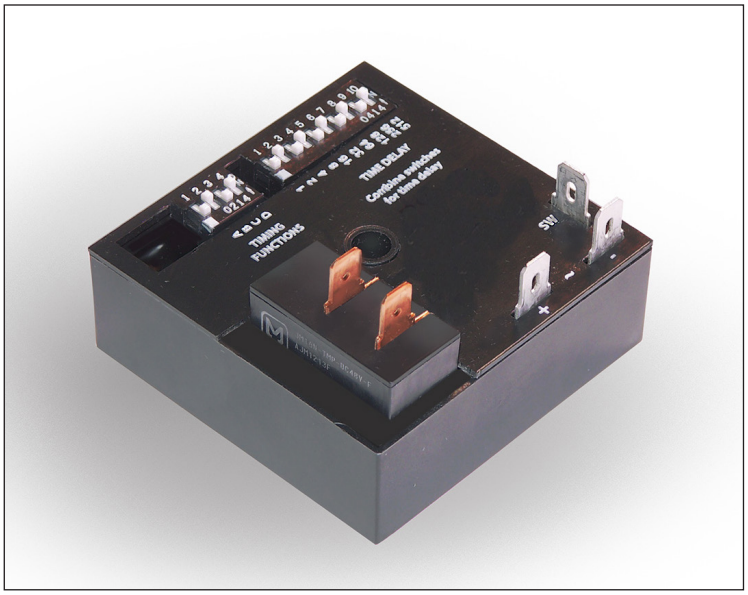
Timing Mode: **MULTIFUNCTION**
Category: **TIMER WITH RELAY**
Series: **MC453**

CUBE RELAY, MULTIFUNCTION

AIROTRONICS
Timers & Controls

PELCO COMPONENT TECHNOLOGIES • 855 227 3526



MC453 Timers

MC453 series are multifunction timers with dipswitch adjustments and relay output.

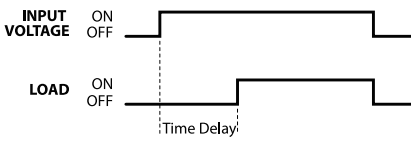
Offering five timing modes in a single unit and time delay settings from 0.1 second to 1023 minutes, the MC453 series is a cost-effective solution for myriad applications.

Set to select Delay on Make, Delay on Break, Single Shot, Interval, or Percentage timing.

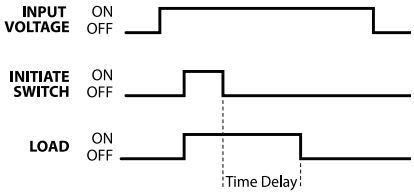
Provides timed sequencing of functions such as liquid dispensing, moisture purging, stirring, controlled lighting, feed distribution, water and air circulation, and many more.

Timing Modes

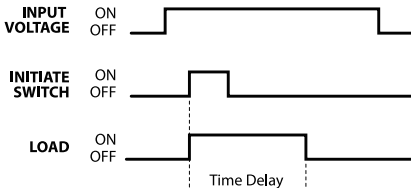
1 Delay on Make Application of input voltage to the timer starts the time delay. At the end of the time delay the load is energized. To reset, remove the input voltage from the timer.



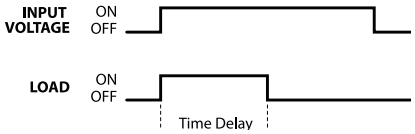
2 Delay on Break Input voltage is applied continuously. Upon closure of the initiate switch the load is energized and remains energized as long as the switch is closed. When the initiate switch opens, the load remains energized and the time delay is started. At the end of the time delay the load is de-energized and the timer is ready for another cycle.



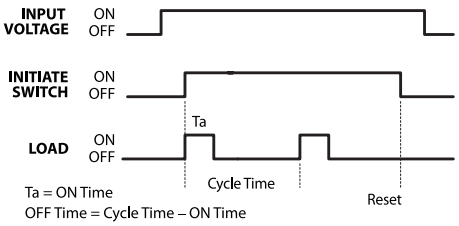
3.1 Single Shot Input voltage is applied continuously. Upon closure of the initiate switch the load is energized and the time delay is started. At the end of the time delay the load is de-energized and the timer is ready for another cycle. Maintained closure of the initiate switch will not affect the time delay period.



3.2 Interval Replace the initiate switch with a permanent electrical connection between terminals marked SW and (–). Application of input voltage to the timer energizes the load and starts the time delay. At the end of the time delay the load is de-energized. To reset, remove the input voltage from the timer.



4 Percentage Input voltage is applied continuously. Upon closure of the initiate switch the load is energized and the ON time delay is started. When ON time delay expires, the load is de-energized and the OFF time delay is started. Load cycles ON / OFF until initiate switch opens or input voltage is removed. Opening the initiate switch turns the load off and resets the timer.



FEATURES

- **Multifunction, accurate timing**
- **Binary dipswitch adjustable**
- **Wide selection of timing ranges**
- **Wide selection of AC and DC input voltages**
- **Totally encapsulated for protection from harsh environments**
- **100% operational testing**
- **RoHS compliant**

BASIC WIRING AND DIMENSIONS

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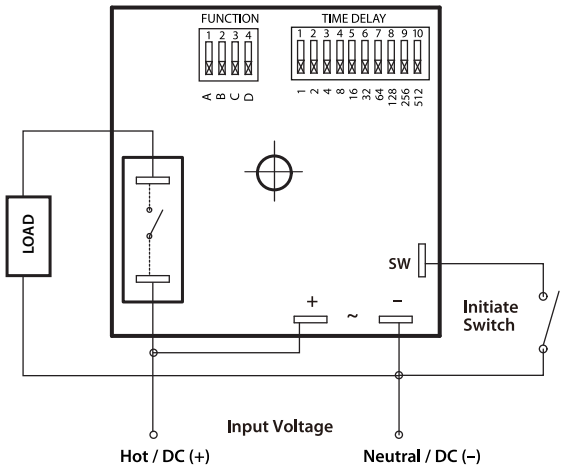

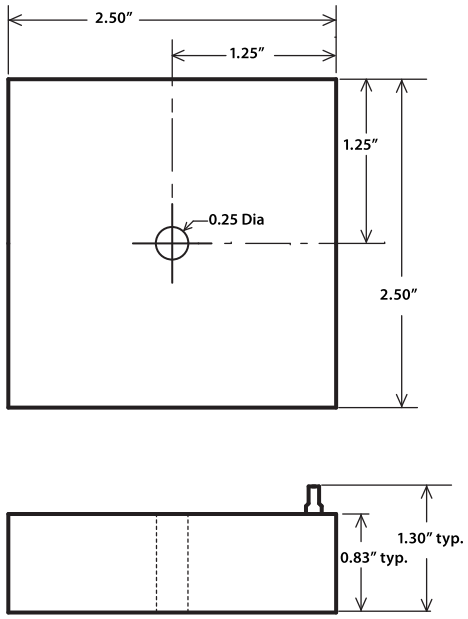

SPECIFICATIONS

Input Voltage: 24, 120 or 230VAC, 50 / 60Hz, ±10%;
12 or 24VDC ±10%

Output current: 25A resistive, 1.5HP, max.

Time delay: Adjustable from 0.1 second to 1023 minutes,
select Range via Function dipswitches C and D;
set Delay via cumulative Time Delay dipswitches

Timing function: Multiple timing modes available
select via Function dipswitches A and B

Repeatability: 0.1% or 20mS, whichever is greater

Time delay accuracy: 2.5% or 50mS, whichever is greater

Recycle / Start-up time delay: 250mS, typ.

Temperature Ranges: *Storage:* -40°C to +85°C
Operating: -25°C to +60°C

Mechanical: 2.5″ x 2.5″ case, Surface mount with
one #8 or #10 screw
0.25″ QC terminals for input and output

Protection: Encapsulated circuitry,
MOV transient protection

VOLTAGE SELECTION

Mode of Operation	Series	Part Number	Input Voltage
Multi-function and Resettable	MC453	MC1004531J	120VAC
		MC2004531J	230VAC
		MC3004531J	24VAC
		MC7004531J	12VDC
		MC4004531J	24VDC

SETTINGS

1. Configure Timing Mode settings via Function dipswitches A and B

2. Configure Time Range settings via Function dipswitches C and D

   a. Time range selection for DOM, DOB, SS/I

   OR

   b. Time range selection for Percentage

Dipswitch A	Dipswitch B	Function: Timing Mode
0	0	Delay on Make
0	1	Delay on Break
1	0	Single Shot / Interval
1	1	Percentage
C	**D**	**Time Range**
0	0	0.1s–102.3s
0	1	1s–1023s
1	0	10s–10230s
1	1	1m–1023m
C	**D**	**ON Time / Cycle Time**
0	0	0.1s–99.9s/100s
0	1	1s–999s/1000s
1	0	10s–9990s/10000s
1	1	1m–999m/1000m

3. Combine Time Delay dipswitches to achieve desired time delay

   For Percentage function, ON time selection higher than max ON time is limited to max ON time.