



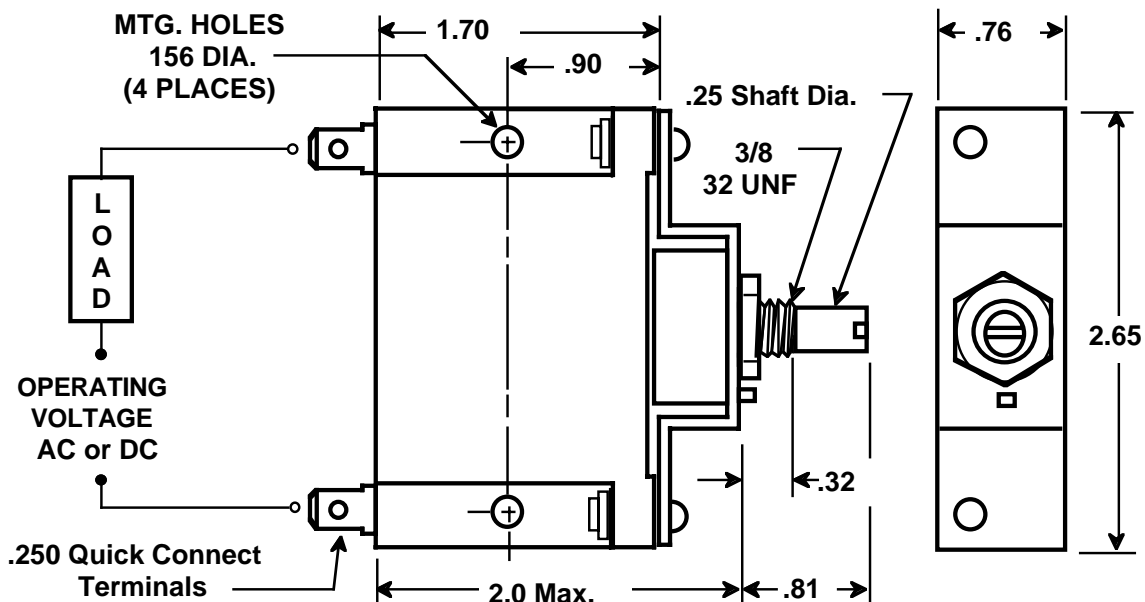
## Solid State Timers and Controllers

# 438AP Adjustable Panel Mount Delay-On-Make Time Capsule®



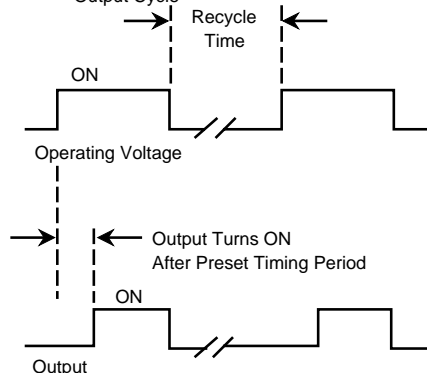
The model 438AP (Adjustable Panel -Time Capsule) is an all Solid State timer providing "Delay on Make" control to any load operating from specified operating voltages. The timer is wired in series with the load without concern for polarity. When power is applied, the 438AP remains in the "off" state. After the preset period has elapsed the timer switches "on" energizing the load. The timing period is controlled by a potentiometer wired internally, providing a method by which to panel mount the timer.

### Mechanical & Wiring



### Timing Diagram

Operating Voltage Must  
Be Removed For At Least  
The RECYCLE TIME  
To Assure Another  
Output Cycle



### Panel Cutout

Potentiometer rotation is 280°

**Tel: 201-428-1770 • Fax: 201-428-1426 • Toll Free: 800-457-4950**

**Artisan Controls Corporation, 5 Eastmans Road, Suite 100, Parsippany, New Jersey 07054, USA**



## Solid State Timers and Controllers

### Specifications .....

**Operating Voltage:** 12V AC/DC, 24V AC/DC, 48V AC/DC, 115V AC/DC, 230V AC/DC.

**Voltage Tolerance:**  $\pm 15\%$  at specified operating voltage.

**Timing Mode:** Delay-On-Make, external load energizes after preset timing period.

**Fixed Timing:** Factory fixed at any timing period from 0.1 seconds to 10,000 seconds.

**Tolerances On Fixed Timing:** 10%.

**Adjustable Timing Ranges:** Ten (10) ranges of potentiometer adjustable delay-on-make timing from 0.1 seconds to 900 seconds.

**Adjustable Timing Setting Accuracy:** Minimum time - 15%, +0%. Maximum time - 0%, +15%.

**Potentiometer Rotation:** 280°.

**Timing Variation:** Less than 5% of set point over full temperature and voltage range.

**Repeatability Of Timing Period:**  $\pm 1\%$  at stabilized operating voltage temperature.

**Recycle Time:** Operating voltage must be removed for a minimum of 50mS after timing period, 200 milliseconds during timing period to assure new cycle repeats to full time delay period.

**Output Rating:** 10mA to 1A inductive with inrush current to 25A for 8 milliseconds.

**Output Switch Characteristics:** 4 volt drop across output switch when ON, 3mA leakage when OFF.

**Transient Protection:** Protected by silicon transient suppressors responding to transients within  $1 \times 10^{-12}$  seconds to a peak pulse power dissipation of 1500 watts, with transient surge currents to 200 amperes for durations up to 1/120 second at 25° C. Maximum transient voltage protection is 6000 volts as delivered through a source resistance of 30 ohms with a maximum duration of 8.3ms.

**Dielectric:** 1500V rms all terminals to case.

**Operating Temperature:** -20°C to +85°C

**Construction:** Encapsulated module with .25 quick connect wiring terminals.

**Agency Recognitions:** UL File #E47858 (Component Appliance Controls #ATNZ2),  
UL File #E47858 (Component Auxiliary Devices #NKCR2),  
CSA LR31931-3 (Industrial Control Equipment).

**Data Sheet Revision Date:** June 7, 1995

### Ordering Information .....

Part Number	Operating Voltage	Timing Range In Seconds
438AP -	- 12	-1 (0.1 - 4.0 )
		-2 (1 - 30)
	- 24	-3 (2 - 100)
		-4 (10 - 500)
	- 48	-5 (30 - 900)
		-6 (0.1 - 0.4 )
	- 115	-7 (1 - 3)
		-8 (2 - 10)
	- 230	-9 (10 - 50)
	Operates On Either AC Or DC	-10 (30 - 90)



*Example: 438AP - 24 - 2  
438AP, operating from 24V AC,  
with adjustable timing  
from 1 to 30 seconds.*

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