



# Solid State Timers and Controllers



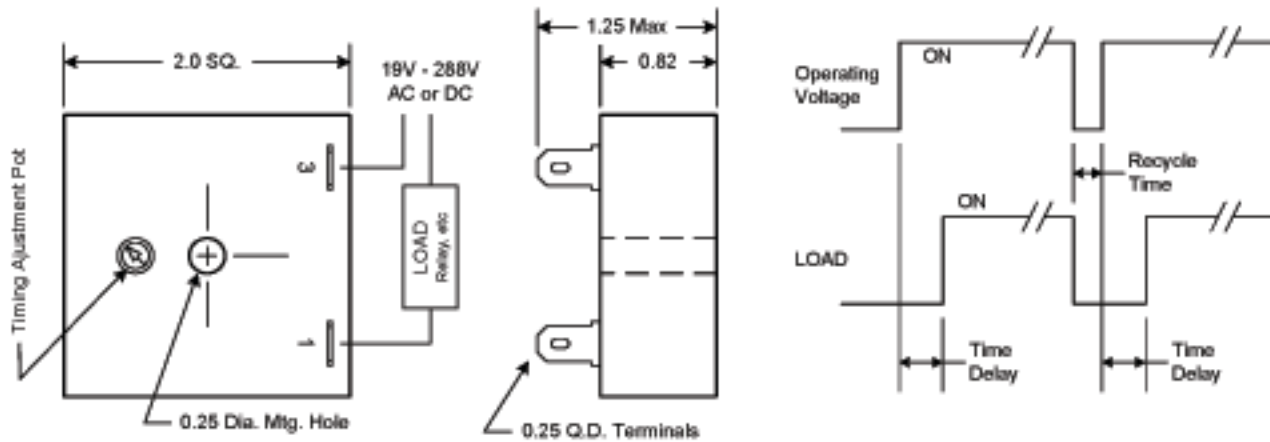
## 438UPS

Universal  
Potentiometer  
Time Capsule®



The Model 438UPS is a solid state timing device that performs as an in-line delay-on-make timer. By connecting the two terminals in series with any load circuit drawing between ten milliamperes and one ampere operating from 19 volts and 288 volts AC or DC, the 438UPS turns that load circuit into a delay-on-make timing circuit. The timing period is set by an internal potentiometer from one second to six minutes. After the load circuit has energized a new cycle can be repeated by removing and re-applying the operating voltage.

### Mechanical & Wiring ..... Timing Diagram .....



### Specifications .....

**Operating Voltage:** 19V - 288V AC/DC 50/60Hz.

**Timing Mode:** Delay-On-Make - Load turns ON after delay period.

**Timing Control:** Internal potentiometer controls the timing period from 1 to 480 seconds.

**Timing Adjustment:** Timing is essentially linear between 1 and 480 seconds permitting the potentiometer to approximate the value of timing over its adjustment span of 270° to within 10% of the desired timing period.

**Timing Tolerance:** Maximum range of 480 seconds to within 15%.

**Timing Variation:** ±2% at any combination of operating voltage and temperature.

**Repeatability Of Timing Period:** ±1% nominal.

**Recycle Time:** 50 milliseconds.

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

**Output Voltage Drop in "ON" State:** 4 volts maximum.

**Leakage Current in "OFF" State:** 0.6MA @24V, 1.8MA @120V, 11.4MA @240V.

**Transient Protection:** Maximum transient voltage protection is 6000 volts as delivered through a source resistance of 30 ohms with a maximum duration of 8.3 milliseconds.

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

**Humidity:** 95% condensing

**Terminations:** Two (2) .25 Faston type.

**Agency Recognition:** UL File E47858, Appliance Controls - Component ATNZ2 (US) & ATNZ8 (Can), Auxiliary Devices - Component NKCR2 (US) & NKCR8 (Can).

**Data Sheet Revision Date:** February, 4, 2006

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