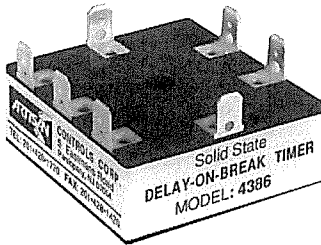




# Solid State Timers and Controllers

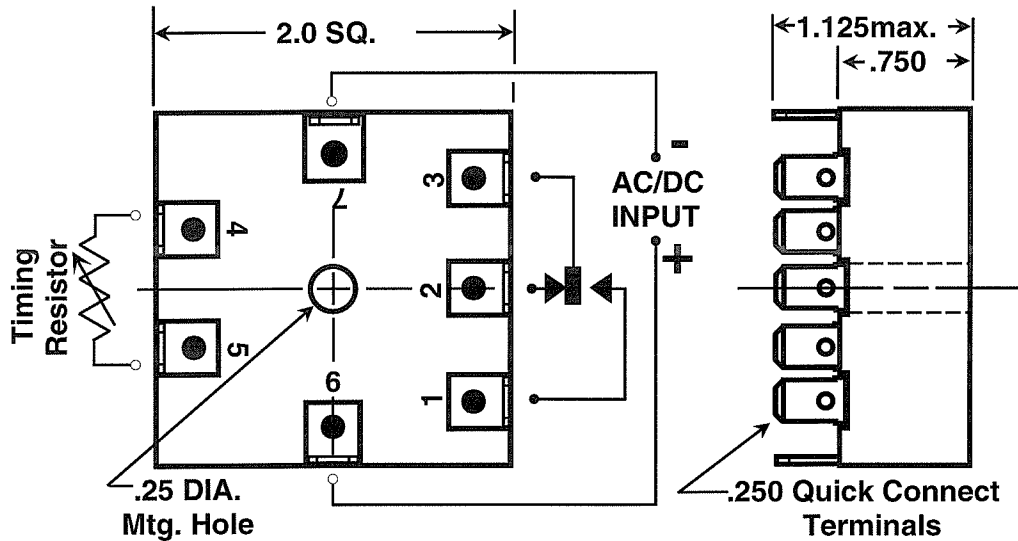
## 4386

### True Delay-On-Break Timer

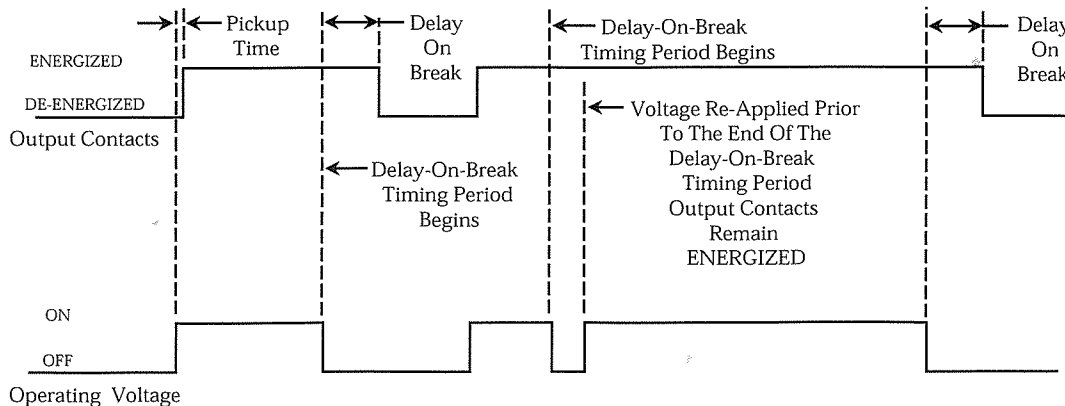


The model 4386 is considered a TRUE delay-on-break timing relay because it does not require any operating voltage or control voltage to maintain the output contacts in a transferred state after operating voltage has been removed. When the operating voltage is applied, the output contacts energize and remain energized until the operating voltage has been removed. When the operating voltage is removed, the delay-on-break timing period begins. At the end of the timing period, the output contacts de-energize. The model 4386 is available in both fixed and remotely adjustable timing models.

### Mechanical & Wiring



### Timing Diagram





## Solid State Timers and Controllers

### Specifications

<b>Operating Voltage:</b>	12V DC, 24V DC, 48V DC, 12V AC, 24V AC, 50/60 Hz.
<b>Operating Voltage Tolerance:</b>	DC models -10%, +40%, AC models -10%, +20%.
<b>Operating Current:</b>	20mA any operating voltage AC or DC.
<b>Timing Mode:</b>	True Delay-On-Break - No power required during timing.
<b>Fixed Timing:</b>	From 0.5 seconds to 300 seconds.
<b>Purchase Tolerance</b>	
<b>On Fixed Timing Periods:</b>	±10%.
<b>Adjustable Timing Range</b>	0.5 to 300 seconds in 5 ranges.
<b>Purchase Tolerances:</b>	Adjustable delay-on-break timing envelope guaranteed with maximums of 25% on the low time and +50% on the high time.
<b>External Timing Resistor:</b>	All models meet the <i>Adjustable Timing Range Purchase Tolerances</i> specifications over the resistance range of 0 to 1 Meg ohms
<b>Timing Resistor Tolerances:</b>	5% maximum and still fall within the overall timing tolerances of the adjustable models when considering the timing envelope overlap on the low and high end of the timing range specified.
<b>Timing Resistor Rating:</b>	Worst case power dissipation never exceeds 15 milliwatts.
<b>Repeatability Of Timing Period:</b>	±3% nominal.
<b>Recycle Time:</b>	A new cycle can be initiated 50 milliseconds after the completion of the Delay-On-Break timing period. Application of operating voltage during the Delay-On-Break timing period will maintain the output contacts energized and reset the delay-on-break timing period.
<b>Output:</b>	SPDT contacts.
<b>Pickup Time:</b>	100 milliseconds maximum.
<b>Output Contact Rating:</b>	UL/CSA rated for 8A 1/6 HP 125V, 250V AC 5A 30V DC. 1000Vrms breakdown voltage between open contacts, 1000Vrms breakdown voltage between all contacts and operating voltage terminals. Insulation resistance 1000MΩ at 500V DC. 1500V FCC surge voltage rating between contacts.
<b>Electrical Life Expectancy:</b>	50,000,000 operations.
<b>Mechanical Life Expectancy:</b>	40,000 operations at 4A 125V AC.
<b>Operating Temperature:</b>	-20°C to +65°C
<b>Transient Protection:</b>	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.
<b>Data Sheet Revision Date:</b>	May 10, 1996

#### Ordering Information Fixed Timing:

Part Number	Operating Voltage	Timing Period
4386F -	-1 (12V DC)	Specify fixed time from .5 to 300 seconds
	-2 (24V DC)	
	-3 (48V DC)	
	-4 (12V AC)	
	-5 (24V AC)	

#### Ordering Information Adjustable Timing:

Part Number	Operating Voltage	Timing Range
4386A -	-1 (12V DC)	-A 0.5-5 Sec
	-2 (24V DC)	-B 1-10 Sec
	-3 (48V DC)	-C 3-30 Sec
	-4 (12V AC)	-D 6-60 Sec
	-5 (24V AC)	-E 30-300 Sec

