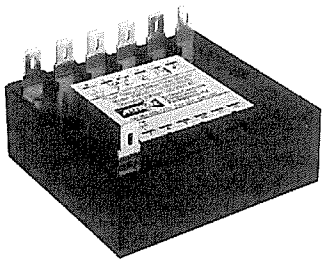
ARTISAN *Solid State Timers and Controllers*

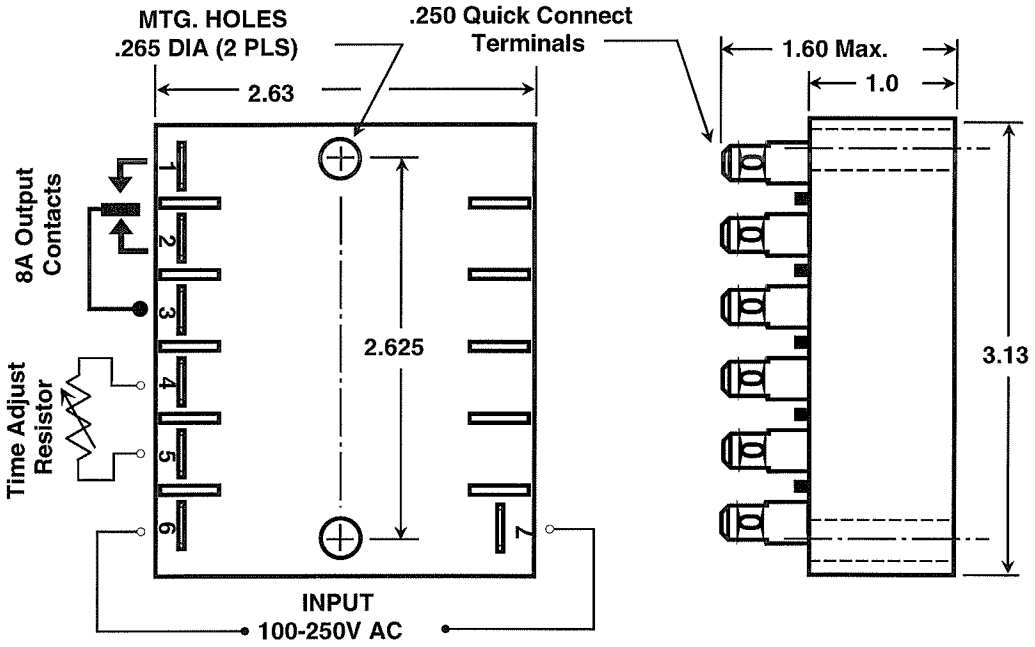
4390

True Delay-On-Break Timer

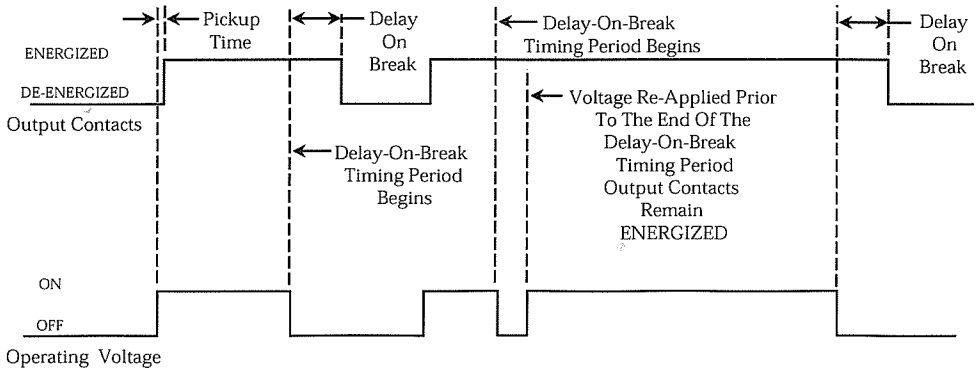


The model 4390 is considered a TRUE delay-on-break timing relay because it does not require any operating voltage or control voltage to maintain the output contacts in a transferred state after operating voltage has been removed. When the operating voltage is applied, the output contacts energize and 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 delay-on-break timing period, the output contacts de-energize. Should the operating voltage be re-applied during the delay-on-break timing period, the output contacts would remain energized and the delay-on-break timing period reset to the delay-on-break timing period.

Mechanical & Wiring



Timing Diagram



ARTISAN

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Solid State Timers and Controllers

Specifications

Operating Voltage:	100V - 250V AC 50/60 Hz. Operating voltage must be applied (ON) for a minimum of 500mS to assure delay-on-break timing period.
Operating Current:	20mA maximum at any operating voltage.
Timing Mode:	True Delay-On-Break - No power required during timing.
Fixed Timing:	From 0.5 seconds to 300 seconds.
Purchase Tolerance On Fixed Timing Periods:	±10%.
Adjustable Timing Ranges:	0.5 to 300 seconds in 5 ranges.
Purchase Tolerances On Adjustable Timing Ranges:	Adjustable delay-on-break timing envelope guaranteed with maximums of -25% on the low time and +50% on the high time.
External Timing Resistor:	All five (5) timing ranges require the external timing resistor to range from 0 to 1 meg ohm to cover the minimum time specified by the timing range dash number.
Timing Resistor Rating:	Worst case power dissipation never exceeds 10 milliwatts.
Repeatability Of Timing Period:	±5% nominal.
Recycle Time:	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.
Output:	SPDT contacts.
Pickup Time:	100 milliseconds maximum.
Output Contact Rating:	UL/CSA rated for 8A 1/6 HP 125V, 250V AC 5A 30V DC. 1000Vrms breakdown voltage between open contacts. Insulation resistance 1000MΩ at 500V DC. 1500V FCC surge voltage rating between contacts. 1000Vrms all terminals to case.
Electrical Life Expectancy:	50,000,000 operations.
Mechanical Life Expectancy:	40,000 operations at 4A 125V AC.
Operating Temperature:	-40˚C to +65˚C
Transient Protection:	Protected by silicon transient suppressors responding to transients within 1×10^{-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.
Data Sheet Revision Date:	May 1, 1995

Ordering Information Fixed Timing:

Part Number —	Timing Period
4390F -	Specify fixed time from .5 to 300 seconds

Ordering Information Adjustable Timing:

Part Number —	Timing Range
4390A -	-A 0.5-5 Sec -B 1-10 Sec -C 3-30 Sec -D 6-60 Sec -E 30-300 Sec