



Solid State Timers and Controllers

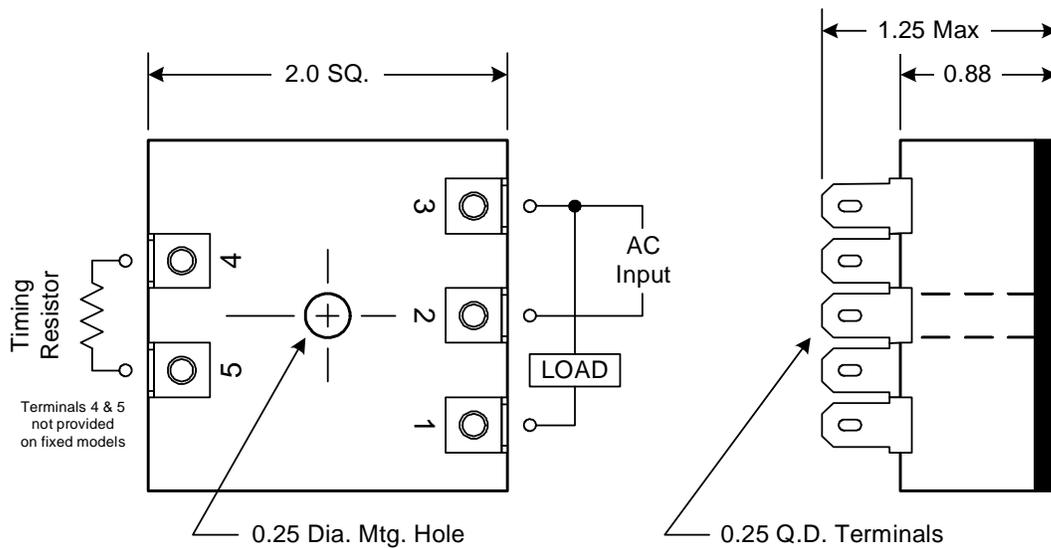


4410

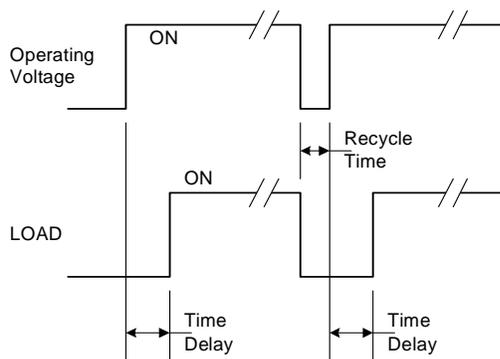
Delay On Make Solid State Timer

The model 4410 is a delay-on-make timer that switches AC load circuits up to 10 amperes employing zero voltage switching techniques. Zero voltage switching reduces electrical noise as a result of the load circuit being energized at zero degrees in the AC cycle. In addition most load circuits will provide longer life as a result of zero voltage turn on. This model employs transient protection devices that permits operation with inductive loads, such as motors and contactors. An integral heat sink assures safe operation up to 5 amperes without additional heat sinking. By mounting the model 4410 to a metal surface operation up to 10 amperes can be realized. Available in both fixed and adjustable timing models.

Mechanical & Wiring



Timing Diagram



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

External Resistance Timing Chart

External Timing Resistor in Ohms	TIMING RANGE DASH NO.				
	-1	-2	-3	-4	-5
0 Ohms	0.1	1	2	10	30
1 MEG	4	30	100	500	900
3 MEG	12	90	300	1500	2700
5 MEG	20	150	500	2500	5000
10 MEG	30	300	1000	5000	8000

How The Chart Works.

The -3 range indicates a timing range of 2 to 100 seconds when the external timing resistance varies from 0 to 1 meg ohm. The -3 extended range of 1000 seconds can be achieved by using a 0 to 10 meg ohm external resistance.

VISIT OUR WEB SITE AT: www.artisancontrols.com

Notice: Artisan Controls Corporation assumes no responsibility for customers applications or product design, it is the customers responsibility to analyze their application and test the selected product to determine its suitability for use. The information and data contained herein is the sole and exclusive property of Artisan Controls Corporation. Any duplication, misuse, or conversion of this information without the express written consent of Artisan Controls Corporation is illegal and will result in damages including court costs and attorney fees being assessed against the party misusing this property

Tel: 973-598-9400 • Fax: 973-598-9410 • Toll Free: 800-457-4950
 Artisan Controls Corporation, 111 Canfield Ave., Bldg B15-18, Randolph, NJ, 07869, USA



Solid State Timers and Controllers

Specifications

- Operating Voltage:** 24V AC (20V - 28V AC) (-6),
48V AC (42V - 52V AC) (-7),
115V AC (105V - 135V AC) (-8),
230V AC (208V - 250V AC) (-9) See Ordering Information.
- Operating Current:** Less than 20 milliamperes plus external load current.
- Timing Mode:** Delay-On-Make.
- Fixed Timing:** Factory fixed at any timing period from 0.1 seconds to 8,000 seconds.
- Tolerances On Fixed Timing:** 2%, 5%, 10%, and 20% available, see Ordering Information.
- Adjustable Timing Ranges:** Twenty (20) ranges from five (5) models of adjustable delay-on-break timing from 0.1 seconds to 8,000 seconds. See Ordering Information.
- Adjustable Timing Setting Accuracy:** Timing ranges shown on the External Timing Resistance Chart are guaranteed to be achieved using the external resistance range shown.
- Timing Resistor Rating:** Worst case power dissipation never exceeds 3 milliwatts.
- Timing vs External Timing Resistor:** See External Timing Resistance Chart.
- Timing Variation:** Less than 6% of set point over full temperature and voltage range.
- Repeatability Of Timing Period:** ±1% at stabilized operating voltage temperature.
- Recycle Time:** Operating voltage must be removed for a minimum of 200 milliseconds to assure that the timing and output circuits are reset.
- Output Rating:** 70mA to 5A inductive with inrush current to 40A for 8 milliseconds.
- Extending Rating:** Operation to 10A by mounting the timer heat sink base on a metal surface and maintaining timer heat sink temperature to less than 90°C.
- AC Zero Voltage Switching:** Output turns ON within ±50 microseconds of line voltage 0°.
- Output Switch Characteristics:** 3 volt drop across output switch when ON, 4mA leakage when OFF.
- Transient Protection:** Output Switch protected by silicon transient suppressors responding to transients within 1 x 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
- Agency Recognition:** UL File E47858: Appliance Controls - Component ATNZ2 (US) & ANTZ8 (Canada)
- Construction:** Encapsulated module with .25 quick connect wiring terminals.
- Data Sheet Revision Date:** November 15,1999.



Ordering Information

Part Number - Operating Voltage - Fixed Time in Seconds - Fixed Time Tolerance

FIXED
TIME
DELAY

4410F	-6 (24VAC)	Specify the fixed timing period in seconds from 0.1 to 8000	-A (± 2%)
	-7 (48VAC)		-B (± 5%)
	-8 (120VAC)		-C (± 10%)
	-9 (230VAC)		-D (± 20%)

Part Number - Operating Voltage - Timing Range

ADJUSTABLE
TIME
DELAY

4410A	-6 (24VAC)	-1 (0.1 - 30)
	-7 (48VAC)	-2 (1 - 300)
	-8 (120VAC)	-3 (2 - 1000)
	-9 (230VAC)	-4 (10 - 4500)
		-5 (30 - 8000)

VISIT OUR WEB SITE AT: www.artisancontrols.com

Notice: Artisan Controls Corporation assumes no responsibility for customers applications or product design, it is the customers responsibility to analyze their application and test the selected product to determine its suitability for use. The information and data contained herein is the sole and exclusive property of Artisan Controls Corporation. Any duplication, misuse, or conversion of this information without the express written consent of Artisan Controls Corporation is illegal and will result in damages including court costs and attorney fees being assessed against the party misusing this property

Tel: 973-598-9400 • Fax: 973-598-9410 • Toll Free: 800-457-4950
Artisan Controls Corporation, 111 Canfield Ave., Bldg B15-18, Randolph, NJ, 07869, USA