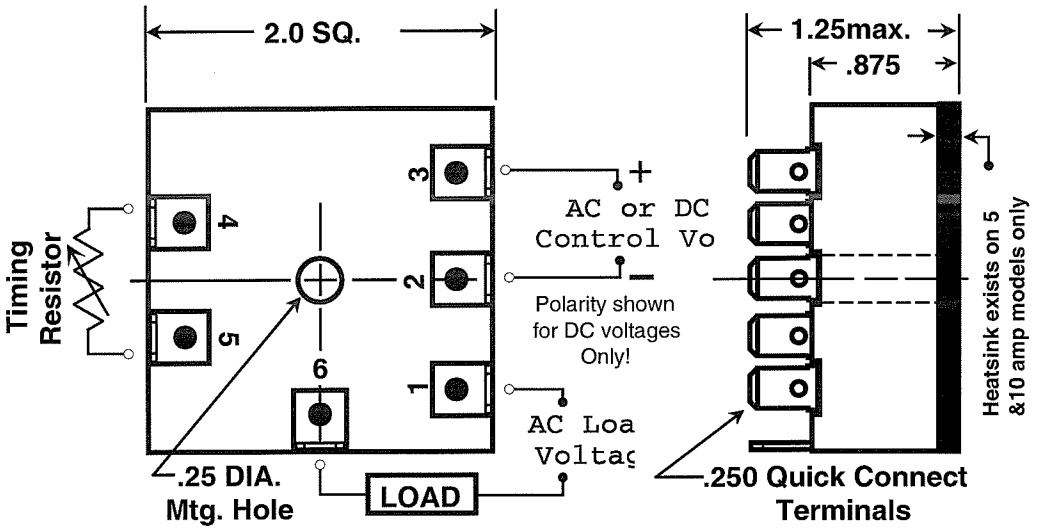
Solid State Timers and Controllers

4315

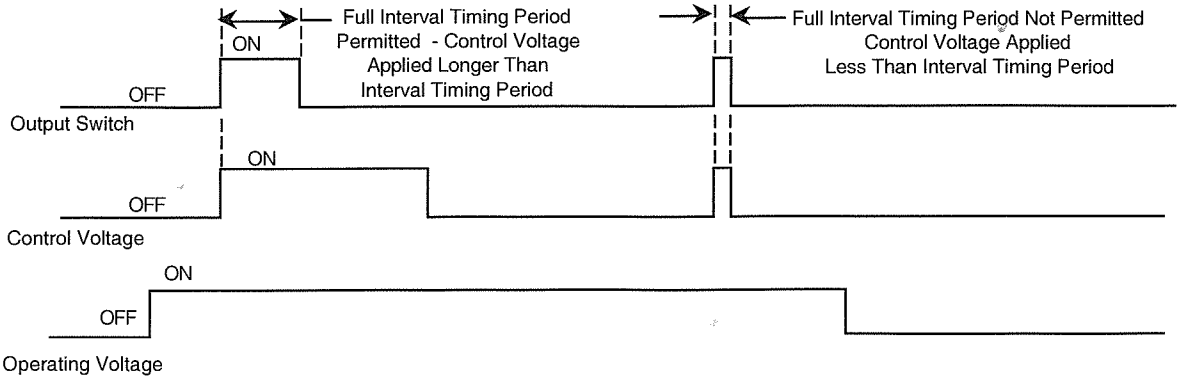
AC Power Interval Timer AC/DC Control

The model 4315 is an AC power interval timer that provides AC or DC control of AC load circuits. Optical isolation between the input control voltage and output load voltage permits input control to be different from the output load voltage. When the control voltage is applied, the model 4315's output switch turns ON. The load circuit will remain energized for the interval timing period, then turn OFF. Should the control voltage be removed prior to the end of the timing interval, the output will turn OFF. The model 4315 provides zero voltage output switching of AC loads up to 10 amperes. The model 4315 is available in both fixed and adjustable timing models.

Mechanical & Wiring



Timing Diagram



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Specifications

Control Voltage: DC (5, 12, 24, 48), AC (12, 24, 48, 115) 50/60 Hz. @ 5mA max.
Load Voltage: AC only (24, 48, 115) 50/60 Hz.
Voltage Tolerances: ±20%.
Timing Mode: Interval (opto Isolation between control & output voltage).
Fixed Interval Timing: Factory fixed at any time from 0.1 to 8000 seconds.
Tolerances On Fixed Timing: ±10%.
Adjustable Interval Timing: Five timing ranges from 0.1 to 8000 seconds.
Purchase Tolerances Min. Timing Interval - 15%, +0%. Max. Timing Interval - 0%, +15%
External Timing Resistor: 0 to 10 meg ohm (See model 4300 timing vs resistance chart).
External Resistor Rating: Worst case power dissipation never exceeds 3 milliwatts.
Timing / Temperature Coefficient: ±.25%/°C
Repeatability Of Timing Period: ±2% at stabilized operating voltage temperature.
Recycle Time: Control voltage must be removed for a minimum of 50 milliseconds to assure that the timing and output circuits are reset.
Output Rating: Two models available - One (1) ampere and Five (5) amperes.
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 70°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 1×10^{-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 heat sink, 1500V rms from control voltage terminals to output terminals. Control voltage is optically isolated from the output switching terminals.
Operating Temperature: 0°C to +70°C
Construction: Encapsulated module with .25 quick connect wiring terminals.
Data Sheet Revision Date: September 8, 1998

Ordering Information All Models

Part Number	Control Voltage	Load Voltage	Rating	TIMING PERIOD
4315F - Fixed Interval	-1 (5V DC) -2 (12V DC) -3 (24V DC) -4 (48V DC) -5 (12V AC) -6 (24V AC) -7 (48V AC) -8 (115V AC)	-6 (24V AC) -7 (48V AC) -8 (115V AC)	-A (1 Amp) -B (5 Amp) -B (10 Amp) Requires Additional Heat sink	Specify FIXED Timing Interval In Seconds From 0.1 To 8000 Ex: 4315F - X - X - 100 100 Second Fixed Timing Interval
4315A - Adjustable Interval				Specify Dash Number For Externally Adjustable Timing Interval -1 (0.1 - 3.0) -2 (1 - 300) -3 (2 - 1000) -4 (10 - 4500) -5 (30 - 8000) *Timing remotely adjustable by resistor across timing terminals*

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