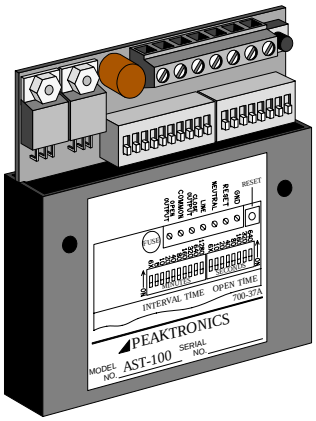
PEAKTRONICS

AST-100

AC Sequence Timer



AST-100
AST-100A
AST-100B

The Peaktronics AST-100 AC Sequence Timer is intended for controlling the open and closed times of small AC actuators up to 2A. The unit is available in versions for 117VAC ±10% (AST-100), 234VAC ±10% (AST-100A), and 24VAC ±10% (AST-100B) and provides optical isolation from the motor outputs. The unit is rated for a storage temperature of -40 to 85°C and an operating temperature of 0 to 60°C with a relative humidity of 0 to 90% (non-condensing).

Its compact size allows the unit to be mounted inside most actuators, and its solid construction body makes it rugged and easy to mount (two #6 through holes are provided). Screw terminals and a wiring diagram on the unit allow for easy field installation and operation. The unit also has an on-board replaceable fuse (TR5 type, 2.5A Time Delay).

The AST-100 utilizes a quartz crystal timer that provides repeatable timed sequences. An 8-position switch bank allows the Open Time to be set from 10 to 1,270 seconds (21 minutes) in 10 second increments, or from 60 to 7,620 seconds (127 minutes) in 60 second increments. A 10-position switch bank allows the Interval Time to be set from 5 to 2,555 minutes (42.5 hours) in 5 minute increments, or from 30 to 15,330 minutes (255.5 hours) in 30 minute increments.

The on-board Reset switch can be used to terminate the timing cycle in progress. Pressing the Reset Button will drive the actuator *open*, thus starting a new cycle beginning with the Open Time period. The RESET Input terminal allows the user to connect an external remote reset switch as well.

When an *open time* period begins, the unit turns on the OPEN OUTPUT and turns off the CLOSE OUTPUT. When the *open time* period expires, the OPEN OUTPUT is turned off and the CLOSE OUTPUT is turned on. Note, that power is <u>always</u> applied to one of the two motor outputs; therefore, limit switches <u>must</u> be used to stop the actuator at the desired *open* and *closed* positions. To turn off both outputs indefinitely, set all 10 Interval Time switches to OFF - this also disables the Reset switch/input.

If all 8 of the Open Time switches are set to OFF, <u>or</u> if the Interval Time is **less than** the Open Time, the actuator will remain indefinitely *closed* or *open*. Reset can be used to switch between the *open* and *closed* positions; in this case, Reset **does not** restart the interval time period.

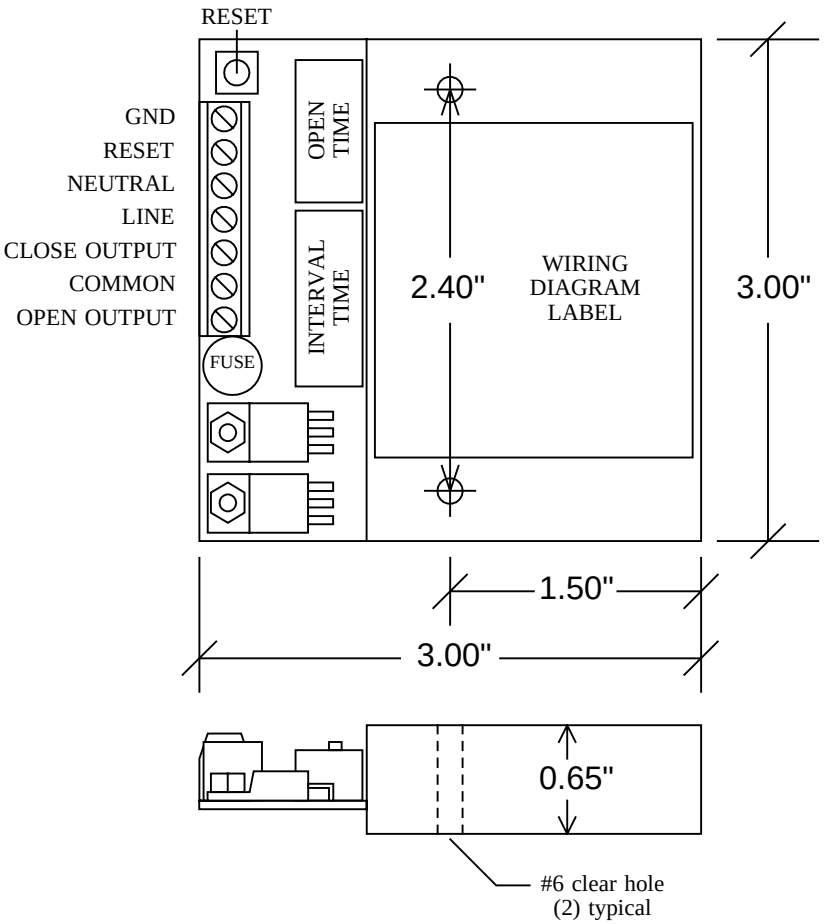
OPEN TIME

Each switch in the 8-position OPEN TIME switch bank selects a specific time period in seconds (as marked on the front label) when the specific switch is set to the ON position. The total *open time* is equal to the sum of all the selected time periods. For example, if the "10", "40", and "80" switches are set ON (all others OFF), then the *open time* will be 10 + 40 + 80 (or 130) seconds. The "6X" switch multiplies the setting by six (780 seconds for the previous example). The "6X" switch essentially changes the setting to minutes, where "10" = 1.0 minutes, "20" = 2.0 minutes, "40" = 4.0 minutes, and so on.

INTERVAL TIME

After the completion of an *open time* sequence, the CLOSE OUTPUT is powered for the <u>remainder</u> of the *interval time* period. Each switch in the 10-position INTERVAL TIME switch bank selects a specific time period in minutes (as marked on the front label) when the specific switch is set to the ON position. The total *interval time* is equal to the sum of all the selected time periods. For example, if the "80", "160", and "640" switches are set ON (all others OFF), then the *interval time* will be 80 + 160 + 640 (or 880) minutes. When the selected *interval time* period expires, a new timing cycle starts with the *open time* sequence. The "6X" switch multiplies the setting by six (5,280 minutes for the previous example). The "6X" switch essentially changes the setting to hours, where "5" = 0.5 hours, "10" = 1.0 hours, "20" = 2.0 hours, and so on.

OUTLINE



BLOCK DIAGRAM