



Solid State Timers and Controllers



4970

Configurable Countdown Timer

The 4970 is a highly flexible countdown interval timer with digital display of timing controlling a set of high current output contacts. The timing cycle range can be configured for any of the following values: 00:01-99:59 Minutes:Seconds, 00:01-99:59 Hours:Minutes, 0001-9999 Seconds, and 00.01-99.99 Seconds. The two arrow buttons on the front panel are used to set the time, the Up button increases the time and the Down decreases it. The longer a button is held down the faster the rate at which the time value will change, the time value rolls around at both ends of the time range.

The Start/Stop button performs multiple functions. Pressing the Start/Stop button while the timer is idle will energize the output power relay contacts and the controller begins counting down the time on the display, once the display reaches 0 the contacts de-energize and the unit alarms for 5 seconds and then returns to the original cycle time. Pressing the Start/Stop button while the controller is timing will pause the controller at the current time and de-energize the output relay contacts. Pressing the Start/Stop button while in pause mode causes the output relay to energize and the controller continues timing from the point at which it was paused. Should the Start/Stop switch be held down for longer than two seconds while in pause mode the controller will reset and the display will return to the original starting time.

Should power fail during a timing cycle the controller remembers the last time value and will recover upon restoration of power dependant on its configuration. The 4970 always remembers the last interval time programmed and when first powered up resets to that time. The LED above the 4 digit display flashes during the timing cycle to indicate timing and is on continuously when the cycle is ended. *The 4970 can be configured with a variety of time range, timing adjustment, alarming, power recovery, and power conservation options, see the second page for information.*

Specifications

Operating Voltage: 12VDC -10/+20%, 115VAC $\pm 15\%$, 230VAC $\pm 15\%$, 24VAC $\pm 10\%$, 50/60 Hz for AC.

Current Consumption: See table for operating current at nominal input voltages; Idle = display on, Timing = display & relay on, Standby = display off (option LP:02 selected)

Timing Accuracy: $\pm 0.5\%$ of set time.

LED Digital Display: Four digit red LED, 0.56" characters.

Timing Cycle Memory: All data stored in non-volatile memory, 10 yr. min. retention with no power.

Audible Alarm: Solid state alarm operating dependant on unit configuration.

Output Contact Ratings: See table below for various load types and voltages.

Agency Listing: UL File E47858: Appliance Controls - Component ATNZ2 (US), ATNZ8 (Can)

Mounting: 2.63 sq. cutout accepts timer which is secured with supplied bracket & nut. Mounting nut must be tightened to 3 inch pounds.

Wiring: .25" Quick Connect terminals.

Operating Temperature: 0°C to 70°C.

Data Sheet Revision Date: January 23, 2012

Ordering Information

Part Number	Operating Voltage
4970-1	12V DC
4970-2	115V AC
4970-3	230V AC
4970-4	24V AC

	Operating Current (mA)		
	Idle	Timing	Standby
12V DC	55	135	20
115V AC	22	30	19
230V AC	10	15	8.0
24V AC	105	150	95

	Output Contact Ratings	
	NO Contacts	NC Contacts
Resistive Inductive	20A @ 125/240VAC, 30VDC 6A @ 277VAC	10A @ 125/240VAC, 30VDC 3A @ 277VAC
Motor	2HP @ 240VAC 1HP @ 125VAC	½HP @ 240VAC ¼HP @ 125VAC
LRA/FLA	60A LRA @ 240VAC 20A FLA @ 240VAC	33A LRA @ 240VAC 10A FLA @ 240VAC
Ballast	6A @ 125/277VAC	3A @ 125/277VAC

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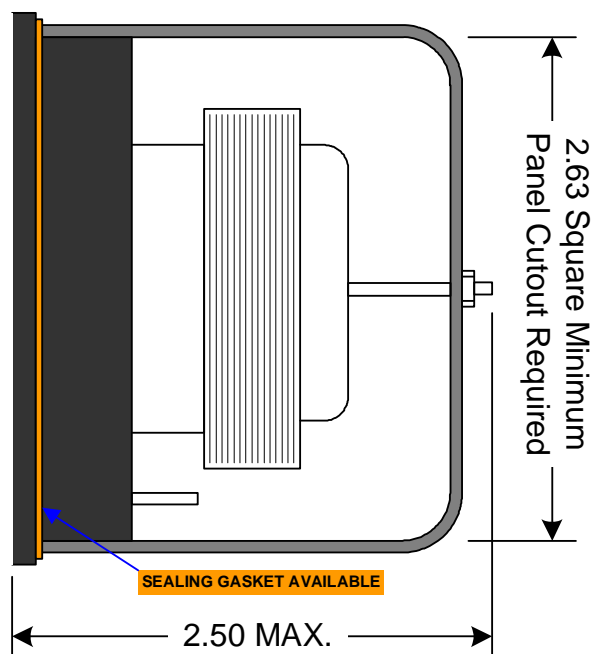
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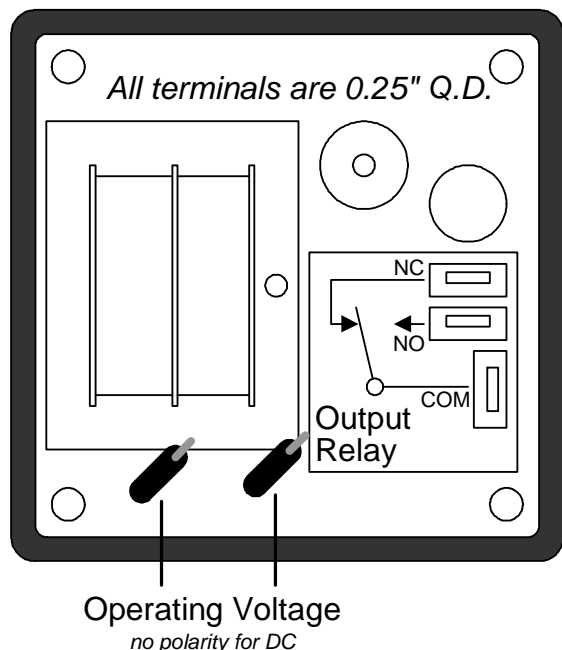


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Mechanical.....



Wiring.....



Configuration.....

The 4970 can be configured to any of four time ranges by performing the following. Press and hold the down button (center) and apply the power. The unit will display one of the four ranges per this chart

- 0 = 00.01 - 99.99 seconds
- 1 = 00:01 - 99:59 minutes:seconds
- 2 = 0001 - 9999 seconds
- 3 = 00:01 - 99:59 hours:minutes

To change the timing range use the up and down buttons to change the displayed value to the range desired, then turn the controller off. The next time the controller is turned on it will be operating in the selected time range.

More detailed configurations such as styles of beeping and limiting the time range are available by using the Start/Stop button in a similar manner, please refer to the 4970 Users Manual for details

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