ARTISAN *Solid State Timers and Controllers*

4972

Digital Interval Countdown Timer With Remote Control

The 4972 is a microcontroller based countdown interval timer with digital display of timing controlling a high current set of output contacts. The control of the starting, stopping, and resetting is accomplished by a remote switch. During a timing cycle the output relay is energized and the display counts down to zero, at which time the output relay de-energizes. The time base can be programmed to countdown the time in one of four selectable ranges: 000.1 - 999.9 seconds, 0001 - 9999 seconds, 00:01 - 99:59 minutes : seconds, and 00:01 - 99:59 hours : minutes. Prior to the start of a cycle an LED on the front panel will be OFF. When running a timing cycle the LED will flash, at the end of the cycle the LED will turn ON steady and the display will reset to the preset starting time. Two arrow buttons on the front panel are used to set the time. Hold the UP ARROW button down to increase the time . The longer the button is held down, the faster the rate at which the time will increase. The DOWN ARROW button is used in the same manner as the UP ARROW button except it will cause the time to decrease. Using the UP ARROW and DOWN ARROW buttons in this manner permits accurate setting of countdown time. The remote START/STOP/RESET switch performs three functions. Pressing the START/STOP/RESET switch while the timer is not active, will cause the timer to begin counting down the time on the display and activate the output power relay contacts. Pressing the remote START/STOP/RESET switch while the timer is active, will stop the timer and deenergize the output power relay, turning OFF the LED. The timer will display the time remaining in the cycle when it is interrupted by the remote START/STOP/RESET switch. If the remote START/STOP/RESET switch is pressed again the output power relay will energize and the timer will continue timing from the point it was stopped. Should the remote START/STOP/RESET switch be held down for longer than two seconds while it is in the STOP mode the timer will reset and the display will return to the original starting time and the LED will turn OFF. Should power fail during a timing cycle the timer will return to the last time value and continue the timing cycle when power returns. The model 4972 can be operated from either 115V or 230V AC.

Specifications

Timing Mode: Interval - Countdown - Remote Start/Reset/Stop.
Operating Voltage: Switch selectable for 115V AC ±10% 50/60 Hz. or 230V AC ±10% 50/60 Hz. @ 3W max.
Programmable Time Base: 000.1 - 999.9 seconds (Code 0), 00:01 - 99:59 minutes : seconds (Code 1) 0001 - 9999 seconds (Code 2), 00:01 - 99:59 hours : minutes (Code 3).
Timing Accuracy: ±.5% of setting.
Digital Display: Four (4) digit red LED, 0.5 inch high characters display the starting time prior to the activation of the START switch and counts down the remaining timing interval.
Timing Cycle Memory: A power failure during a timing cycle will return the timer to the last time value and continue the timing cycle when power returns.
Front Panel Indicator: An LED indicates the status of the timing cycle: If OFF, the timer is reset, if FLASHING the timer is in a timing cycle, if ON the timer has completed a timing cycle.
Front Panel Switches: Two switches control the setting of the timing interval.
Remote Operation Switch: A remote SPST-NO switch will Start, Stop, or Reset the timing cycle. This switch can be located up to 36 inches from the timer.
Recycle Time: Another timing cycle may be initiated 25 milliseconds after a timing cycle ends.
Output Contact Rating: SPST Power relay contacts. U/L rated for 20 amperes inductive or resistive at 250VAC, 1HP at 250V AC, 1.5 HP at 125V AC, 20 amperes at 125V AC. Inductive load inrush (cos ø = 0.7) of 70 amperes, steady state (cos ø = 0.7) of 20 amperes at 250V AC, with an electrical life expectancy of 100,000 operations minimum.
Operating Temperature: 0 to 70° C.
Mounting: 2.62 sq. cutout accepts timer which is secured with rear attached bracket & nut.
Wiring: All terminals are .25 quick connect tab type.
Data Sheet Revision Date: September 9, 2005

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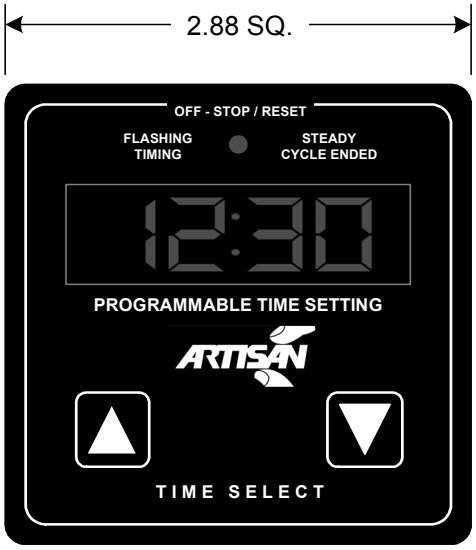
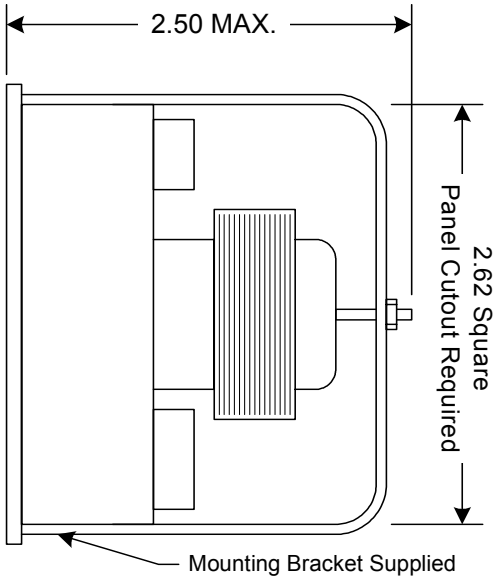
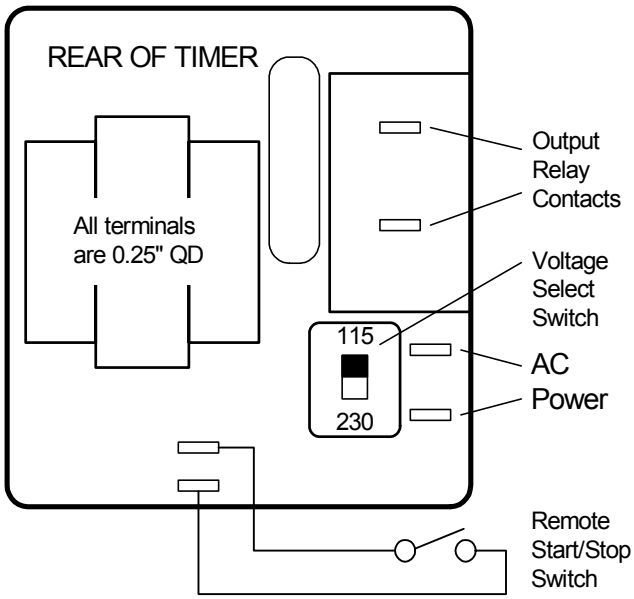
Mechanical





Wiring



Ordering Information

Specify Model 4972

Programming The Timing Range

The 4972 is shipped from the factory preset to the Code 1 time base of 99:59 Minutes:Seconds. To program another time base perform the following steps:

1. Turn the power OFF.

2. Press the ▼ button while turning the power ON.

3. Release the button after the display turns ON.

4. A number from 0 to 3 will appear. This number corresponds to:
0 = 000.1 - 999.9 seconds
1 = 00:01 - 99:59 minutes : seconds
2 = 0001 - 9999 seconds
3 = 00:01 - 99:59 hours : minutes

5. Use the ▲ button to select the desired time base.

6. Turn the power OFF.

7. Wait 2 seconds.

8. Turn the power ON and the 4972 will remain in the new time range until reprogrammed as above.

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