

# OMNI

## Preset Timer

### Features

- AC or DC Powered
- 2, 4 or 6 Digits
- Relay or Solid State Programmable Outputs
- Remote & Front Panel Reset
- Switch Closure or DC Inputs
- .005% Accuracy



### Applications:

For use in accurately controlling the elapsed time of any single process where a display is unnecessary, size is limited, and low cost a priority.

### Description:

The OMNI is an AC or DC powered, up to 6 digit, electronic preset timer. This instrument is designed for applications where visual display is not required but high accuracy and low cost/small size are important. The Omni features one or two sets of Form C relay contacts both rated 7 Amps or greater. Solid-state outputs are also available. All outputs are field programmable to auto reset at the set point, latch and remain on, alternate on and off, or output once momentarily. Auto reset and momentary versions feature field adjustable on times. The Omni accepts a 3 to 30 Volt DC signal for timing. An optional built-in self-charging battery insures that no data is lost during power outage. For panel mounting the Omni is packaged in a rugged handsome aluminum case with cast aluminum bezel. All versions feature either screw terminal block or PCB edge connector termination. Presetting is accomplished with crisp snap action thumbwheel switches for frequent setting.

### Specifications:

**Number of Digits:** 2, 4 or 6.

**Types of Preset:** Thumbwheel switches have white numerals on black background. Digits .190" high.

**Timing Resolutions:** Programmable. Hours or Minutes or Seconds. Seconds and 1/10ths, 1/100ths, 1/1000ths. Minutes and 1/10ths, 1/100ths or 1/1000ths. Hours and 1/10ths, 1/100ths or 1/1000ths.

**Input to Time:** Two modes may be field selected. Mode "C" causes the timer to start and stop by simply closing and opening a relatively bounce free switch. The "JK" (pulse on pulse off) mode causes the timer to start and stop with the leading edge of a 3-30 VDC signal. Impedance is 10K.

**Preset Operation:** Preset number may be adjusted upward without affecting operation.

**Reset:** Switch closures or 3-30 VDC pulses. Two millisecond minimum pulse width, 10K Ohm impedance. Reset clears all registers and resets the outputs.

**Power Up Reset:** Power up reset insures that all registers are cleared and outputs reset at the start of a new operation period. "Power up reset" requires 150 milliseconds delay after power up before timing can begin again. Power down intervals of 6 seconds or greater needed to activate this feature. Power interruptions of less than 6 seconds will not affect any of the data stored in the counter's registers and therefore reset will not be required. During power down periods, the outputs will return to their "resting" state. (Not Included If Battery Option Is Selected).

**Operating Voltage:** 115 VAC or 220 VAC - 50/60 Hz or 12 to 24 VDC (24 VDC available only on panel mounted version). Current draw for DC models, 20 milliamps typical: 75 milliamps, relay outputs energized. AC power, 1.5 watts. AC powered Omnis generate 80 milliamps of regulated 12 Volts DC for powering peripherals. (50 mA if uncased).

**Battery Standby:** Optional built-in self charging nicad battery supports all data for a minimum of 3 days. Forty-eight hours of operation required for full charge. Three days of power down requires 48 hours operation for second full three day standby period. Shorter operating times will still support data during momentary outages. Relays are inoperative during battery standby.

### Control Outputs:

**RELAYS:** One SPDT, 10 Amp 30 VDC or 250 VAC  
**OPEN COLLECTOR:** Open collector transistor turns on at the preset point. Transistor capable of switching up to 28 VDC @ 300 mA.

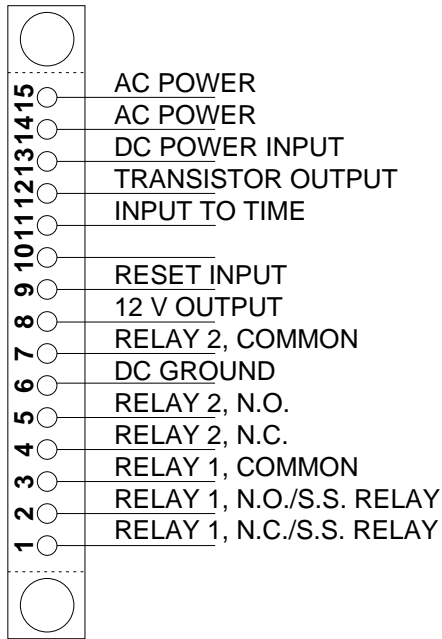
**Temperature:** +32° F (0°C) up to 140° F (60°C) standard.

**Weight:** 12 oz.

**Shock/Vibration:** Meets all commercially accepted standards for shock and vibration.

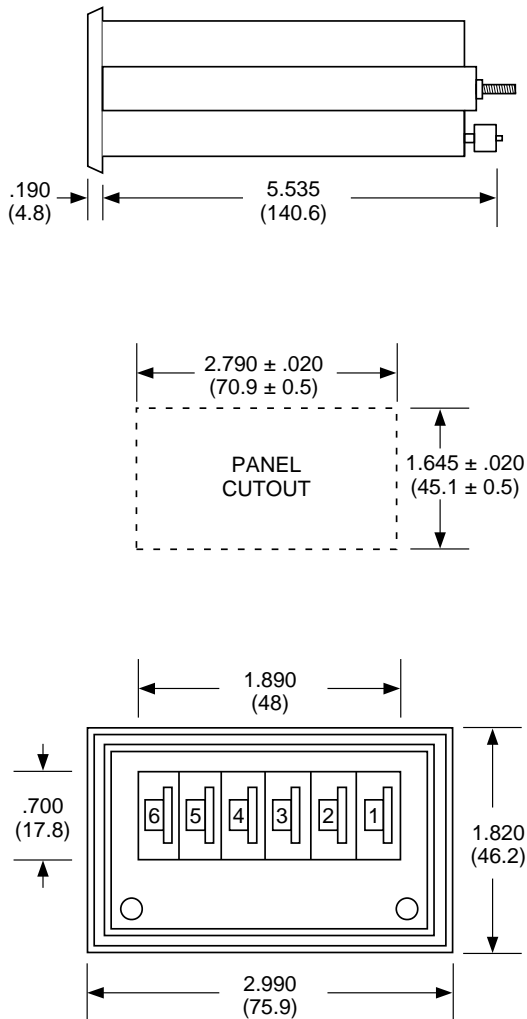
**Humidity:** Conformal coating available for very high humidity/high mildew potential applications. See options.

**Hookup:**



**PRESET TIMERS**

**Mounting:**



**How To Order:**

**EX: OMNI 4 P 4 CT(5) R4 S 5 B 2 B Sec x 1/100 Series**

**Digits**  
 2 = 2 digits  
 4 = 4 digits  
 6 = 6 digits

**Mounting**  
 P = Panel

**Switch Type**  
 2 = Rotary switches  
 4 = Pushbutton switches

**Input to Time**  
 (specify voltage)  
 CT  
 JK

**Outputs**  
 Relays  
 R1 = Latch til reset  
 R2 = Momentary, No autoreset. Adjustable on time  
 R3 = Alternate action  
 R4 = Autoreset, adjustable on time  
 Solid State - up to 2 Amps at 120 VAC  
 S1 = Latch til reset  
 S2 = Momentary, No autoreset. Adjustable on time  
 S3 = Alternate action  
 S4 = Autoreset, adjustable on time  
 Open Collector - up to 28 VDC at 300 mA max.  
 T1 = Latch til reset  
 T2 = Momentary, No autoreset. Adjustable on time  
 T3 = Alternate action  
 T4 = Autoreset, adjustable on time

**Output Pulse Duration**  
 (Adjustable on time types)  
 S = Standard - 100 milliseconds to 2 seconds  
 X = Short pulse - 5 milliseconds to 100 milliseconds

**Power Supply**  
 1 = 12 VDC  
 2 = 24 VDC, panel mount only  
 5 = 110VAC, 50/60Hz  
 6 = 220 VAC, 50/60 Hz

**Termination**  
 E = PC board edge connector  
 B = Screw terminal block

**Reset**  
 1 = Panel (panel mount only)  
 2 = Remote (standard on all)  
 3 = Both (panel mount only)

**Options**  
 B = Battery Standby  
 C = Conformal Coating

**Timer Resolution**  
 Specify - Example: Seconds & 100ths