TGPL Timers

TGPL series Cube Relay Single Shot On Make timers are a unique combination of digital CMOS timing circuitry with a relay output in a compact 2" x 2" configuration.

These units provide the same functional performance as plug-in relay timers, but at significant cost savings.

Key features:
- Uses a live or hot initiate switch; relay common is totally isolated.
- High current-carrying capacity up to 30 amps
- Transient protected
- 100% Load isolation
- No leakage in N.O. position
- No heat sinking required
- Available in any time delay period required
- Digital CMOS timing
- No minimum load required
- Totally encapsulated for protection from harsh environments
- 100% Operational testing before shipping
- RoHS compliant

Timing Mode

Power must be applied to the input voltage terminals continuously. Upon closure of a Normally Open (N.O.) external initiate switch, the load is instantaneously energized and the time delay cycle starts.

Maintained closure or actuation of the external initiate switch during the delay cycle will not affect the time delay period.

When the delay period expires, the timer will reset to its original position and the timer is ready for another cycle.
**Input Voltage:**
- VDC: 12, 24-28 or 48
- VAC: 24, 48, 120 or 230, 50/60Hz
- Special AC or DC voltages available

**Time Delay:**
- Timing Mode: Single Shot on Make
- Type: Digital CMOS
- Time Range: 0.2 seconds to 24 hours
- Time Adjustments: Factory-fixed time period; variable, with adjustments on timer, or terminals for external resistor or potentiometer

**Repeatability:** ±0.5%

**Setting Accuracy:**
- Fixed time period: ±10% of nominal time.
- Variable time range:
  - +15% -5% max. time, -10% min. time

**Reset/Recycle Time:** 25 milliseconds

**Initiate Time:** 6 milliseconds or less

**Relay Life Expectancy:**
- Mechanical: 20 million operations
- Electrical: 100,000 operations

**Protection:**
- Polarity Protection: All DC units have reverse polarity protection
- Transient Protection: 18 joules
- Dielectric Strength: 1800V RMS 60Hz

**Temperature Ranges:**
- Storage: -40°C to +85°C
- Operating: -25°C to +65°C

**Physical Data:**
- Mounting: Surface with one #8 screw
- Connection & Termination: 0.25” quick connects

**Options Selection**

<table>
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<th>Mode of Operation</th>
<th>Input Voltage</th>
<th>Examples of Time Ranges</th>
<th>Time Adjustment Method</th>
<th>Relay Output Form</th>
<th>Options</th>
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<tbody>
<tr>
<td><strong>Single Shot On Make</strong></td>
<td><strong>TGPL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>120 VAC</td>
<td><strong>VARIABLE TIME PERIODS</strong></td>
<td>A Variable, integral, knob on timer.</td>
<td>1 SPDT</td>
<td>H 10 Amps</td>
</tr>
<tr>
<td>2</td>
<td>230 VAC</td>
<td><strong>0001</strong> 0.1 to 1 sec.</td>
<td>B Variable, external knob remote.</td>
<td>2 SPST (N.O.)</td>
<td>JN 15 Amps (1.0 HP)</td>
</tr>
<tr>
<td>3</td>
<td>24 VAC</td>
<td><strong>0010</strong> 2 to 10 sec.</td>
<td>C Fixed, internal, factory set.</td>
<td>3 SPST (N.C.)</td>
<td>J 20 Amps (1.5 HP)</td>
</tr>
<tr>
<td>4</td>
<td>24-28 VDC</td>
<td><strong>0100</strong> 2 to 100 sec.</td>
<td>D Fixed, external, resistor remote.</td>
<td>4 DPDT</td>
<td>Z 30 Amps</td>
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<tr>
<td>5</td>
<td>48 VAC</td>
<td><strong>1000</strong> 20 to 1000 sec.</td>
<td></td>
<td></td>
<td>S Special</td>
</tr>
<tr>
<td>6</td>
<td>48 VDC</td>
<td>Any range up to 24 hours</td>
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<td></td>
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<tr>
<td>7</td>
<td>12 VDC</td>
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<td></td>
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<tr>
<td>8</td>
<td>Any in between AC voltage (specify)</td>
<td><strong>FIXED TIME PERIODS</strong></td>
<td></td>
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<tr>
<td>9</td>
<td>Any in between DC voltage (specify)</td>
<td>Specify time in full seconds or hours followed by the letter “S” or “H” and the decimal amount of the main time unit.</td>
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<tr>
<td>Examples: SSS is 5.5 secs</td>
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<tr>
<td>SHS is 5.5 hours</td>
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Specifications subject to change without notice.