TGMB Timers

TGMB series Cube Relay Delay on Break 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: Normally Open (N.O.) isolated initiate switch; relay common is internally hooked to (+) or hot.

Timing Mode

Input voltage is applied continuously. Upon closure of the normally open isolated external initiate switch, the load is energized, and remains energized as long as it is closed. When the external initiate switch opens, the time delay is started. At the end of the time delay, the load is de-energized, and the timer is ready for another cycle.

Features

- High current-carrying capacity up to 20 amps
- Transient protected
- 100% Load isolation
- No leakage in N.O. position
- No heat sinking required
- Available in any time delay period required
- Hot hooked to relay common
- Digital CMOS timing
- No minimum load required
- Totally encapsulated for protection from harsh environments
- 100% Operational testing before shipping
- RoHS compliant
**Input Voltage:**
- **VDC:** 12, 24, or 48
- **VAC:** 24, 48, 120, or 230, 50/60Hz
  - Special AC or DC voltages available

**Time Delay:**
- **Timing Mode:** Delay on Break
- **Type:** Digital CMOS
- **Time Range:** 0.1 second 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, .75" or 1.14"-2" terminals

**Specifications subject to change without notice.**

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**MODE OF OPERATION**

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<th>Examples of Time Ranges</th>
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<th>Options</th>
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<tr>
<td>TGMB</td>
<td>1 120 VAC</td>
<td><strong>VARIABLE TIME PERIODS</strong></td>
<td>A Variable, integral, knob on timer.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 230 VAC</td>
<td>0001 0.1 to 1 sec.</td>
<td>B Variable, external knob remote.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 24 VAC</td>
<td>0010 2 to 10 sec.</td>
<td>C Fixed, internal, factory set.</td>
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<tr>
<td></td>
<td>4 24-28 VDC</td>
<td>0100 2 to 100 sec.</td>
<td>D Fixed, external, resistor remote.</td>
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<tr>
<td></td>
<td>5 48 VAC</td>
<td>1000 20 to 1000 sec.</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>6 48 VDC</td>
<td>Any range up to 24 hours available.</td>
<td>A1 2SPDT (N.O.)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>7 12 VDC</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>8 Any in between AC voltage (specify)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9 Any in between DC voltage (specify)</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td><strong>FIXED TIME PERIODS</strong></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>Examples: SSS is 5.5 secs</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>SHS is 5.5 hours</td>
<td>A1 2SPDT (N.O.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Options:***
- H 10 Amps
- JN 15 Amps (1.0 HP)
- J 20 Amps (1.5 HP)
- W Wires
- S Special

*10 Amps only

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**AIROTTONICS**
Timers & Controls
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