TGMLB Timers

TGMLB 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.

For users of solid-state timers, 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 internally connected to (+) or hot.

Timing Mode

Input voltage is applied continuously. Upon closure of the normally open live 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, 1.5 HP
- Transient protected
- 100% Load isolation
- No leakage in N.O. position
- No heat sinking required
- Available in any time delay period required
- Uses live initiate switch
- Pin-for-pin replacement for solid state timers
- 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, 24-28 or 48
- **VAC**: 24, 48, 120 or 230, 50/60Hz
  - *Special AC or DC voltages available*

### Control Voltage:
- **VAC**: 24-120 inclusive

### 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
- **Control Voltage Isolation**: 2500V RMS 60Hz

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

### Physical Data:
- **Mounting**: Surface with one #8 or #10 screw, 0.25" quick connects

### Options Selection

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<th>Examples of Time Ranges</th>
<th>Time Adjustment Method</th>
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<tbody>
<tr>
<td>Delay On Break</td>
<td>TGMLB</td>
<td>1 120 VAC</td>
<td>VARIABLE TIME PERIODS</td>
<td>A Variable, integral, knob on timer.</td>
<td>1 SPDT</td>
<td>H 10 Amps</td>
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<td></td>
<td></td>
<td>2 230 VAC</td>
<td>0001 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>
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<td>3 24 VAC</td>
<td>0010 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>
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<td></td>
<td>4 24-28 VDC</td>
<td>0100 2 to 100 sec.</td>
<td>D Fixed, external, resistor remote.</td>
<td></td>
<td>W Wires</td>
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<tr>
<td></td>
<td></td>
<td>5 48 VAC</td>
<td>Any range up to 24 hours available.</td>
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<td>S Special</td>
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<td>6 48 VDC</td>
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<td>7 12 VDC</td>
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<td>8 Any in between AC voltage (specify)</td>
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<td>9 Any in between DC voltage (specify)</td>
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</table>

Examples: SSS is 5.5 secs
SHS is 5.5 hours

Specifications subject to change without notice.