Eaton’s Universal TR Series timers are a versatile and cost-competitive family of timing relays. The compact IEC-style housing installs easily onto a standard DIN rail, and the direct-wire design eliminates the need for additional sockets and accessories. Each timer has multiple user-selectable timing functions and timing ranges, and a universal input voltage of either 12 or 24 Vdc to 240 Vac or Vdc, depending on the model.

**Reducing your inventory costs**

With up to seven selectable timing functions and seven selectable time ranges from 50 milliseconds to 100 hours, you can meet the needs of almost any application with just one or two stock items. Do you need 24 Vdc control in some cases and 120 Vac control in others? You are covered with the Universal TR Series timer, as it has a universal, self-selecting control voltage input range from either 12 or 24 V (depending on model) to 240 Vac or Vdc. Are you tired of buying minimum quantities of sockets and accessories for your plug-in timing relays? The direct wire design of the Universal TR Series gives you everything you need in a single item.

**Reducing your labor costs**

During initial installation, the large terminals on the Universal TR Series make wiring quick and easy. The offset design even allows easy access to the bottom terminals when the top wires are installed. The easy-to-read set point markings improve the accuracy of setup, thereby reducing your startup time. Are you spending too much time troubleshooting and replacing timers? The dual LED indicators on the Universal TR Series use multiple modes to signal input power, relay state and timing status. The Universal TR Series also features a high-quality design with twice the relay life of many competitors.

For more information, please visit Eaton.com/timers
Timer function descriptions

### Function #1 — Asymmetrical Flasher, Pause First (lp)
- **Input Power (U)**
- **LED U/t*** (Indication)
- **Output LED** (Status)
- **Output Relay (R)**

### Function #2 — Asymmetrical Flasher, Pulse First (ii)
- **Input Power (U)**
- **LED U/t*** (Indication)
- **Output LED** (Status)
- **Output Relay (R)**

### Function #3 — On Delay and Off Delay with Control Contact (ER)
- **Input Power (U)**
- **LED U/t*** (Indication)
- **Trigger Signal (S)**
- **Output LED** (Status)
- **Output Relay (R)**

### Function #4 — On Delay and Single Shot Leading Edge Voltage Controlled (EW)
- **Input Power (U)**
- **LED U/t*** (Indication)
- **Output LED** (Status)
- **Output Relay (R)**

### Function #5 — On Delay and Single Shot Leading Edge Control Contact (EWs)
- **Input Power (U)**
- **LED U/t*** (Indication)
- **Trigger Signal (S)**
- **Output LED** (Status)
- **Output Relay (R)**

### Function #6 — Single Shot Leading and Single Shot Trailing Edge with Control Contact (WtWa)
- **Input Power (U)**
- **LED U/t*** (Indication)
- **Trigger Signal (S)**
- **Output LED** (Status)
- **Output Relay (R)**

### Function #7 — Pulse Sequence Monitoring (Wt)
- **Input Power (U)**
- **LED U/t*** (Indication)
- **Trigger Signal (S)**
- **Output LED** (Status)
- **Output Relay (R)**

### Function #8 — On Delay, Power Triggered (E)
- **Input Power (U)**
- **LED U/t*** (Indication)
- **Output LED** (Status)
- **Output Relay (R)**

### Function #9 — Single Shot Leading Edge Voltage Controlled (EW)
- **Input Power (U)**
- **LED U/t*** (Indication)
- **Trigger Signal (S)**
- **Output LED** (Status)
- **Output Relay (R)**

### Function #10 — Off Delay/Signal Off Delay (R)
- **Input Power (U)**
- **LED U/t*** (Indication)
- **Trigger Signal (S)**
- **Output LED** (Status)
- **Output Relay (R)**

### Function #11 — On Delay with Control Contact (Wt)
- **Input Power (U)**
- **LED U/t*** (Indication)
- **Trigger Signal (S)**
- **Output LED** (Status)
- **Output Relay (R)**

### Function #12 — Single Shot Trailing Edge with Control Input (Wa)
- **Input Power (U)**
- **LED U/t*** (Indication)
- **Trigger Signal (S)**
- **Output LED** (Status)
- **Output Relay (R)**

### Function #13 — Off Delay Control Signal Start, Trailing Edge (Es)
- **Input Power (U)**
- **LED U/t*** (Indication)
- **Trigger Signal (S)**
- **Output LED** (Status)
- **Output Relay (R)**

### Function #14 — Flasher, Pause First (Bp)
- **Input Power (U)**
- **LED U/t*** (Indication)
- **Output LED** (Status)
- **Output Relay (R)**

---

**Specifications**

### Universal TR timing relays

<table>
<thead>
<tr>
<th>Specification</th>
<th>TRL04</th>
<th>TRL07</th>
<th>TRP07</th>
<th>TRF25</th>
<th>TRL27</th>
<th>TRW27</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functions</strong></td>
<td>8, 9, 10, 14</td>
<td>8, 9, 10, 11, 12, 13, 14</td>
<td>7, 8, 10, 11, 12, 25, 26</td>
<td>8, 24, 27, 28, 29</td>
<td>8, 9, 10, 11, 12, 13, 14</td>
<td>1, 2, 3, 4, 5, 6, 7</td>
</tr>
<tr>
<td><strong>Time range</strong></td>
<td>0.05 sec to 100 hr</td>
<td>0.05 sec to 100 hr</td>
<td>0.05 sec to 100 hr</td>
<td>0.10 sec to 10 min</td>
<td>0.05 sec to 100 hr</td>
<td>0.05 sec to 100 hr</td>
</tr>
<tr>
<td><strong>Supply voltage</strong></td>
<td>24 to 240 Vac/Vdc</td>
<td>24 to 240 Vac/Vdc</td>
<td>24 to 240 Vac/Vdc</td>
<td>24 to 240 Vac/Vdc</td>
<td>12 to 240 Vac/Vdc</td>
<td>12 to 240 Vac/Vdc</td>
</tr>
<tr>
<td><strong>Duty cycle</strong></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Contact configuration</strong></td>
<td>SPDT</td>
<td>SPDT</td>
<td>SPDT</td>
<td>DPDT</td>
<td>DPDT</td>
<td>DPDT</td>
</tr>
<tr>
<td><strong>Rated voltage</strong></td>
<td>250 Vac (8 A/250 V)</td>
<td>250 Vac (8 A/250 V)</td>
<td>250 Vac (8 A/250 V)</td>
<td>250 Vac (5 A/250 V)</td>
<td>250 Vac (8 A/250 V)</td>
<td>250 Vac (8 A/250 V)</td>
</tr>
<tr>
<td><strong>Switching capacity</strong></td>
<td>20 x 10⁶ operations at 1000 VA load</td>
<td>20 x 10⁶ operations at 1000 VA load</td>
<td>20 x 10⁶ operations at 1000 VA load</td>
<td>20 x 10⁶ operations at 1000 VA load</td>
<td>20 x 10⁶ operations at 1000 VA load</td>
<td>20 x 10⁶ operations at 1000 VA load</td>
</tr>
</tbody>
</table>

**Accuracy**

- **Base**: ±1% of maximum scale value
- **Adjustment**: ±5% of maximum scale value
- **Repetition**: <0.5% or ±5 ms

**Physical**

- **Ambient temperature**: –25 to +55 °C
- **Humidity**: 8, 9, 10, 11, 12, 13, 14

**Electrical life**: 20 x 10⁶ operations

**Mechanical life**: 20 x 10⁵ operations at 1000 VA load

**Switching capacity**: SPDT, DPDT

**Rated voltage**: 24 to 240 Vac/Vdc

**Duty cycle**: 100%

**Switching capacity**: 2 x 10⁵ operations at 1000 VA load

**Rated voltage**: 250 Vac

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