

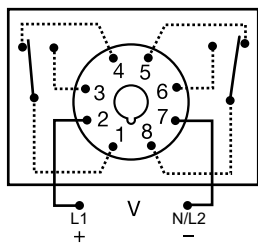
## TDR SERIES

### Relay Output, Recycling Time Delay Relay



8-PIN

### Wiring Diagram



Relay contacts are isolated

### Description

The TDR Series of time-delay relays are comprised of digital circuitry and an isolated, 10A relay output. The ON and OFF delays are selected by means of two, ten position binary switches, which allow the setting of the desired delay to be precise every time.

#### Operation (Recycling - ON Time First)

Upon application of input voltage, the green LED glows, the output relay is energized, the red LED glows, and the T1 ON time begins. At the end of the ON time, the output de-energizes, the red LED turns OFF and the T2, OFF time begins. At the end of the OFF time, the output relay energizes and the cycle repeats as long as input voltage is applied.

**Reset:** Removing input voltage resets the output and time delays, and returns the sequence to the first delay.

#### Operation (Recycling - OFF Time First)

Upon application of input voltage, the green LED glows, the T1 OFF time begins, the load is OFF. At the end of the OFF time, the T2 ON time begins, the load energizes, and the red LED glows. At the end of the ON time the load de-energizes and the red LED turns OFF. The cycle repeats until input voltage is removed.

**Reset:** Removing input voltage resets the output and the sequence to the OFF time.

### Features & Benefits

| FEATURES                                      | BENEFITS  |
|---|---|
| <b>ON &amp; OFF time delay settings</b>       | Independent adjustment allows for greater flexibility   |
| <b>3 Time Ranges Available (0.1s to 2.8h)</b> | Makes it versatile for use in many applications   |
| <b>Microcontroller based</b>                  | Repeat Accuracy +/- 0.1% or 20 ms, whichever is greater; Setting Accuracy +/- 2% or 50 ms, whichever is greater |
| <b>DIP switch adjustment</b>                  | Provides first time setting accuracy  |
| <b>Isolated output contacts</b>               | Allows control of loads for AC or DC voltages   |
| <b>LED indication (select models)</b>         | Provides visual indication of relay status  |

### Ordering Information

| MODEL   | INPUT VOLTAGE | LED | SEQUENCE       | ON TIME (SEC)                | OFF TIME (SEC)               |
|---------|---------------|-----|----------------|------------------------------|------------------------------|
| TDR1A22 | 12VDC         |     | ON time first  | 1-1023 in 1s increments      | 1-1023 in 1s increments      |
| TDR2A23 | 24VAC         | X   | ON time first  | 1-1023 in 1s increments      | 10-10230 in 10s increments   |
| TDR4A11 | 120VAC        | X   | ON time first  | 0.1-102.3 in 0.1s increments | 0.1-102.3 in 0.1s increments |
| TDR4A12 | 120VAC        | X   | ON time first  | 0.1-102.3 in 0.1s increments | 1-1023 in 1s increments      |
| TDR4A13 | 120VAC        | X   | ON time first  | 0.1-102.3 in 0.1s increments | 10-10230 in 10s increments   |
| TDR4A22 | 120VAC        | X   | ON time first  | 1-1023 in 1s increments      | 1-1023 in 1s increments      |
| TDR4A23 | 120VAC        | X   | ON time first  | 1-1023 in 1s increments      | 10-10230 in 10s increments   |
| TDR4A33 | 120VAC        | X   | ON time first  | 10-10230 in 10s increments   | 10-10230 in 10s increments   |
| TDR4B22 | 120VAC        | X   | OFF time first | 1-1023 in 1s increments      | 1-1023 in 1s increments      |
| TDR4B23 | 120VAC        | X   | OFF time first | 1-1023 in 1s increments      | 10-10230 in 10s increments   |
| TDR6A22 | 230VAC        | X   | ON time first  | 1-1023 in 1s increments      | 1-1023 in 1s increments      |

If you don't find the part you need, call us for a custom product 800-843-8848

# TDR SERIES

## Accessories



**BZ1 Front Panel Mount Kit**  
Provides an easy method of through-the-panel mounting of 8- or 11-pin plug-in timers, flashers, and other controls.



**NDS-8 Octal 8-pin Socket**  
8-pin 35mm DIN rail or surface mount. Rated at 10A @ 300VAC. Surface mounted with two #6 (M 3.5 x 0.6) screws or snaps onto a 35 mm DIN rail. Uses PSC8 hold-down clips.



**PSC8 Hold-down Clips**  
Securely mounts plug-in controls in any position. Provides protection against vibration. Use with NDS-8 Octal Socket. Sold in pairs.



**C103PM (AL) DIN Rail**  
35 mm aluminum DIN rail available in a 36 in. (91.4 cm) length.

## Binary Switch Operation

| 0.1...102.3 | 1...1023 | 10...10,230 |
|-------------|----------|-------------|
| OFF ▶ ON    | OFF ▶ ON | OFF ▶ ON    |
| 0.1         | 1        | 10          |
| 0.2         | 2        | 20          |
| 0.4         | 4        | 40          |
| 0.8         | 8        | 80          |
| 1.6         | 16       | 160         |
| 3.2         | 32       | 320         |
| 6.4         | 64       | 640         |
| 12.8        | 128      | 1280        |
| 25.6        | 256      | 2560        |
| 51.2        | 512      | 5120        |
| 6.3 S       | 544 S    | 3000 S      |

\*\* For CE approved applications, power must be removed from the unit when a switch position is changed.

## Function Diagram



## Specifications

### Time Delay

Type  
Range\*\*

Digital integrated circuitry  
0.1 - 102.3s in 0.1s increments  
1 - 1023s in 1s increments  
10 - 10,230s in 10s increments

Repeat Accuracy  
Setting Accuracy  
Reset Time

±0.1% or 20ms, whichever is greater  
±2% or 50ms, whichever is greater  
≤ 50ms

Recycle Time  
Time Delay vs Temp. & Voltage

≤ 150ms  
±5%

### Input

Voltage  
Tolerance

12, 24/28, or 110VDC; 24, 120, or 230VAC

12VDC & 24VDC/AC  
110 to 230VAC/DC

-15% - 20%  
-20% - 10%

AC Line Frequency/DC Ripple

50/60 Hz/≤10%

Power Consumption

≤ 3.25W

Input LED Indicator

Green; on when input voltage is applied

### Output

Type

Electromechanical relay

Form

DPDT

Rating

10A resistive @ 120/240VAC & 28VDC;  
1/3 hp @ 120/240VAC

### Life

Max. Switching Voltage

Mechanical - 1 x 10<sup>7</sup>; Electrical - 1 x 10<sup>6</sup>  
250VAC

Relay LED Indicator

Red; ON when output relay energizes

### Protection

Isolation Voltage

≥ 1500V RMS input to output

Insulation Resistance

≥ 100 MΩ

Polarity

DC units reverse polarity protected

### Mechanical

Mounting

Plug-in socket

Dimensions

**H** 81.3 mm (3.2"); **W** 60.7 mm (2.39");

**D** 45.2 mm (1.78")

Octal 8-pin plug-in

### Termination

### Environmental

Operating/Storage

Temperature

-20° to 65°C/-30° to 85°C

Weight

≈ 6 oz (170 g)

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

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- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
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- Комплексную поставку.
- Работу по проектам и поставку образцов.
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- Тестирование поставляемой продукции.
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- Изготовление тестовой платы монтаж и пусконаладочные работы.



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