

## ERDM SERIES



### Wiring Diagram



V = Voltage

A knob, or terminals 9 & 10 are only included on adjustable units. Relay contacts are isolated.

$R_T$  is used when external adjustment is ordered.

### Description

The ERDM Series is a combination of digital electronics and a reliable electromechanical relay. These devices offer a DPDT relay output for relay logic circuits, and isolation of input to output voltages. Cost effective for OEM applications, such as random starting, sequencing ON, switch de-bouncing, anti-short cycling, and other common delay-on-make applications.

#### Operation (Delay-on-Make)




Upon application of input voltage, the time delay begins. The output is de-energized before and during the time delay. At the end of the time delay, the output energizes and remains energized until input voltage is removed.

**Reset:** Removing input voltage resets the time delay and output.

### Features & Benefits

| FEATURES   | BENEFITS  |
|--|---|
| <b>Digital integrated circuitry with electromechanical relay</b> | Repeat Accuracy + / - 0.5%                      |
| <b>Isolated 10A, DPDT output contacts</b>                        | Allows control of loads for AC or DC voltages   |
| <b>Encapsulated</b>  | Protects against shock, vibration, and humidity |

### Accessories

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**P1004-16, P1004-16-XVersa-Pot**  
Panel mountable, industrial potentiometer recommended for remote time delay adjustment.
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**P1015-64 (AWG 14/16) Female Quick Connect**  
These 0.25 in. (6.35 mm) female terminals are constructed with an insulator barrel to provide strain relief.
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**P1015-18 Quick Connect to Screw Adapter**  
Screw adapter terminal designed for use with all modules with 0.25 in. (6.35 mm) male quick connect terminals.

### Ordering Information

| MODEL     | INPUT VOLTAGE | ADJUSTMENT   | TIME DELAY | MODEL   | INPUT VOLTAGE | ADJUSTMENT   | TIME DELAY |
|-----------|---------------|--------------|------------|---------|---------------|--------------|------------|
| ERDM123   | 12VDC         | Onboard knob | 0.1 - 10s  | ERDM422 | 120VAC        | Onboard knob | 0.1 - 5s   |
| ERDM126   | 12VDC         | Onboard knob | 0.6 - 60s  | ERDM423 | 120VAC        | Onboard knob | 0.1 - 10s  |
| ERDM128   | 12VDC         | Onboard knob | 0.1 - 10m  | ERDM425 | 120VAC        | Onboard knob | 0.3 - 30s  |
| ERDM222   | 24VAC         | Onboard knob | 0.1 - 5s   | ERDM427 | 120VAC        | Onboard knob | 0.1 - 5m   |
| ERDM4130S | 120VAC        | Fixed        | 30s        | ERDM429 | 120VAC        | Onboard knob | 0.2 - 15m  |
| ERDM4210  | 120VAC        | Onboard knob | 1 - 100m   |         |               |              |            |

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

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## Specifications

### Time Delay

**Type** Digital integrated circuitry  
**Range** 0.1s - 500m in 11 adjustable ranges or  
0.1s - 1000m fixed

**Adjustment** Fixed, onboard or external adjust

**Repeat Accuracy** ±0.5%

**Tolerance** ≤ ±10%  
**(Factory Calibration)**

**Recycle Time** ≤ 150ms

**Time Delay vs Temp. & Voltage** ≤ ±2%

### Input

**Voltage** 12, 24, or 120VDC; 24, 120, or 230VAC

**Tolerance** -15% - 20%

**12VDC & 24VDC/AC** -20% - 10%

**120VAC/DC & 230VAC** 50/60 Hz

**AC Line Frequency**

### Output

**Type** Isolated relay contacts

**Form** DPDT

**Rating** 10A resistive @ 120/240VAC & 28VDC;

1/3 hp @ 120/240VAC

**Life** Mechanical - 1 x 10<sup>7</sup>; Full Load - 1 x 10<sup>6</sup>

### Protection

**Isolation Voltage** ≥1500V RMS input to output

**Insulation Resistance** ≥100 MΩ

**Polarity** DC units are reverse polarity protected

### Mechanical

**Mounting** Surface mount with two #6

(M3.5 x 0.6) screws

**Dimensions** **H** 88.9 mm (3.5"); **W** 63.5 mm (2.5");

**D** 43.2 mm (1.7")

0.25 in. (6.35 mm) male quick connect terminals

### Termination

### Environmental

### Operating/Storage

**Temperature** -40° to 65°C / -40° to 85°C

**Weight** ≈ 5.7 oz (162 g)

## Selection Guides

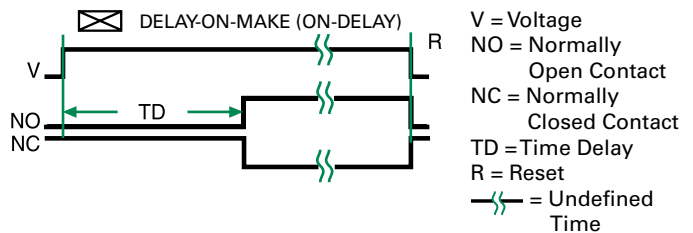
| RT Selection Chart  |     |     |      |     |     |              |
|---------------------|-----|-----|------|-----|-----|--------------|
| Desired Time Delay* |     |     |      |     |     | RT<br>Megohm |
| Seconds             |     |     |      |     |     |              |
| 1                   | 2   | 3   | 4    | 5   | 6   |              |
| 0.1                 | 0.1 | 0.1 | 0.2  | 0.3 | 0.6 | 0.0          |
| 0.19                | 0.6 | 1   | 1.7  | 3   | 6   | 0.1          |
| 0.28                | 1.1 | 2   | 3.2  | 6   | 12  | 0.2          |
| 0.37                | 1.6 | 3   | 4.7  | 9   | 18  | 0.3          |
| 0.46                | 2.1 | 4   | 6.2  | 12  | 24  | 0.4          |
| 0.55                | 2.6 | 5   | 7.7  | 15  | 30  | 0.5          |
| 0.64                | 3.0 | 6   | 9.2  | 18  | 36  | 0.6          |
| 0.73                | 3.5 | 7   | 10.7 | 21  | 42  | 0.7          |
| 0.82                | 4.0 | 8   | 12.2 | 24  | 48  | 0.8          |
| 0.91                | 4.5 | 9   | 13.7 | 27  | 54  | 0.9          |
| 1.0                 | 5.0 | 10  | 15   | 30  | 60  | 1.0          |

\* When selecting an external RT add at least 20% for tolerance of unit and the RT.

| RT Selection Chart  |     |      |     |     |              |
|---------------------|-----|------|-----|-----|--------------|
| Desired Time Delay* |     |      |     |     | RT<br>Megohm |
| Minutes             |     |      |     |     |              |
| 7                   | 8   | 9    | 10  | 11  |              |
| 0.1                 | 0.1 | 0.2  | 1   | 10  | 0.0          |
| 0.6                 | 1   | 1.7  | 10  | 50  | 0.1          |
| 1.1                 | 2   | 3.2  | 20  | 100 | 0.2          |
| 1.6                 | 3   | 4.7  | 30  | 150 | 0.3          |
| 2.1                 | 4   | 6.2  | 40  | 200 | 0.4          |
| 2.6                 | 5   | 7.7  | 50  | 250 | 0.5          |
| 3.0                 | 6   | 9.2  | 60  | 300 | 0.6          |
| 3.5                 | 7   | 10.7 | 70  | 350 | 0.7          |
| 4.0                 | 8   | 12.2 | 80  | 400 | 0.8          |
| 4.5                 | 9   | 13.7 | 90  | 450 | 0.9          |
| 5.0                 | 10  | 15   | 100 | 500 | 1.0          |

\* When selecting an external RT add at least 20% for tolerance of unit and the RT.

## Function Diagram



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

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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