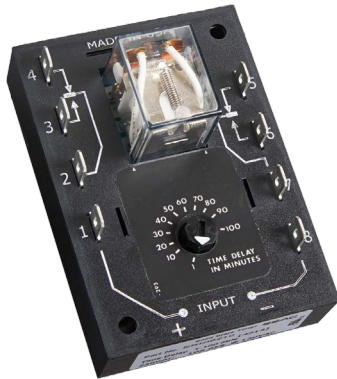


# ERDI SERIES



## Description

Econo-Timers are a combination of digital electronics and an electromechanical relay. DPDT relay output for relay logic circuits, and isolation of input to output voltages. For applications, such as interval on, pulse shaping, minimum run time, etc. The ERD Series is encapsulated to protect the circuitry from shock, vibration and humidity.

### Operation (Interval)

Upon application of input voltage, time delay begins, and output relay energizes. At the end of time delay, output de-energizes until input voltage is removed.

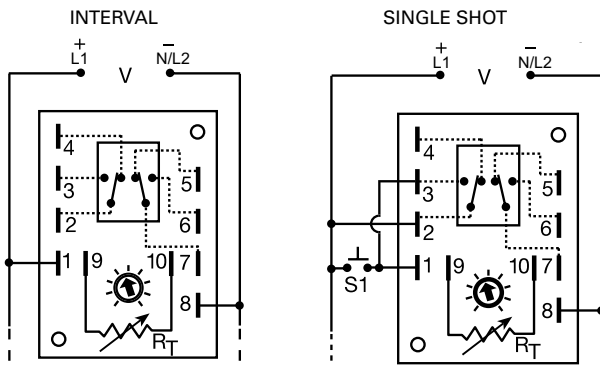
**Reset:** Removing input voltage resets the time delay and the output.

### Operation (Single Shot)

Input voltage must be applied before and during timing. Upon momentary or maintained closure of initiate switch, output relay energizes for time delay. At the end of the delay, output de-energizes. Opening or reclosing initiate switch during timing has no affect on time delay. Output will energize if initiate switch is closed when input voltage is applied.

**Reset:** Reset occurs when time delay is complete & initiate switch is opened. Loss of input voltage resets time delay and output.

## Wiring Diagram





2-3 & 7-6 are Normally Open Contacts (NO)  
2-4 & 7-5 are Normally Closed Contacts (NC)


## Features & Benefits


FEATURES	BENEFITS
<b>Digital integrated circuitry</b>	Repeat Accuracy +/- 0.5%, Factory calibration +/- 10%
<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

- 

**P1004-16, P1004-16-X Versa-Pot**  
Panel mountable, industrial potentiometer recommended for remote time delay adjustment.
- 

**P0700-7 Versa-Knob**  
Designed for 0.25 in. (6.35 mm) shaft of Versa-Pot. Semi-gloss industrial black finish.
- 

**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.
- 

**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
ERDI436	120VAC	External	0.6 - 60s
ERDI6210	230VAC	Onboard	1 - 100m

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## ERDI SERIES

### Specifications

#### Time Delay

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

**Adjustment** External adjust or onboard  
**Repeat Accuracy** ±0.5%

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

**Reset Time** ≤ 150ms

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

#### Input

**Voltage** 120VAC or 230VAC

**Tolerance** -15% - 20%

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

**120VDC/AC & 230VAC** 50/60 Hz

#### 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>; Electrical - 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")

**Termination** 0.25 in. (6.35 mm) male quick connect terminals

#### Environmental

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

**Weight** ≈ 5.7 oz (162 g)

### Selection Guides

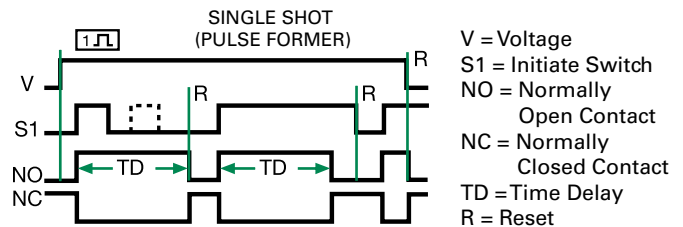
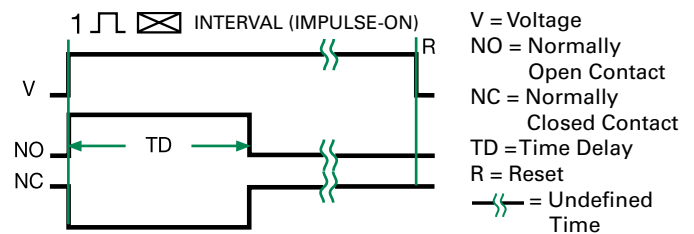
R <sub>T</sub> Selection Chart							R <sub>T</sub> Megohm
Desired Time Delay*						Seconds	
1	2	3	4	5	6		
0.1	0.1	0.1	0.2	0.3	0.6	0.0	
0.19	0.6	1	1.7	3	6	0.1	
0.28	1.1	2	3.2	6	12	0.2	
0.37	1.6	3	4.7	9	18	0.3	
0.46	2.1	4	6.2	12	24	0.4	
0.55	2.6	5	7.7	15	30	0.5	
0.64	3.0	6	9.2	18	36	0.6	
0.73	3.5	7	10.7	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 R<sub>T</sub> add at least 20% for tolerance of unit and the R<sub>T</sub>.

R <sub>T</sub> Selection Chart						R <sub>T</sub> Megohm
Desired Time Delay*					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 R<sub>T</sub> add at least 20% for tolerance of unit and the R<sub>T</sub>.

### Function Diagrams



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