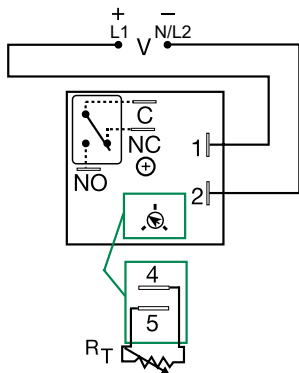


# KRD3 SERIES



## Wiring Diagram



V = Voltage  
C = Common, Transfer Contact  
NO = Normally Open  
NC = Normally Closed

A knob is supplied for adjustable units, or  $R_T$  terminals 4 & 5 for external adjust. See external adjustment vs time delay chart.

Relay contacts are isolated.

## Ordering Information

MODEL	INPUT VOLTAGE	ADJUSTMENT	TIME DELAY	OPERATING SEQUENCE
KRD3420A	120VAC	Onboard knob	0.1 - 10s	On time first
KRD3421A	120VAC	Onboard knob	1 - 100s	On time first
KRD3434A	120VAC	External	1 - 100m	On time first

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

## Description

The KRD3 Series measures only 2 in. (50.8 mm) square. Its solid-state timing circuit provides excellent repeat accuracy and stability. Encapsulation protects against shock, vibration, and humidity. The KRD3 Series is a cost effective approach for OEM applications that require small size, isolation, reliability, and long life.

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




Upon application of input voltage, the output energizes and the T1 ON time begins. At the end of the ON time, the output de-energizes and the T2 OFF time begins. At the end of the OFF time, the output 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 T1 ON time.

## Features & Benefits

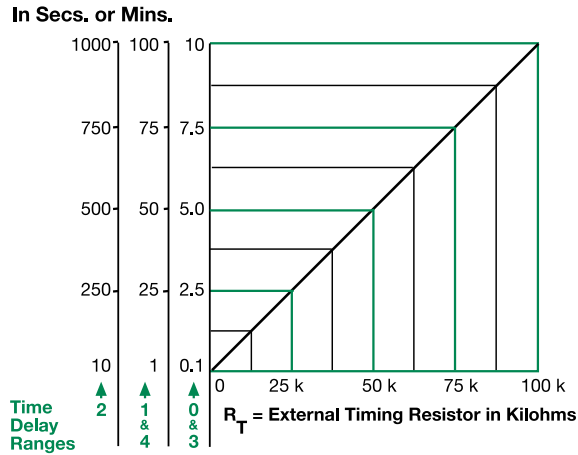
FEATURES	BENEFITS
<b>Compact, low cost design measuring 2 in. (50.8mm) square</b>	Provides greater flexibility for OEM applications and reduces component and labor costs
<b>Microcontroller based</b>	Repeat Accuracy +/- 0.5%, Factory calibration +/- 5%
<b>Isolated, 10A, SPDT output contacts</b>	Allows control of loads for AC or DC voltages
<b>Encapsulated</b>	Protects against shock, vibration, and humidity

## Accessories

- 
**P1004-95, P1004-95-X Versa-Pot**  
 Panel mountable, industrial potentiometer recommended for remote time delay adjustment.
- 
**P1023-6 Mounting bracket**  
 The 90° orientation of mounting slots makes installation/removal of modules quick and easy.
- 
**P0700-7 Versa-Knob**  
 Designed for 0.25 in. (6.35 mm) shaft of Versa-Pot. Semi-gloss industrial black finish.
- 
**P1015-13 (AWG 10/12), 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.
- 
**C103PM (AL) DIN Rail**  
 35 mm aluminum DIN rail available in a 36 in. (91.4 cm) length.
- 
**P1023-20 DIN Rail Adapter**  
 Allows module to be mounted on a 35 mm DIN type rail with two #10 screws.

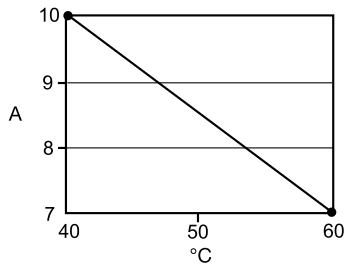
# KRD3 SERIES

## External Resistance vs. Time Delay

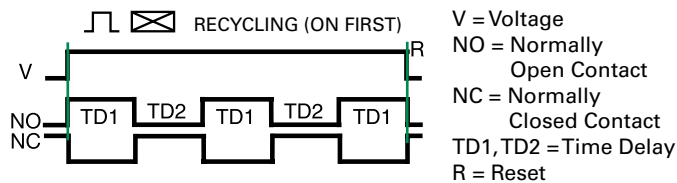


This chart applies to externally adjustable part numbers. The time delay is adjustable over the time delay range selected by varying the resistance across the  $R_T$  terminals; as the resistance increases the time delay increases. When selecting an external  $R_T$ , add the tolerances of the timer and the  $R_T$  for the full time range adjustment. **Examples:** 1 to 50 S adjustable time delay, select time delay range 1 and a 50 K ohm  $R_T$ . For 1 to 100 S use a 100 K ohm  $R_T$ .

## Output Current/Ambient Temperature



## Function Diagram



## Specifications

<b>Time Delay Range</b>	0.1s - 100m in 5 adjustable ranges or fixed
<b>Repeat Accuracy Tolerance (Factory Calibration)</b>	±0.5% or 20ms, whichever is greater
<b>Reset Time</b>	≤ ± 5%
<b>Time Delay vs Temp. &amp; Voltage</b>	≤ 150ms
<b>Input Voltage</b>	≤ ± 5%
<b>Tolerance</b>	12, 24 or 110VDC; 24, 120, or 230VAC
<b>12VDC &amp; 24VDC/AC</b>	-15% - 20%
<b>110VDC, 120 or 230VAC</b>	-20% - 10%
<b>AC Line Frequency/DC Ripple</b>	50/60 Hz / ≤ 10%
<b>Power Consumption</b>	AC ≤ 2VA; DC ≤ 2W
<b>Output Type</b>	Isolated relay contacts
<b>Form</b>	SPDT
<b>Rating (at 40°C)</b>	10A resistive @ 125VAC; 5A resistive @ 230VAC & 28VDC; 1/4 hp @ 125VAC
<b>Max. Switching Voltage</b>	250VAC
<b>Life (Operations)</b>	Mechanical - 1 x 10 <sup>7</sup> ; Electrical - 1 x 10 <sup>5</sup>
<b>Protection Circuitry</b>	Encapsulated
<b>Insulation Voltage</b>	≥ 1500V RMS input to output
<b>Insulation Resistance</b>	≥ 100 MΩ
<b>Polarity</b>	DC units are reverse polarity protected
<b>Mechanical Mounting</b>	Surface mount with one #10 (M5 x 0.8) screw
<b>Dimensions</b>	<b>H</b> 50.8 mm (2"); <b>W</b> 50.8 mm (2"); <b>D</b> 30.7 mm (1.21")
<b>Termination</b>	0.25 in. (6.35 mm) male quick connect terminals
<b>Environmental Operating/Storage Temperature</b>	-20° to 60°C / -40° to 85°C
<b>Humidity</b>	95% relative, non-condensing
<b>Weight</b>	≈ 2.6 oz (74 g)