KRD3 SERIES







Description

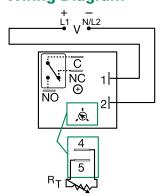
The KRD3 Series measures only 2 in. (50.8 mm) square. Its solid-state timing circuit provides excellent repeat accuracy and stability. Encapsulation protects against shock, vibration, and humidity. The KRD3 Series is a cost effective approach for OEM applications that require small size, isolation, reliability,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

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.

Features & Benefits

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

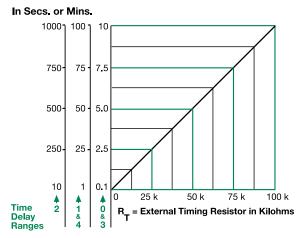
Ordering Information

| 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

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External Resistance vs. Time Delay

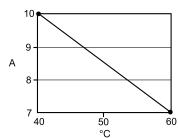


This chart applies to externally adjustable part numbers. The time delay is adjustable over the time delay range selected by varying the resistance across the RT terminals; as the resistance increases the

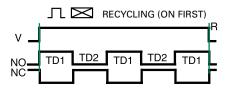
time delay increases. When selecting an external RT, add the tolerances of the timer and the RT

for the full time range adjustment. **Examples:** 1 to 50 S adjustable time delay, select time delay range 1 and a 50 K ohm RT. For 1 to 100 S use a 100 K ohm RT.

Output Current/Ambient Temperature



Function Diagram



V = Voltage NO = Normally **Open Contact** NC = Normally **Closed Contact** TD1, TD2 = Time Delay R = Reset

Specifications

Time Delay

Range 0.1s - 100m in 5 adjustable ranges or fixed **Repeat Accuracy** ±0.5% or 20ms, whichever is greater

Tolerance

(Factory Calibration) $\leq \pm 5\%$ **Reset Time** ≤ 150ms

Time Delay vs Temp.

& Voltage $\leq \pm 5\%$

Input

Voltage 12, 24 or 110VDC; 24, 120, or 230VAC

Tolerance

12VDC & 24VDC/AC -15% - 20% 110VDC, 120 or 230VAC -20% - 10% AC Line Frequency/DC Ripple $50/60 \text{ Hz} / \le 10\%$ **Power Consumption** $AC \le 2VA$; $DC \le 2W$

Output

Isolated relay contacts Type

SPDT Form

Rating (at 40°C) 10A resistive @ 125VAC;

5A resistive @ 230VAC & 28VDC;

1/4 hp @ 125VAC

Max. Switching Voltage 250VAC

Life (Operations) Mechanical - 1 x 107; Electrical - 1 x 105

Protection

Circuitry Encapsulated

Isolation Voltage ≥ 1500V RMS input to output

Insulation Resistance $\geq 100~M\Omega$

Polarity DC units are reverse polarity protected

Mechanical

Mounting Surface mount with one #10 (M5 x 0.8) screw

Dimensions H 50.8 mm (2"); **W** 50.8 mm (2");

D 30.7 mm (1.21")

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

Environmental

Operating/Storage

Temperature -20° to 60° C / -40° to 85° C Humidity 95% relative, non-condensing

Weight ≈ 2.6 oz (74 g)