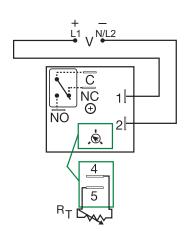
# KRDI SERIES





## Wiring Diagram



V = Voltage

C = Common, Transfer Contact

NO = Normally Open NC = Normally Closed

A knob is supplied for

adjustable units, or RT terminals 4 & 5 for external adjust. See external adjustment vs time delay chart.

Relay contacts are isolated.

## **Description**

The KRDI Series is a compact time-delay relay measuring 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 KRDI Series is a cost effective approach for OEM applications that require small size, isolation, reliability, and long life.

#### Operation (Interval)

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

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

### **Features & Benefits**

FEATURES	BENEFITS	
Compact, low cost design measuring 2 in. (50.8mm) square	Allows flexiblility for OEM applications	
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.

## Ordering Information

MODEL	INPUT VOLTAGE	ADJUSTMENT	TIME DELAY
KRDI120	12VDC	Onboard knob	0.1 - 10s
KRDI121	12VDC	Onboard knob	1 - 100s
KRDI122	12VDC	Onboard knob	10 - 1000s
KRDI2110S	24VAC/VDC	Fixed	10s
KRDI2160S	24VAC/VDC	Fixed	60s
KRDI220	24VAC/VDC	Onboard knob	0.1 - 10s
KRDI320	24VDC	Onboard knob	0.1 - 10s
KRDI420	120VAC	Onboard knob	0.1 - 10s
KRDI424	120VAC	Onboard knob	1 - 100m

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



# KRDI SERIES

## **Accessories**



#### 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.

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

Output

Type Isolated relay contacts

**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

≥ 1500V RMS input to output Isolation Voltage

**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

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

**D** 30.7 mm (1.21")

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

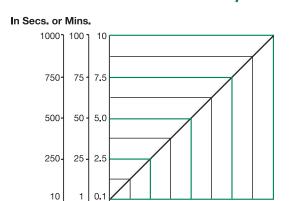
**Environmental** 

Operating/Storage

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

Weight  $\approx 2.6 \text{ oz } (74 \text{ g})$ 

## **External Resistance vs. Time Delay**



This chart applies to externally adjustable part numbers.

**♣**0 & 3

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.

50 k

= External Timing Resistor in Kilohms

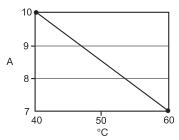
75 k

100 k

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**



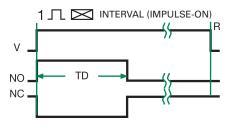
# **Function Diagram**

**≱** 2

Time

Delay

Ranges



NO = Normally Open Contact NC = Normally**Closed Contact** TD =Time Delay R = Reset

V = Voltage

اري = Undefined Time

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