

Recycling (Flasher) KRD3 Digi-Timer Time Delay Relay



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- Compact Time Delay Relay
- Full 10 A SPDT Output Contacts
- Onboard or External Adjust or Fixed Delay
- Delays from 100 ms ... 100 m in 5 Ranges
- +/-0.5% Repeat Accuracy
- +/-5% Factory Calibration
- Input Voltages from 12 ... 230 V in 5 Ranges

Approvals:

Accessories

- A** External adjust potentiometer
P/Ns: P1004-95 (fig A) P1004-95-X (fig B)
- B** Versa-knob
P/N: P0700-7
- Mounting bracket
P/N: P1023-6
- Female quick connect
P/Ns: P1015-64 (AWG 14/16) P1015-13 (AWG 10/12)
- Quick connect to screw adaptor
P/N: P1015-18
- DIN rail P/Ns: C103PM (Al)

DIN rail adaptor
P/N: P1023-20

See accessory pages for specifications.

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 (ON Time First)

Upon application of input voltage, the output relay energizes and the ON time begins. At the end of the ON time, the output de-energizes and the OFF time begins. At the end of the OFF time, the output relay is energized and the cycle repeats as long as input voltage is applied.

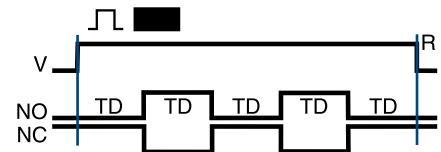
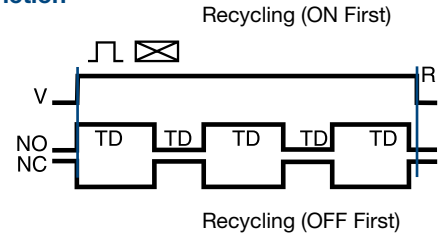
Reset: Removing input voltage resets the output and the time delays, and returns the sequence to the ON time.

Operation (OFF Time First)

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

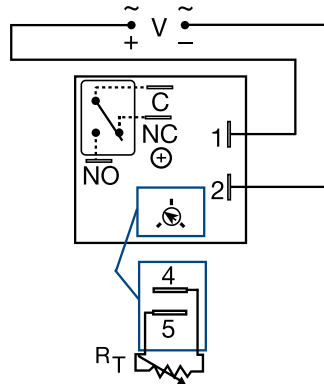
Reset: Removing input voltage resets the output and the time delays, and returns the sequence to the OFF time.

Function



V = Voltage R = Reset TD = Time Delay
NO = Normally Open NC = Normally Closed

Connection



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. Dashed lines are internal connections.

Available Models-

KRD3210.4SA

KRD3420A

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Ordering Table

KRD3 Series	X Input	X Adjustment	X Time Delay *	X Operating Sequence
	-1 - 12 V DC	-1 - Fixed	-0 - 0.1 ... 10 s	-A - ON Time First
	-2 - 24 V AC/DC	-2 - Onboard Adjustment	-1 - 1 ... 100 s	-B - OFF Time First
	-4 - 120 V AC	-3 - External Adjustment	-2 - 10 ... 1000 s	
	-5 - 110 V DC		-3 - 0.1 ... 10 m	
	-6 - 230 V AC		-4 - 1 ... 100 m	

* If Fixed Delay is selected, insert delay [0.1 ... 1000] followed by (S) sec. or [0.1 ... 100] (M) min.

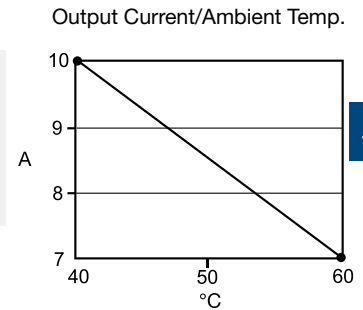
Example P/N: KRD3421A = 120 V AC; Onboard adjust from 1 to 100 seconds, ON Time First
KRD3610.5SB = 230 V AC, Fixed at 0.5 seconds, OFF Time First

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Dedicated
timers

Technical Data

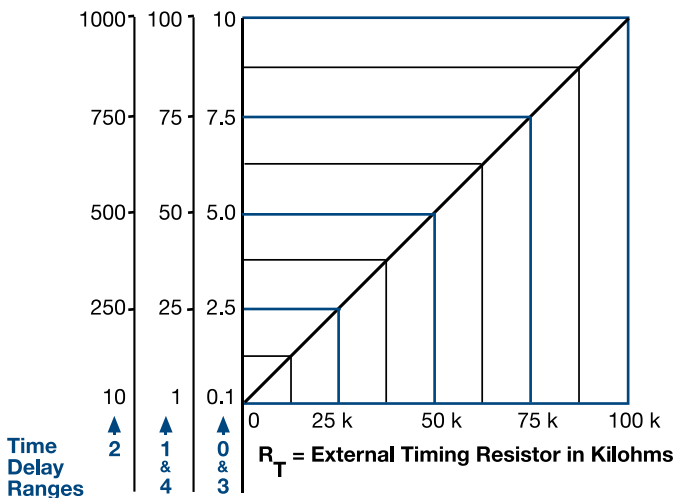
Time Delay Range Repeat Accuracy Tolerance (Factory Calibration) Reset Time Time Delay vs. Temperature & Voltage	0.1 s ... 100 m in 5 adjustable ranges or fixed +/-0.5% or 20 ms, whichever is greater ≤ +/- 5% ≤ 150 ms ≤ +/-5%
Input Voltage Tolerance AC Line Frequency/DC Ripple Power Consumption	12, 24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



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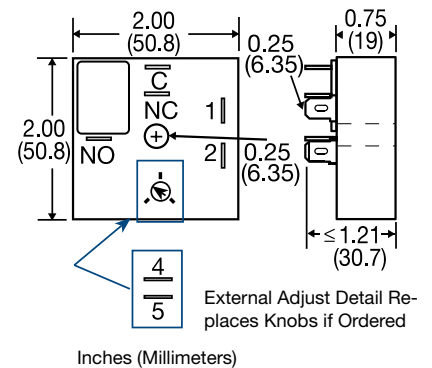
External Resistance vs Time Delay

In Secs. or Mins.



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 .

Mechanical View



KRD3Gen 09:10