

Single Shot (Pulse Former)

KRDS Digi-Timer

Time Delay Relay



- Compact Time Delay Relay
- +/-0.5% Repeat Accuracy
- Isolated 10 A SPDT Output Contacts
- Onboard or External Adjustment or Fixed Time Delay
- Delays from 100 ms...1000 m in 6 Ranges
- +/-5% Factory Calibration
- Input Voltages from 12...230 V in 5 Ranges

Approvals:

Accessories

B External adjust potentiometer
P/Ns:
P1004-95 (fig A)
P1004-95-X (fig 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

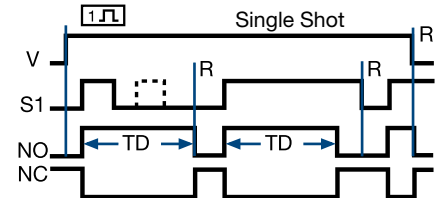
The KRDS Series is a compact time delay relay measuring only 2 in. (50.8 mm) square. Its microcontroller timing circuit provides excellent repeat accuracy and stability. Encapsulation protects against shock, vibration, and humidity. The KRDS Series is a cost effective approach for OEM applications that require small size, isolation, reliability, and long life.

Operation

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

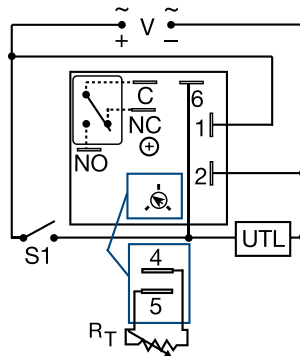
Reset: Reset occurs when the time delay is complete and the initiate switch is opened. Loss of input voltage resets the time delay and output.

Function



V = Voltage S1 = Initiate Switch R = Reset
TD = Time Delay NO = Normally Open
NC = Normally Closed

Connection



V = Voltage S1 = Initiate Switch
C = Common, Transfer Contact NO = Normally Open
NC = Normally Closed UTL = Untimed Load

A knob is supplied for adjustable units. The untimed load is optional. Relay contacts are isolated. Dashed lines are internal connections.

Available Models-

KRDS1110M
KRDS225

KRDS120
KRDS424

KRDS21120M
KRDS430

Don't see what you need? Call us for a minimum quantity and price quote!

Ordering Table

KRDS Series	X Input	X Adjustment	X Time Delay *
	-1 - 12 V DC	-1 - Fixed	-0 - 0.1 ... 10 s
	-2 - 24 V AC/DC	-2 - Onboard Adjustment	-1 - 1 ... 100 s
	-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
			-5 - 10 ... 1000 m

Example P/N: **KRDS421** = 120 V AC; Onboard adjust from 0.1 to 10 seconds
KRDS610.5S = 230 V AC; Fixed at 0.5 seconds

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

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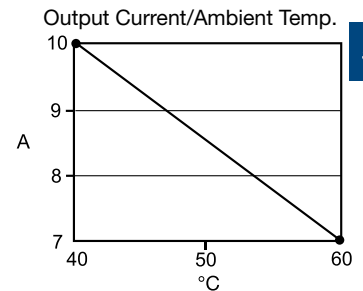
KRDS Digi-Timer

Time Delay Relay

Dedicated
timers

Technical Data

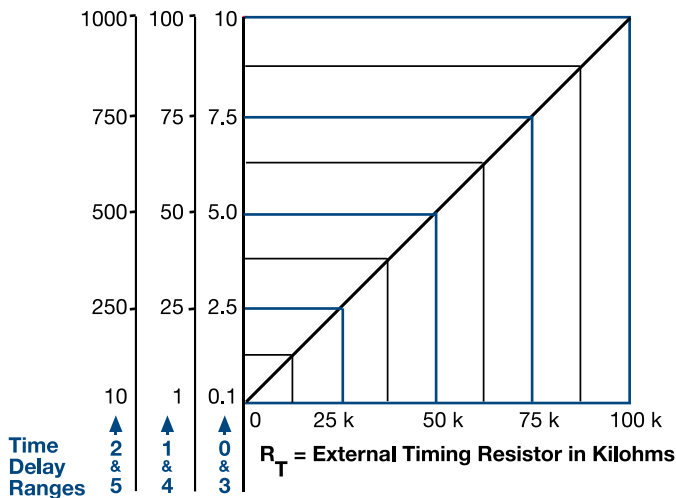
Time Delay Type Range Repeat Accuracy Tolerance (Factory Calibration) Reset Time Initiate Time Time Delay vs. Temperature & Voltage	Microcontroller with watchdog circuitry 0.1 s ... 1000 m in 6 adjustable ranges or fixed +/-0.5% or 20 ms, whichever is greater ≤ +/-5% ≤ 150 ms ≤ 40 ms ≤ +/-5%
Input Voltage Tolerance 12 V DC & 24 V DC/AC 110 V DC, 120 V AC or 230 V AC 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)	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 Mechanical -- 1×10^7 ; Electrical -- 1×10^5
Life (Operations) 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	-40°C ... +60°C/-40°C ... +85°C 95% relative, non-condensing ≅ 2.6 oz (74 g)



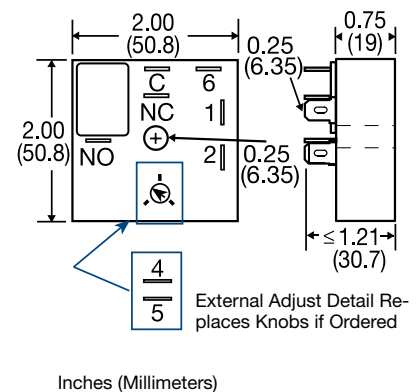
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External Resistance vs Time Delay

In Secs. or Mins.



Mechanical View



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 .