

Dedicated  
timers

# Interval KRDI Digi-Timer Time Delay Relay



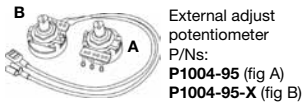
10 YEAR WARRANTY

5

- 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



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



Versa-knob  
P/N: P0700-7



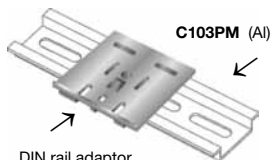
Mounting bracket  
P/N: P1023-6



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

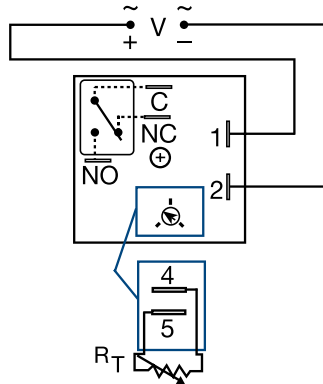
The KRDI Series is a compact time delay relay measuring only 2 in. (50.8 mm) square. Its solid state timing circuit provides excellent repeat accuracy and stability. Encapsulation protects against shock, vibration, and humidity. The KRDI Series is a cost effective approach for OEM applications that require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

### Operation

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.

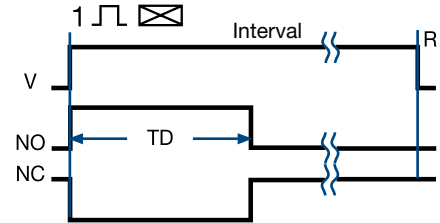
### Connection



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

A knob is supplied for adjustable units, or R<sub>T</sub> terminals 4 & 5 for external adjust. See external adjustment vs time delay chart. Relay contacts are isolated. Dashed lines are internal connections.

### Function



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

### Available Models-

KRDI110.2S  
KRDI1132S  
KRDI121  
KRDI21120S  
KRDI2160S  
KRDI415S  
KRDI422

KRDI1120S  
KRDI115S  
KRDI122  
KRDI211S  
KRDI220  
•KRDI420  
KRDI423

KRDI1130S  
•KRDI120  
KRDI2110S  
KRDI215M  
KRDI320  
KRDI421

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

### Ordering Table

**KRDI Series**

**X**  
**Input**  
-1 - 12 V DC  
-2 - 24 V AC/DC  
-4 - 120 V AC  
-5 - 110 V DC  
-6 - 230 V AC

**X**  
**Adjustment**  
-1 - Fixed  
-2 - Onboard Adjustment  
-3 - External Adjustment

**X**  
**Time Delay \***  
-0 - 0.1 ... 10 s  
-1 - 1 ... 100 s  
-2 - 10 ... 1000 s  
-3 - 0.1 ... 10 m  
-4 - 1 ... 100 m

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

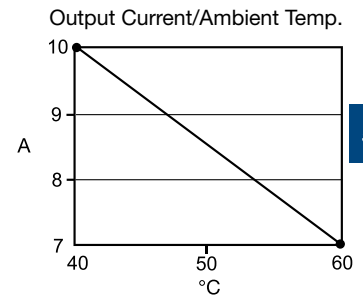
**Example P/N:** KRDI421 = 120 V AC; Onboard adjust from 1 to 100 seconds  
KRDI610.5S = 230 V AC; Fixed at 0.5 seconds

# Interval KRDI Digi-Timer Time Delay Relay

Dedicated  
timers

## Technical Data

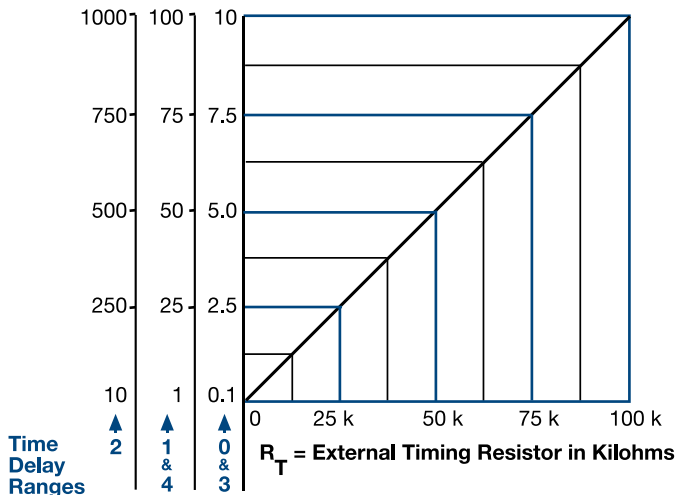
<b>Time Delay</b> Range Repeat Accuracy Tolerance (Factory Calibration) Reset Time Time Delay vs. Temperature & Voltage	0.1 s ... 100 m in 5 adjustable ranges or fixed +/-0.5% or 20 ms, whichever is greater ≤ +/- 5% ≤ 150 ms ≤ +/-5%
<b>Input</b> Voltage Tolerance 12 V DC & 24 V DC/AC 110 V DC, 120 V 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
<b>Output</b> 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 x 10 <sup>7</sup> ; Electrical -- 1 x 10 <sup>5</sup>
<b>Protection</b> Circuitry Isolation Voltage Insulation Resistance Polarity	Encapsulated ≥ 1500 V RMS input to output ≥ 100 MΩ DC units are reverse polarity protected
<b>Mechanical</b> 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
<b>Environmental</b> Operating / Storage Temperature Humidity Weight	-20°C ... +60°C / -40°C ... +85°C 95% relative, non-condensing ≅ 2.6 oz (74 g)



5

## 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

