# Interval (Impulse ON)
## KRDI Digi-Timer
## Time Delay Relay


TEN YEAR 10 WARRANTY

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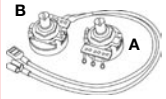
- Compact Time Delay Relay
- Full 10 A SPDT Output Contacts
- Onboard or External Adjust or Fixed Delay
- Delays from 100 ms...100 m in 5 Ranges
- +/-0.5% Repeat Accuracy
- +/-5% Factory Calibration
- Input Voltages from 12 ... 230 V in 5 Ranges

Approvals:

### Accessories

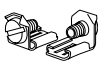



External adjust potentiometer
P/Ns:
**P1004-95** (fig A)
**P1004-95-X** (fig B)

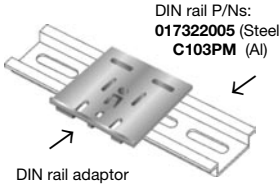
Versa-knob
P/N: **P0700-7**

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:
**017322005** (Steel)
**C103PM** (Al)

DIN rail adaptor
P/N: **P1023-20**

See accessory pages for specifications.

### Description

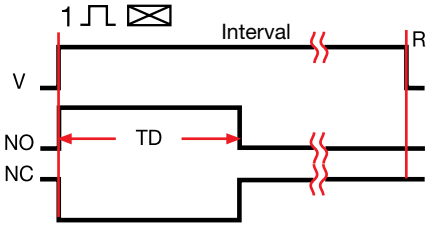
The KRDI Series is a compact time delay relay measuring only 2 in. (50.8 mm) square. Its solid state timing circuit provides excellent repeat accuracy and stability. Encapsulation protects against shock, vibration, and humidity. The KRDI Series is a cost effective approach for OEM applications that require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

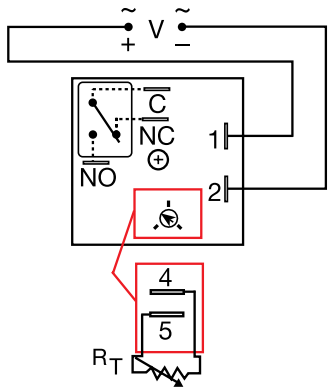
**Reset:** Removing input voltage resets the time delay and the output.

### Function




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

### 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.

### Ordering Table

| KRDI | X | X | X |
|---|---|---|---|
| **Series** | **Input** | **Adjustment** | **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 |

* 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

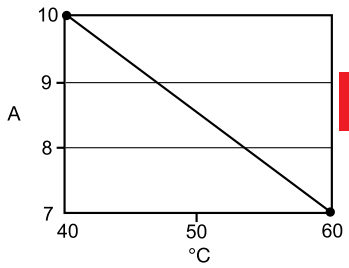
KRDIGen 08.15.06

# Interval (Impulse ON)
## KRDI Digi-Timer
## Time Delay Relay

### Technical Data

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

Output Current/Ambient Temp.

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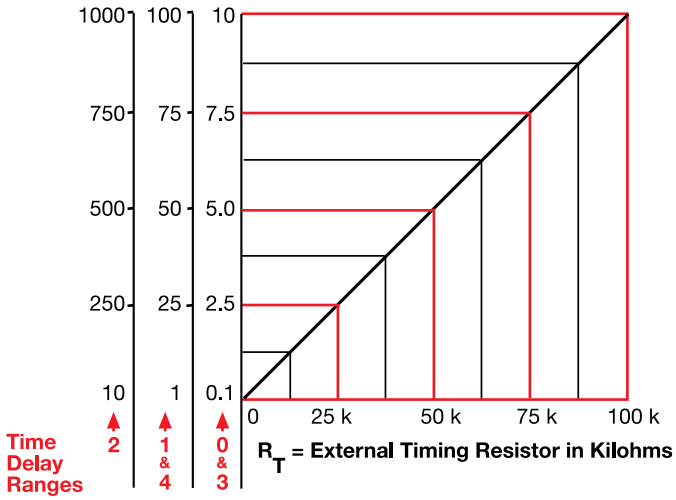
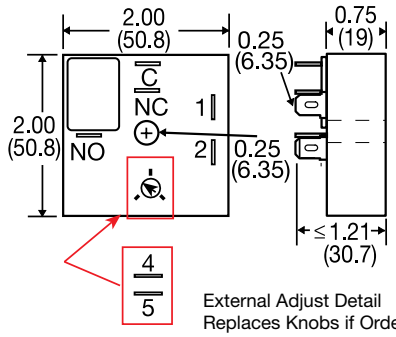
### External Resistance vs Time Delay

**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 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.

### Mechanical View




Inches (Millimeters)