

# Delay On Make KRDM Digi-Timer Time Delay Relay



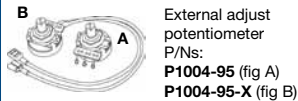
10 YEAR WARRANTY

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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)



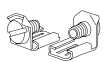
Versa-knob  
P/N: **P0700-7**



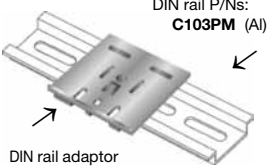
Mounting bracket  
P/N: **P1023-6**



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:  
**C103PM** (Al)

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

See accessory pages for specifications.

### Description

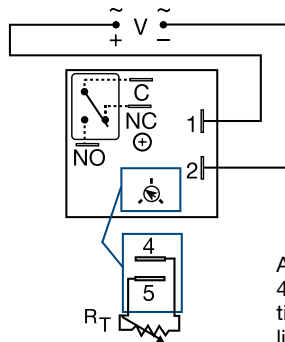
The KRDM Series is a compact time delay relay measuring only 2 in. (50.8 mm) square. Its solid state timing circuit provides excellent repeat accuracy and stability. Encapsulation protects against shock, vibration, and humidity. The KRDM Series is a cost effective approach for OEM applications that require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

### Operation

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

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

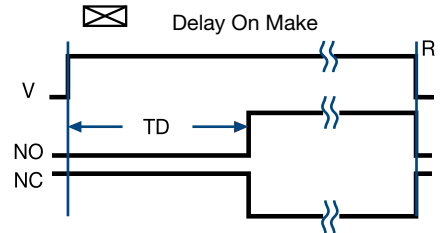
### Connection



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 TD = Time Delay R = Reset  
NO = Normally Open NC = Normally Closed  
--- = Undefined time

### Available Models-

KRDM110.4S	KRDM110.5S	KRDM111.5S
KRDM1110S	KRDM111S	KRDM1120S
KRDM1130S	•KRDM120	KRDM121
KRDM123	KRDM124	KRDM2110M
KRDM21200S	KRDM2130S	KRDM215M
•KRDM220	•KRDM221	KRDM222
KRDM223	KRDM224	KRDM234
KRDM310.2S	KRDM320	KRDM4110M
KRDM4110S	KRDM4115M	KRDM4120S
KRDM4145S	KRDM415S	KRDM4160S
•KRDM420	•KRDM421	KRDM423
KRDM424	KRDM430	KRDM433
KRDM6115M		

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

### Ordering Table

KRDM 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

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

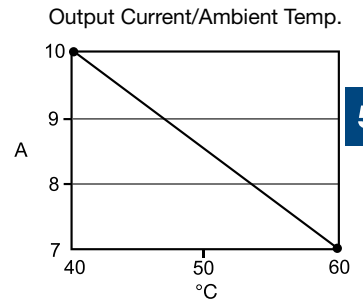
**Example P/N:** **KRDM421** = 120 V AC; Onboard adjust from 1 to 100 seconds  
**KRDM610.5S** = 230 V AC; Fixed at 0.5 seconds

# Delay On Make KRDM Digi-Timer Time Delay Relay

Dedicated  
timers

## Technical Data

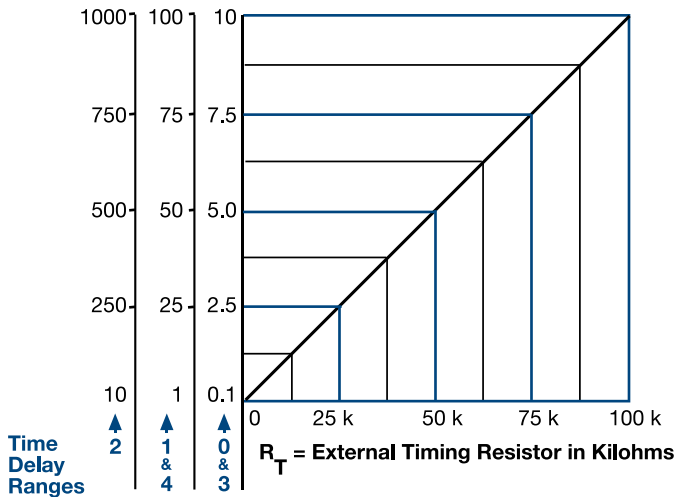
<b>Time Delay</b>	
Range	0.1 s ... 100 m in 5 adjustable ranges or fixed
Repeat Accuracy	+/-0.5% or 20 ms, whichever is greater
Tolerance (Factory Calibration)	≤ +/-5%
Recycle Time	≤ 150 ms
Time Delay vs. Temperature & Voltage	≤ +/-5%
<b>Input</b>	
Voltage	12, 24 or 110 V DC; 24, 120 or 230 V AC
Tolerance	12 V DC & 24 V AC/DC: -15% ... +20%
	110 V DC 120 & 230 V AC: -20% ... +10%
AC Line Frequency/DC Ripple	50 ... 60 Hz / ≤ 10%
Power Consumption	AC ≤ 2 VA; DC ≤ 2 W
<b>Output</b>	
Type	Isolated relay contacts
Form	Single pole double throw (SPDT)
Rating (at 40°C)	10 A resistive at 125 V AC
	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 <sup>7</sup> ; Electrical -- 1 x 10 <sup>5</sup>
<b>Protection</b>	
Circuitry	Encapsulated
Isolation Voltage	≥ 1500 V RMS input to output
Insulation Resistance	≥ 100 MΩ
Polarity	DC units are reverse polarity protected
<b>Mechanical</b>	
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
<b>Environmental</b>	
Operating / Storage Temperature	-20°C ... +60°C / -40°C ... +85°C
Humidity	95% relative, non-condensing
Weight	≈ 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 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

