

## Delay On Make (Operate) KRDM Digi-Timer Time Delay Relay



TEN YEAR  
WARRANTY

Obsolete Specification  
Redesigned product is available  
see new specifications at:  
[www.ssac.com/standard/standard.htm](http://www.ssac.com/standard/standard.htm)

- Compact
- Digital
- Full
- Knob
- Delays
- Input Voltage

### Description

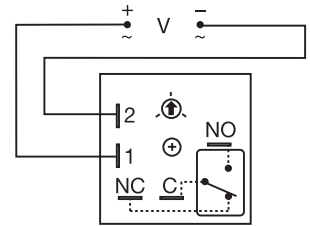
The KRDM Series is a compact time delay relay measuring only 2 in. (50.8 mm) square. Its solid state digital timing circuit provides excellent repeat accuracy and stability. Encapsulation protects against shock, vibration, and humidity. The KRDM Series is a cost effective approach for OEM applications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

### Operation

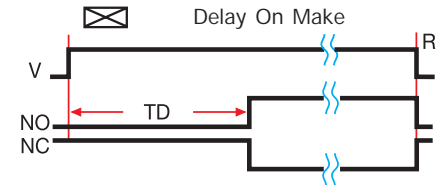
Upon application of input voltage, the time delay begins. The output is de-energized before and during the time delay. At the end of the time delay, the output relay is energized and remains energized until input voltage is removed.

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

Approvals:



Relay contacts are isolated. Dashed lines are internal connections.



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

### Ordering Table

KRDM Series	Input	Adjustment	Time Delay *
-1	12 V DC	-1 - Fixed	-0 - 0.2 ... 10 s
-2	24 V AC/DC	-2 - Knob	-1 - 1 ... 100 s
-3	24 V DC	-3 - External Adjustment	-2 - 10 ... 1000 s
-4	120 V AC		-3 - 0.1 ... 10 m
-5	110 V DC		-4 - 1 ... 100 m

\* If Fixed Delay is selected, insert delay [0.2 ... 1000] followed by (S) sec. or [0.1 ... 100] (M) min.

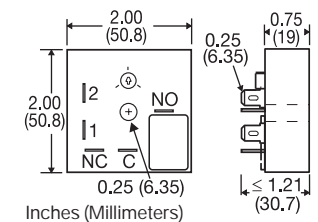
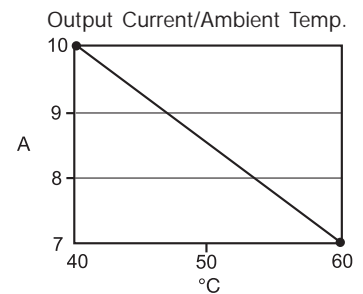
Example P/N: KRDM421 Fixed - KRDM4120S

### Technical Data

<b>Time Delay</b>	
Type	Digital integrated circuitry
Range	0.2 s ... 100 m in 5 adjustable ranges or fixed
Repeat Accuracy	+/-0.5%
Tolerance (Factory Calibration)	≤ +/-10%
Recycle Time	≤ 250 ms
Time Delay vs. Temperature & Voltage	≤ +/-5%
<b>Input</b>	
Voltage	12 or 110 V DC; 120 V AC; 24 V AC/DC
Tolerance	12 V DC & 24 V AC/DC: -15% ... +20%
	110 V DC & 120 V AC: -20% ... +10%
Line Frequency	50 ... 60 Hz
Power Consumption	12, 24 V DC: ≤ 0.65 W; 110 V DC: ≤ 2 VA
<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 30 V DC; 1/4 hp at 125 V AC
Life	Mechanical -- 1 x 10 <sup>7</sup> Electrical -- 1 x 10 <sup>5</sup> for 10 A at 120 V AC
<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 Temperature	-20°C ... +60°C
Storage Temperature	-40°C ... +85°C
Humidity	95% relative, non-condensing
Weight	≅ 2.6 oz (74 g)

R <sub>T</sub> Selection Chart					
Desired Time Delay*					R <sub>T</sub> Megohm
Seconds	Minutes	Seconds	Minutes	Seconds	
0	1	2	3	4	
0.2	1	10	0.1	1	0.0
1	10	100	1	10	0.1
2	20	200	2	20	0.2
3	30	300	3	30	0.3
4	40	400	4	40	0.4
5	50	500	5	50	0.5
6	60	600	6	60	0.6
7	70	700	7	70	0.7
8	80	800	8	80	0.8
9	90	900	9	90	0.9
10	100	1000	10	100	1.0

\* When selecting an external R<sub>T</sub> add at least 20% for tolerance of unit and the R<sub>T</sub>.



### Accessories

Female quick connect

P/N: P1015-64 (AWG 14/16)

Quick connect to screw adaptor

P/N: P1015-18

Mounting bracket  
P/N: P1023-6

DIN rail P/Ns:  
17322005 (Steel)  
C103PM (Al)  
DIN rail adaptor  
P/N: P1023-20

See accessory pages at the end of this section.