

Dedicated  
timers

# Recycling (Pulse Generator) KRDR Digi-Timer Time Delay Relay



CE  
TEN YEAR WARRANTY

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- Compact Time Delay Relay
- Full 10 A SPDT Output Contacts
- Onboard Adjustment or Fixed Time Delay
- Delays from 100 ms...1000 m in 6 Ranges
- Input Voltages from 120...230V in 6 Ranges
- +/-0.5% Repeat Accuracy
- +/-5% Factory Calibration

Approvals:

### Description

The KRDR 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 KRDR Series is a cost effective recycling timer for OEM applications that require small size, isolation, reliability, and long life.

### Operation (ON Time First)

Upon application of input voltage, the output relay energizes and the T2 ON time begins. At the end of the ON time, the output de-energizes and the T1 OFF time begins. At the end of the OFF time, the output relay energizes and the cycle repeats as long as input voltage is applied.

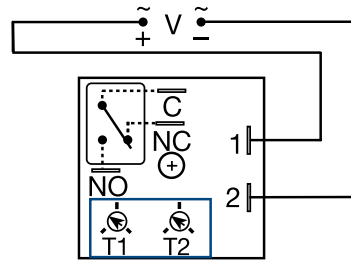
**Reset:** Removing input voltage resets the output and the time delays, and returns the sequence to the ON time.

### Operation (OFF Time First)

Upon application of input voltage, the T1 OFF time begins. At the end of the OFF time, the T2 ON time begins and the load energizes. At the end of the ON time the load de-energizes, and the cycle repeats until input voltage is removed.

**Reset:** Removing input voltage resets the output and the sequence to the OFF time.

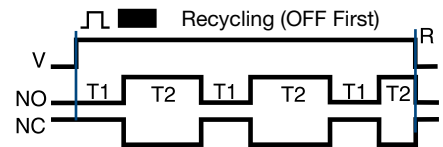
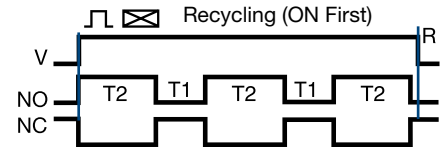
### Connection



T1 = OFF Time T2 = ON Time

A knob is supplied for adjustable units. Dashed lines are internal connections.

### Function



V = Voltage R = Reset  
T1 = OFF Time T2 = ON Time  
NO = Normally Open NC = Normally Closed

### Available Models-

KRDR1110MA5M	KRDR115MB25M	KRDR115SB55S
KRDR121A1	KRDR122A2	KRDR123A4
KRDR124A4	KRDR2110SA55S	KRDR213SA120S
KRDR213SA3M	KRDR320A0	KRDR320A1
KRDR320B0	KRDR321A4	KRDR321B4
KRDR420A4	•KRDR421A4	KRDR424A0

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### Ordering Table

KRDR Series	X Input	X Adjustments	X T2, ON Time *	X Operating Sequence	X T1, OFF Time *
	-1 - 12 V DC	-1 - Both Times Fixed	-0 - 0.1 ... 10 s	-A - ON Time First	-0 - 0.1 ... 10 s
	-2 - 24 V AC	-2 - Both Times Adj.	-1 - 1 ... 100 s	-B - OFF Time First	-1 - 1 ... 100 s
	-3 - 24 V DC	-3 - ON Time Adj.	-2 - 10 ... 1000 s		-2 - 10 ... 1000 s
	-4 - 120 V AC	OFF Time Fixed	-3 - 0.1 ... 10 m		-3 - 0.1 ... 10 m
	-5 - 110 V DC	-4 - ON Time Fixed,	-4 - 1 ... 100 m		-4 - 1 ... 100 m
	-6 - 230 V AC	OFF Time Adj.	-5 - 10 ... 1000 m		-5 - 10 ... 1000 m

\* If Fixed Delay is selected, insert delay [0.1 ... 999] followed by (S) sec. or (M) min.

**Example P/N:** KRDR421A1 = 120 V AC, ON Time and OFF Time Onboard Adjustable, with ON Time from 1 to 100 seconds, ON Time First Operation, with OFF Time from 1 to 100 seconds

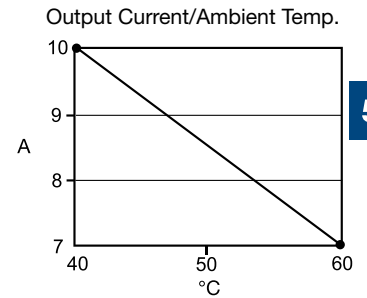
Fixed- KRDR631B0.5S = 230 V AC, ON Time Onboard Adjustable from 1 to 100 seconds, OFF Time First Operation, with OFF Time

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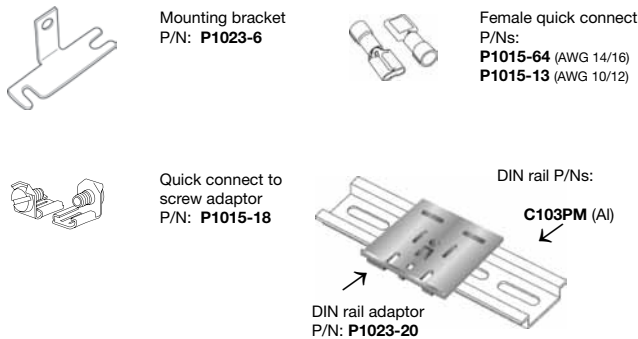
## Technical Data

<b>Time Delay</b> Range Repeat Accuracy Tolerance (Factory Calibration) Reset Time Time Delay vs. Temperature & Voltage	0.1 s ... 1000 m in 6 adjustable ranges or fixed +/-0.5 % or 20 ms, whichever is greater ≤ +/-5% ≤ 150 ms ≤ +/-5%
<b>Input</b> Voltage Tolerance 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 -- $1 \times 10^7$ ; Electrical -- $1 \times 10^5$
<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)



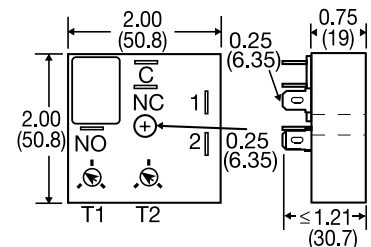
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## Accessories



See accessory pages for specifications.

## Mechanical View



Inches (Millimeters)

T1 = OFF time T2 = ON time  
 A knob is supplied for adjustable time delays