

# KRDR SERIES



## Wiring Diagram



V = Voltage  
C = Common  
NO = Normally Open  
NC = Normally Closed  
T1 = OFF Time  
T2 = ON Time

A knob is supplied for adjustable units.

## 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 (Recycling - 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 (Recycling - 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.

## Features & Benefits

FEATURES	BENEFITS
<b>Compact design and independent adjustment of ON and OFF times</b>	Provides greater flexibility for OEM applications and reduces component and labor costs
<b>Microcontroller based</b>	Repeat Accuracy +/- 0.5%, Factory calibration +/- 5%
<b>Isolated, 10A, SPDT output contacts</b>	Allows control of loads for AC or DC voltages
<b>Encapsulated</b>	Protects against shock, vibration, and humidity

## Ordering Information

MODEL	INPUT VOLT.	ADJUST.	T2 ON TIME	FIRST DELAY	T1 OFF TIME
KRDR115MB25M	12VDC	Fixed	5m	Off time	25m
KRDR120A0	12VDC	Adjustable	0.1 - 10s	On time	0.1 - 10s
KRDR121A1	12VDC	Adjustable	1 - 100s	On time	1 - 100s
KRDR320B0	24VDC	Adjustable	0.1 - 10s	Off time	0.1 - 10s
KRDR321A4	24VDC	Adjustable	1 - 100s	On time	1 - 100m
KRDR321B4	24VDC	Adjustable	1 - 100s	Off time	1 - 100m
KRDR420A3	120VAC	Adjustable	0.1 - 10s	On time	0.1 - 10m
KRDR421A4	120VAC	Adjustable	1 - 100s	On time	1 - 100m
KRDR424A0	120VAC	Adjustable	1 - 100m	On time	0.1 - 10s
KRDR424A4	120VAC	Adjustable	1 - 100m	On time	1 - 100m
KRDR440.5SA0	120VAC	On time fixed	0.5s	On time	0.1 - 10s

If you don't find the part you need, call us for a custom product 800-843-8848

## Accessories



### P1023-6 Mounting bracket

The 90° orientation of mounting slots makes installation/removal of modules quick and easy.



### P1015-13 (AWG 10/12), P1015-64 (AWG 14/16) Female Quick Connect

These 0.25 in. (6.35 mm) female terminals are constructed with an insulator barrel to provide strain relief.



### P1015-18 Quick Connect to Screw Adapter

Screw adapter terminal designed for use with all modules with 0.25 in. (6.35 mm) male quick connect terminals.



### C103PM (AL) DIN Rail

35 mm aluminum DIN rail available in a 36 in. (91.4 cm) length.



### P1023-20 DIN Rail Adapter

Allows module to be mounted on a 35 mm DIN type rail with two #10 screws.

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## Output Current/Ambient Temperature



## Function Diagrams



## Specifications

<b>Time Delay Range</b>	0.1s - 1000m in 6 adjustable ranges or fixed
<b>Repeat Accuracy Tolerance (Factory Calibration)</b>	±0.5 % or 20ms, whichever is greater
<b>Reset Time</b>	≤ ±5%
<b>Time Delay vs Temp. &amp; Voltage</b>	≤ 150ms
<b>Input Voltage</b>	≤ ±5%
<b>Voltage Tolerance</b>	12, 24 or 110VDC; 24, 120 or 230VAC
<b>12VDC &amp; 24VDC/AC</b>	-15% - 20%
<b>110VDC &amp; 120 or 230VAC</b>	-20% - 10%
<b>AC Line Frequency/DC Ripple</b>	50/60 Hz / ≤ 10%
<b>Power Consumption</b>	AC ≤ 2VA; DC ≤ 2W
<b>Output Type</b>	Isolated relay contacts
<b>Form</b>	SPDT
<b>Rating (at 40°C)</b>	10A resistive @ 125VAC; 5A resistive @ 230VAC & 28VDC; 1/4 hp @ 125VAC
<b>Max. Switching Voltage</b>	250VAC
<b>Life (Operations)</b>	Mechanical - 1 x 10 <sup>7</sup> ; Electrical - 1 x 10 <sup>5</sup>
<b>Protection Circuitry</b>	Encapsulated
<b>Isolation Voltage</b>	≥ 1500V RMS input to output
<b>Insulation Resistance</b>	≥ 100 MΩ
<b>Polarity</b>	DC units are reverse polarity protected
<b>Mechanical Mounting</b>	Surface mount with one #10 (M5 x 0.8) screw
<b>Dimensions</b>	<b>H</b> 50.8 mm (2"); <b>W</b> 50.8 mm (2"); <b>D</b> 30.7 mm (1.21")
<b>Termination</b>	0.25 in. (6.35 mm) male quick connect terminals
<b>Environmental Operating/Storage Temperature</b>	-20° to 60°C / -40° to 85°C
<b>Humidity</b>	95% relative, non-condensing
<b>Weight</b>	≈ 2.6 oz (74 g)