

# Delay On Make

## K1 Series

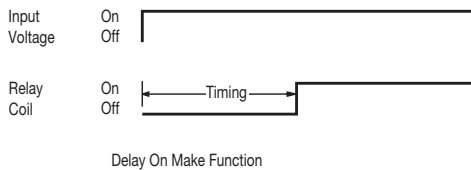
### FEATURES

- 100% functionally tested
- No false contact transfer when reset during timing
- Digital timing circuit
- Time delays to 5 minutes
- Low cost
- Compact size
- Spade type base
- Wide operating temperature range
- Fiberglass reinforced circuit board
- Polycarbonate, 94V-2 housing material
- File #E59090

**Operating Logic:** Upon application of voltage to the input terminals, the time delay cycle starts. At the end of the preset time delay, the relay coil is energized and the contacts transfer. Reset is accomplished by the removal of input voltage.

*Note:* 1) Remote potentiometer leads should be shielded when running close to other wires; 2) The minimum time setting on external resistor-adjustable time delay relays is obtained by shorting together the external resistor terminals of the relay; 3) The maximum time setting within tolerance limits is obtained by using a 1 megohm resistor; 4) Timing values between the minimum and maximum limits are linear with resistance within 10%; 5) Recommend 1/4 W minimum resistor be used.

### LOGIC FUNCTION DIAGRAM



### SPECIFICATIONS

#### TIME DELAY

**Adjustment:** Knob or external resistor, factory fixed on special order (min. order required)  
**Range:** 100 ms to 5 minutes in 5 ranges  
**Repeatability:**  $\pm 5\%$  at constant temperature and reset time, but not less than 16 ms.  
**Accuracy:** Maximum time  $+ (10\%, +20 \text{ ms}) / -0\%$ ; Minimum time  $-50\% / + (0\%, +20 \text{ ms})$   
**Reset Time:** 80 ms max.

#### INPUT

**Operating Voltage:** 24, 120 VAC; 12, 24 VDC  $\pm 10\%$  (DC models have reverse polarity protection. Unfiltered input voltage to them must be full-wave rectified)  
**Power Consumption:** 3 VA max.  
**Frequency:** 50/60 Hz (AC units)

#### OUTPUT

**Type:** Relay contacts, DPDT (2 form C)  
**Rating:** 10 A max. resistive at 240 VAC; 100 mA at 5 VDC min. load current  
**Life:**  
 Mechanical: 1,000,000 operations  
 Full Load: 150,000 operations

#### PROTECTION

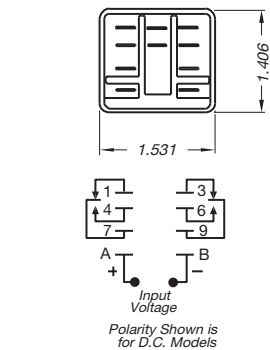
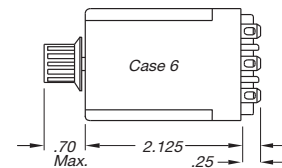
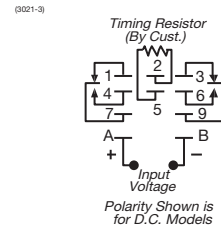
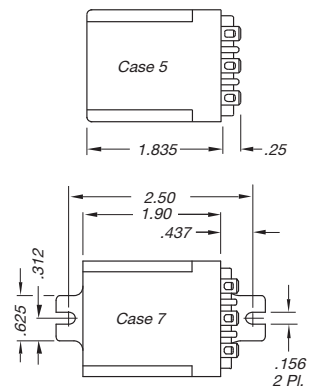
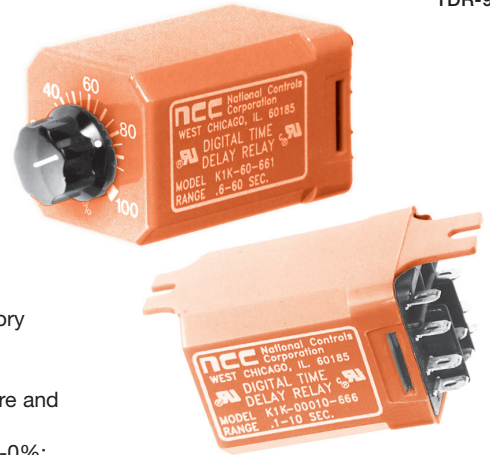
**Transient Voltage:** 12 and 24 V timers are protected by a 1 joule metal oxide varistor; 120 V and 240 V timers are protected by a 5 joule metal oxide varistor.  
**Dielectric Breakdown:** 1500 VAC, RMS min. at 60 Hz between input and outputs and between outputs

#### MECHANICAL

**Termination:** Spade (.187" x .020" terminal) type plug-in base  
**Mounting:** Socket mount, part number MSO-00KUP-012, or flange mount

#### ENVIRONMENTAL

**Storage Temperature:**  $-23^{\circ}\text{C}$  to  $70^{\circ}\text{C}$   
**Operating Temperature:**  $-23^{\circ}\text{C}$  to  $55^{\circ}\text{C}$



### ORDERING INFORMATION

TIME RANGE	12 VDC KNOB ADJST CASE 6	12 VDC REMOTE POT CASE 5	24 VDC KNOB ADJST CASE 6	24 VDC REMOTE POT CASE 5
.1 to 10 sec.	K1K-00010-666	K1K-00010-566	K1K-00010-662	—
.3 to 30 sec.	—	K1K-00030-566	—	—
.6 to 60 sec.	K1K-00060-666	K1K-00060-566	K1K-00060-662	K1F-00060-562
3 to 300 sec.	K1K-00300-666	—	—	—

TIME RANGE	24 VAC KNOB ADJST CASE 6	24 VAC REMOTE POT CASE 5	120 VAC KNOB ADJST CASE 6	120 VAC REMOTE POT CASE 7	120 VAC REMOTE POT CASE 5
.1 to 5 sec.	—	—	—	K1K-00005-761	—
.1 to 10 sec.	K1K-00010-667	K1K-00010-567	K1K-00010-661	—	K1F-00010-561
.3 to 30 sec.	—	—	K1K-00030-661	K1K-00030-761	—
.6 to 60 sec.	—	—	K1K-00060-661	—	K1F-00060-561
3 to 300 sec.	K1K-00300-667	—	K1K-00300-661	—	—

Optional Potentiometer: Part Number ASY-0001M-450

Consult factory for any special requirements not listed in catalog (minimum order requirement may apply).