

# TIMING RELAYS



TRFP240AC  
\$140

TRFP240AC, \$140,  
shown larger  
than actual size.



- 20 Time Ranges and 10 Timing Functions
- Time Delays from 0.1 sec to 600 hrs
- Space-Saving, Compact Package
- High Repeat Accuracy of  $\pm 0.2\%$
- LED Indication
- 2 Form C DPDT Delayed Output Contacts
- 10 A Contact Rating

The TR Series Timing Relays are designed to meet most timing requirements by offering more flexibility in range of input voltage, timing range and functionality. Use a rotary switch to choose from 20 selectable time ranges from 0.1 second to 600 hours. We offer both a power triggered and signal triggered model—each with expanded operation modes. There is a green LED to indicate when power is ON and an orange LED when output is ON.



D3PA3, \$8,  
shown smaller  
than actual size.

## SPECIFICATION

**Contact Configuration:** 2 Form C, DPDT (delayed output)

**Allowable Voltage/Current:** 240 Vac, 30 Vdc/10 A

**Max Permissible Operating Frequency:** 1800 cycles per hour

**Rated Resistive Load:** 10 A, 240 Vac/30 Vdc

**Rated Inductive Load:** 7 A, 240 Vac/30 Vdc

**Horsepower Rating:** 1/8 hp 120 Vac, 1/8 hp 240 Vac

**Electrical Life:** 500,000 operations min (resistive)

**Mechanical Life:** 50,000,000 operations minimum

**Operation System:** Solid-state CMOS circuit

**Time Range:** 0.1 sec to 600 hours

**Coil Rating:** 100-240 Vac

**Triggering:** By signal

**Pollution Degree:** 2 (IE60664-1)

**Overvoltage Category:** III (IE60664-1)

**Rated Operational Voltage:**

100 to 240 Vac (50/60 Hz)

**Voltage Tolerance:** 85 to 264 Vac (50/60 Hz)

**Input OFF Voltage:** Rated Voltage x 10% minimum

**Ambient Operating Temperature:** -20 to 65°C (-4 to 149°F)

**Reset Time:** 100 mS maximum

**Repeat Error:**  $\pm 0.2\%$ ,  $\pm 20$  mS

**Voltage Error:**  $\pm 0.2\%$ ,  $\pm 20$  mS

**Temperature Error:**  $\pm 0.5\%$ ,  $\pm 20$  mS

**Setting Error:**  $\pm 10\%$  maximum

**Insulation Resistance:** 100 M $\Omega$  minimum (500 Vdc)

**Dielectric Strength Between Power and Output Terminals:** 2000 Vac, 1 minute

**Dielectric Strength Between Contacts of Different Poles:** 2000 Vac, 1 minute

**Dielectric Strength Between Contacts of Same Pole:** 1000 Vac, 1 minute

**Vibration Resistance:** 10 to 55 Hz

amplitude 0.5 mm; 2 hrs in each

of 3 axes

**Shock Resistance:** 10 G (operating

extremes), 40 G (damage limits 3x in

each of 3 axes)

**Power Consumption (Approx):**

6.5 VA @ 120 Vac/60 Hz, 11.6 VA @

240 Vac/60 Hz

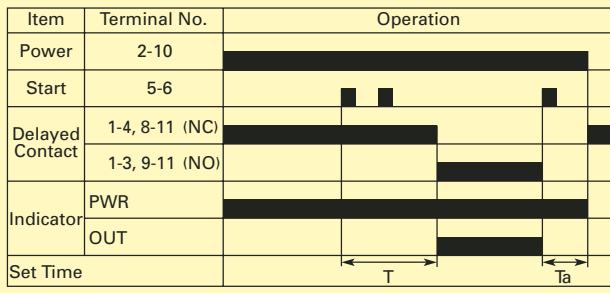
**Dimensions:** 40 H x 36 W x 77.9 mm D

(1.58 x 1.42 x 3.07")

**Weight:** 89 g (3 oz)

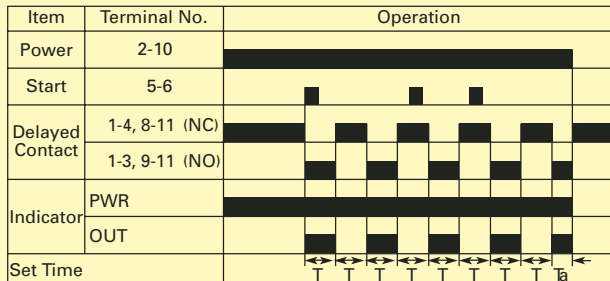
### A: ON-Delay (Signal Start)

When a preset time has elapsed after the start input turned on while power is on, the NO output contact goes on



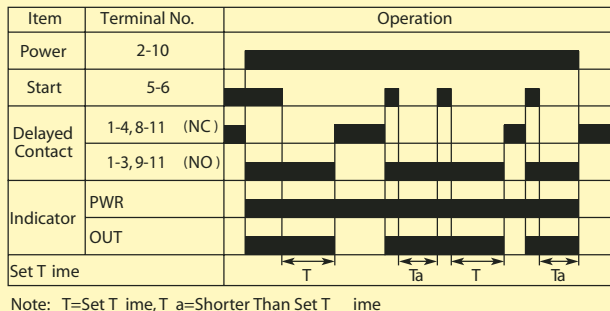
### C: Cycle (Signal Start, ON First)

When the start input turns on while power is on the NO contact goes on. The output oscillates at a preset cycle (Duty Ratio 1:1).



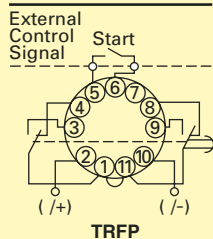
### E: Signal OFF-Delay

When power is turned on while the start input is on, the NO output contact goes on. When a preset time has elapsed after the start input turned off, the NO output contact goes off.



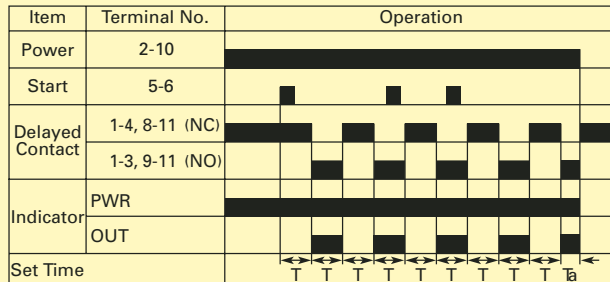
Note: T=Set T ime, T<sub>a</sub>=Shorter Than Set T ime

#### Internal Connections



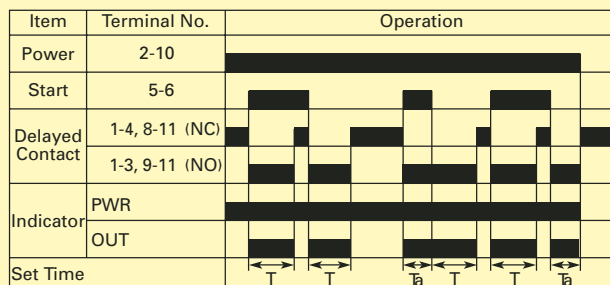
### B: Cycle (Signal Start, OFF First)

When the start input turns on while power is on, the output oscillates at a preset cycle (Duty Ratio 1:1), starting while the NO contact off.



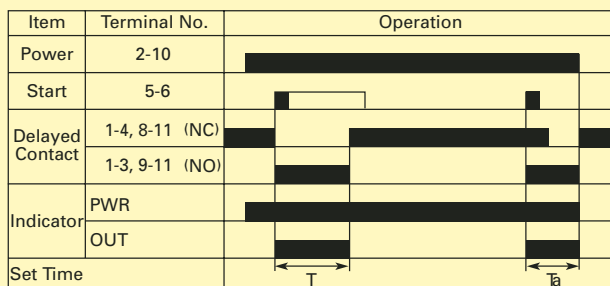
### D: Signal ON/OFF-Delay

When the start input turns on while power is on, the NO output contact goes on. When a preset time has elapsed while the start input remains on, the output contact goes off. When the start input turns off, the NO contact goes on again. When a preset time has elapsed after the start input turned off, the NO contact goes off



### F: One-Shot (Signal Start)

When the start input turns on while power is on, the NO output contact goes on. When a preset time has elapsed, the output contact goes off.



## To Order (Specify Model Number)

MODEL NO.	PRICE	DESCRIPTION
TRFP240AC	\$140	Timing relay, 100-240 Vac coil voltage, signal triggered
D3PA3	8	11-pin octal socket

AVAILABLE FOR FAST DELIVERY!

Comes with installation guide.

Ordering Example: TRFP240AC, timing relay, with D3PA3 socket, \$140 + 8 = \$148

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