

# TIME DELAY RELAYS

## TIME RANGER™ PROGRAMMABLE PLUG-IN TRUE OFF DELAY

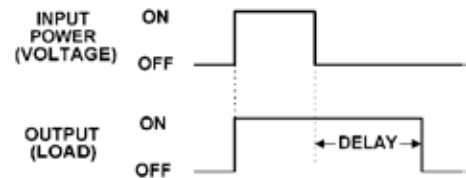


- ◆ Provides Off Delay function without requiring input voltage during Off time delay
- ◆ Duplicates operation of pneumatic Off Delay timers
- ◆ Each unit has 8 timing ranges built-in, covering 0.05 seconds to 30 minutes
- ◆ Selecting a range is easy using a rotary switch (no math is required or DIP switches to set)
- ◆ Uses industry-standard 8 pin octal socket
- ◆ 10A DPDT output contacts



Most electronic time delay relays with an off delay function require input voltage to be applied continuously in order to operate correctly. However, there are many applications where this is not possible—keeping a relay energized for some amount of time after input voltage has been removed. A true off delay product provides this function even when input voltage is removed. It duplicates the operation of the older off delay pneumatic time delay relays.

**Operation of True Off Delay:** Upon application of input voltage, the relay is energized. When the input voltage is removed, the preset time begins. At the end of the preset time, the relay is de-energized. **Voltage must be applied for a minimum of 0.1 second to assure proper operation.** Any application of the input voltage during the preset time will keep the relay energized & reset the time delay. No external trigger switch is required.



INPUT VOLTAGE 50/60Hz.	TIMING RANGE	PRODUCT NUMBER	WIRING/ SOCKETS
120V AC/DC	0.05 Sec. - 30 Min.	TR-60622	8 PIN OCTAL 70169-D  INPUT VOLTAGE DIAGRAM 1
24V AC/DC	0.05 Sec. - 30 Min.	TR-60628	
240V AC	0.05 Sec. - 30 Min.	TR-60621	

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### TIMING RANGES

Select one of the 8 built-in time ranges by setting the rotary switch per the chart on the unit or below and adjust within that range using the knob on top:

Dial Setting	Timing Range
A	0.05 - 5 Sec.
B	0.1 - 10 Sec.
C	0.3 - 30 Sec.
D	0.6 - 60 Sec.
E	1.8 - 180 Sec.
F	3 - 300 Sec.
G	0.1 - 10 Min.
H	0.3 - 30 Min.



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## TIME RANGER™ PROGRAMMABLE PLUG-IN

### TRUE OFF DELAY

#### APPLICATION DATA & DIMENSIONS

#### APPLICATION DATA

**Voltage Tolerance:**

AC Operation: +10/-15% of nominal at 50/60 Hz.  
 DC Operation: +10/-15% of nominal.

**Load (Burden):**

2 VA

**Setting Accuracy:**

Maximum Setting (Adjustable): +5%, -0%  
 Minimum Setting (Adjustable): +0%, -50%

**Repeat Accuracy** (constant voltage and temperature):  
 ±1% or 50ms, whichever is greater

**Start-up Time:**

(Time from when power is applied until unit is timing)  
 0.05 Seconds

**Temperature:**

-28° to 65°C (-18° to 150°F)

**Insulation Voltage:**

2,000 volts

**Output Contacts:**

DPDT 10A @ 240V AC; 10A @ 28V DC,  
 1/2 HP @ 240V AC, 1/4HP @ 120V AC  
 B300 & R300

**Life:**

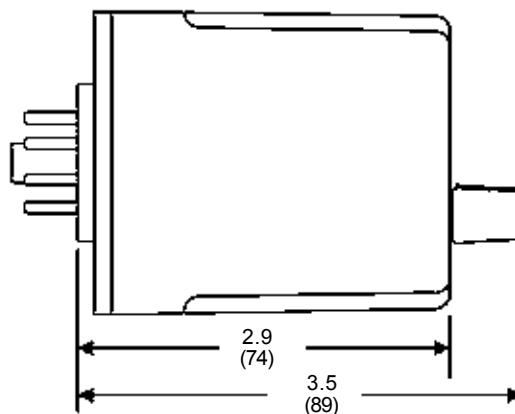
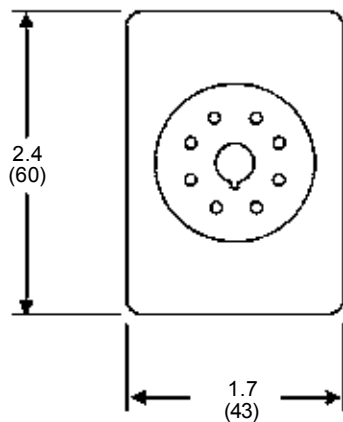
Mechanical: 2,000,000 operations  
 Full Load: 100,000 operations

**Approvals:**



**IMPORTANT:** These relays are shipped from the factory in the OFF state. A shock to the relay during shipping or installation may cause it to change to the ON state. It is recommended that input voltage be applied to the product for at least 0.1 second and removed to cycle the unit to the OFF state prior to use in the application. Please note that it will take as long as the OFF Delay setting to reset the unit once input voltage has been removed.

#### DIMENSIONS



All Dimensions in Inches (Millimeters)