## TIME DELAY RELAYS

# TR-5 SERIES NON-PROGRAMMABLE PLUG-IN 8 PIN SPDT VERSIONS

OFF DELAY, SINGLE SHOT & WATCHDOG



- ◆ These are 8 pin 10A SPDT versions of our standard 11 pin DPDT products
- Onboard & remote adjustable or fixed time delays from 0.05 seconds to 2 hours
- Uses industry-standard 8 pin octal socket









with appropriate socket

FUNCTION ■	INPUT VOLTAGE 50/60Hz.	PRODUCT NUMBER **	WIRING/ SOCKETS ▲
OFF DELAY Control Switch Trigger	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-51662-** TR-51666-** TR-51668-** TR-51661-**	8 PIN OCTAL <b>70169-D ▲</b>
SINGLE SHOT Control Switch Trigger	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-51562-** TR-51566-** TR-51568-** TR-51561-**	TRIGGER  4 5 6  2 1 1 8
WATCHDOG Control Switch Trigger (Retriggerable Single Shot)	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-51362-** TR-51366-** TR-51368-** TR-51361-**	DIAGRAM 11
OFF DELAY Power Trigger C	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-51962-** TR-51966-** TR-51968-** TR-51961-**	8 PIN OCTAL 70169-D ▲ POWER * TRIGGER *
SINGLE SHOT PowerTrigger  D	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-51762-** TR-51766-** TR-51768-** TR-51761-**	4 5 6 6 2 1 1 3 7
WATCHDOG Power Trigger (Retriggerable Single Shot)	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-51862-** TR-51866-** TR-51868-** TR-51861-**	*SHOULD BE SAME VOLTAGE AS INPUT VOLTAGE  DIAGRAM 37

- See Pages 77-79 for definitions & explanations of Timing Functions.
- \*\* Complete Product Number using two-digit Code from Table below.
- ▲ Note: if these products are ordered with the Remote Adjust Potentiometer modification (suffix -Rx), they will require an 11 pin octal socket—see www.macromatic.com/remote for information.

#### TIME DELAYS

TR-5 Series Products have three time delay options:

- Onboard Adjustable Time Delay--complete
   Product Number by adding two-digit Code from
   Table at right, i.e., TR-51662-05 is an Off Delay
   with a time delay range of 0.1-10 seconds.
- Onboard Fixed Time Delay--replace two-digit Code with suffix "F" followed by delay [0.1 ... 100] followed by (S) seconds, (M) minutes or (H) hours, i.e., TR-51662-F5S is an Off Delay with a time delay fixed at 5 seconds.
- Remote Time Delay--Selected TR-5 Series products can be built with two terminals for remote adjustable or fixed time delays. See www.macromatic.com/remote for information.

** TIMING RANGE	<b>TABLE</b>
Time Delay Range	Code
0.05 - 5 Sec.	04
0.1 - 10 Sec.	05
0.3 - 30 Sec.	07
0.6 - 60 Sec.	08
1.2 - 120 Sec.	09
1.8 - 180 Sec.	10
3 - 300 Sec.	12
0.1 - 10 Min.	22
0.3 - 30 Min.	15
0.6 - 60 Min.	16
1.2 - 120 Min.	17

**MACROMATIC**800-238-7474

www.macromatic.com sales@macromatic.com

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## TIME DELAY RELAYS

## TR-5 SERIES NON-PROGRAMMABLE PLUG-IN 8 PIN SPDT VERSIONS

**APPLICATION DATA & DIMENSIONS** 

#### **APPLICATION DATA**

#### Voltage Tolerance:

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

DC Operation: +10/-15% of nominal.

#### Load (Burden):

Maximum of 2 VA for all voltages

### **Setting Accuracy:**

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

Fixed Time Delay: +2%

**Repeat Accuracy** (constant voltage and temperature): +0.1% or + 0.04 seconds, whichever is greater

#### **Reset Time:**

Input Voltage (All Functions) 0.100 Seconds Triggered Functions only 0.04 Seconds

#### Start-up Time:

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

#### **Maintain Function Time:**

(Time unit continues to operate after power is removed) 0.01 Seconds for all units

#### Temperature:

-28° to 65°C (-18° to 149°F)

#### **Output Contacts:**

SPDT 10A @ 240V AC/30V DC, 1/2HP @ 120/240V AC (N.O.), 1/3HP @ 120/240V AC (N.C.) B300 & R300; AC15 & DC13

Mechanical: 10,000,000 operations Full Load: 100,000 operations

#### Compatibility:

Using a solid state switch to initiate the time sequence is acceptable. See www.macromatic.com/leakage or contact Macromatic for information regarding leakage current limits and other solid state design considerations.

#### Triggering Off Delay, Single Shot or Watchdog Units:

Timing sequence must be initiated only after input voltage is applied to unit. Minimum required trigger switch closure time is 0.05 seconds.

#### Approvals:





Low Voltage & **EMC Directives** EN60947-1, EN60947-5-1



#### **DIMENSIONS**



