

NON-PROGRAMMABLE | REPEAT CYCLE, ON/OFF DELAY, & DELAYED INTERVAL

TR-5 SERIES



- ◆ Onboard & remote adjustable or fixed time delays from 0.05 seconds to 2 hours
- ◆ Independently adjustable ON & OFF times
- ◆ Uses industry-standard 8 or 11 pin octal sockets
- ◆ 10A DPDT output contacts



FUNCTION ■	INPUT VOLTAGE 50/60Hz.	PRODUCT NUMBER **	WIRING/ SOCKET
REPEAT CYCLE* (OFF Time First Followed By ON Time and Repeating) L	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-53122-** TR-53126-** TR-53128-** TR-53121-**	8 PIN OCTAL 70169-D DIAGRAM 1
ON/TRUE OFF DELAY T	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-54622-** TR-54626-** TR-54628-** TR-54621-**	
REPEAT CYCLE* (ON Time First Followed By OFF Time and Repeating) M	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-55122-** TR-55126-** TR-55128-** TR-55121-**	
DELAYED INTERVAL* (OFF Time Followed by ON Time Followed by OFF State Until Reset) N	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-56122-** TR-56126-** TR-56128-** TR-56121-**	11 PIN OCTAL 70170-D DIAGRAM 2
ON/OFF DELAY* Control Switch Trigger G	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-54122-** TR-54126-** TR-54128-** TR-54121-**	
DELAYED INTERVAL* Control Switch Trigger (OFF Time Followed by ON Time Followed by OFF State Until Reset) P	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-56522-** TR-56526-** TR-56528-** TR-56521-**	

■ See "Definitions of Timing Functions".

* ON & OFF Time Ranges for these functions are the same. See www.macromatic.com/onoff for information on how to order a unit with different ON & OFF time ranges.

** Complete Product Number using two-digit Code from Table below.

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-53122-05 is a Repeat Cycle with both an ON & OFF time delay range of 0.1-10 seconds. See www.macromatic.com/onoff for information on how to order a unit with different ON & OFF time ranges.
- **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-53122-F5S is a Repeat Cycle 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.

Sockets & Accessories available

** TIMING RANGE TABLE	
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✱

✱ Not offered on TR-546



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Build your Time Delay Relays with the [Online Product Builder](#)

TR-5 SERIES

NON-PROGRAMMABLE

APPLICATION DATA

Voltage Tolerance:

AC Operation: +10/-15% of nominal at 50/60 Hz.
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: $\pm 2\%$ or 50ms, whichever is greater

Repeat Accuracy (constant voltage and temperature):
 $\pm 0.1\%$ 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: Operating: -28° to 65°C (-18° to 149°F)
Storage: -40° to 85°C (-40° to 185°F)

Output Contacts:

(All TR-5 Series Products except TR-506 & TR-546)
DPDT 10A @ 240V AC/30V DC,
1/2HP @ 120/240V AC (N.O.), 1/3HP @ 120/240V AC (N.C.)
B300 & R300; AC15 & DC13

(TR-506 & TR-546)
DPDT 10A @ 240V AC; 8A @ 28V DC,
1/2 HP @ 240V AC, 1/4HP @ 120V AC
B300 & R300

Life:

Mechanical: 10,000,000 operations (2,000,000 operations
on TR-506 & TR-546 Series only)
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.

IMPORTANT FOR TR-506 & TR-546 SERIES ONLY: 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.

Approvals:

(All TR-5 Series Products
except TR-506 & TR-546)


File #E109466 File #LR45565

(TR-506 & TR-546 only)

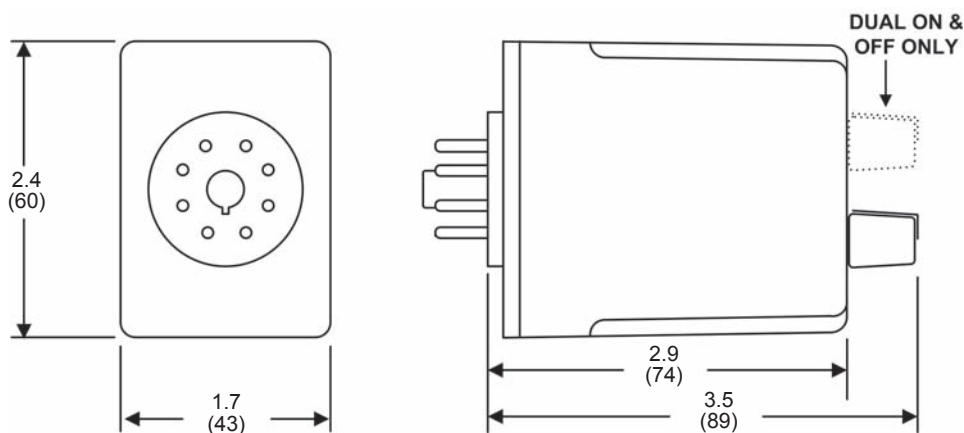

File #E109466

(All TR-5 Series
Products)


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

 **LISTED**
IND. CONT. EQUIP.
SOUT.
with
appropriate
socket
File #E109466

DIMENSIONS



All Dimensions in
Inches (Millimeters)