

TIME DELAY RELAYS

Non-Programmable Plug-in
On Delay, Interval & Flasher



- u Each unit has a single timing range
- u Choose from 20 separate timing ranges from 0.02 Seconds to 24 Hours
- u Uses industry-standard 8 pin octal sockets
- u 10A DPDT output contacts



SINGLE KNOB UNITS

FUNCTION n	INPUT VOLTAGE 50/60Hz.	PRODUCT NUMBER ** <small>COMPLETE PRODUCT NUMBER USING 2 DIGIT CODE FROM TABLE BELOW</small>	WIRING/ SOCKETS p
ON DELAY	120V AC/DC 12V AC/DC 24V AC/DC 240V AC	TR-50222-** TR-50226-** TR-50228-** TR-50221-**	8 PIN OCTAL p 70169-D DIAGRAM 1
INTERVAL ON	120V AC/DC 12V AC/DC 24V AC/DC 240V AC	TR-50522-** TR-50526-** TR-50528-** TR-50521-**	
FLASHER	120V AC/DC 12V AC/DC 24V AC/DC 240V AC	TR-50822-** TR-50826-** TR-50828-** TR-50821-**	

n See Pages 32-33 for definitions & explanations of Timing Functions.

p Note: if these products are ordered with the Remote Adjust Potentiometer modification (suffix -Rx), they will require an 11 pin octal socket—see Page 50 for more information.

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Timing Ranges

** TIMING RANGE TABLE			
COMPLETE PRODUCT NUMBER USING TWO DIGIT CODE FROM TABLE BELOW			
i.e., TR-50222-04			
Time Delay Range	Code	Time Delay Range	Code
0.02 - 2 Sec.	03	6 Sec. - 10 Min.	22
0.05 - 5 Sec.	04	9 Sec. - 15 Min.	14
0.1 - 10 Sec.	05	0.3 - 30 Min.	15
0.15 - 15 Sec.	06	0.6 - 60 Min.	16
0.3 - 30 Sec.	07	1.2 - 120 Min.	17
0.6 - 60 Sec.	08	1.8 - 180 Min.	18
1.2 - 120 Sec.	09	2.4 Min. - 4 Hr.	19
1.8 - 180 Sec.	10	4.8 Min. - 8 Hr.	20
3 - 300 Sec.	12	7.2 Min. - 12 Hr.	21
4.5 - 450 Sec.	13	14.4 Min. - 24 Hr.	23

For Fixed Time Delay (at no additional charge), add suffix "F" and time delay desired to basic Product Number, i.e., TR-50222-F5S is an On Delay with a time delay fixed at 5 seconds.



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TIME DELAY RELAYS

Non-Programmable Plug-in
Off Delay, Single Shot & Watchdog

SINGLE KNOB UNITS

FUNCTION n p	INPUT VOLTAGE 50/60Hz.	PRODUCT NUMBER ** <small>COMPLETE PRODUCT NUMBER USING 2 DIGIT CODE FROM TABLE BELOW</small>	WIRING/ SOCKETS
OFF DELAY Control Switch Trigger	120V AC/DC 12V AC/DC 24V AC/DC 240V AC	TR-51622-** TR-51626-** TR-51628-** TR-51621-**	11 PIN OCTAL 70170-D DIAGRAM 2
SINGLE SHOT Control Switch Trigger	120V AC/DC 12V AC/DC 24V AC/DC 240V AC	TR-51522-** TR-51526-** TR-51528-** TR-51521-**	
WATCHDOG Control Switch Trigger (Retriggerable Single Shot)	120V AC/DC 12V AC/DC 24V AC/DC 240V AC	TR-51322-** TR-51326-** TR-51328-** TR-51321-**	
OFF DELAY Power Trigger	120V AC/DC 12V AC/DC 24V AC/DC 240V AC	TR-51922-** TR-51926-** TR-51928-** TR-51921-**	11 PIN OCTAL 70170-D DIAGRAM 4
SINGLE SHOT Power Trigger	120V AC/DC 12V AC/DC 24V AC/DC 240V AC	TR-51722-** TR-51726-** TR-51728-** TR-51721-**	
WATCHDOG Power Trigger (Retriggerable Single Shot)	120V AC/DC 12V AC/DC 24V AC/DC 240V AC	TR-51822-** TR-51826-** TR-51828-** TR-51821-**	

- u Each unit has a single timing range
- u Choose from 20 separate timing ranges from 0.02 Seconds to 24 Hours
- u Uses industry-standard 11 pin octal sockets
- u 10A DPDT output contacts



n See Pages 32-33 for definitions & explanations of Timing Functions.

p 8 Pin SPDT versions of these functions are available—see Page 38.

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Timing Ranges

** TIMING RANGE TABLE			
COMPLETE PRODUCT NUMBER USING TWO DIGIT CODE FROM TABLE BELOW			
i.e., TR-51622-04			
Time Delay Range	Code	Time Delay Range	Code
0.02 - 2 Sec.	03	6 Sec. - 10 Min.	22
0.05 - 5 Sec.	04	9 Sec. - 15 Min.	14
0.1 - 10 Sec.	05	0.3 - 30 Min.	15
0.15 - 15 Sec.	06	0.6 - 60 Min.	16
0.3 - 30 Sec.	07	1.2 - 120 Min.	17
0.6 - 60 Sec.	08	1.8 - 180 Min.	18
1.2 - 120 Sec.	09	2.4 Min. - 4 Hr.	19
1.8 - 180 Sec.	10	4.8 Min. - 8 Hr.	20
3 - 300 Sec.	12	7.2 Min. - 12 Hr.	21
4.5 - 450 Sec.	13	14.4 Min. - 24 Hr.	23

For Fixed Time Delay (at no additional charge), add suffix "F" and time delay desired to basic Product Number, i.e., TR-51622-F5S is an Off Delay with a time delay fixed at 5 seconds.



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TIME DELAY RELAYS

Non-Programmable Plug-in
Repeat Cycle & Delayed Interval



- Each unit has a single timing range
- Choose from 20 separate timing ranges from 0.02 Seconds to 24 Hours
- Independently adjustable ON & OFF times on dual knob timers
- Uses industry-standard 8 or 11 pin octal sockets
- 10A DPDT output contacts



UL LISTED with appropriate socket

DUAL KNOB UNITS *

FUNCTION n	INPUT VOLTAGE 50/60Hz.	PRODUCT NUMBER ** COMPLETE PRODUCT NUMBER USING 2 DIGIT CODE FROM TABLE BELOW	WIRING/SOCKET
REPEAT CYCLE (OFF Time First Followed By ON Time and Repeating)	120V AC/DC 12V AC/DC 24V AC/DC 240V AC	TR-53122-** TR-53126-** TR-53128-** TR-53121-**	8 PIN OCTAL 70169-D INPUT VOLTAGE DIAGRAM 1
REPEAT CYCLE (ON Time First Followed By OFF Time and Repeating)	120V AC/DC 12V AC/DC 24V AC/DC 240V AC	TR-55122-** TR-55126-** TR-55128-** TR-55121-**	 INPUT VOLTAGE DIAGRAM 1
DELAYED INTERVAL (OFF Time Followed by ON Time Followed by OFF State Until Reset)	120V AC/DC 12V AC/DC 24V AC/DC 240V AC	TR-56122-** TR-56126-** TR-56128-** TR-56121-**	11 PIN OCTAL 70170-D INPUT VOLTAGE DIAGRAM 2
DELAYED INTERVAL Control Switch Trigger (OFF Time Followed by ON Time Followed by OFF State Until Reset)	120V AC/DC 12V AC/DC 24V AC/DC 240V AC	TR-56522-** TR-56526-** TR-56528-** TR-56521-**	 INPUT VOLTAGE DIAGRAM 2

* All Dual Knob units have independently selectable & adjustable ON & OFF times. To order a Dual Knob unit with the same ON & OFF timing ranges, complete the Product Number by adding one two-digit code from the table below, i.e., a TR-55122-08 is a Repeat Cycle unit with both the ON time & OFF time adjustable between 0.6 - 60 seconds. To order a Dual Knob unit with different ON & OFF timing ranges, complete the Product Number by adding two different two-digit codes from the table below. The first suffix indicates the first timing range of the unit and the second suffix indicates the second timing range, i.e., a TR-53122-05-12 is a Repeat Cycle unit with an OFF timing range first of 0.1-10 seconds and an ON timing range second of 3-300 seconds.

n See Pages 32-33 for definitions & explanations of Timing Functions.

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Timing Ranges

** TIMING RANGE TABLE			
COMPLETE PRODUCT NUMBER USING TWO DIGIT CODE FROM TABLE BELOW			
i.e., TR-55122-04			
Time Delay Range	Code	Time Delay Range	Code
0.02 - 2 Sec.	03	6 Sec. - 10 Min.	22
0.05 - 5 Sec.	04	9 Sec. - 15 Min.	14
0.1 - 10 Sec.	05	0.3 - 30 Min.	15
0.15 - 15 Sec.	06	0.6 - 60 Min.	16
0.3 - 30 Sec.	07	1.2 - 120 Min.	17
0.6 - 60 Sec.	08	1.8 - 180 Min.	18
1.2 - 120 Sec.	09	2.4 Min. - 4 Hr.	19
1.8 - 180 Sec.	10	4.8 Min. - 8 Hr.	20
3 - 300 Sec.	12	7.2 Min. - 12 Hr.	21
4.5 - 450 Sec.	13	14.4 Min. - 24 Hr.	23

For Fixed Time Delay (at no additional charge), add suffix "F" and time delay desired to basic Product Number, i.e., TR-53122-F5S is a Repeat Cycle with a time delay fixed at 5 seconds.



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TIME DELAY RELAYS

Non-Programmable Plug-in 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%

Fixed Time Delay: > 2 Seconds ±1%

0.1 - 2 Seconds ±5%

Repeat Accuracy (constant voltage and temperature):

> 2 Seconds Delay ±0.1%

0.1 - 2 Seconds Delay ±2%

Reset Time:

On Delay/Interval/Repeat Cycle/Delayed Interval: 0.1 Seconds

Off Delay/Single Shot/Watchdog/

Triggered Delayed Interval: 0.04 Seconds

Start-up Time:

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

120 & 240V units 0.05 Seconds

12, 24 & 48V units 0.08 Seconds

Maintain Function Time:

(Time unit continues to time after power is removed)

0.01 Seconds for all units

Temperature:

12-120V Input Voltage: -28° to 65°C (-18° to 150°F)

240V Input Voltage: -28° to 50°C (-18° to 122°F)

Insulation Voltage:

2,000 volts

Output Contacts:

DPDT 10A @ 240V AC/30V DC,

1/2HP @ 120/240V AC (N.O.), 1/3HP @ 120V AC (N.C.)

B300 & R300; AC15 & DC13

Life:

Mechanical: 10,000,000 operations

Full Load: 100,000 operations

Compatibility:

On all units triggered by input voltage or by a control switch, do not use a solid state switch to initiate the timing sequence—problems with leakage current could occur. On all units with a power trigger, do not use a solid state switch with leakage current exceeding 0.5ma. Contact Macromatic Controls for additional information.

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 0.1 seconds.

Approvals:



File #E109466



File #LR45565



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



with
appropriate
socket
File #E109466

Dimensions

