

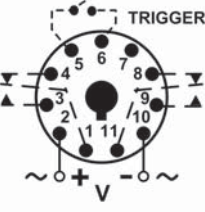
PROGRAMMABLE | MULTI-RANGE

DIGITAL-SET | TD-7 SERIES TIME RANGER™

The TD-781 Series offers an easy and accurate way to select a function and any time delay between 50ms and 999 hours. Programming is accomplished by using a pushbutton thumbwheel to select one of seven built-in time ranges and three pushbutton thumbwheels to digitally set the time delay required. This method provides a greater setting accuracy than is found on other units with an analog potentiometer. These units have a fifth pushbutton thumbwheel to select one of ten built-in functions. An LED indicates timing mode and time out condition.

Single-function versions available.

Multi-Function Product

FUNCTION ■	INPUT VOLTAGE	PRODUCT NUMBER	WIRING/ SOCKETS
MULTI-FUNCTION (10 Functions in One Unit)	120V AC/DC 12V DC 24V AC/DC 240V AC	TD-78122 TD-78126 TD-78128 TD-78121	11 PIN OCTAL 70170-D
A On Delay			
B Interval On			
C Off Delay *			
D Single Shot *			
E Flasher (OFF 1st)			
F Flasher (ON 1st)			
G On/Off Delay *			
H Single Shot Falling Edge *			
J Watchdog *			
K Triggered On Delay *			
			DIAGRAM 121

■ See "Definitions of Timing Functions".

* These are the only functions requiring use of the Control Switch shown in Wiring Diagrams above.

Sockets & Accessories available



- ◆ Ten user-selectable modes in one unit
- ◆ Pushbutton Thumbwheels for digital set of time delay & function
- ◆ 50ms - 999 hour programmable time range
- ◆ Uses industry-standard 11 pin octal socket
- ◆ 10A DPDT output contacts
- ◆ LED indicates timing mode and time out conditions
- ◆ Pilot duty rating



with appropriate socket



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

PROGRAMMABLE | MULTI-RANGE

DIGITAL-SET | TD-7 SERIES TIME RANGER™



- ◆ Pushbutton Thumbwheels for digital set of time delay
- ◆ 50ms - 999 hour programmable time range
- ◆ Uses industry-standard 8 or 11 pin octal sockets
- ◆ 10A DPDT output contacts
- ◆ LED indicates timing mode and time out conditions
- ◆ Pilot duty rating

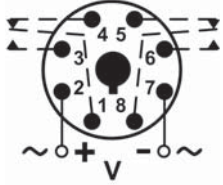
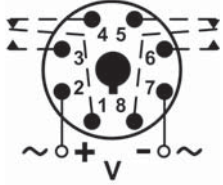
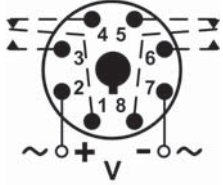
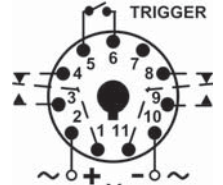
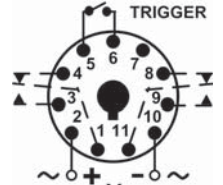


with appropriate
socket

The TD-7 series of time delay relays offer an easy and accurate way to select any time delay between 50ms and 999 hours. Programming is accomplished by using a pushbutton thumbwheel to select one of seven built-in time ranges and three pushbutton thumbwheels to digitally set the time delay required. This method provides a greater setting accuracy than is found on other units with an analog potentiometer. An LED indicates timing mode and time out condition.

Multi-function versions available.

Single Function Products

FUNCTION ■	INPUT VOLTAGE	PRODUCT NUMBER	WIRING/ SOCKETS
ON DELAY A	120V AC/DC 12V DC 24V AC/DC 240V AC	TD-70222 TD-70226 TD-70228 TD-70221	8 PIN OCTAL 70169-D 
INTERVAL ON B	120V AC/DC 12V DC 24V AC/DC 240V AC	TD-70522 TD-70526 TD-70528 TD-70521	
FLASHER (OFF 1st) E	120V AC/DC 12V DC 24V AC/DC 240V AC	TD-70822 TD-70826 TD-70828 TD-70821	
OFF DELAY C	120V AC/DC 12V DC 24V AC/DC 240V AC	TD-71622 TD-71626 TD-71628 TD-71621	11 PIN OCTAL 70170-D 
SINGLE SHOT D	120V AC/DC 12V DC 24V AC/DC 240V AC	TD-71522 TD-71526 TD-71528 TD-71521	

■ See "Definitions of Timing Functions".

Sockets & Accessories available



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TD-7 SERIES TIME RANGER™

APPLICATION DATA

Voltage Tolerance:

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

Load (Burden):

3 VA

Setting Accuracy:

Constant Voltage & Temperature w/i specifications:
 $\pm 0.1\%$ of set time or $\pm 50\text{ms}$, whichever is greater

For Variable Voltage & Temperature w/i specifications:
 $\pm 1\%$ of set time or $\pm 50\text{ms}$, whichever is greater

Repeat Accuracy:

Constant Voltage & Temperature w/i specifications:
 $\pm 0.1\%$ of set time or ± 0.02 seconds, whichever is greater

For Variable Voltage & Temperature w/i specifications:
 $\pm 1\%$ of set time or ± 0.02 seconds, whichever is greater

Reset Time:

On Delay/Interval/Flasher: 0.1 Seconds
Functions with Control Switches: 0.04 Seconds

Start-up Time:

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

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)

Insulation Voltage: 2,000 volts

Output Contacts:

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

Life:

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.

Initiating Units with Control Switch Triggers:

Timing sequence must be initiated only after input voltage is applied to unit. Minimum required trigger switch closure time is 0.1 seconds.

LED:

Red LED. Refer to instruction sheet provided with product to determine code for relay & timing status.

Approvals:



File #E109466



File #LR45565

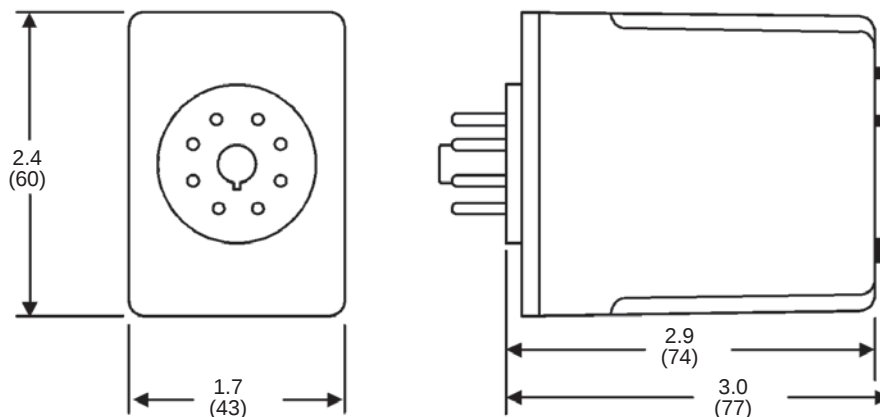


Low Voltage &
EMC Directives
EN60947-1, EN60947-5-1



IND. CONT. EQUIP
5007
with
appropriate
socket
File #E109466

DIMENSIONS



All Dimensions in
Inches (Millimeters)