The TD-781 Series offers an easy and accurate way to select a function and any time delay between 0.05ms 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.

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**Multi-Function Product**

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>INPUT VOLTAGE</th>
<th>PRODUCT NUMBER</th>
<th>WIRING/ SOCKETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MULTI-FUNCTION (10 Functions in One Unit)</td>
<td>120V AC/DC 12V DC 24V AC/DC 240V AC</td>
<td>TD-78122 TD-78126 TD-78128 TD-78121</td>
<td>11 PIN OCTAL 70170-D</td>
</tr>
</tbody>
</table>

- Ten user-selectable modes in one unit
- Pushbutton Thumbwheels for digital set of time delay & function
- 0.05ms - 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

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See “Definitions of Timing Functions”. *

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

**Sockets & Accessories available**

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*Build your Time Delay Relays with the Online Product Builder*
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**

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>INPUT VOLTAGE</th>
<th>PRODUCT NUMBER</th>
<th>WIRING/ SOCKETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON DELAY</td>
<td>120V AC/DC</td>
<td>TD-70222</td>
<td>8 PIN OCTAL 70169-D</td>
</tr>
<tr>
<td></td>
<td>12V DC</td>
<td>TD-70226</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24V AC/DC</td>
<td>TD-70228</td>
<td></td>
</tr>
<tr>
<td></td>
<td>240V AC</td>
<td>TD-70221</td>
<td></td>
</tr>
<tr>
<td>INTERVAL ON</td>
<td>120V AC/DC</td>
<td>TD-70522</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12V DC</td>
<td>TD-70526</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24V AC/DC</td>
<td>TD-70528</td>
<td></td>
</tr>
<tr>
<td></td>
<td>240V AC</td>
<td>TD-70521</td>
<td></td>
</tr>
<tr>
<td>FLASHER (OFF 1st)</td>
<td>120V AC/DC</td>
<td>TD-70822</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12V DC</td>
<td>TD-70826</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24V AC/DC</td>
<td>TD-70828</td>
<td></td>
</tr>
<tr>
<td></td>
<td>240V AC</td>
<td>TD-70821</td>
<td></td>
</tr>
<tr>
<td>OFF DELAY</td>
<td>120V AC/DC</td>
<td>TD-71622</td>
<td>11 PIN OCTAL 70170-D</td>
</tr>
<tr>
<td></td>
<td>12V DC</td>
<td>TD-71626</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24V AC/DC</td>
<td>TD-71628</td>
<td></td>
</tr>
<tr>
<td></td>
<td>240V AC</td>
<td>TD-71621</td>
<td></td>
</tr>
<tr>
<td>SINGLE SHOT</td>
<td>120V AC/DC</td>
<td>TD-71522</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12V DC</td>
<td>TD-71526</td>
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<td>24V AC/DC</td>
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<td>240V AC</td>
<td>TD-71521</td>
<td></td>
</tr>
</tbody>
</table>

- See “Definitions of Timing Functions”.

Sockets & Accessories available

**Build your Time Delay Relays with the Online Product Builder**
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:
±0.1% of set time or ±50ms, whichever is greater
For Variable Voltage & Temperature w/i specifications:
±1% of set time or ±50ms, whichever is greater

Repeat Accuracy:
Constant Voltage & Temperature w/i specifications:
±0.1% of set time or ±0.02 seconds, whichever is greater
For Variable Voltage & Temperature w/i specifications:
±1% of set time or ±0.02 seconds, whichever is greater

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
UL LISTED
with appropriate socket
File #E109466

DIMENSIONS

All Dimensions in Inches (Millimeters)

800.238.7474 | WWW.MACROMATIC.COM | SALES@MACROMATIC.COM