

# proense® Relay Timers

## Multi-Mode Relay Timers T2R-M Series

### Overview

The T2R-M series come with four functions and four timing ranges covering 0.1 seconds to 100 minutes (1,000 minutes on T2R-M3-ADJ-240U dual time unit). On the unit, choose between onboard adjustable, onboard fixed and remote adjustable time delay settings (remote time delay not available on T2R-M3-ADJ-240U). All set-up is done with DIP switches for ease of use. A universal input voltage of 24-240VAC and 12-125VDC adds to the ultimate flexibility of these products. All products are encapsulated for protection against harsh elements. A 10A SPDT relay output rating can handle most pilot duty and fractional HP loads.

### Features

- Four timing functions in one unit easily selectable with rotary switch
- Timing ranges built-in covering 0.1 seconds to 100 minutes (T2R-M3-ADJ-240U goes up to 1000 minutes)
- Universal Voltage: 24-240 VAC and 12-125 VDC
- 10A SPDT output contact



**T2R-M1-ADJ-240U**



**T2R-M3-ADJ-240U**

### Multi-Mode Relay Timers T2R-M Series

Part Number	Price	Timer Type	Timing Range	Voltage	Output Type	Drawing Link
<a href="#">T2R-M1-ADJ-240U</a>	\$41.50	Multi-mode	0.1 seconds to 100 minutes selectable	24-240 VAC and 12-125 VDC	(1) SPDT timed relay	<a href="#">PDF</a>
<a href="#">T2R-M2-ADJ-240U</a>	\$41.50	Multi-mode	0.1 seconds to 100 minutes selectable	24-240 VAC and 12-125 VDC	(1) SPDT timed relay	<a href="#">PDF</a>
<a href="#">T2R-M3-ADJ-240U</a>	\$43.50	Multi-mode	0.1 seconds to 1,000 minutes selectable	24-240 VAC and 12-125 VDC	(1) SPDT timed relay	<a href="#">PDF</a>

### Multi-Mode Relay Timers Specifications

<b>Input Specifications</b>	
<b>Nominal Voltage</b>	20.4 - 264VAC @ 50/60Hz, 10.2 - 137.5 VDC
<b>Nominal Consumption</b>	Max 2VA
<b>Contact Specifications</b>	
<b>Type</b>	1 SPDT
<b>Switching Capacity</b>	10A @ 240VAC, 30VDC 7A @ 28VDC SPDT 1/4 HP @ 120VAC (N.O.)
<b>Electrical Lifetime</b>	Full load: 100,000 operations
<b>Mechanical Lifetime</b>	10,000,000 operations
<b>Reset Time</b>	
<b>Functions Triggered with Input Voltage</b>	0.1 seconds
<b>Functions Triggered with Control Switch</b>	0.04 seconds
<b>Time Circuit Specifications</b>	
<b>Setting Accuracy</b>	Maximum setting (adjustable): +5%, 0% Minimum setting (adjustable): +0%, -50%
<b>Start-up Time</b>	Time from when power is applied until unit is timing: 50ms
<b>Maintain Function Time</b>	Time unit continues to operate after power is removed: 0.01 seconds
<b>Repeat Accuracy</b>	Constant voltage & temperature within specifications: ±0.1% or ± 0.04 seconds whichever is greater

### Multi-Mode Relay Timers Specifications

<b>General Specifications</b>	
<b>Connection</b>	0.25 inch male quick-connect terminals
<b>Ambient Temperature</b>	-28 to +65°C [-18 to +149°F]
<b>Storage Temperature</b>	-40 to +85°C [-40 to +185°F]
<b>Protection Rating</b>	IP00
<b>Mounting</b>	Surface with one #8 or #10 screw and a maximum tightening torque of 15 in•lb.
<b>Mounting Orientation</b>	Any
<b>Weight</b>	0.15 lb
<b>Agency Approvals and Standards *</b>	cURus File E191059

\*To obtain the most current agency approval information, see the Agency Compliance & Certifications Checklist section on the specific part number's web page.

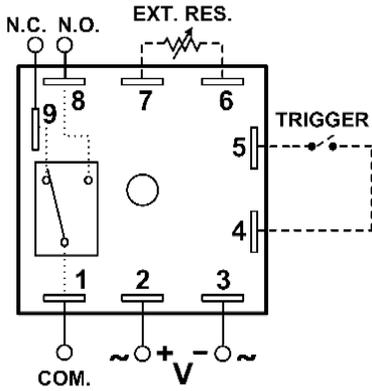
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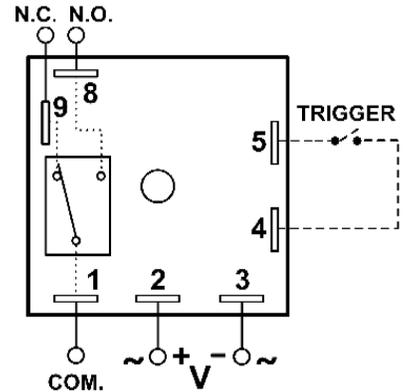
### Wiring Diagrams

#### T2R-M1-ADJ-240U

#### T2R-M2-ADJ-240U



#### T2R-M3-ADJ-240U



### Functions

#### T2R-M1-ADJ-240U

Function Table	
Select Function	
1	On-delay
2	Off-delay
3	Interval
4	Single-shot

#### T2R-M2-ADJ-240U

Function Table	
Select Function	
1	Flasher OFF
2	Flasher ON
3	Watchdog
4	Single-shot falling edge

#### T2R-M3-ADJ-240U

Function Table	
Select Function	
1	Repeat cycle OFF
2	Repeat cycle ON
3	Delayed interval
4	Delayed interval (triggered)

### Timing Ranges

Timing Ranges			
Part Number	Time Range (t) Options	Switches	
		C	D
<b>T2R-M1-ADJ-240U</b>	0.1 - 10s	ON	ON
	1-100s	OFF	ON
	10-1000s	ON	OFF
	1-100m	OFF	OFF
<b>T2R-M2-ADJ-240U</b>	0.1 - 10s	ON	ON
	1-100s	OFF	ON
	10-1000s	ON	OFF
	1-100m	OFF	OFF

Timing Ranges						
Part Number	Time Range (t1) Options	Switches		Time Range (t2) Options	Switches	
		C	D		E	F
<b>T2R-M3-ADJ-240U</b>	0.1 - 10s	ON	ON	0.1 - 10s	ON	ON
	1-100s	OFF	ON	1-100s	OFF	ON
	1-100m	ON	OFF	1-100m	ON	OFF
	10-1000m	OFF	OFF	10-1000m	OFF	OFF

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## Timing Charts

### T2R-M1-ADJ-240U, T2R-M2-ADJ-240U, & T2R-M3-ADJ-240U

#### T2R-M1-ADJ-240U

FUNCTION	TIMING CHART
<b>ON DELAY</b> Delay on Make Delay on Operate	
<b>INTERVAL ON</b> Interval	
<b>OFF DELAY *</b> Delay on Release Delay on Break Delay on De-Energization	
<b>SINGLE SHOT*</b> One Shot Momentary Interval	

\* Requires Trigger

#### T2R-M2-ADJ-240U

FUNCTION	TIMING CHART
<b>FLASHER</b> (Off First)	
<b>FLASHER</b> (On First)	
<b>WATCHDOG *</b> Retriggerable Single Shot	
<b>SINGLE SHOT FALLING EDGE*</b>	

\* Requires Trigger

#### T2R-M3-ADJ-240U

FUNCTION	TIMING CHART
<b>REPEAT CYCLE</b> (Off 1st)	
<b>REPEAT CYCLE</b> (On First)	
<b>DELAYED INTERVAL</b> Single Cycle	
<b>TRIGGERED DELAYED INTERVAL *</b> Single Cycle	

\* Requires Trigger

Note: Please see inserts for more information