

TMRP Series



TMRP Series

Product Description

Eaton's TMRP Series timers combine flexibility with ease of use and installation to make the most versatile timer in our offering. The thumb-wheel setting design allows for quick selection and review of up to 10 timing functions and seven timing ranges. The TMRP units can be mounted in a 1/16 DIN cutout or on a DIN rail with our D3 series sockets. Input voltage is 12–240 Vac/Vdc to work with all popular control voltages.

Application Description

A timing relay is a simple form of time-based control, allowing the user to open or close the contacts based on a specified timing function. The TMRP series is equipped with a set of thumb-wheel style selector switches, which can easily be set to a specific function and time, thereby reducing the number of product variations required. The universal input voltage of 12–240 Vac/Vdc further reduces the number of product variations.

The TMRP timers are ideal for high-variability operations, such as systems integrators, distributors, and small equipment manufacturers. The flexible enclosure design allows for back-panel mounting, through-panel mounting, or DIN rail mounting.

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Features

- Multiple user-selectable timing functions and timing ranges in a single unit reduce product variations and stock keeping units (SKUs)
- Universal input voltages from 12–240 Vac/Vdc eliminate the need to order and stock separate coil voltages
- Timing ranges up to 9990 hours
- Dual LED indication makes troubleshooting easy
- Flexible design for back-panel, through-panel (45 mm x 45 mm cutout), or DIN rail mounting
- SPDT or DPDT contacts with 12A ratings
- Plastic dust cover keeps out contaminants and eliminates accidental set point changes
- Use with standard Eaton D3 sockets—see Technical Data and Specifications

LED Indicator

LED Description	Function
Solid green "Input"	Supply voltage present
Solid red "Output"	Relay energized
Slowly flashing red "Output"	Timing cycle activated, relay not energized
Rapidly flashing red "Output"	Timing cycle activated, relay energized

Standards and Certifications

- UL recognized
- CE marked
- RoHS compliant



Product Selection

TMRP5100

TMRP Timing Relays



Supply Voltage	Description	Catalog Number
10-Function		
12–240 Vac/Vdc	Control switch trigger, DPDT	TMRP5100
	Control switch trigger, SPDT	TMRP5101
	Power trigger, DPDT	TMRP5102

Technical Data and Specifications

TMRP Timing Relays

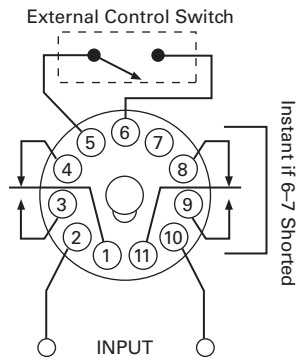
Description	TMRP5100	TMRP5101	TMRP5102
Functions ^①	A, B, C, D, E, F, G, H, I, J	A, B, C, D, E, F, G, H, I, J	A, B, C
Time range	0.1 sec to 9,990 hours	0.1 sec to 9,990 hours	0.1 sec to 9,990 hours
Input			
Supply voltage	12–240 Vac/Vdc	12–240 Vac/Vdc	12–240 Vac/Vdc
Supply voltage tolerance	±15%	±15%	±15%
Rated consumption	2.5 VA (2W) maximum	2.5 VA (2W) maximum	2.5 VA (2W) maximum
Reset time	150 ms	150 ms	150 ms
Reverse polarity protection	Yes	Yes	Yes
Operate time	25 ms maximum	25 ms maximum	25 ms maximum
Release time	25 ms maximum	25 ms maximum	25 ms maximum
Rated surge voltage	4 kV	4 kV	4 kV
Output			
Contact configuration	DPDT	SPDT	DPDT
Contact rating (AC)	12A resistive at 120, 240 UL 508	12A resistive at 120, 240 UL 508	12A resistive at 120, 240 UL 508
Contact rating (DC)	12A resistive at 30 UL 508	12A resistive at 30 UL 508	12A resistive at 30 UL 508
Contact rating horsepower	1/2 at 120 Vac, 1 at 240 Vac	1/2 at 120 Vac, 1 at 240 Vac	1/2 at 120 Vac, 1 at 240 Vac
Contact rating pilot duty	A300, 720 VA at 240 Vac	A300, 720 VA at 240 Vac	A300, 720 VA at 240 Vac
Minimum load	12V/100 mA	12V/100 mA	12V/100 mA
Contact material	Silver-nickel 90/10	Silver-nickel 90/10	Silver-nickel 90/10
Contact resistance	100 milliohms max. at 1A 12 Vdc	100 milliohms max. at 1A 12 Vdc	100 milliohms max. at 1A 12 Vdc
Mechanical life—full load	10 million operations	10 million operations	10 million operations
Electrical life—full load	100,000 operations	100,000 operations	100,000 operations
Control Signal			
Minimum control pulse length	50 ms minimum	50 ms minimum	50 ms minimum
Accuracy			
Repetition accuracy	0.10% at constant voltage and temperature	0.10% at constant voltage and temperature	0.10% at constant voltage and temperature
Physical			
Ambient temperature	–10 to 55°C	–10 to 55°C	–10 to 55°C
Storage temperature	–40 to 85°C	–40 to 85°C	–40 to 85°C
Mounting	Use with D3PA3 socket	Use with D3PA2 socket	Use with D3PA2 socket

Note

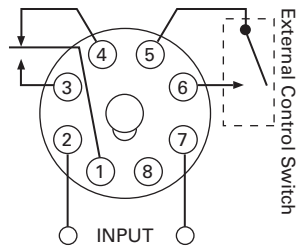
^① Refer to Function Code Cross-Reference Guide on **Page V7-T3-171** for function details.

Wiring Diagrams

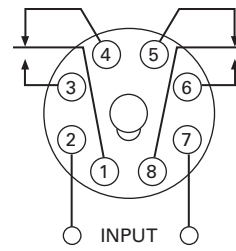
TMRP5100



TMRP5101



TMRP5102



Dimensions

Approximate Dimensions in Inches (mm)

TMRP Series

