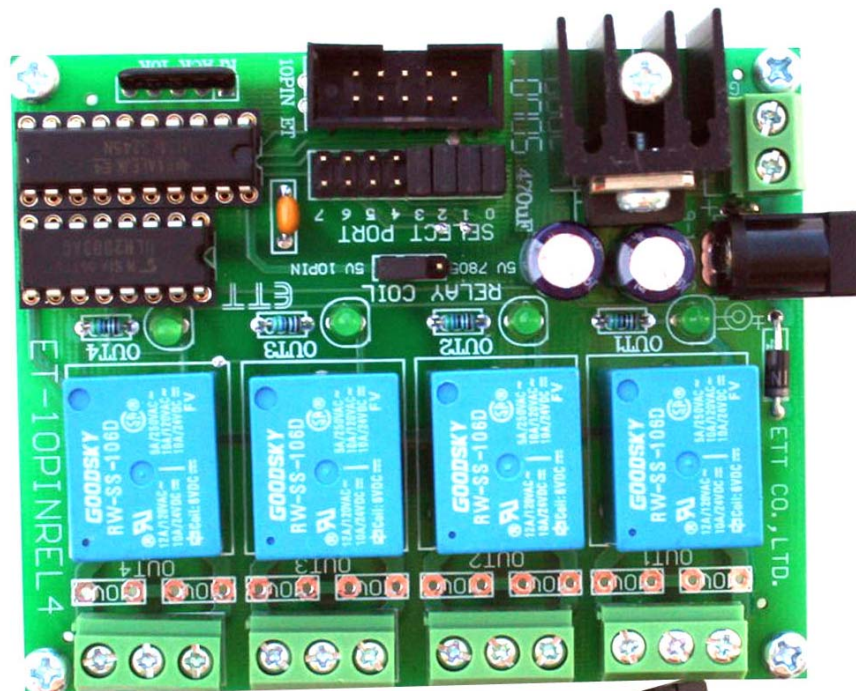


**MR-TEST-10P-4RELAY™ 10PIN MRconnect® 4-RELAY  
User Manual**

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# MR-TEST-10P-4RELAY™ 10PIN MRconnect® 4-RELAY User Manual

## Description

The MR-TEST-10P-4RELAY is a 4-CH relay output card. It designed to connect directly with 10PIN MRconnect®. It is a quick and easy way to control up to 12A at 120VAC or 10A at 24VDC.

The relays required a very small current to drive due to the on-board Darlington driver circuit. Also, the driver pins are isolated from the relay driver circuitry. The driver pins can be select from 4-bit HIGH or 4-bit LOW of the 10PIN MRconnect®. Each of the relay has an LED to indicate the state of the relay. The output terminals included COM (common), NO (normally open) and NC (normally close) contacts. The card can be power by using the power from the 10PIN MRconnect® or external 2.5mm, center negative, 9-16VDC wall adapter or external power supply via the terminal block connector. The board is small in size 3.30 x 2.70 inches.

## Features

- 4-CH output relay with COM, NC and NC terminals
- 5VDC relay coil, control up to 12A 120VAC or 10A 24VDC
- Selectable driver pins from 4-bit HIGH or 4-bit LOW of the 10PIN MRconnect®
- Selectable power supply from 10PIN MRconnect® or external
- On-board 5VDC regulator for the external supply
- Included 10 ribbon cable

## Interfaces

### Power:

The card can be power by using the power from the 10PIN MRconnect® or external 2.5mm, center negative, 9-16VDC wall adapter or external power supply via the terminal block connector.

The relay coil jumper need to be move to the appropriate supply. Figure 1 show the jumper selected power from the 10PIN MRconnect®.



FIG1: Power selection jumpers

There are two options when using external power supply. The external supply can be from 2.5mm, center negative, 8-16VDC wall adapter via power jack or supply to terminal block. Figure 2 show power jack connector and terminal block for external power supply.



FIG2: Power connectors

**WARNING: DO NOT connect to both of these connectors simultaneously. They are in parallel.**

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## Port Selection:

The MR-TEST-10P-4RELAY card can be select which ports are use to drive the relays. The selections are from P0-P3 for LOW ports or P4-P7 for HIGH ports. The selection can be making via the jumpers. Figure 3 show the jumper selected LOW port 0-3.

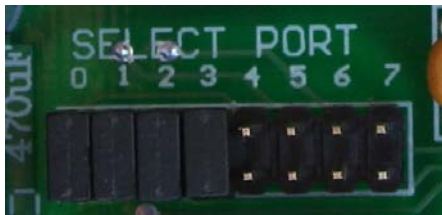


FIG 3: Port driver selection jumpers

## Driving the relays:

The relays can be energize by driving a logic HIGH and de-energize be driving a logic LOW to the port. The LED is illuminated once the relay has been energized. Figure 4 show the indicator LEDs.



FIG 4: Indicator LEDs

## Output terminals:

The output terminals for each relay included COM, NO and NC. Figure 5 show the output terminal of the relay.

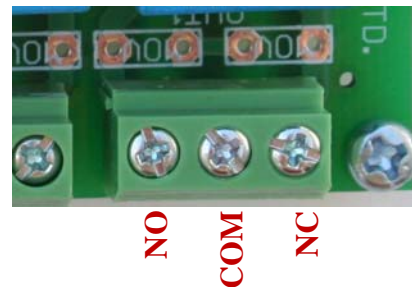


FIG 5: Output terminals

## 10PIN MRconnect®:

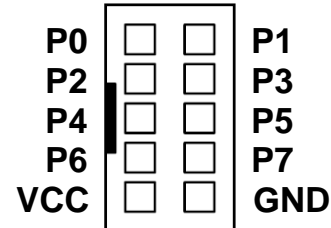


FIG 6: 10 PIN MRconnect®



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## **Notes**

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