Rascal HRM250 Adjustable Delay 10 Function Relay User Guide
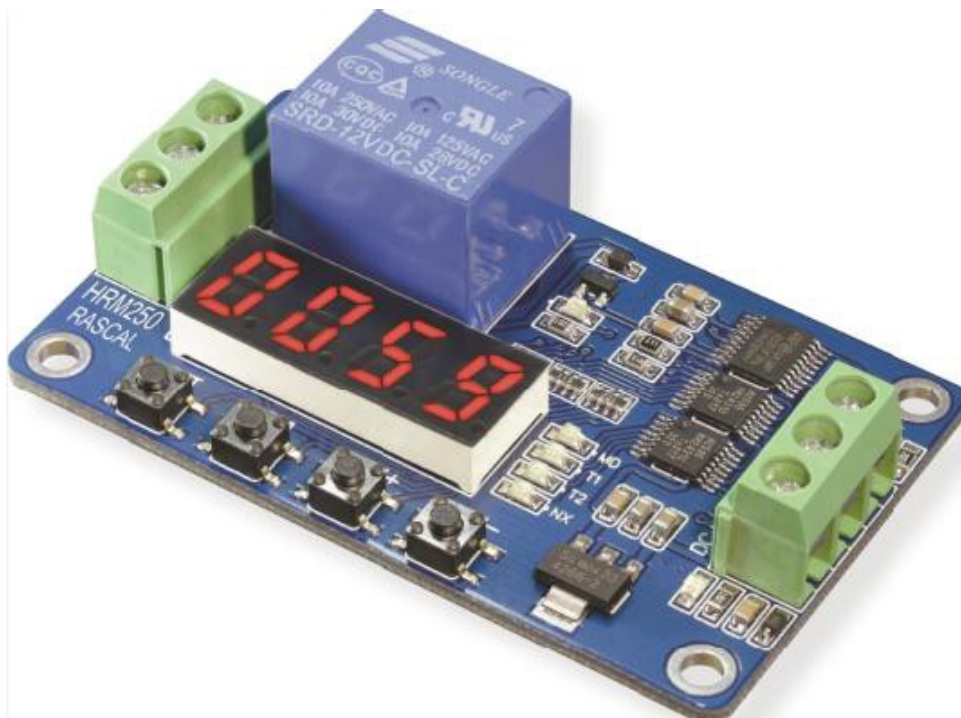
Adjustable Delay 10 Function Relay
Handy Rascal is a registered trademark of System Q Ltd
HRM250
Quick Start Guide

This versatile relay module has two independent timers built in to it so it can be set up to switch the relay contacts on and off in a variety of ways. With each timer being adjustable for 0.005s up to 270hrs.
A built in LED display allows the user to set up the device to the function they require.

Full Instruction Manual

The HRM250 has a non-volatile memory so once set up if the power is removed it will remember its settings. The HRM250 really has 10 main functions but 8 of these 10 functions can be imitated in two different ways.
You can either start the function by applying power to the HRM250 or start the function by applying a trigger voltage to it with power permanently applied to the HRM250.

1. **Power up** – Delay switch on
2. **Power up** – Delay switch on
3. **Power up** – Delay switch on followed by delay switch on
4. **Power up** – Delay switch off followed by delay switch on
5. **Power up** – Continuous loop starting with relay off then on
6. **Power up** – Continuous loop starting with relay on then off
7. **Power up** – Set number of "N" loops starting with relay off then on
8. **Power up** – Set number of "N" loops starting with relay on then off
9. **Toggle mode** – Trigger input toggles output
10. **Mimic mode** – Relay energizes whenever input trigger present
11. **Positive trigger** – Delay switch on
12. **Positive trigger** – Delay switch off
13. **Positive trigger** – Delay switch on followed by delay switch off
14. **Positive trigger** – Delay switch off followed by delay switch on
15. **Positive trigger** – Continuous loop starting with relay off then on
16. **Positive trigger** – Continuous loop starting with relay on then off
17. **Positive trigger** – Set number of "N" loops starting with relay off then on
18. **Positive trigger** – Set number of "N" loops starting with relay on then off

The HRM250 really has 10 main functions but 8 of these 10 functions can be imitated in two different ways.
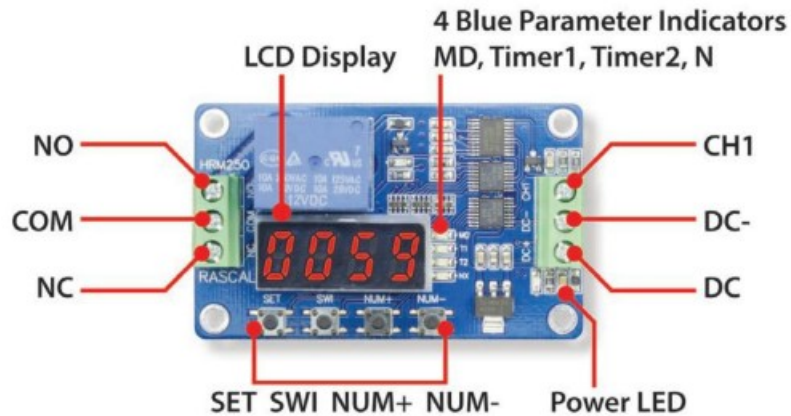You can either start the function by applying power to the HRM250 or start the function by applying a trigger voltage to it with power permanently applied to the HRM250.
The first 1-8 functions are triggered when you actually Power up the device, i.e. apply 12V to it. These are 8 different timing functions.
Functions 9 and 10 are "toggle" and "mimic" functions where the relay toggles or mimics a trigger input to it. For functions 9 & 10 the
HRM250 needs power permanently applied to it.

When using a trigger input it needs to be a "positive trigger' this means the trigger signal is between 8 and 12V usually it will be at the supply voltage of 12V

Buttons

There are 4 buttons:
SET
SWI NO
NUM +
NUM –
They all have short and long presses:

Short presses

are less than 1 second long

Long presses

are more than 1 second long

Operating modes

- Normal Operation d
- Parameter view
- Parameter setting

LED display

- Used to set or view the timing parameters

N Functions

Functions 01-06

- LED display indicates the "time multiplier' for

Timer1 and Timer2

- Time base varies from 00 to 99 – 00 = .005 second time multiplier (for very fine timing)
- 01 = 1 second time multiplier
- 99 = 99 second time multiplier
- First two LED digits indicate time multiplier for

Timer

- Second two LED digits indicate time multiplier for Timer2

LED indicators

4 blue parameter indicators:

MD: Active program function (01 to 18)
On = Timing stopped
Flashing = Timing function has completed

Timer1: Timer one – 1 to 9999 seconds
On = Displays current Timer1 value
Flashing = Timer2 is counting Timer2:

Timer two – 1 to 9999 seconds
On = Displays current Timer2 value
Flashing = Timer2 is counting

N: Varies for each function. See N Function Opposite
On = Displays current N value

1 red power on indicator
1 blue relay active indicator

Relays	1
Input Voltage	12V DC
Output Relay(s)	240V AC 10A
Timers	2 (Built-in)
Delay	0.0005s- 270hrs
Display	LED (Built-in)
Dimensions	40 x 65mm

All specifications are approximate. System Q Ltd reserves the right to change product specifications or features without notice. Whilst every effort is made to ensure that these instructions are complete and accurate, System Q Ltd cannot be held responsible for any losses, no matter how they arise, from errors or omissions in these instructions, or the performance or non-performance of the equipment refered to.

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This symbol indicates that equipment must not be mixed with general household waste. For treatment, recovery, and recycling please return to your local designated WEE/CG0783SS collection point as defined by your local council.

Documents / Resources

Rascal HRM250 Adjustable Delay 10 Function Relay [pdf] User Guide
HRM250, Adjustable Delay 10 Function Relay, HRM250 Adjustable Delay 10 Function Relay

References

- 🌐 **Handy Rascal Relay Modules**