Relay Module 1 Channel 12V with High/Low Level Trigger Selector

The **Relay Module 1 Channel 12V with High/Low Level Trigger Selector** is a versatile and reliable switching module designed for use with microcontrollers such as **Arduino, Raspberry Pi, PIC, ARM, and other digital electronics platforms**. It allows you to control high-voltage devices like appliances, lights, fans, and motors through low-voltage digital signals. Featuring a **high/low level trigger selector**, this relay module gives you the flexibility to choose the most suitable triggering method depending on your project requirements.

Perfect for **DIY electronics, home automation, robotics, and industrial control applications**, this relay module is an essential component for anyone looking to expand the functionality of their microcontroller projects.

[caption id="attachment_107341" align="aligncenter" width="478"]

Relay Module 1 Channel 12V with High/Low Level Trigger Selector[/caption]

Key Features

- **1-Channel Relay:** Compact design with a single relay, making it perfect for controlling one device at a time.
- **Operating Voltage:** Works with a stable **12V DC input**, suitable for most control systems.
- **High/Low Level Trigger Selector:** Adjustable trigger mode for flexible integration with various microcontrollers.
- **High-Current Capacity:** Supports AC loads up to 250V at 10A and DC loads up to 30V at 10A.
- **Isolation:** Optocoupler isolation provides reliable performance and reduces the risk of interference.
- **LED Indicators:** Built-in status LED to show relay operation clearly.
- **Durability:** Long-life relay module designed for continuous switching.
- **Easy Integration:** Simple pinout design, making it easy to connect with Arduino, Raspberry Pi, or other boards.

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Relay Module 1 Channel 12V with High/Low Level Trigger Selector[/caption]

Applications

The **Relay Module 1 Channel 12V with High/Low Level Trigger Selector** can be used in a wide variety of projects and applications:

1. Home Automation

- Control household appliances such as lamps, fans, and kitchen devices.
- Build smart home systems that integrate with mobile apps or IoT platforms.

2. Robotics and DIY Projects

- Add relay control for motors, pumps, or actuators in your robotic systems.
- Combine with sensors for automation (motion sensors, temperature sensors, etc.).

3. Industrial Automation

- Use in small industrial control systems for switching machinery and equipment.
- Reliable performance in environments requiring frequent relay activation.

4. IoT Projects

- Integrate with **ESP8266, ESP32, or Arduino-based IoT systems** for cloud-controlled appliances.
- Perfect for wireless device switching and remote monitoring applications.

5. Educational Purposes

- Great for learning about relays, isolation, and safe switching methods.
- Commonly used in engineering, robotics, and automation training kits.

Advantages of Using this Relay Module

1. **Flexibility:** The high/low trigger selector ensures compatibility with multiple logic levels from different controllers.
2. **Safe Switching:** Provides isolation between control and load circuits, enhancing safety.
3. **Compact and Reliable:** Small in size, yet capable of handling large loads.
4. **User-Friendly:** Clear pin labels and indicator LEDs make it beginner-friendly.
5. **Wide Compatibility:** Works with microcontrollers like **Arduino, Raspberry Pi, ESP8266, ESP32, and PIC**.

Trigger Selector

DC+ 1
DC- 2
IN 3

Input Interface

4 NC
5 COM
6 NO

Output Interface
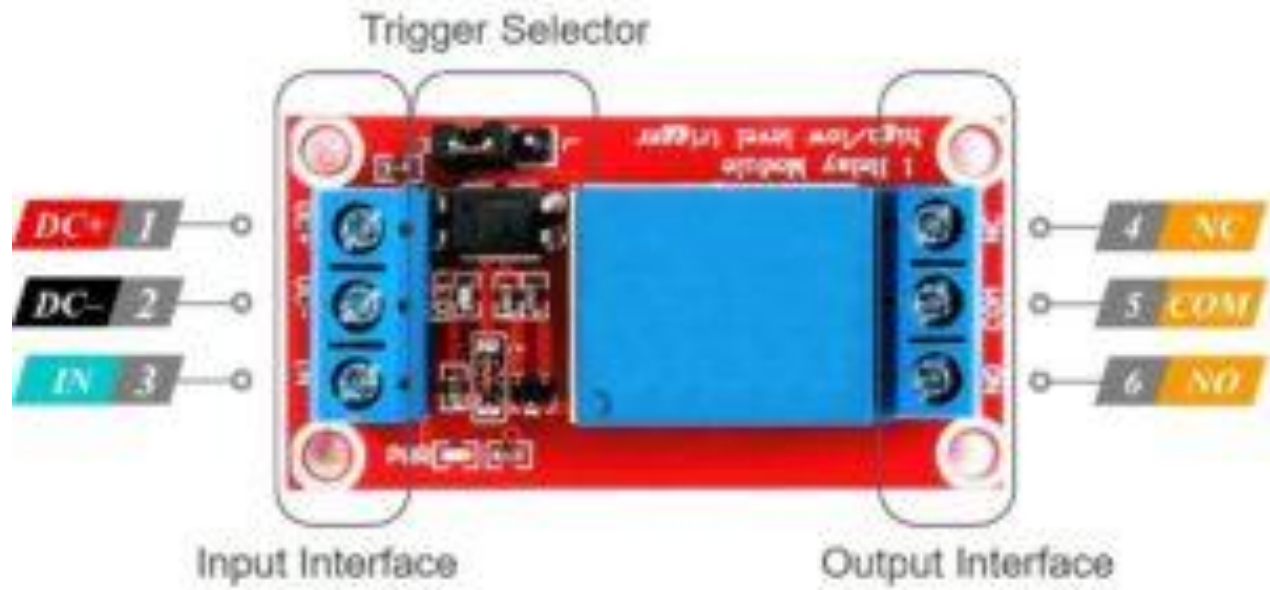
Technical Specifications

- **Relay Channels:** 1
- **Control Voltage:** 12V DC
- **Trigger Modes:** High-level or low-level trigger (selectable)
- **Load Capacity:** AC 250V / 10A, DC 30V / 10A
- **Optocoupler Isolation:** Yes
- **Indicators:** Power and status LEDs
- **Dimensions:** Compact PCB module suitable for integration in small spaces

Sensor

NO
COM

Relay Module 12v
1Channel

AC

IN
DC -
DC+

+12V   GND

From 12V Power Supply
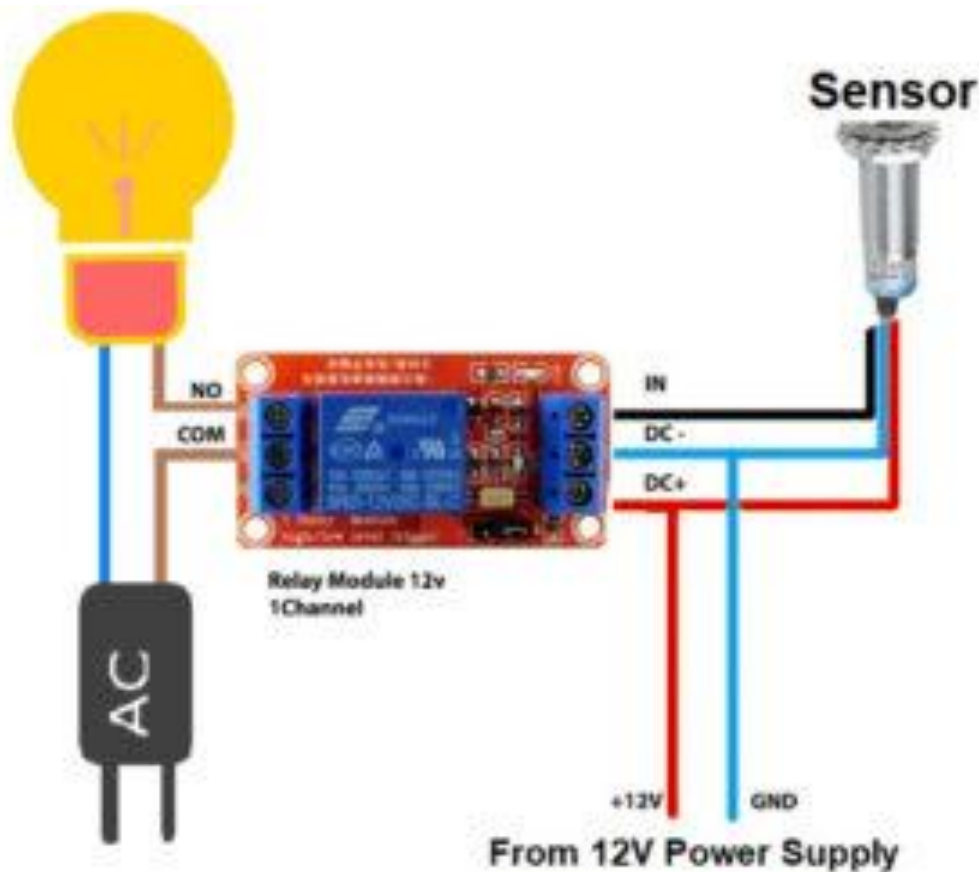
Why Choose This 12V Relay Module?

The **Relay Module 1 Channel 12V with High/Low Level Trigger Selector** offers the perfect balance of reliability, flexibility, and performance. Whether you are working on a simple Arduino home automation system or an advanced industrial control setup, this relay module makes switching devices safe and efficient. The **trigger mode selector** is particularly valuable, as it ensures easy adaptation to different logic systems without requiring additional hardware.

Conclusion

If you're looking for a **durable and flexible relay module** for your electronics or automation projects, the **Relay Module 1 Channel 12V with High/Low Level Trigger Selector** is an excellent choice. It is designed for ease of use, safety, and compatibility with a wide range of microcontrollers and applications. From DIY projects to industrial systems, this module ensures reliable performance and simplifies high-power device control.