Grove - Solid State Relay V2

SKU 103020137

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Instead of using coil, packaged solid-state relays (SSR) use power semiconductor devices such as thyristors and transistors, which provide a much faster switching speed than the mechanical relays. The Grove - Solid State Relay V2 is based on the high-quality G3MC202P module, which allows you to use a 5VDC to control MAX. 240VAC. With the help of Grove interface, it becomes very convenient to use the SSR with your arduino.

According to different application scenarios, we've prepared a series of solid state relays for you.

- **Grove - Solid State Relay V2**
- **Grove - 2-Channel Solid State Relay**
- **Grove - 4-Channel Solid State Relay**
- **Grove - 8-Channel Solid State Relay**

1. Please be careful when working with high voltage AC load, please do not operate with power on.
2. This relay only works with AC load. If you use DC load, once the relay is turned on, it will always stay on.
3. Due to the leakage current, we do not recommend you to use this relay with low power appliance.

**Features**

- **Advantages over mechanical relays:**
  1. Solid-state relays have much faster switching speeds compared with electromechanical relays, and have no physical contacts to wear out.
  2. Totally silent operation.
Disadvantages:
1. When closed, higher resistance (generating heat) and increased electrical noise.
2. When open, lower resistance, and reverse leakage current.
3. Only works for AC load.

Typical Applications

- Operations that require low-latency switching, e.g., stage light control.
- Devices that require high stability, e.g., medical devices, traffic signals.
- Situations that require explosion-proof, anticorrosion, moisture-proof, e.g., coal, chemical industries.

Pin Map

1. GND: connect this module to the system GND
2. VCC: you can use 5V or 3.3V for this module
3. NC: not connected
4. CTR: input control signal
5. Load 1: one port of switch to connect to the load wire
6. Load 2: one port of switch to connect to the load wire

Technical Details

- Dimensions: 40mm x 20mm x 25mm
- Weight: G.W 131g
- Battery: Exclude
- Operating Input Voltage: 4~6V
- Rated Input Voltage: 5V
- Load Voltage Range: 75 to 264 VAC 50/60 Hz
- Rated Load Voltage: 100 to 240 VAC 50/60 Hz
- Load Current: 0.1 to 2 A
- Leakage Current: 1.5 mA max. (at 200 VAC)
- Insulation Resistance: 1,000 MΩ min. (at 500 VDC)
- Operating Temperature: -30°C to 80°C (with no icing or condensation)
- Operating Humidity: 45% to 85%RH
- Zero Cross: support

Part List

- Grove - Solid State Relay V2
- Grove Cable: 1
- A set of Acrylic Shell: 1

ECCN/HTS

- ECCN: EAR99
- HSCODE: 8536411000

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Questions and Answers

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