



Name: **WiFi Relay Shield**

Code: **MR007-002.3**

The *WiFi Relay Shield* is an Arduino compatible module that provides an easy way to control high voltage thanks to 4 independent channels equipped with photo-coupled mechanical relays preassembled on the board. The maximum switching power is 1250VA AC or 150W DC.

The control of all the channels of this shield have to be done through the digital I/O pins 5, 6, 7 and 8 of the Arduino board where this shield is mounted on, anyway it is necessary an external 12VDC power source to correctly supply the relay coils. This 12V power supply can be taken directly from the Arduino Vin pin or connected to the terminal block.

The 12VDC power presence is pointed out by the switching on of the red led PWR placed next to the corresponding terminal block.

An important feature of this shield is the presence of the interface connector for the ESP8266 modules that allows you to communicate remotely via these wireless modules with the Arduino that houses the WiFi Relay Shield, making it simple to use this board in robotics applications, industrial controls and home automation.

During the programming of the Arduino board and in general during the serial communication between Arduino and PC, the presence of the ESP8266 module interferes with the signals of the serial port; for this reason it is necessary to remove the ESP8266 module from the shield during these phases.

**!!! CAUTION !!!**

**This device can carry high voltages and can therefore be deadly if incorrectly used.**

## CHARACTERISTICS

| Name                  | Description              |
|-----------------------|--------------------------|
| OUT-1 control pin     | Arduino pin 8            |
| OUT-2 control pin     | Arduino pin 7            |
| OUT-3 control pin     | Arduino pin 6            |
| OUT-4 control pin     | Arduino pin 5            |
| Supply voltage        | 12VDC                    |
| Supply current        | 200mA (max.)             |
| Dimensions            | 69 x 55 mm (2.7" x 2.2") |
| Weight                | 49 gr (1.73 oz)          |
| Operating temperature | -30 to +70 °C            |

## SPECIFICATIONS (each channel)

| Name                 | Description         |
|----------------------|---------------------|
| Rated voltage        | 30VDC, 250VAC       |
| Rated current        | 5A                  |
| Coil voltage         | 12VDC               |
| Coil resistance      | 320 $\Omega$ ±10%   |
| Vita utile elettrica | 100000 operations   |
| Vita utile meccanica | 10000000 operations |
| Tempo di eccitazione | 10ms Max.           |
| Tempo di rilascio    | 4ms Max             |

