Manuals+ — User Manuals Simplified.

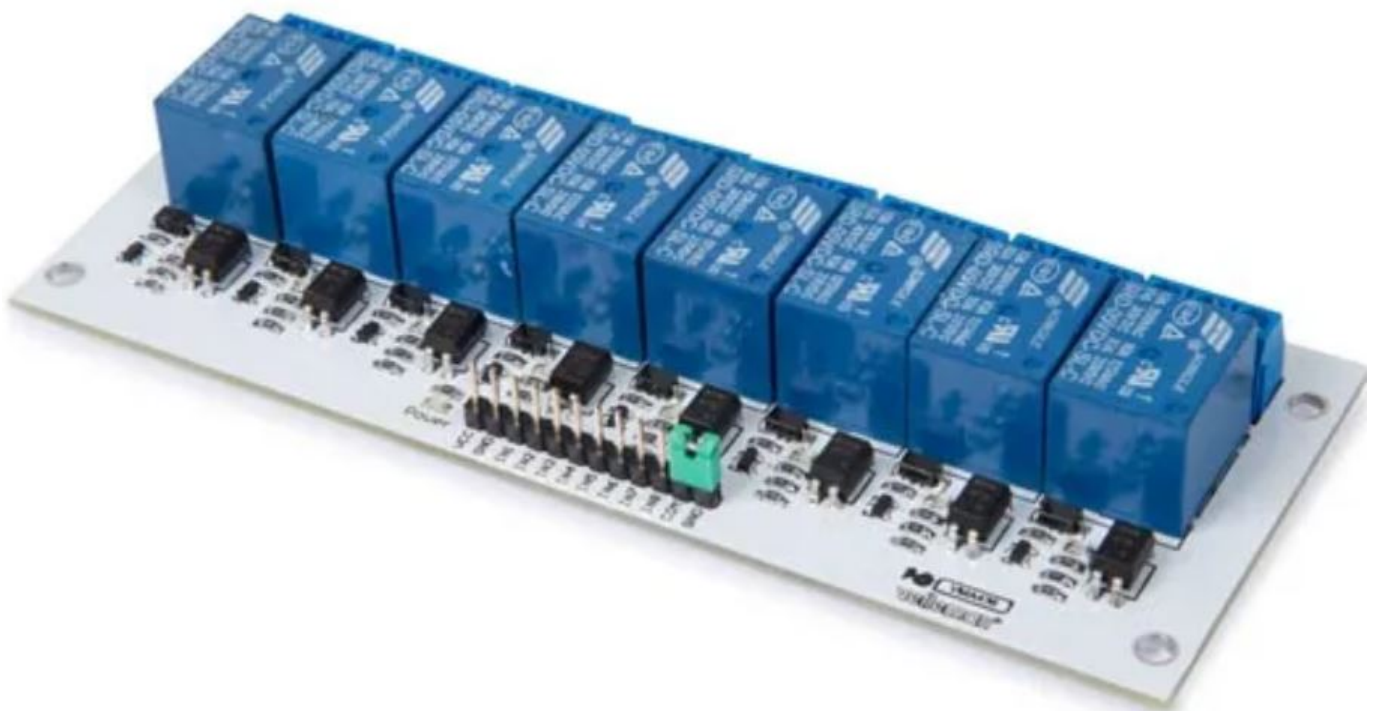# velleman VMA436 8 Channel Relay Module User Manual

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velleman VMA436 8 Channel Relay Module

Introduction

To all residents of the European Union Important environmental information about this product This symbol on the device or the package indicates that disposal of the device after its lifecycle could harm the environment. Do not dispose of the unit (or batteries) as unsorted municipal waste; it should be taken to a specialized company for recycling. This device should be returned to your distributor or to a local recycling service. Respect the local environmental rules. If in doubt, contact your local waste disposal authorities. Thank you for choosing Velleman®! Please read the manual thoroughly before bringing this device into service. If the device was damaged in transit, do not install or use it and contact your dealer.

Safety Instructions

This device can be used by children aged from 8 years and above, and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning the use of the device in a safe way and understand the hazards involved. Children shall not play with the device. Cleaning and user maintenance shall not be made by children without supervision

Indoor use only.
Keep away from rain, moisture, splashing and dripping liquids.

General Guidelines

- Refer to the Velleman® Service and Quality Warranty on the last pages of this manual.
- Familiarise yourself with the functions of the device before actually using it.
- All modifications of the device are forbidden for safety reasons. Damage caused by user modifications to the device is not covered by the warranty.
- Only use the device for its intended purpose. Using the device in an unauthorised way will void the warranty.
- Damage caused by disregard of certain guidelines in this manual is not covered by the warranty and the dealer will not accept responsibility for any ensuing defects or problems.
- Nor Velleman nv nor its dealers can be held responsible for any damage (extraordinary, incidental or indirect) – of any nature (financial, physical…) arising from the possession, use or failure of this product.
- Due to constant product improvements, the actual product appearance might differ from the shown images.
- Product images are for illustrative purposes only.
- Do not switch the device on immediately after it has been exposed to changes in temperature. Protect the device against damage by leaving it switched off until it has reached room temperature.
- Keep this manual for future reference.

What is Arduino®

Arduino® is an open-source prototyping platform based in easy-to-use hardware and software. Arduino® boards are able to read inputs – light-on sensor, a finger on a button or a Twitter message – and turn it into an output – activating of a motor, turning on an LED, publishing something online. You can tell your board what to do by sending a set of instructions to the microcontroller on the board. To do so, you use the Arduino programming language (based on Wiring) and the Arduino® software IDE (based on Processing).

Overview

This 8-channel relay interface board can control various appliances and other equipment with high current. Directly controllable by any micro-controller.

- control input current (in1 to in8): 5-25 mA
- control input voltage: 5-12 VDC
- relay output: 250 V~, 10 A / 30 VDC, 10 A (non-inductive)
- relay coli vintage: 5 VDC
- dimensions: 57 x 138 mm
- operating voltage: 5 V

Pin Layout

VCC	power supply
GND	ground
IN1	low-level signal triggering terminal 1 of relay module
IN2	low-level signal triggering terminal 2 of relay module
IN3	low-level signal triggering terminal 3 of relay module
IN4	low-level signal triggering terminal 4 of relay module
IN5	low-level signal triggering terminal 5 of relay module
IN6	low-level signal triggering terminal 6 of relay module
IN7	low-level signal triggering terminal 7 of relay module
IN8	low-level signal triggering terminal 8 of relay module
COM	common ground for the relay, normally connected to GND by jumper
GND	ground

High vs. Low Level

(Inx = contact such as IN1, IN2, IN3…)

Triggered at high-level means a forward voltage exists between the signal-triggering terminal (INx) and negative supply voltage. It generally connects the positive supply voltage and the triggering terminal together. When the triggering terminal has a positive supply voltage or reaches triggering voltage, the relay will pull in. Triggered at low-level means the voltage between the signal-triggering terminal (INx) and negative supply voltage is 0 V, or the voltage at the triggering terminal is lower than the positive supply voltage. If it lowers to a triggering voltage, the relay will pull in. It generally connects negative supply voltage and triggering terminal together.

The output:
Each sub modular of the relay has one NC (normally closed), one NO (normally open) and one COM (common). There are 8 NC, 8 NO and 8 COM of the channel relay in total. NC stands for the normally closed port contact and the state without power; NO stands for the normally open port contact and the state with power; COM means the common port. You can choose the NC port or NO port according to whether it will be powered or not.

Example

- //2 relays connected to
- int IN4 = 4;
- int IN5 = 5;
- #define ON 0
- #define OFF 1
- void setup(){
- relay_init();//initialize the relay}

- void loop() {
- relay_SetStatus(ON, OFF);//turn on RELAY_1
- delay(2000);//delay 2s
- relay_SetStatus(OFF, ON);//turn on RELAY_2
- delay(2000);//delay 2s}
- void relay_init(void)//initialize the relay{
- //set all the relays OUTPUT
- pinMode(IN4, OUTPUT);
- pinMode(IN5, OUTPUT);
- relay_SetStatus(OFF,OFF);//turn off all the relay }
- //set the status of relays
- void relay_SetStatus(unsigned char status_1, unsigned char status_2) {
- digitalWrite(IN4, status_1);
- digitalWrite(IN5, status_2);

More Information
Please refer to the VMA436 product page on www.velleman.eu for more information

Velleman® Service and Quality Warranty

Since its foundation in 1972, Velleman® acquired extensive experience in the electronics world and currently distributes its products in over 85 countries. All our products fulfil strict quality requirements and legal stipulations in the EU. In order to ensure the quality, our products regularly go through an extra quality check, both by an internal quality department and by specialized external organisations. If, all precautionary measures notwithstanding, problems should occur, please make appeal to our warranty (see guarantee conditions).

General Warranty Conditions Concerning Consumer Products (for EU):

- All consumer products are subject to a 24-month warranty on production flaws and defective material as from the original date of purchase.
- Velleman® can decide to replace an article with an equivalent article, or to refund the retail value totally or partially when the complaint is valid and a free repair or replacement of the article is impossible, or if the expenses are out of proportion. You will be delivered a replacing article or a refund at the value of 100% of the purchase price in case of a flaw occurred in the first year after the date of purchase and delivery, or a replacing article at 50% of the purchase price or a refund at the value of 50% of the retail value in case of a flaw occurred in the second year after the date of purchase and delivery.
- Not covered by warranty:
    - all direct or indirect damage caused after delivery to the article (e.g. by oxidation, shocks, falls, dust, dirt, humidity…), and by the article, as well as its contents (e.g. data loss), compensation for loss of profits;

- consumable goods, parts or accessories that are subject to an aging process during normal use, such as batteries (rechargeable, non-rechargeable, built-in or replaceable), lamps, rubber parts, drive belts… (unlimited list);
  - flaws resulting from fire, water damage, lightning, accident, natural disaster, etc.…;
  - flaws caused deliberately, negligently or resulting from improper handling, negligent maintenance, abusive use or use contrary to the manufacturer's instructions;
  - damage caused by a commercial, professional or collective use of the article (the warranty validity will be reduced to six (6) months when the article is used professionally);
  - damage resulting from an inappropriate packing and shipping of the article;
  - all damage caused by modification, repair or alteration performed by a third party without written permission by Velleman®.
- Articles to be repaired must be delivered to your Velleman® dealer, solidly packed (preferably in the original packaging), and be completed with the original receipt of purchase and a clear flaw description.
- Hint: In order to save on cost and time, please reread the manual and check if the flaw is caused by obvious causes prior to presenting the article for repair. Note that returning a non-defective article can also involve handling costs.
- Repairs occurring after warranty expiration are subject to shipping costs.
- The above conditions are without prejudice to all commercial warranties.
- The above enumeration is subject to modification according to the article (see article's manual).

Documents / Resources

velleman VMA436 8-CHANNEL RELAY MODULE USER MANUAL CE	**velleman VMA436 8 Channel Relay Module** [pdf] User Manual VMA436, 8 Channel Relay Module, Channel Relay Module, Relay Module, VMA436, Module

References

- **Arduino - Home**
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- **Arduino - Home**
- **Velleman â€" Wholesaler and developer of electronics**
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