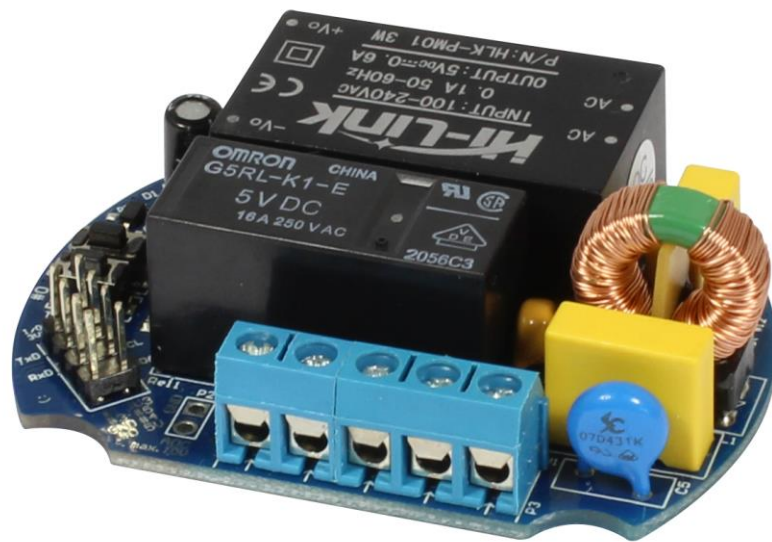




4duino IoT WLAN Relay Flush Mounted

ALL-ESP8266-IoT-Relais

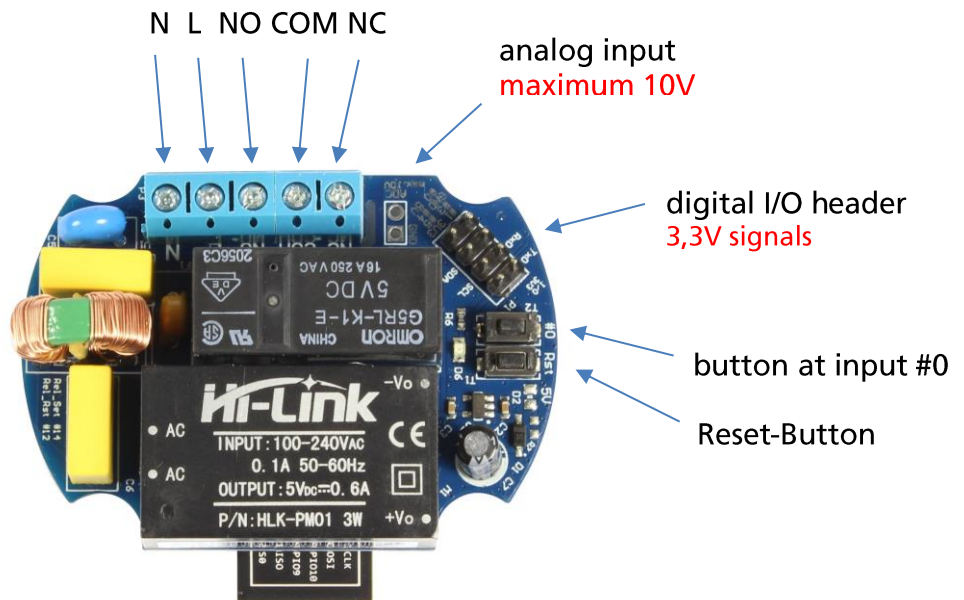


User Manual

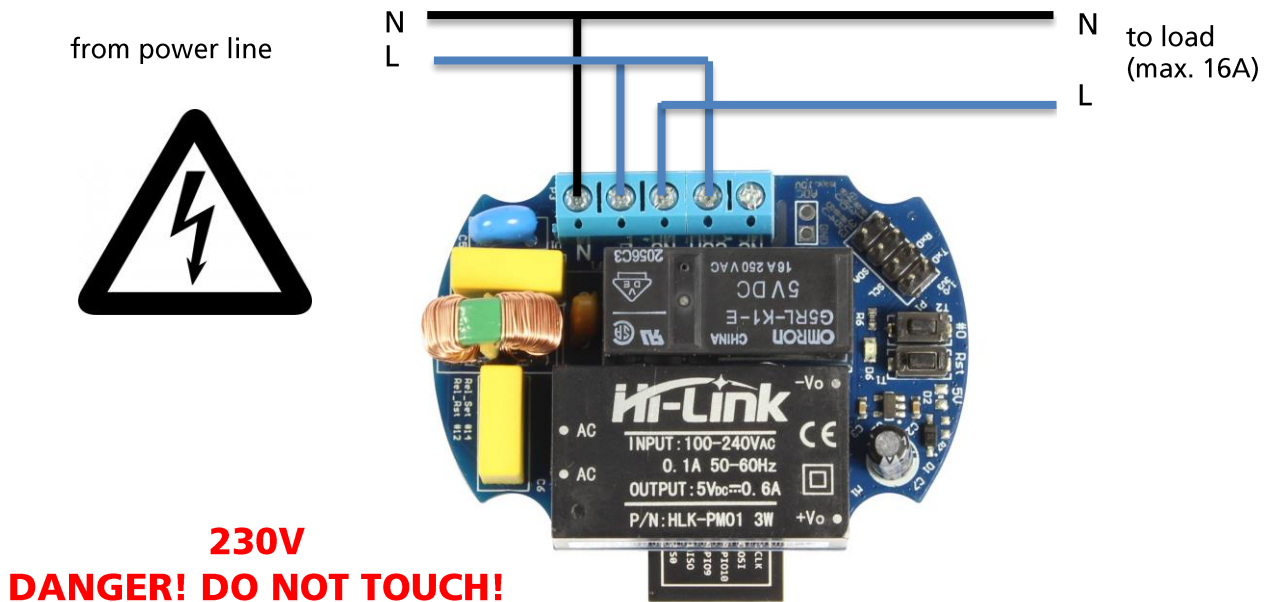
Tabel of Content

Connections.....	2
Cabeling example for 230V load.....	3
First Installation	3
Operation	4
API-Commands.....	6
Programming.....	6
Pin assignment.....	7
Relay	7
Safety instructions	8
CE	8
GPL.....	9

Connections



Cabeling example for 230V load



First Installation

1. Hook up the ALL-ESP8266-IoT-Relais like pictured above.
2. Connect to the Wifi-network of the ALL-ESP8266-IoT-Relais.
Networkname: **ESP_UP_Relais xxxxxxxxxxxxxx**
3. If the configuration website does not open automatically, then open 192.168.4.1 on your browser.
4. Follow the instructon on the user interface:
 - „Configure WiFi“
 - Choose your WLAN-Network and enter its password.
 - Apply via „Save“

If the WLAN network of the ALL-ESP8266-IoT-Relais isn't visible anymore after your configuration, it was configured succesfully. If it still shows up, check if the cabeling is correct, if so repeat step 2-4 again.

To configure your relay you have to open a browser and type in the IP address of your ALL-ESP8266-IoT-Relais.
You can find the IP address in your router or by using an IP scanner app (e.g. Fing). Otherwise you can use a terminal program (e.g. PuTTY) to check the devices IP address. (Baud rate 115200)
If there is no return, press the reset button once.

After a reboot the ALL-ESP8266-IoT-Relais will automatically reconnect to the given Wifi network, if it is available. Otherwise it will fall back to the Access Point Mode and you have to reconfigure the device (Step 2-4)


Operation

Note: By pressing the #0 button the state of the relay will invert.

Open the IP address of the ALL-ESP8266-IoT-Relais in your browser.

ESP_UP_Relais - IP: 192.168.3.179

192.168.3.179



ESP_UP_Relais - IP: 192.168.3.179

Elektronisches Relais (ausgeschaltet)

ESP_UP_Relais 56B2B677EB79

Dienstag den 11.09.2018 um 16:51:47

Manuell schalten

Relais manuell einschalten

Relais manuell ausschalten

Relais manuell invertieren

Timer

Aktion hinzufügen (0 von maximal 50 benutzt)

Historie

16:32:26: Relais beim Neustart ausgeschaltet.
16:51:13: Relais mit Geräte-Button invertiert (eingeschaltet).
16:51:31: Relais mit Geräte-Button invertiert (ausgeschaltet).

Historie löschen

Einstellungen

Seite neu laden

Relais neu starten

Add an action – Action Turn ON/OFF (Aktion hinzufügen – Aktion Schaltung)

Here you can switch once at a specific time.

In this example we switch once a day: Mo – Fr at 8:00 AM -> ON (e.g coffee machine)

Timer

Montag Dienstag Mittwoch Donnerstag Freitag Samstag Sonntag

Zeitpunkt: Stunde: Minute:

Aktion Schaltung

Relais ausschalten einschalten invertieren zufällig schalten

Aktion Intervall

Intervall aus-ein -> aus aus-ein -> ein ein-aus -> aus ein-aus -> ein
Intervall invertieren-invertieren -> Zustand nicht ändern

Schaltdauer: Intervall Nr. 1: Minuten, Intervall 2: Minuten.

Zeitpunkt Aktionsende: Stunde: Minute:

Add an action – Action Interval (Aktion hinzufügen – Aktion Intervall)

Here you can set up intervals.

In this example we configure the relay from 10:00 AM - 5:00 PM on weekends. The relay will be on for 3 minutes and off for 2 minutes repeatedly. After the interval has passed the device will be turned off. (e.g. water fountain)

Timer

Montag Dienstag Mittwoch Donnerstag Freitag Samstag Sonntag

Zeitpunkt: Stunde: Minute:

Aktion Schaltung

Relais ausschalten einschalten invertieren zufällig schalten

Aktion Intervall

Intervall aus-ein -> aus aus-ein -> ein ein-aus -> aus ein-aus -> ein
Intervall invertieren-invertieren -> Zustand nicht ändern

Schaltdauer: Intervall Nr. 1: Minuten, Intervall 2: Minuten.

Zeitpunkt Aktionsende: Stunde: Minute:

Example: ein (ON) – aus (OFF) -> ein (ON)
Intervall No. 1 – Intervall No. 2 -> Action end

API-Commands

<u>Turn relay on:</u>	IP-Address/ButtonOn e.g.: http://192.168.3.179/ButtonOn
<u>Turn relay off:</u>	IP-Address/ButtonOff e.g.: http://192.168.3.179/ButtonOff
<u>Invert relay:</u>	IP-Address/ButtonInvert e.g.: http://192.168.3.179/ButtonInvert

Programming

If you want to flash the ALL-ESP8266-IoT-Relais with your own firmware, please follow these instructions:

1. Please follow the instructions described in the Brick'R'knowledge IoT Manual to install the setup environment for your ESP8266 (chapter 5.2)

Here you can get the manual:

https://www.brickrknowledge.de/content/uploads/2018/01/BRK-IoT-Set_Anleitung_EN_FIN_2017.pdf

2. Connect the digital I/O header of the ALL-ESP8266-IoT-Relais with your programmer:

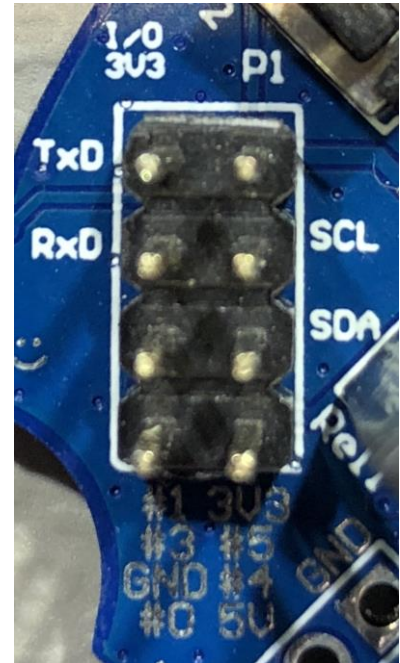
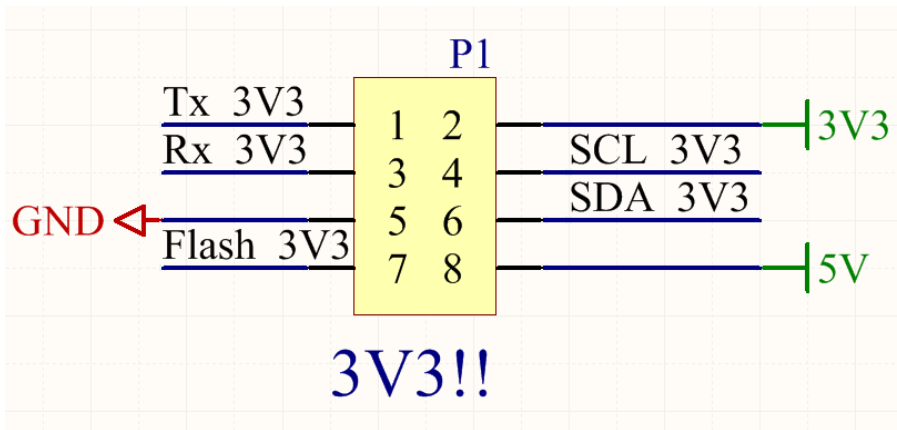
GND <-> GND
TX <-> RX
RX <-> TX
3V3 <-> 3V3

Attention: The programmer MUST be set to 3.3V level!!!

(We recommend the article number #111990 from our sortiment)

3. Connect the programmer to your computer (install the driver if needed)
4. Open your Arduino programming environment and choose in the tab „Tools“ your Board ESP8266, the right COM-Port of your programmer and the right programmer.
5. Now you have to set your ESP8266 in programming mode:
 - a. Press and hold button #0
 - b. Now press the Reset-Button once
 - c. Release button #0 now
6. Now everything is ready to program the device.

Pin Assignment



Pin Header Number	ESP8266 I/O	Function
1	#1	TxD (Uart)
2	3V3	3V3
3	#2	RxD (Uart)
4	#5	SCL (I2C*)
5	GND	GND
6	#4	SDA (I2C*)
7	#0	Flash
8	-	5V

*10k Pull-Up resistors are already used on the Board

You can also power the ALL-ESP8266-IoT-Relais through Pin 5 & 8 with 5V DC directly.

Relay

Manufacturer: Omron
Model: G5RL-K1-E

Here the link to the datasheet of the relay:

http://omronfs.omron.com/en_US/ecb/products/pdf/en-g5rl_uk.pdf

The set coil is controlled by I/O #14 and the reset coil by I/O #12.

Safety instructions

It is imperative that you observe the following instructions:

- Never carry out an installation during a thunderstorm.
- Please observe the 5 safety rules: Disconnect, secure against reconnection, check that no voltage is present, earth and short-circuit, cover or barrier off adjacent live parts.
- Never expose the device to direct sunlight during operation.
- Never operate the device in the vicinity of heat sources.
- Never place the device on surfaces that are sensitive to heat.
- Protect the device from moisture, dust, liquids and vapors.
- Do not use the device in damp rooms and never in potentially explosive atmospheres.
- Do not use cleaning agents containing solvents for cleaning, but only a soft, dry antistatic cloth.
- Repairs may only be carried out by trained, authorised personnel.
- Liability by ALLNET® is excluded in case of improper use.

CE

ALLNET GmbH Computersysteme declares that the device **ALL-ESP8266-IoT-Relais** is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. The Declaration of conformity can be found under this link:
www.allnet.de/downloads.html

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

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