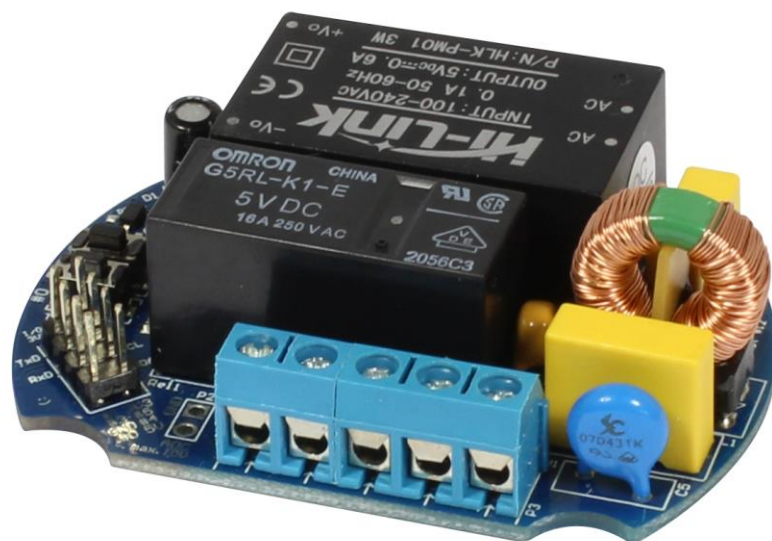




# 4duino IoT WLAN Unterputz Relais

## ALL-ESP8266-IoT-Relais

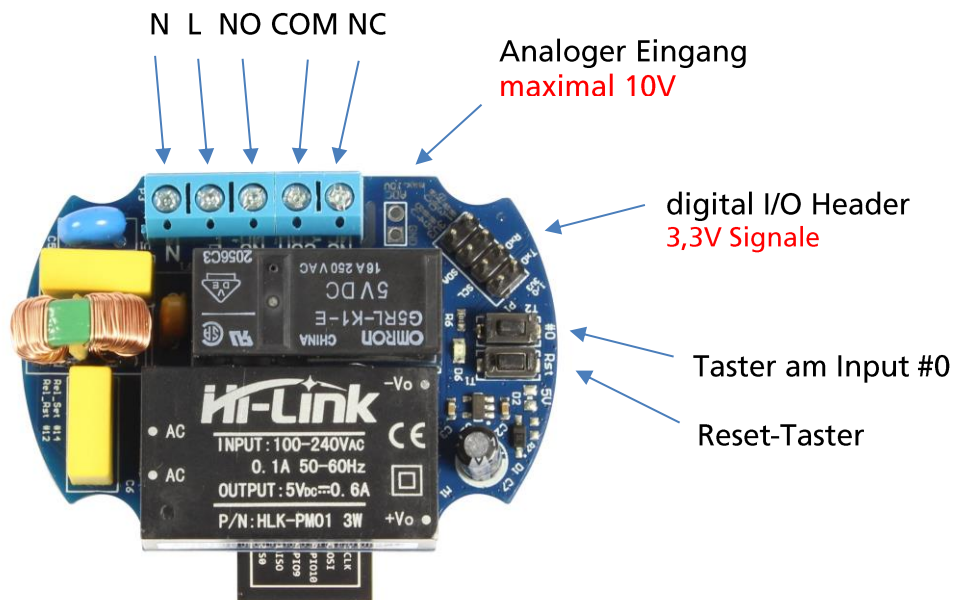


**Benutzerhandbuch**

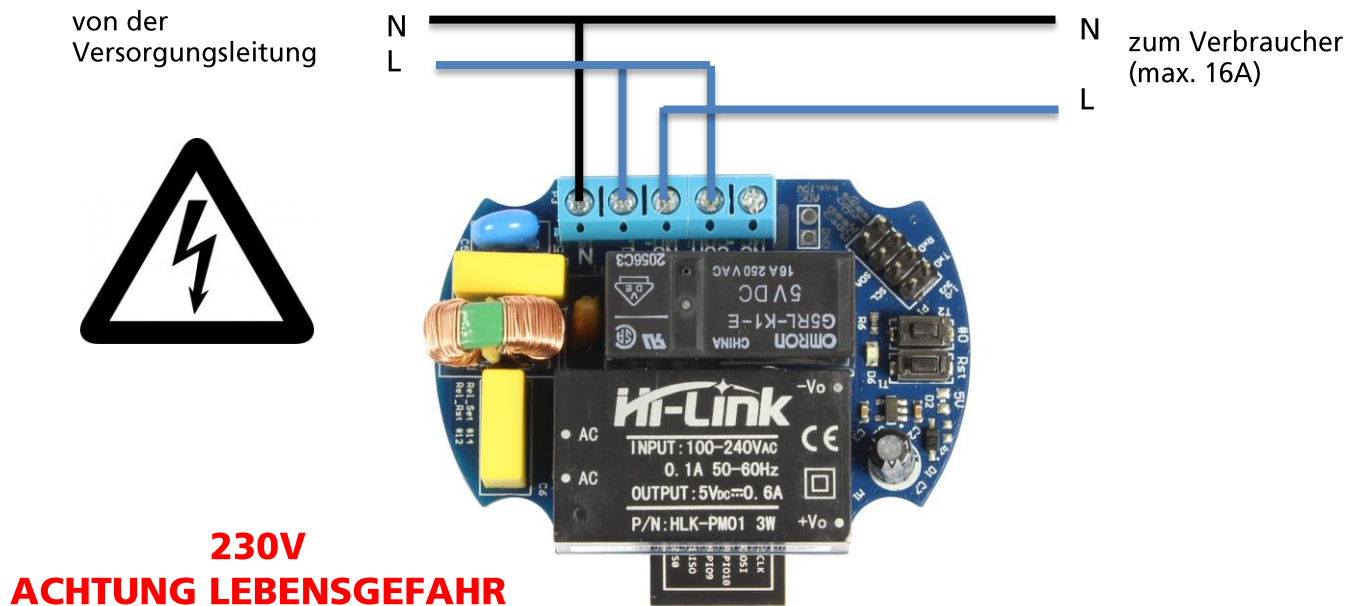
## Inhaltsverzeichnis

Anschlüsse .....	2
Verkabelungsbeispiel für eine 230V Last .....	3
Erste Inbetriebnahme .....	3
Bedienung.....	4
API-Kommandos .....	6
Programmierung .....	6
Pin Belegung.....	7
Relais.....	7
Sicherheitshinweise .....	8
CE .....	8
GPL.....	9

## Anschlüsse



## Verkabelungsbeispiel für eine 230V Last



## Erste Inbetriebnahme

1. Verkabeln Sie das ALL-ESP8266-IoT-Relais wie oben beschrieben
2. Verbinden Sie sich mit dem ausgestrahlten WLAN-Netzwerk des ALL-ESP8266-IoT-Relais. Das Netzwerk heißt: **ESP\_UP\_Relais xxxxxxxxxxxxxx**
3. Falls sich die Konfigurationsseite nicht automatisch öffnet, gehen Sie im Browser Ihres Smartphones/Tablets/Computers auf die Adresse: 192.168.4.1
4. Folgen Sie den Anweisungen in der Benutzeroberfläche:
  - „Configure WiFi“
  - Wählen Sie Ihr WLAN-Netzwerk aus und geben Sie das zugehörige Kennwort ein
  - Bestätigen Sie mit „Save“

Wenn anschließend das WLAN-Netzwerk des ALL-ESP8266-IoT-Relais nicht mehr sichtbar ist, war die Konfiguration erfolgreich.

Falls nicht stellen Sie sicher, dass das Relais richtig angeschlossen ist und wiederholen Sie die Schritte 2-4.

Für die Konfiguration des Relais müssen Sie in Ihrem Browser die IP-Adresse des ALL-ESP8266-IoT-Relais aufrufen.

Die IP-Adresse Ihres ALL-ESP8266-IoT-Relais finden sie entweder in Ihrem Router oder über eine IP-Scanner-App (wie z.B. Fing) heraus. Alternativ kann die IP-Adresse über ein Terminalprogramm (z.B. PuTTY) ausgelesen werden. (Baudrate 115200)

Sollte keine Ausgabe erfolgen, drücken Sie 1x auf die RST-Taste.

Bei einem Neustart verbindet sich das ALL-ESP8266-IoT-Relais automatisch mit dem vorher eingestellten WLAN-Netzwerk, solange es verfügbar ist. Ansonsten ist er wieder Access Point und muss neu konfiguriert werden. (siehe Schritte 2-4)



## Bedienung

---

Info: Durch Drücken der Taste #0 wird der Zustand des Relais invertiert.

Öffnen Sie die IP-Adresse des ALL-ESP8266-IoT-Relais in Ihrem Webbrowser.



# 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

### Aktion hinzufügen – Aktion Schaltung

Hier wird einmalig geschaltet.

In diesem Beispiel wird Mo – Fr um 08:00 Uhr das Relais eingeschalten. (z.B. Kaffeemaschine)

---

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:

### Aktion hinzufügen – Aktion Intervall

Hier wird wiederholt geschaltet.

In diesem Beispiel wird am Wochenende von 10:00 – 17:00 Uhr das Relais immer wieder für 3 Minuten eingeschalten und für 2 Minuten ausgeschalten. Zum Aktionsende wird das Gerät ausgeschalten. (z.B. Springbrunnen)

---

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:

**Beispiel:** ein – aus -> ein  
Intervall Nr. 1 – Intervall Nr. 2 -> Aktionsende

## API-Kommandos

---

- Relais einschalten: IP-Adresse/ButtonOn  
z.B.: <http://192.168.3.179/ButtonOn>
- Relais ausschalten: IP-Adresse/ButtonOff  
z.B.: <http://192.168.3.179/ButtonOff>
- Relais invertieren: IP-Adresse/ButtonInvert  
z.B.: <http://192.168.3.179/ButtonInvert>

## Programmierung

---

Falls Sie Ihr ALL-ESP8266-IoT-Relais mit einer eigenen Firmware flashen wollen, gehen Sie wie folgt vor:

1. Folgen Sie den Anweisungen im Brick'R'knowledge IoT Handbuch, um die Programmierumgebung zu installieren und für den ESP8266 vorzubereiten (Kapitel 5.2)

Hier geht es zum Handbuch:

[https://www.brickrknowledge.de/content/uploads/2017/05/BRK-IoT-Set\\_Manual.pdf](https://www.brickrknowledge.de/content/uploads/2017/05/BRK-IoT-Set_Manual.pdf)

2. Verbinden Sie den digital I/O Header Ihres ALL-ESP8266-IoT-Relais mit Ihrem Programmer

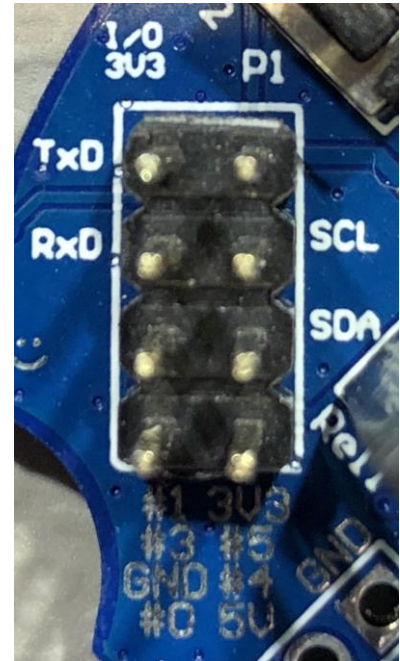
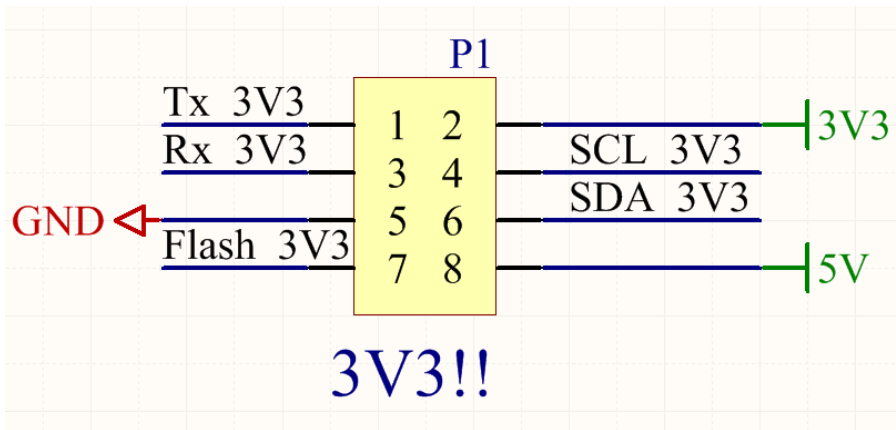
GND <-> GND  
TX <-> RX  
RX <-> TX  
3V3 <-> 3V3

**Achtung: Der Programmer MUSS auf 3,3V Pegel eingestellt sein!!!**

(Wir empfehlen die Artikelnummer #111990 aus unserem Sortiment)

3. Verbinden Sie Ihren Programmer mit Ihrem Computer (ggf. installieren Sie den entsprechenden Treiber)
4. Öffnen Sie die Arduino Programmierumgebung und wählen Sie unter dem Reiter „Werkzeuge“ als Board den ESP8266, den COM-Port Ihres Programmers und stellen Sie den richtigen Programmer ein
5. Nun müssen Sie den ESP8266 in den Programmiermodus versetzen
  - a. Halten Sie den Taster #0 gedrückt
  - b. Drücken Sie kurz den RST Taster
  - c. Lassen Sie erst jetzt den #0 Taster wieder los
6. Nun ist Ihr ALL-ESP8266-IoT-Relais bereit zur Programmierung

## Pin Belegung



Pin Header Nummer	ESP8266 I/O	Funktion
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 Widerstände sind bereits auf dem Board vorhanden

Das ALL-ESP8266-IoT-Relais lässt sich optional auch über Pin 5 & 8 mit 5V DC versorgen und ist auch so komplett funktionstüchtig.

## Relais

Hersteller: Omron  
Modell: G5RL-K1-E

Hier der Link zum Datenblatt des Relais:

[http://omronfs.omron.com/en\\_US/ecb/products/pdf/en-g5rl\\_uk.pdf](http://omronfs.omron.com/en_US/ecb/products/pdf/en-g5rl_uk.pdf)

Die Set-Spule wird von I/O #14 angesteuert und die Reset-Spule von I/O #12.



## Sicherheitshinweise

---

Beachten Sie unbedingt folgende Hinweise:

- Führen Sie niemals eine Installation während eines Gewitters durch.
- Beachten Sie bitte die 5 Sicherheitsregeln: Freischalten, gegen Wiedereinschalten sichern, Spannungsfreiheit feststellen, Erden und Kurzschließen, benachbarte, unter Spannung stehende Teile abdecken oder abschränken.
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- Betreiben Sie das Gerät niemals in die Nähe von Wärmequellen.
- Stellen Sie das Gerät niemals auf Oberflächen, die wärmeempfindlich sind.
- Schützen Sie das Gerät vor Nässe, Staub, Flüssigkeiten und Dämpfen.
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82110 Germering

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