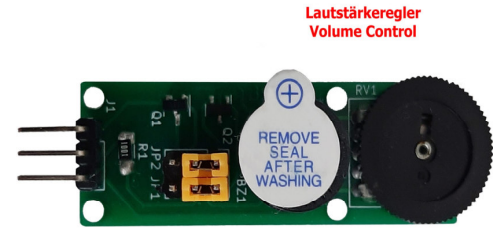Franz Hansmann
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Made in Germany

net4web

Datasheet for: net4web AABHL2 for Arduino Aktiver Buzzer 5V- High/Low switchable and switchable volume control

Lautstärkeregler Volume Control

High/Low-Schaltbar

Partnumber: 0711906114387

REV: 06/26/2023

The net4web AABHL2 is completely developed and produced in Germany.

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Visit us online: **www.net4web.de**

In the ***Downloads*** area you will find the RoHS and CE declarations of conformity, as well as possibly additional technical information about this product.

The product must not be disposed of with household waste.

RoHS The product meets the requirements of the EU regarding the RoHS directive.

CE The product meets the requirements of the EU with regard to electromagnetic compatibility.

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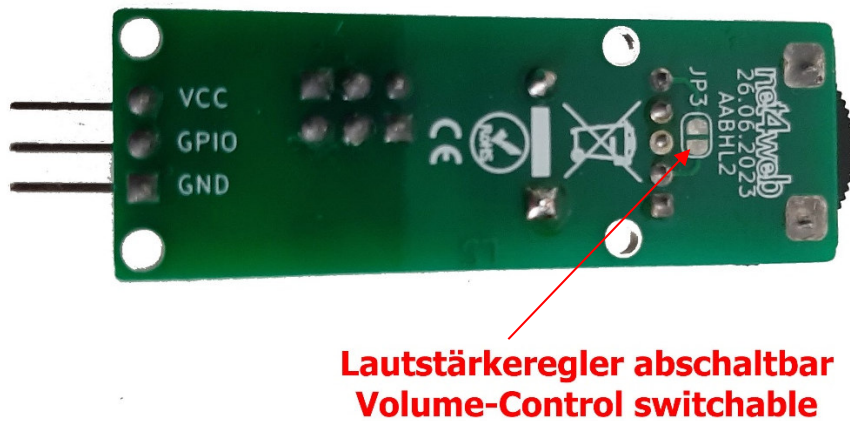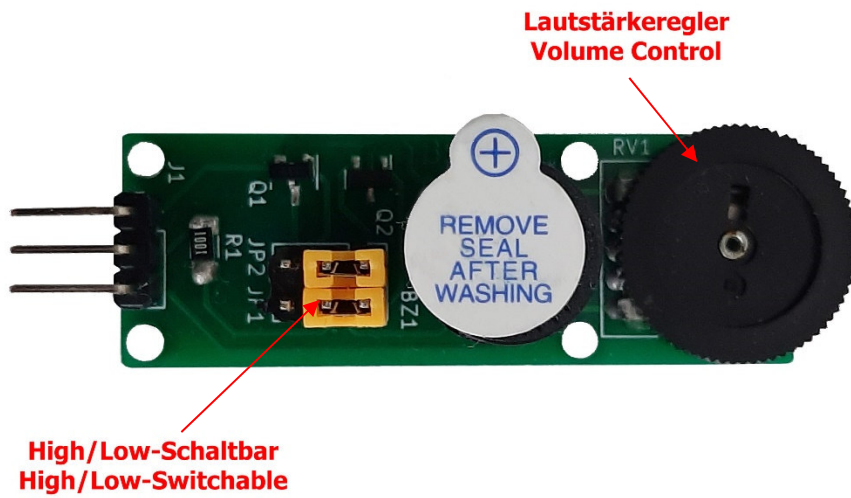🌐 www.net4web.de

Description:

The net4web AABHL2 is used to control an active buzzer via an Arduino or Raspberry Pi. On many Arduino nano clones, you might be able to connect the buzzer directly to a digital output pin. The output power is often sufficient there (you should of course check it beforehand!). With other boards, such as ESP32 clones, you should definitely connect a transistor driver to avoid malfunctions. The circuit presented here already has the required transistor drivers. But that's not all! You can use jumpers JP1 and JP2 to set whether you want to control the buzzer with a high or low signal. Because the constant beeping of the buzzer can get on your nerves during the development phase, we have provided a volume control. Due to the relatively wide operating voltage range of approx. +4 to +7V, the buzzer can be adjusted to the desired volume using the flat potentiometer RV1. If you don't need the volume control or no longer need it, you can close the solder bridge JP3 on the solder side. This bypasses the potentiometer.
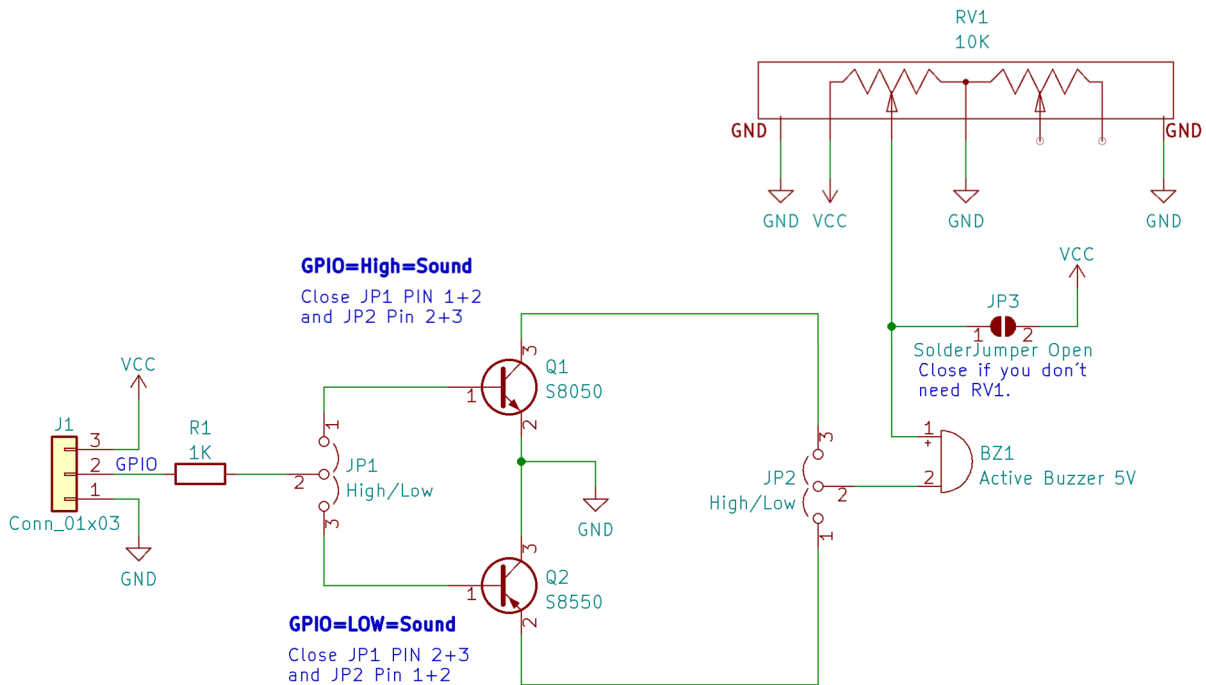
Active buzzers are used for signalling. If there is a voltage, with the model offered here +5V, they emit a steady, penetrating, loud tone. As long as the voltage is present and current is flowing. Due to the relatively wide operating voltage range of approx. 4-7V, the buzzer continues to work even if the battery voltage drops, for example. Active buzzers are slightly magnetic. This should be taken into account when designing the circuit if other components that can be influenced magnetically, such as a Hall sensor, are used.

In addition to this detailed data sheet, you can also download a small, simple and well-documented sketch for Arduino from our homepage, which we use to test our buzzer applications ourselves. You can also copy the code at the end of this data sheet into your application. If you look at the sketch, you will notice that we made the times for high and low triggering significantly different lengths. During testing, this has the advantage that you don't have to turn on your brain when you jump the net4web AABHL2 from low to high mode. You really just have to listen.

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Photos:

Lautstärkeregler
Volume Control

High/Low-Schaltbar
High/Low-Switchable

Lautstärkeregler abschaltbar
Volume-Control switchable

Curcuit diagram:

Board dimensions:
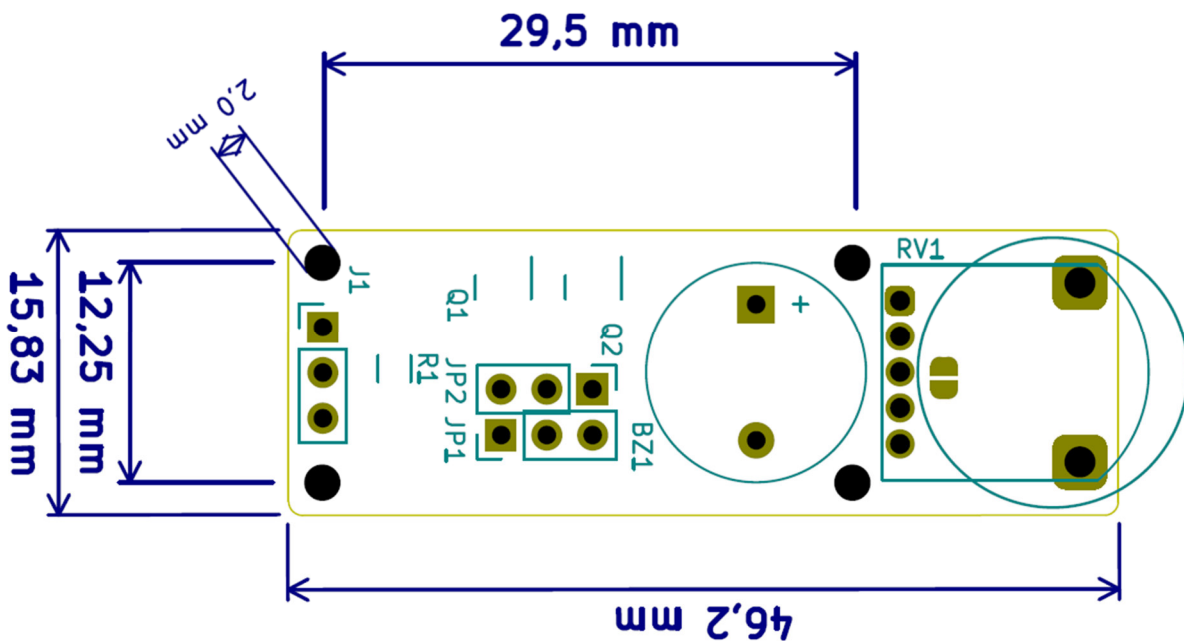
Technical Data:

Diameter	12mm
Height	9,5mm
Weight	2g
Color	black
Optimum voltage	+5V
Operating voltage range	~ +3V - +7V
Current consumption	Max. 30mA
Loudness	>85dB at +7V, ~79dB at +5V
Resonance frequency	2300Hz ±500Hz
Pitch	7,6mm
Pin diameter	0,6mm
Operating temperature	-20°C to +60°C
Storage temperature	-30°C to +85°C

All dimensions given are approximate and may vary slightly.

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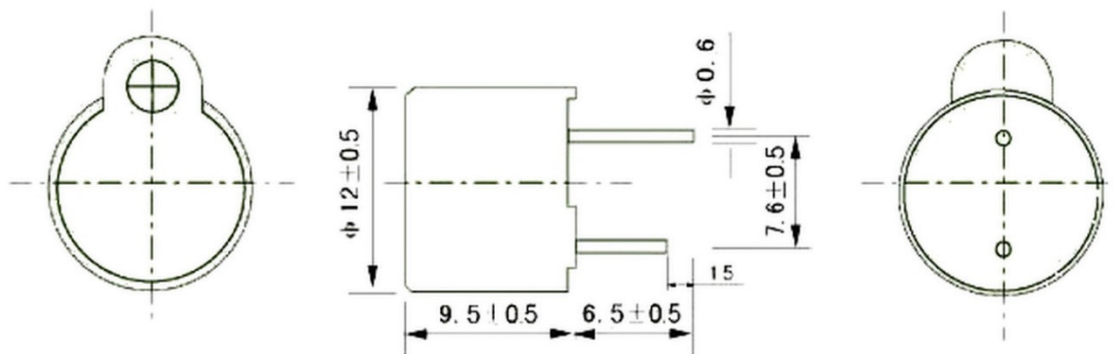
Sketch:

```
[code]
/***********************************************************
File name: activebuzzer.ino
Information: Set D4 HIGH/LOW for testing an Active Buzzer.
We have set the delay times to two different values for
testing the high/low switch on our AABHL2-PCBs.
So we don't have to think when testing, just listen :-)
Website: https://www.net4web.de
E-mail: info@net4web.de
Author: Franz Hansmann
Date: 2023/05/17
***********************************************************/
int buzzerGPIO=4;                    //using pin D4 as digital output for the buzzer
void setup()
{
    pinMode(buzzerGPIO,OUTPUT);   //Set pin D4 port mode to output
}
void loop()
{
    digitalWrite(buzzerGPIO,HIGH);   //pin D4 set HIGH
    delay(3000);                     //delay time,  3000ms
    digitalWrite(buzzerGPIO,LOW);    //pin D4 set LOW
    delay(1000);                     //delay time,  1000ms
}
[/code]
```