



## Solenoid - 5v (small)

ROB-11015 ROHS ✓

★ ★ ★ ★ ☆ 19

DESCRIPTION

DOCUMENTS

Solenoids are a great way to induce linear motion for pushing, pulling or controlling switches and levers. This smaller solenoid is designed to work directly with 5V which makes it a great match for embedded projects. It has a throw of about 4.5mm and 2 M2 mounting holes on the body.

The wire lead is about 2" long and is terminated with a 2-pin JST PH connector.

**Note:** The mounting holes on this solenoid are actually 1.6mm in diameter. This will allow you to tap for an M2 screw. Also, although the datasheet lists a throw of 6mm, the actual throw appears to be closer to 4.5mm.



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## Solenoid - 5v (small) Product Help and Resources

VIDEOS

SUPPORT TIPS

SKILLS NEEDED



**SparkFun 1-20-12 Product Showcase**

PUBLISHED ON JANUARY 19, 2012

COMMENTS 86

REVIEWS ★ ★ ★ ★ ☆ 19

## Customer Reviews

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Based on 19 ratings:

5 star 9

4 star 7

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2 star 2  
1 star 0

Currently viewing all customer reviews.

4 of 4 found this helpful:

★★★★☆ Nice for little Arduino projects

about 3 years ago by Brad10 

I used these for my Robotic Glockenspiel project, as the hammers that hit the chimes. They seemed to need 9V (rather than 5V) to operate well, but I'm careful to keep the power dissipation below the rating in the specifications. I removed the snap ring and spring to reduce the noise of operation - letting gravity bring the slug back down after hitting the chime.

I like these solenoids because I can run them from the Arduino 9V Vin (with a 1000uF cap to avoid drawing the power supply down). I use a TIP 120 transistor to control the power to the solenoid.

A few wishes to make it even better for me: tap the holes rather than leaving them untapped, and don't go to the trouble of adding a connector to the solenoid wires.

These have turned out to be nice, inexpensive hobby solenoids I can easily play with. I like them a lot.

1 of 1 found this helpful:

★★★★☆ great

about 3 years ago by Member #588457 

compact

1 of 1 found this helpful:

★★★★★ It works perfectly!

about 2 years ago by Member #726458 

I bought this solenoid as part of an engineering design lab at Drexel University. It works exactly as we hoped and I'm so excited for the end result of the project!

1 of 1 found this helpful:

★★★★☆ Great little solenoid.

about 3 years ago by Member #634546 

If you give this guy 12v quickly, it's got a great punch to it.

1 of 2 found this helpful:

★★★★☆ Works well as woodpecker

about 2 years ago by Member #471751 

I used one to tap on a wooden birdhouse, simulating a woodpecker pecking on a tree. I glued it down and wired it in place. I ordered 2 more for future projects. Note - It is a push type...NOT a pull . You can see it working here - [https://youtu.be/yhX\\_9fFmt0Y](https://youtu.be/yhX_9fFmt0Y)

1 of 4 found this helpful:

★★★☆☆ wrong spec.

about 3 years ago by Member #623710 

it does not have a force of 8 ounces as was indicated. misled just for a sale--bad business or you don't know what u r selling

 Single T replied on March 2, 2015:

Hi, Specs are stated by the manufacture. We have not tested them in house against the rated spec, however I have heard that these can be below that indicated 8 ounce force. So sorry for the confusion.

0 of 3 found this helpful:

★★★☆☆ Needed a pull solenoid; there's no way to convert this

Needed a pull solenoid; there's no way to convert this from a push solenoid to a pull solenoid. (There isn't enough metal extending beyond the C-clip to attach something.)

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★★★★★ **great miniature solenoid**

about 2 years ago by **Member #737441** 

small but powerful when you use a 12v source

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★★★★★ **Specs**

about 2 years ago by **Member #132954** 

If anyone is interested, I measured a series resistance of  $5.1\Omega$  and inductance of  $2359.25\mu\text{F}$ .

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★★★★☆

about 2 years ago by **Member #766980** 

It was much smaller than I thought and throw to short so I couldn't use it in my project

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★★★★☆ **Doing what I asked it to do.**

about 2 years ago by **Member #780748** 

Give me a little more time, please. Maybe I can send you a video?

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★★★★★ **It can ring your bell!**

about 2 years ago by **Member #584527** 

And I mean that literally. I'm driving a 9v pulse to the solenoid to give it some extra kick and it's working wonderfully!

It's very well built, and works without a hitch. I'm using it in a wireless bell ringer system, and I couldn't ask for anything more.

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★★★★★ **Nice solenoid**

last year by **Member #906723** 

Good solenoid surprising for size. Only critique would be to leave the force stroke and newtons of solenoid. Unless you are an electrical engineer and can calculate electromagnetic force you are going to have a tough time figuring this out.

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★★★★★ **Great Little Device!**

about 5 months ago by **SpartanVoss** 

Ok, I found by just applying 5v to this solenoid gives little effect. In my application it trips a spring loaded trigger for a retractable handheld device. I was only able to activate my trigger about 50% of the time. So I changed my power source to 9v and employed a charge-pump circuit to step-up the voltage to 18V. I also used a 24v 470uf capacitor to store the charge and a IRFD110 mosfet in place of my mechanical relay to accept the 5v trigger voltage from the micro. NOW... with all of this the solenoid triggers my project perfectly every time. I am only allowing the mosfet to apply 18v for about 25ms to the solenoid so no internal damage occurs. See my DropBox link below for schematic.

<https://www.dropbox.com/sh/r5llh0h23nieqxt/AABrHSK6haKSx9GxoDV8opxa?dl=0>

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★★★☆☆ **Meh...**

about 3 years ago by **mrwillcreates** 

Didn't work, don't know if it was defective or not. Most items I have bought from Sparkfun have been of pretty good quality.

 **Single T** replied on March 2, 2015:

So sorry it didn't work. If you would like to contact us about a replacement check out

<https://www.sparkfun.com/returns>

★★★★★ Science project success

about 3 years ago by **Member #680818** 

we used the solenoid in a science project to pop open doors and it worked wonderfully.

★★★★★ This product is great

about 3 years ago by **Member #685574** 

It worked well for me. in raspberry they can work in 3v as well.. very good material and well done connector..

★★★★★ Works well

about 2 years ago by **Member #462368** 

works well but I lost the spring and the E clip. My bad, I'll need to improvise





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In 2003, CU student Nate Seidle blew a power supply in his dorm room and, in lieu of a way to order easy replacements, decided to start his own company. Since then, SparkFun has been committed to sustainably helping our world achieve electronics literacy from our headquarters in Boulder, Colorado.

No matter your vision, SparkFun's products and resources are designed to make the world of electronics more accessible. In addition to over 2,000 open source components and widgets, SparkFun offers curriculum, training and online tutorials designed to help demystify the wonderful world of embedded electronics. We're here to help you start something.

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