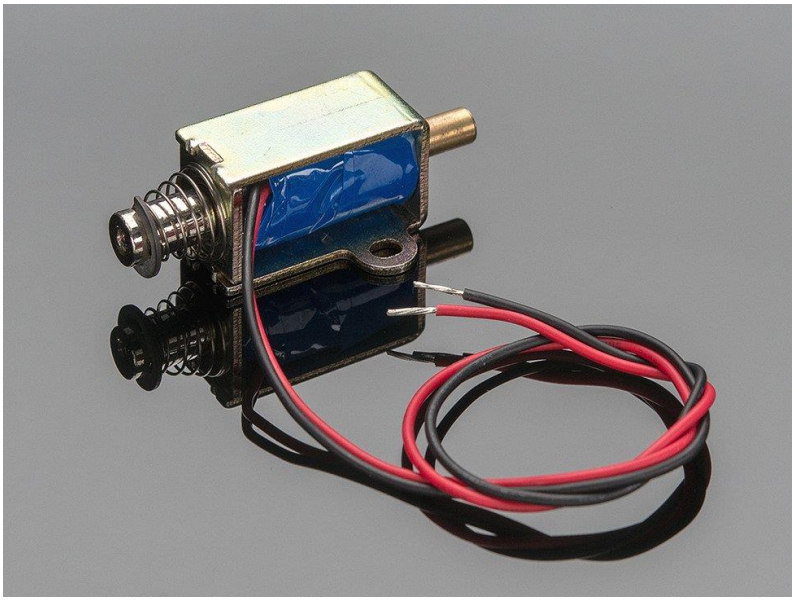


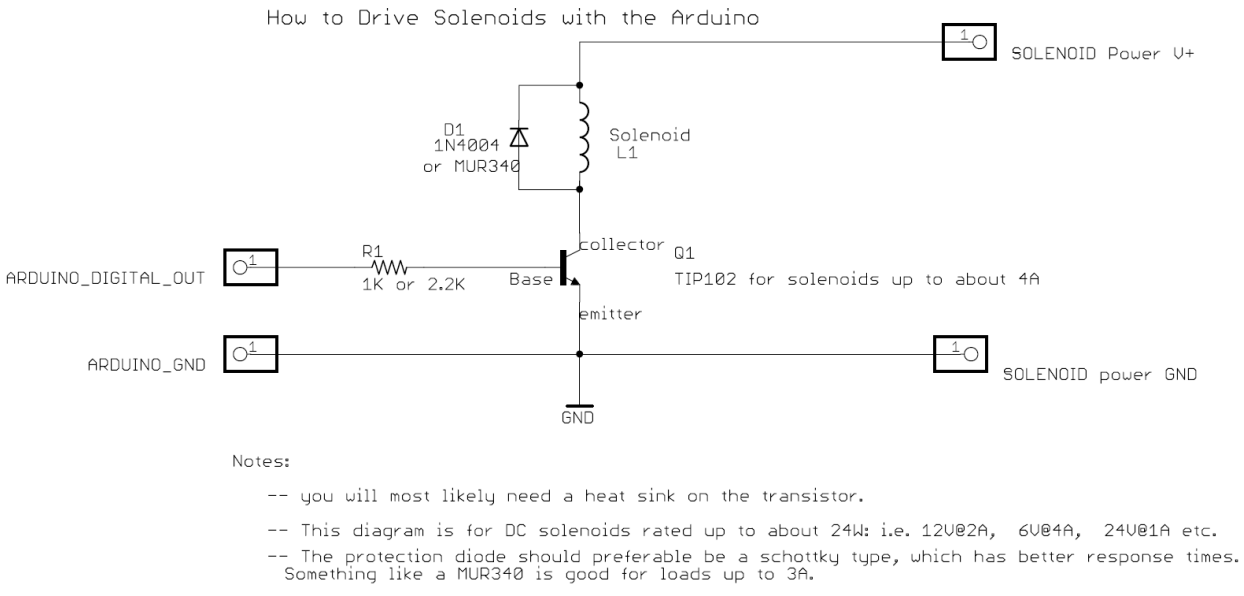
Small Push-Pull Solenoid - 12VDC

PRODUCT ID: 412

Solenoids are basically electromagnets: they are made of a big coil of copper wire with an armature (a slug of metal) in the middle. When the coil is energized, the slug is pulled into the center of the coil. This makes the solenoid able to pull (from one end) or push (from the other)

This solenoid in particular is fairly small, with a 30mm long body and a 'captive' armature with a return spring. This means that when activated with up to 12VDC, the solenoid moves and then the voltage is removed it springs back to the original position, which is quite handy. Many lower cost solenoids are only push type or only pull type and may not have a captive armature (it'll fall out!) or don't have a return spring. This one even has nice mounting tabs, its a great all-purpose solenoid.

To drive a solenoid you will need a power transistor and a diode, check this diagram for how to wire it to an Arduino or other microcontroller. You will need a fairly good power supply to drive a solenoid, as a lot of current will rush into the solenoid to charge up the electro-magnet, about 250mA, so don't try to power it with a 9V battery!



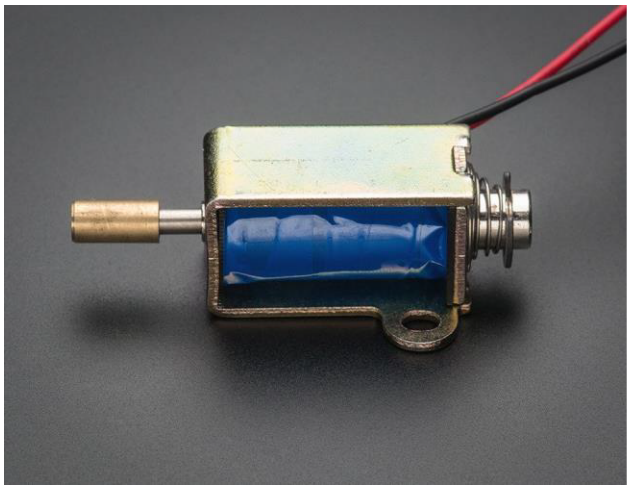
TECHNICAL DETAILS

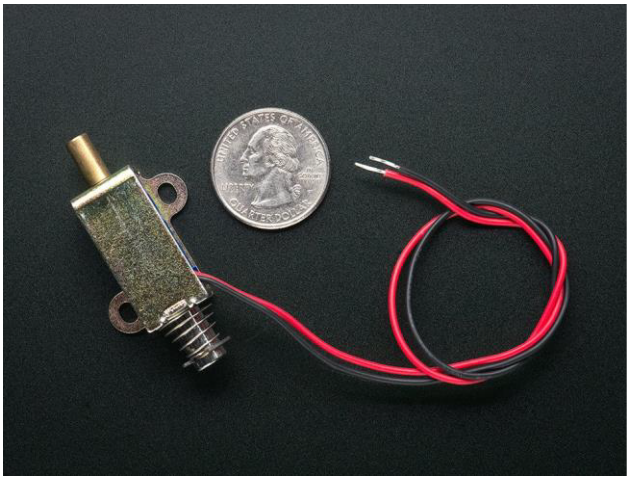
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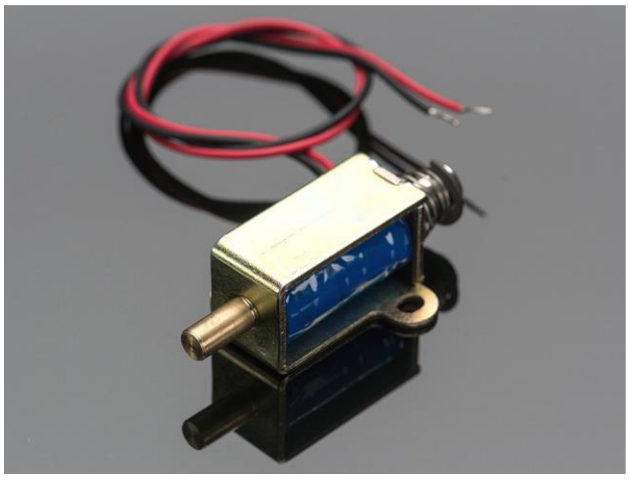
- 12 VDC operation (please note lower voltage results in weaker/slower operation) - 250mA current draw
- Push or pull type with 5.5 mm throw
- DC coil resistance: 40 ohms
- 5 Newton starting force (12VDC)
- 1.4 oz / 39 grams

Revision History

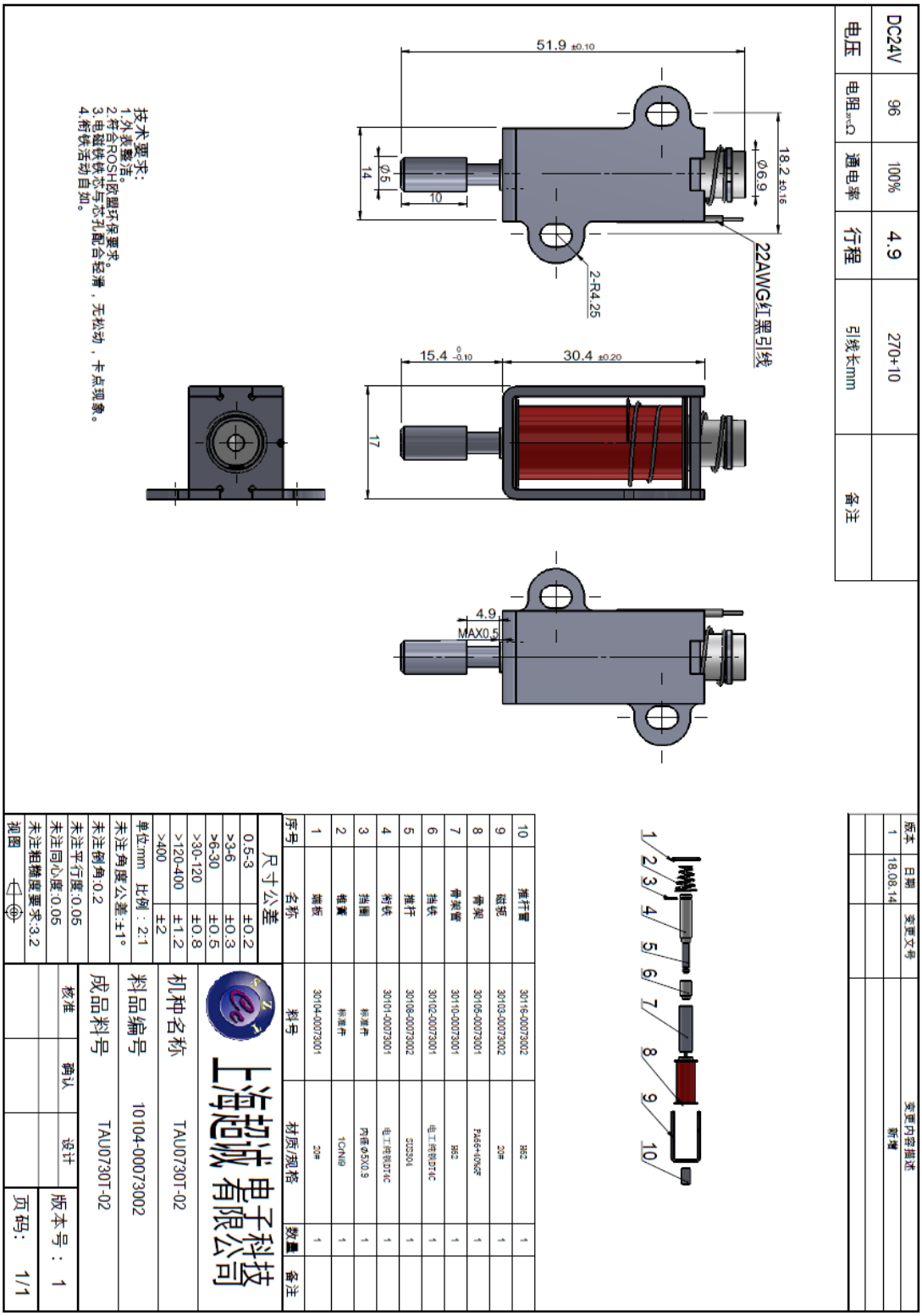
- As of Jan 17, 2018 we're selling this solenoid with a 12VDC actuation voltage instead of 24V







- Datasheet



https://www.adafruit.com/product/412 10-12-18