



Plastic Water Solenoid Valve - 12V - 1/2" Nominal

PRODUCT ID: 997

IN STOCK

1

ADD TO CART

1-9

10-99

100+

ADD TO WISHLIST

DESCRIPTION

TECHNICAL DETAILS



DESCRIPTION

Control the flow of fluid using the flow of electrons! This liquid valve would make a great addition to your robotic gardening project. There are two 1/2" (Nominal non-taped National

Downloaded from Arrow.com. When 12VDC is applied to the two terminals, the

valve opens and water can push through. The valve has a gasket arrangement inside, so there is a minimum pressure requirement of 0.02 Mpa (3 PSI). Also, liquid can only flow one direction.

We tried this solenoid at various DC voltages and found we could actuate it down at 6VDC (although it was a little slower to open). Here is the current draw table for various voltages. We suggest a [TIP120](#) or [N-Channel power FET](#) with a [1N4001 kickback diode](#) to drive this from a microcontroller pin. For a power supply, our [9V 1A](#) or [12V 1A power adapters](#) will do the job.

[If you want a beefier water valve, we also carry a brass version which does not have a minimum pressure requirement and can be used with liquid flow in either direction.](#)

VoltageCurrent

6V160 mA

7V190 mA

8V220 mA

9V240 mA

10V270 mA

11V300 mA

12V320 mA

These solenoids are not rated for food safety or use with anything but water.

TECHNICAL DETAILS

- 1/2" Nominal NPS
- Working Pressure: 0.02 Mpa - 0.8 Mpa
- Working Temperature: 1 °C - 75 °C
- Response time (open): ≤ 0.15 sec
- Response time (close): ≤ 0.3 sec
- Actuating voltage: 12VDC (but we found it would work down to 6V)
- Actuating life: ≥ 50 million cycles
- Weight: 4.3 oz
- Dimensions: 3.3" x 1.69" x 2.24"



LEARN



[Silicone Robo-Tentacle](#)

Build your own soft pneumatic robot using 3d printing and silicone casting

MAY WE ALSO SUGGEST...



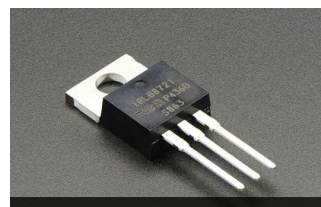
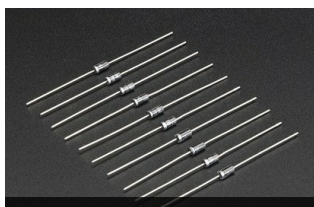
12V DC 1000mA (1A)



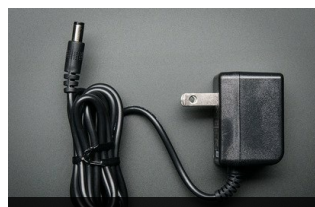
TIP120 Power Darlington



Large push-pull solenoid



N-Channel Power MOSFET



9 VDC 1000mA regulated



Small Push-Pull Solenoid -



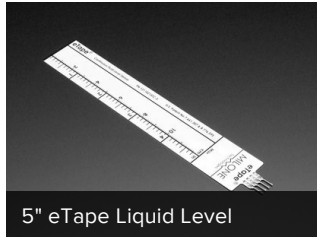
Brass Liquid Solenoid Valve



Lock-style Solenoid - 12VDC



5V Electromagnet - 25 Kg



5" eTape Liquid Level



P-channel Power MOSFET -

DISTRIBUTORS [EXPAND TO SEE DISTRIBUTORS](#)

- [CONTACT](#)
- [SUPPORT](#)
- [DISTRIBUTORS](#)
- [EDUCATORS](#)
- [JOBS](#)
- [FAQ](#)
- [SHIPPING & RETURNS](#)
- [TERMS OF SERVICE](#)
- [PRIVACY & LEGAL](#)
- [ABOUT US](#)

"Every kid starts out as a natural-born scientist, and then we beat it out of them. A few trickle through the system with their wonder and enthusiasm for science intact" - [Carl Sagan](#)

ENGINEERED IN NYC Adafruit®



4.9 ★★★★★
 Google
 Customer Reviews