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

PRODUCT ID: 997



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 Pipe) outlets. Normally, the valve is closed. 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 NChannel 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.

Voltage	Current
6V	160 mA
7V	190 mA
8V	220 mA
9V	240 mA
10V	270 mA
11V	300 mA
12V	320 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 Ĥ - 75 Ĥ
- 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"