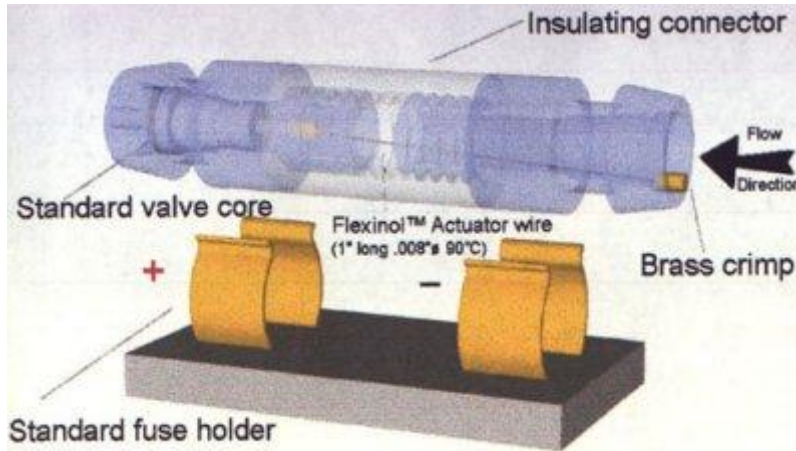


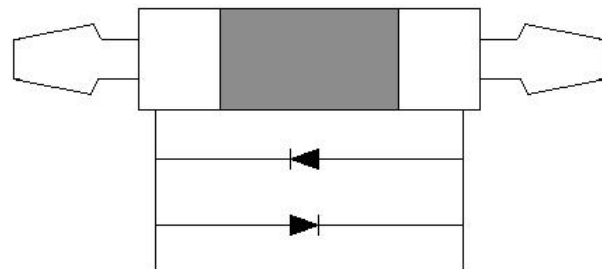
Nitinol Air Valve



Pressure*: 75 PSI
Connecting Electrically: The aluminum ends of this valve are the electrical contacts. They are non polarized. Current can run either direction.
Cycle Rate:**
 On Time: .1 – 2 seconds
 Off Time: .25 – 3 seconds
Voltage:** .5 to 1 volt
Current:** 650 mA
Resistance: 1.5 Ω
Ambient: ~22° C

This valve is designed to show how Flexinol™ can be used to control air flow. It uses a standard valve core operated by Flexinol™ actuator wire. It can also be operated manually but should not manually operated while being used electrically. We believe it has the unique ability to run on low voltage. It also has some proportional air flow control through the interaction between the electric current heating and the cooling effect of the fluid's flow.

Warning: Care must be taken no to overheat the Flexinol™ during operation. 0.5 – 1.0 volts is all that is needed. You may also use 2.0 volts for a short pulse of less than 0.5 seconds. For high speed operation or proportional control you may need special electronics.



Suggested Overload Protection Circuit

Wire is exposed internally. A wire break could cause a spark internally.

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* The valve can be custom manufactured for higher psi if the application requires it.

** Flexinol™ (the “valve motor”) is based primarily on a thermal reaction. Therefore, the cycle rate, and power to the valve can vary greatly depending on the goal of each