

ABSTRACT

A fluid control valve, which can control a fluid having a pressure in the order of 10 kg/cm^2 , has a response time in the order of several milliseconds can be made small in size, and a fluid supply/exhaust system that provide less gas counter flow in the event of a plurality of valves being used.

A fluid control valve of the invention controls a fluid moving (a) in a valve body by closing and opening a portion between a valve seat and a valve holder by means of a drive unit. The drive unit comprises a rod-shaped shaft for application of pressure through the valve seat and the valve holder, and a member(a) fixed around the rod-shaped shaft. The member(a) is made from a magnetic material, and has a space between it and the shaft. A coil provide in parallel to the shaft moves to the shaft moves the member(a) up and down by electromagnetic induction, and makes use of a spring force to close and open a portion between the valve seat and the valve holder.