

Title (en)
SOLENOID VALVE FOR FLUID CONTROL

Publication
EP 0182109 B1 19890719 (DE)

Application
EP 85113280 A 19851019

Priority
DE 3442750 A 19841123

Abstract (en)
[origin: US4690373A] The magnetic valve for fluid control in a fuel injection nozzle includes a valve housing having a magnetic coil mounted on a core of ferromagnetic material and an armature, which is connected to a valve closing element cooperating with a fixed valve seat. After the excitation of the magnetic coil is interrupted, the valve closing element is moved toward a stop tappet by the force of a restoring spring and by the fluid pressure engaging the valve closing element. The stop tappet is supported such that it is displaceable in the opening direction of the valve closing element, counter to the force of a second spring. As a result, a large flow cross section is available for the fluid between the valve seat and a closing body of the valve closing element and a rapid pressure drop is made possible. If the fluid pressure drops below a predetermined level, then the additional spring displaces the stop tappet and hence the armature and the valve closing element into a position in which the flow cross section and the air gaps provided at the armature are decreased, thereby assuring rapid closure of the magnetic valve when the magnetic coil is excited.

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F16K 31/06

IPC 8 full level
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CPC (source: EP US)
F02M 59/366 (2013.01 - EP US); **F02M 59/466** (2013.01 - EP US); **H01F 7/1638** (2013.01 - EP US)

Cited by
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