Title (en)

ELECTROMAGNETIC INJECTION VALVE

Title (de)

ELEKTROMAGNETISCHES EINSPRITZVENTIL

Title (fr)

INJECTEUR ELECTROMAGNETIQUE

Publication

EP 1044323 A1 20001018 (DE)

Application

EP 99953630 A 19990828

Priority

- DE 9902699 W 19990828
- DE 19839863 A 19980902

Abstract (en)

[origin: DE19839863C1] The invention relates to an electromagnetic injection valve (1) comprising two counterwound magnet coils (SP1, SP2) which have identical characteristic quantities and which are placed on the same magnetic circuit so that the force effects of the magnet coils (SP1, SP2) are nullified when they are flown through by the same excitation current. By virtue of the double coil (SP1, SP2) having a canceling effect, the actual energizing process of the valve (1), i.e. the opening of the same, is transformed in one of both coils in a deenergizing process. The rapid current decay is now determined by dimensioning the extinction voltage (UZD2). As a result, it is possible to obtain rapid force build-up times without increasing the supply voltage (Ubatt). The valve can be controlled by using a conventional switching output stage or by using a current-controlled switching output stage. It is also possible to shorten the closing process by reversing the differential current (Id) during deenergizing.

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F02D 41/20; H01F 7/18

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