

Title (en)  
FUEL INJECTION VALVE

Title (de)  
BRENNSTOFFEINSPRITZVENTIL

Title (fr)  
SOUPAPE D'INJECTION DE CARBURANT

Publication  
**EP 0988447 A1 20000329 (DE)**

Application  
**EP 98958204 A 19981021**

Priority  
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Abstract (en)  
[origin: DE19756103A1] A fuel injection valve for fuel injection systems of internal combustion engines, in particular for injecting fuel directly into the combustion chamber of an internal combustion engine, has a magnet coil (1), an armature (19) that can be pushed through the magnet coil (1) in a first lift direction (58) against a first restoring spring (33) and a valve needle (20) linked to a valve closing element (28). The armature (19) form-fittingly engages the valve needle (20) in the lift direction (58). In the opposite direction, the armature (19) can move freely, independently of the valve needle (20), against a second restoring spring (50). According to the invention, the armature (19) is mounted on the valve needle (20) by means of a slide bearing (56, 57) with several balls (59, 70).

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