

Title (en)  
FUEL INJECTION VALVE

Title (de)  
BRENNSTOFFEINSPRITZVENTIL

Title (fr)  
SOUPAPE D'INJECTION DE CARBURANT

Publication  
**EP 1240425 A2 20020918 (DE)**

Application  
**EP 00993432 A 20001214**

Priority  
• DE 0004452 W 20001214  
• DE 19960341 A 19991215

Abstract (en)  
[origin: WO0144653A2] The invention relates to a fuel injection valve (1) for fuel injection systems of internal combustion engines. The inventive valve consists of a magnet coil (8), an armature (12) that is impinged upon in a closing direction and by a readjusting spring (10), and a valve needle (3) that is connected to the armature (12) in a positive fit for actuating a valve closing body (4) which, together with a valve seat surface (6), forms a sealing seat. At least one first fuel channel (37) is provided in or on the armature (12). Said channel is flown through by the fuel. The cross-section of the first fuel channel (37) depends on the axial location of the armature (12).

IPC 1-7  
**F02M 61/20**; **F02M 51/06**

IPC 8 full level  
**F02M 51/08** (2006.01); **F02M 51/06** (2006.01); **F02M 61/16** (2006.01); **F02M 61/20** (2006.01)

CPC (source: EP KR US)  
**F02M 51/0614** (2013.01 - EP US); **F02M 51/0671** (2013.01 - EP US); **F02M 61/166** (2013.01 - EP US); **F02M 61/20** (2013.01 - KR); **F02M 61/205** (2013.01 - EP US)

Citation (search report)  
See references of WO 0144653A2

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**WO 0144653 A2 20010621**; **WO 0144653 A3 20011220**; CN 1411536 A 20030416; CZ 20022050 A3 20031217; DE 19960341 A1 20010621; EP 1240425 A2 20020918; JP 2003517532 A 20030527; KR 20020054369 A 20020706; US 2003155438 A1 20030821

DOCDB simple family (application)  
**DE 0004452 W 20001214**; CN 00817248 A 20001214; CZ 20022050 A 20001214; DE 19960341 A 19991215; EP 00993432 A 20001214; JP 2001545717 A 20001214; KR 20027007584 A 20020614; US 16816302 A 20021001