

Title (en)  
FUEL INJECTION VALVE

Title (de)  
BRENNSTOFFEINSPRITZVENTIL

Title (fr)  
SOUPAPE D'INJECTION DE CARBURANT

Publication  
**EP 1481159 A1 20041201 (DE)**

Application  
**EP 02795038 A 20021223**

Priority  
• DE 0204730 W 20021223  
• DE 10208222 A 20020226

Abstract (en)  
[origin: WO03072929A1] A fuel injection valve (10) for internal combustion engines comprises an actuator (11), which is actively connected to a valve needle (15) that is guided inside a nozzle body (26), and comprises a valve closing body (27), which is connected in a non-positive manner to the valve needle (15) and which forms a sealing seat with a valve seat face (28) that is provided on said nozzle body (26). The valve needle (15) and/or the valve closing body (27) have, preferably in the area of the guide inside the nozzle body (26), at least one planar ground section (29), which is located on the periphery of the valve needle (15) and/or of the valve closing body (27). A throttling gap (32) is provided between the at least one planar ground section (29) and a mating face (31) provided on the nozzle body (26). The cross-section of the throttling gap is smaller than the opening cross-section on the sealing seat when the fuel injection valve (10) is open.

IPC 1-7  
**F02M 61/10**; **F02M 61/12**; **F02M 61/18**; **F02M 61/04**

IPC 8 full level  
**F02M 51/08** (2006.01); **F02M 45/12** (2006.01); **F02M 51/06** (2006.01); **F02M 61/04** (2006.01); **F02M 61/08** (2006.01); **F02M 61/10** (2006.01); **F02M 61/12** (2006.01)

CPC (source: EP KR)  
**F02M 45/12** (2013.01 - EP); **F02M 61/04** (2013.01 - KR); **F02M 61/042** (2013.01 - EP); **F02M 61/08** (2013.01 - EP); **F02M 61/10** (2013.01 - EP KR); **F02M 61/12** (2013.01 - EP KR); **F02M 61/18** (2013.01 - KR)

Citation (search report)  
See references of WO 03072929A1

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