

Title (en)  
FUEL-INJECTION VALVE

Title (de)  
BRENNSTOFFEINSPRITZVENTIL

Title (fr)  
SOUPAPE D'INJECTION DE CARBURANT

Publication  
**EP 1601868 A1 20051207 (DE)**

Application  
**EP 04711299 A 20040214**

Priority  
• DE 2004000280 W 20040214  
• DE 10308635 A 20030227

Abstract (en)  
[origin: DE10360450A1] A fuel injection valve for a combustion engine with a piezoelectric or magnetorestrictive actuator comprises a valve body and seat and a hydraulic fluid coupling having two movable pistons (9,10) and a coupling volume connected by a throttle to an equalization space(12) in a flexible section (13) which is constrained by an outside contacting body (33).

IPC 1-7  
**F02M 51/06**; **F02M 61/16**

IPC 8 full level  
**F02M 51/06** (2006.01); **F02M 61/16** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP)  
**F02M 51/0603** (2013.01); **F02M 61/167** (2013.01)

Citation (search report)  
See references of WO 2004076845A1

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**DE 10360449 A1 20040909**; DE 10360450 A1 20040909; DE 10360451 A1 20040909; DE 10360451 B4 20140109;  
DE 502004003400 D1 20070516; EP 1601868 A1 20051207; EP 1601868 B1 20070404; JP 2006512536 A 20060413; JP 4072172 B2 20080409;  
WO 2004076845 A1 20040910

DOCDB simple family (application)  
**DE 10360449 A 20031222**; DE 10360450 A 20031222; DE 10360451 A 20031222; DE 2004000280 W 20040214; DE 502004003400 T 20040214;  
EP 04711299 A 20040214; JP 2005518245 A 20040214