

Title (en)  
FUEL INJECTION VALVE

Title (de)  
KRAFTSTOFFEINSPRITZVENTIL

Title (fr)  
SOUPAPE D'INJECTION DE CARBURANT

Publication  
**EP 1490594 B1 20090722 (DE)**

Application  
**EP 03714674 A 20030303**

Priority  
• DE 0300694 W 20030303  
• DE 10213382 A 20020326

Abstract (en)  
[origin: WO03081023A1] A fuel injection valve for internal combustion engines, comprising a housing (1) in which a valve member (12) is moveably arranged and by whose movement counter to the elastic force of a spring element (30) the fuel supply to the combustion chamber (6) is controlled. The spring element (30) is embodied in the form of a cylindrical sleeve with openings (45) arranged on the wall thereof at various points, enabling the spring element (30) to be elastically deformed lengthwise.

IPC 8 full level  
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CPC (source: EP US)  
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DOCDB simple family (publication)  
**WO 03081023 A1 20031002**; DE 10213382 A1 20031016; DE 50311728 D1 20090903; EP 1490594 A1 20041229; EP 1490594 B1 20090722; JP 2005520981 A 20050714; US 2005224604 A1 20051013; US 7175112 B2 20070213

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