

Title (en)  
Injector and corresponding operating method

Title (de)  
Injektor und zugehöriges Betriebsverfahren

Title (fr)  
Injecteur et procédé de fonctionnement correspondant

Publication  
**EP 1887214 A3 20090429 (DE)**

Application  
**EP 07110619 A 20070620**

Priority  
DE 102006036781 A 20060807

Abstract (en)  
[origin: EP1887214A2] The injector for a fuel injection system of an internal combustion engine comprises a nozzle needle (16) which is stroke-adjustable in an injector body (2) for controlling injection of fuel through at least one spray orifice (3). A piezoactuator (10) is arranged in the injector body for producing an actuator stroke, and a coupling device (21) is arranged in the body for stroke transmission between piezoactuator and nozzle needle. The nozzle needle is stroke-adjustable relative to the coupling device. An electromagnetic linear actuator (22) drives the nozzle needle in its stroke direction. An independent claim is included for a method for operating an injector in which for opening the nozzle needle the piezoactuator is deenergized and the linear actuator energized, and/or for closing the nozzle needle the piezoactuator is energized and the linear actuator deenergized.

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

CPC (source: EP)  
**F02M 51/0603** (2013.01); **F02M 51/0671** (2013.01); **F02M 63/0063** (2013.01); **F02M 63/0066** (2013.01); **F02M 2200/702** (2013.01)

Citation (search report)  
• [XY] DE 202004011603 U1 20050519 - DUALON INTERNAT S A [LU]  
• [Y] DE 19954802 A1 20010517 - BOSCH GMBH ROBERT [DE]  
• [X] DE 10317149 A1 20041028 - BOSCH GMBH ROBERT [DE]  
• [A] DE 3724217 A1 19890202 - PIERBURG GMBH [DE]  
• [A] WO 2006008200 A1 20060126 - BOSCH GMBH ROBERT [DE], et al

Cited by  
EP2256384A3; EP2369165A3

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK RS

DOCDB simple family (publication)  
**EP 1887214 A2 20080213; EP 1887214 A3 20090429; EP 1887214 B1 20160316**; DE 102006036781 A1 20080214

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