

Title (en)  
INJECTOR COMPRISING A PIEZO ACTUATOR

Title (de)  
INJEKTOR MIT PIEZO-AKTUATOR

Title (fr)  
INJECTEUR COMPORTANT UN PIEZO-ACTIONNEUR

Publication  
**EP 1397592 A1 20040317 (DE)**

Application  
**EP 02767152 A 20020618**

Priority  
• DE 10129375 A 20010620  
• EP 0206678 W 20020618

Abstract (en)  
[origin: US2004149840A1] For an internal combustion engine, an injector (1) with piezo actuator (2) is provided. In addition, there is provided a means for recognition for recognizing the lying position or opening of the piezo actuator (2) on a control valve. The means for recognition includes a piezo element (3).

IPC 1-7  
**F02M 47/02**; **F02M 59/46**; **F02M 61/16**

IPC 8 full level  
**F02M 47/02** (2006.01); **F02M 59/46** (2006.01); **F02M 61/16** (2006.01); **H02N 2/06** (2006.01); **F02D 41/20** (2006.01); **F02M 63/00** (2006.01); **F02M 65/00** (2006.01)

CPC (source: EP US)  
**F02M 47/027** (2013.01 - EP US); **F02M 57/005** (2013.01 - EP US); **F02M 61/167** (2013.01 - EP US); **F02D 41/2096** (2013.01 - EP US); **F02D 2041/2055** (2013.01 - EP US); **F02M 59/468** (2013.01 - EP US); **F02M 61/16** (2013.01 - EP US); **F02M 65/005** (2013.01 - EP US); **F02M 2200/21** (2013.01 - EP US); **F02M 2200/24** (2013.01 - EP US)

Citation (search report)  
See references of WO 03001049A1

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AT DE FR GB IT

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