

Title (en)  
INJECTION NOZZLE

Title (de)  
EINSPRITZDÜSE

Title (fr)  
INJECTEUR

Publication  
**EP 1222382 A2 20020717 (DE)**

Application  
**EP 01914997 A 20010125**

Priority  
• DE 0100280 W 20010125  
• DE 10003863 A 20000128

Abstract (en)  
[origin: WO0155578A2] The invention relates to an injection nozzle (10) for a fuel injection system. The injection nozzle comprises a pressure space (26), which is provided with a fluid entry (24) and a fluid exit (30), and comprises a valve seat (32) around the fluid exit. The injection nozzle additionally comprises a valve element (34) which can rest on the valve seat in order to close the fluid exit, and comprises a piezo-actuator (40), which is provided with an actuating extension (42) that can act upon the valve element. The aim of the invention is to achieve a temperature compensation using little effort. To this end, a displaceable wall part (28) is provided on which the valve seat is configured and which borders the pressure space on the side of the valve seat. In addition, a temperature equalizing element (44) is provided which interacts with the displaceable wall part and which displaces the wall part according to a temperature-related change in length of the piezo-actuator.

IPC 1-7  
**F02M 47/02**; **F02M 59/46**; **F02M 51/06**

IPC 8 full level  
**F02M 61/20** (2006.01); **B05B 1/32** (2006.01); **F02M 47/00** (2006.01); **F02M 47/02** (2006.01); **F02M 51/06** (2006.01); **F02M 59/46** (2006.01); **F02M 61/16** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP KR US)  
**F02M 47/027** (2013.01 - EP US); **F02M 61/167** (2013.01 - EP US); **F02M 61/18** (2013.01 - KR); **F02M 63/0026** (2013.01 - EP US); **F02M 63/0036** (2013.01 - EP US)

Citation (search report)  
See references of WO 0155578A2

Designated contracting state (EPC)  
DE ES FR GB IT SE

DOCDB simple family (publication)  
**WO 0155578 A2 20010802**; **WO 0155578 A3 20020214**; CZ 20013441 A3 20030212; DE 10003863 A1 20010816; DE 10003863 B4 20041118; EP 1222382 A2 20020717; HU P0202473 A2 20021228; JP 2003521616 A 20030715; KR 20010111284 A 20011217; US 2002153429 A1 20021024

DOCDB simple family (application)  
**DE 0100280 W 20010125**; CZ 20013441 A 20010125; DE 10003863 A 20000128; EP 01914997 A 20010125; HU P0202473 A 20010125; JP 2001555684 A 20010125; KR 20017012307 A 20010927; US 93743502 A 20020107