

Title (en)
FUEL INJECTOR

Title (de)
KRAFTSTOFFINJEKTOR

Title (fr)
INJECTEUR DE CARBURANT

Publication
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Application
EP 06807600 A 20061027

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Abstract (en)
[origin: WO2007068526A1] The invention relates to a fuel injector having an injector housing (1) which comprises a pressure space (21, 17), from which highly pressurized fuel is injected into a combustion chamber of an internal combustion engine, as a function of the pressure in a nozzle needle control space (36), if a nozzle needle (8) lifts off from its seat, wherein the pressure in the nozzle needle control space (36) is controlled directly by a control valve device which comprises a piezoelectric actuator (48) which experiences an extension in length when it is charged. In order to provide a fuel injector which has improved injection performance and can be manufactured inexpensively, the control valve device comprises a valve piston (45) which is coupled to the piezoelectric actuator (48) and has a free end which is arranged in a valve piston control space (40), which is connected to the nozzle needle control space (36), and, in the charged state of the piezoelectric actuator (48), interrupts a hydraulic pressure relief connection (55) between the valve piston control space (40) and a pressure relief space (52).

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