

Title (en)

FUEL INJECTOR COMPRISING A PIEZOACTUATOR

Title (de)

KRAFTSTOFFINJEKTOR MIT PIEZOAKTOR

Title (fr)

INJECTEUR DE CARBURANT DOTÉ D'UN ACTIONNEUR PIÉZOÉLECTRIQUE

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Application

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Abstract (en)

[origin: WO2014067720A1] The invention relates to a fuel injector for a fuel injection system, in particular a common rail injection system, comprising a nozzle needle (3) that is guided in a high-pressure bore (1) of the nozzle body (2) so as to be able to carry out a stroke movement, by means of which at least one injection opening can be released or closed, a piezoactuator (6), received in a low-pressure zone (5), for directly controlling the stroke movement of the nozzle needle (3), and a coupling mechanism (7) via which the piezoactuator (6) is hydraulically coupled to the nozzle needle (3). According to the invention, the coupling mechanism (7) comprises a coupling volume (8) which is formed inside a sleeve-shaped coupling piston (9), said coupling piston (9) being guided via an inner pin (10) that delimits the coupling volume (9) in an axial direction so as to be able to carry out a stroke movement, an end section (12) of the nozzle needle (3) extending into the coupling volume (8) or into a fuel volume connected to the coupling volume (8).

IPC 8 full level

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