

Title (en)
INJECTION NOZZLE

Title (de)
EINSPRITZDÜSE

Title (fr)
INJECTEUR

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Application
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Abstract (en)
[origin: WO2006029933A1] The invention relates to an injection nozzle (1) for an internal combustion engine, particularly in a motor vehicle, comprising: a nozzle needle (3), which can be displaced with an adjustable stroke inside a nozzle body (2) and which serves to control an injection of fuel through at least one injection hole (4); a piezo actuator (9) that, when actuated, drives the nozzle needle (3) or a needle assembly (11) comprising the nozzle needle (3) via a hydraulic coupling (10) for opening or closing, whereby; the hydraulic coupling (10) has an actuator piston (12), which is drive-connected to the piezo actuator (9) and which has a control surface (13) delimiting a control space (14), and; an actuation of the piezo actuator (9) drives the actuator piston (12) in order to modify a control space volume. The injection valve (1) can be provided with a simplified design by virtue of the fact that: the hydraulic coupling (10) has an intensifier piston (15) drive-connected to nozzle needle (3) or to the needle assembly (11); the actuator piston (12) and the intensifier piston (15) are coaxially arranged inside one another and enclose the control space (14), and; in order to open the nozzle needle (3), the piezo actuator (9) drives the actuator piston (12) in order to enlarge the control space volume.

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