

Title (en)  
FUEL INJECTOR

Title (de)  
KRAFTSTOFFINJEKTOR

Title (fr)  
INJECTEUR DE CARBURANT

Publication  
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Application  
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Abstract (en)  
[origin: WO2012136406A1] The invention relates to a fuel injector for a fuel injection system, in particular a common rail injection system, comprising a jet needle (2) which is guided in a stroke-movable manner in a high-pressure bore (1) of the fuel injector, wherein an injection opening (3) can be opened and closed via the stroke movement of said jet needle, and a fuel or pressure sensor (4) having at least one sensor element (5) made of a piezo electrical material for detecting characteristic pressure changes during opening and closing of the jet needle (2). According to the invention, the fuel or pressure sensor (4) is arranged in a low pressure region (6) of the fuel injector and can be loaded directly or indirectly by an axial force (FA) upon opening and closing of the jet needle (2), which is proportional to the control chamber pressure in a control chamber (7). The sensor element (5) of the force or pressure sensor (4) is furthermore directly or indirectly electrically connected to a housing part (12) of the fuel injector via at least one contact surface (9) or an electrode (10) designed thereupon, in order to produce a ground connection (11).

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