

Title (en)  
FLUID INJECTOR

Title (de)  
FLUIDINJEKTOR

Title (fr)  
INJECTEUR DE FLUIDE

Publication  
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Application  
**EP 15703491 A 20150126**

Priority  
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Abstract (en)  
[origin: WO2015128136A1] The invention relates to a fluid injector having an electromagnetic operating actuator (12), the fluid injector comprising an injector housing (2), in which an injector needle (6) is arranged in a longitudinally movable manner, wherein the injector needle (6) has a nozzle tip (8) controlling at least one nozzle opening (9) and interacts with an armature (17) of the operating actuator (12). According to the invention, a fluid injector is provided that is improved with regard to the dynamic operation of the fluid injector and the consumption of electrical energy. This is achieved in that an additional controlling actuator (22) for a fluid is provided and that the fluid is introduced into a pressure chamber for controlling movement of the injector needle, which pressure chamber interacts with the injector needle (6). Said controlling actuator (22) is a microactuator, in particular a smart material linear actuator (SMLA, 38a, 38b), which is based, for example, on an electroactive polymer (EAP) or a magnetorheological elastomer (MRE).

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