

Title (en)
FUEL INJECTION VALVE

Title (de)
BRENNSTOFFEINSPRITZVENTIL

Title (fr)
SOUPAPE D'INJECTION DE CARBURANT

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Application
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Abstract (en)
[origin: DE19639117A1] The present invention relates to a fuel injection valve for fuel injection systems in internal combustion engines. Said valve is characterized by a core (2) acting as an internal pole made of a soft magnetic powder composite . Powder composite is an iron powder provided with a polymer additive and its individual iron grains are covered with an electrically isolating layer. Such a powder composite enables significant minimization of eddy current in magnetic circuit in comparison with other known materials such as chrome steel, which are usually employed as magnetic composites. The mechanically and fuel sensitive core (2) is encapsulated at least with regard to the fuel circulating components of the fuel injection valve. To this effect a sleeve (10) protrudes through an inner longitudinal opening (7) of the core (2) enabling internal fuel flow and is firmly connected to a pole section (13) occluding the core downwards. The core (2) and the magnetic coil are therefore not exposed to wetting by fuel. The fuel injection valve is particularly suited for use in fuel injection systems in mixture compressing internal combustion engines with externally supplied ignition.

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