

Title (en)
FUEL-INJECTION VALVE COMPRISING A SWIRL ELEMENT

Title (de)
BRENNSTOFFEINSPRITZVENTIL MIT DRALLELEMENT

Title (fr)
SOUPAPE D'INJECTION DE CARBURANT AVEC ELEMENT TOURBILLONNAIRE

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Application
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Abstract (en)
[origin: WO0229244A1] The invention relates to a fuel-injection valve for fuel-injection systems of internal combustion engines, which among other things comprises an actuator (10, 11, 12) and a displaceable valve part (5, 7) that co-operates with a fixed valve seat (22) configured on a valve seat body (16) to open and close the valve. A disc-shaped swirl element (25), which has both at least one inlet zone (27) and at least one outlet opening (29), is located downstream of the valve seat (22). Said swirl element has at least one swirl channel (28), positioned upstream of the outlet opening (29). The incoming flow is received centrally by the inlet zone (27) in the swirl element (25). Several swirl channels (28) run from said inlet zone, which permits a swirling characteristic to be imposed on the fuel that traverses the swirl channels (28) exclusively in a radial direction from the interior towards the exterior. The fuel-injection valve is particularly suitable for use as a high-pressure injection valve for directly injecting fuel into the combustion chamber of compressed-mixture, spark-ignition internal combustion engines.

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