

Title (en)  
VALVE NEEDLE FOR A SOLENOID VALVE

Title (de)  
VENTILNADEL FÜR EIN ELEKTROMAGNETISCH BETÄTIGBARES VENTIL

Title (fr)  
AIGUILLE D'INJECTION POUR ELECTROVANNE

Publication  
**EP 0717816 A1 19960626 (DE)**

Application  
**EP 95919330 A 19950526**

Priority  
• DE 9500692 W 19950526  
• DE 4420176 A 19940609

Abstract (en)  
[origin: DE4420176A1] In prior art solenoid valves, the valve needle consists of a tubular armature, a sleeve-like connection tube and an obturator element. Fuel can thus flow inside the valve needle up to the obturator element to emerge through lateral bores in the needle in the direction of the valve seat. The valve needle (34) proposed is characterized in that the element (32) connecting the armature (36) and the obturator element (37) is made from a semifinished shaped section. Together, the shaped-section connection element (32) and the armature (36) form flow channels. The fuel flowing through the flow channels passes, downstream of the channels, outside the connection element (32) to the valve seat (22). No fuel outlets are therefore necessary in the connection element (32). The valve needle is particularly suitable for use in fuel-injection valves in mixture-compressing spark-ignition internal-combustion engines.

IPC 1-7  
**F02M 51/06**; **F02M 61/16**

IPC 8 full level  
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