

Title (en)  
FUEL INJECTION VALVE

Title (de)  
BRENNSTOFFEINSPRITZVENTIL

Title (fr)  
SOUPAPE D'INJECTION DE CARBURANT

Publication  
**EP 0917623 A1 19990526 (DE)**

Application  
**EP 98912280 A 19980220**

Priority  

- DE 9800506 W 19980220
- DE 19723953 A 19970606

Abstract (en)  
[origin: DE19723953A1] The invention relates to a fuel injection valve for fuel injection systems of internal combustion engines, characterised in that the individual component parts are easy and economical to produce. The valve needle (18), which can be moved along the longitudinal valve axis (10), consists essentially of a thin wire (51). Said wire forms the extended downstream continuation of a spiral return spring (20). The valve needle (18) engages in a sealing element (52), said sealing element interacting with a valve seat body (23). Said valve seat body has a fixed valve seat. The valve needle (18) and the sealing element (52) are arranged in relation to the valve seat (23) in such a way that the wire transmits pressure forces onto the sealing element (52) and the valve seat (23) when the valve is in the closed position. The inventive fuel injection valve is particularly suitable for use in fuel injection systems of mixture-compression, spark-ignition internal combustion engines.

IPC 1-7  
**F02M 61/18; F02M 51/06; F02M 61/04**

IPC 8 full level  
**F02M 51/06** (2006.01); **F02M 51/08** (2006.01); **F02M 61/04** (2006.01); **F02M 61/10** (2006.01); **F02M 61/12** (2006.01); **F02M 61/16** (2006.01);  
**F02M 61/18** (2006.01)

CPC (source: EP US)  
**F02M 51/0653** (2013.01 - EP US); **F02M 51/066** (2013.01 - EP US); **F02M 61/04** (2013.01 - EP US); **F02M 61/18** (2013.01 - EP US);  
**F02M 61/1853** (2013.01 - EP US)

Citation (search report)  
See references of WO 9855763A1

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**DE 19723953 A1 19981210**; EP 0917623 A1 19990526; JP 2000516325 A 20001205; US 6224002 B1 20010501; WO 9855763 A1 19981210

DOCDB simple family (application)  
**DE 19723953 A 19970606**; DE 9800506 W 19980220; EP 98912280 A 19980220; JP 50123599 A 19980220; US 23090099 A 19990203