

Title (en)
ELECTROMAGNETICALLY CONTROLLED VALVE

Title (de)
ELEKTROMAGNETISCH BETÄTIGBARES VENTIL

Title (fr)
SOUPAPE A COMMANDE ELECTROMAGNETIQUE

Publication
EP 0975868 B1 20030521 (DE)

Application
EP 98963384 A 19981126

Priority
• DE 9803476 W 19981126
• DE 19808067 A 19980226

Abstract (en)
[origin: DE19808067A1] The invention relates to an electromagnetically controlled valve, especially an injection valve for fuel injection systems of internal combustion engines, comprising a throttle point (10) which connects a core (2) and a connecting piece (8). The invention is characterised in that a ring-shaped insert (31) which supports the throttle point (10) in a radial direction is provided. The introduction of the ring-shaped insert (31) makes it possible to exploit the advantages of the construction of the valve tube (9) with the throttle point (10) whilst providing the stability necessary for high pressure valves. The invention is especially advantageous if the ring-shaped insert (31) is either made from an electrically non-conductive material or is interrupted in at least one place and secured so that it is electrically insulated. This prevents eddy currents from arising in the ring-shaped insert (31) when a magnetic field is changing, said insert lying at least partially within the range of the magnetic field of the magnet coil (1). Such eddy currents would have a negative effect on the switching times of the valve.

IPC 1-7
F02M 51/00

IPC 8 full level
F02M 51/00 (2006.01); **F02M 51/06** (2006.01)

CPC (source: EP KR US)
F02M 51/00 (2013.01 - KR); **F02M 51/061** (2013.01 - EP US); **F02M 51/0614** (2013.01 - EP US); **F02M 51/0682** (2013.01 - EP US)

Designated contracting state (EPC)
DE ES FR GB IT

DOCDB simple family (publication)
DE 19808067 A1 19990902; CZ 292950 B6 20040114; CZ 378999 A3 20000614; DE 59808471 D1 20030626; EP 0975868 A2 20000202; EP 0975868 B1 20030521; ES 2200400 T3 20040301; JP 2001525905 A 20011211; JP 4219417 B2 20090204; KR 100624350 B1 20060918; KR 20010020263 A 20010315; US 6201461 B1 20010313; WO 9943948 A2 19990902; WO 9943948 A3 19991028

DOCDB simple family (application)
DE 19808067 A 19980226; CZ 378999 A 19981126; DE 59808471 T 19981126; DE 9803476 W 19981126; EP 98963384 A 19981126; ES 98963384 T 19981126; JP 54301899 A 19981126; KR 19997009863 A 19991025; US 40382100 A 20000112