

Title (en)

Fuel injector having extended voltage range

Title (de)

Brennstoffeinspritzventil mit erweitertem Spannungsbereich

Title (fr)

Soupape d'injection de carburant à plage de tension étendue

Publication

EP 0999355 A3 20010328 (EN)

Application

EP 99121154 A 19991022

Priority

- US 10676098 P 19981103
- US 20642198 A 19981207

Abstract (en)

[origin: EP0999355A2] A fuel injector apparatus includes an electromagnetic fuel injector having a housing and a magnetic circuit in the housing. The magnetic circuit including an electromagnetic coil constructed and arranged to operate at a nominal voltage to open the fuel injector. The nominal voltage is substantially less than a supply voltage. Circuit structure is electrically coupled with the coil and is constructed and arranged to step-down the supply voltage to be substantially the nominal voltage at the coil. <IMAGE>

IPC 1-7

F02D 41/20

IPC 8 full level

F02D 41/20 (2006.01)

CPC (source: EP)

F02D 41/20 (2013.01); **F02D 2041/2051** (2013.01)

Citation (search report)

- [X] US 3682144 A 19720808 - SUDA SEIJI
- [A] US 5402302 A 19950328 - BOUCHERON JEAN-LOUIS [FR]
- [A] DE 3129610 A1 19830217 - BOSCH PIERBURG SYSTEM OHG [DE]
- [X] PATENT ABSTRACTS OF JAPAN vol. 012, no. 208 (M - 709) 15 June 1988 (1988-06-15)
- [A] PATENT ABSTRACTS OF JAPAN vol. 011, no. 122 (E - 500) 16 April 1987 (1987-04-16)

Cited by

DE10305772B4

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 0999355 A2 20000510; EP 0999355 A3 20010328

DOCDB simple family (application)

EP 99121154 A 19991022