

Publication

**EP 0935054 A3 19990818**

Application

**EP 99100674 A 19990115**

Priority

DE 19804225 A 19980204

Abstract (en)

[origin: DE19804225C1] The actuator has a two-part connecting sleeve enclosing the intermediate vol. between the pole surfaces of an electromagnet. The sleeve consists of a ferromagnetic part sleeve (70) attached to an opener magnet (2) and a non-ferromagnetic part sleeve (71) attached to a closer magnet (3).

IPC 1-7

**F01L 9/04**

IPC 8 full level

**F01L 9/20** (2021.01)

CPC (source: EP US)

**F01L 9/20** (2021.01 - EP US)

Citation (search report)

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- [A] US 5080323 A 19920114 - KREUTER PETER [DE]
- [AP] DE 29620741 U1 19980326 - FEV MOTORENTECH GMBH & CO KG [DE]
- [A] EP 0810350 A1 19971203 - TOYOTA MOTOR CO LTD [JP]

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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)

**DE 19804225 C1 19990506**; EP 0935054 A2 19990811; EP 0935054 A3 19990818; US 6037851 A 20000314

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**DE 19804225 A 19980204**; EP 99100674 A 19990115; US 24403599 A 19990204