

Title (en)  
Electromagnetic actuator

Title (de)  
Elektromagnetischer Antrieb

Title (fr)  
Actionneur électromagnétique

Publication  
**EP 1260997 A3 20030129 (EN)**

Application  
**EP 02010452 A 20020508**

Priority  
JP 2001150651 A 20010521

Abstract (en)  
[origin: EP1260997A2] An electromagnetic actuator (7) includes a pair of core assemblies (12a, 12b) and a spacer (24). The armature (11) is provided between the pair of core assemblies (12a, 12b). The spacer (24) is formed by molding to be integral with a coil (20) provided in electromagnets (30a, 30b) of the core assemblies (12a, 12b) and is located between the electromagnets (30a, 30b). And relative positions of the pair of electromagnets (30a and 30b) to each other are determined by the spacer (24). A space to allow the armature to reciprocate is secured between the core assemblies (12a, 12b) by the spacer (24). <IMAGE>

IPC 1-7  
**H01F 7/16**; **F01L 9/04**

IPC 8 full level  
**F01L 9/04** (2006.01); **F16K 31/06** (2006.01); **H01F 7/127** (2006.01); **H01F 7/16** (2006.01)

CPC (source: EP US)  
**F01L 9/20** (2021.01 - EP US); **H01F 7/127** (2013.01 - EP US); **H01F 7/1638** (2013.01 - EP US)

Citation (search report)  
• [A] DE 19924812 A1 20001207 - DAIMLER CHRYSLER AG [DE]  
• [A] DE 19914591 A1 20001012 - DAIMLER CHRYSLER AG [DE]  
• [A] DE 29700096 U1 19980430 - FEV MOTORENTECH GMBH & CO KG [DE]  
• [ADL] JP H11260638 A 19990924 - SIEMENS AUTOMOTIVE CORP LP & EP 0921280 A1 19990609 - SIEMENS AUTOMOTIVE CORP LP [US]

Cited by  
FR2870630A1; WO2005119708A3

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
**EP 1260997 A2 20021127**; **EP 1260997 A3 20030129**; JP 2002343631 A 20021129; US 2002170512 A1 20021121

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**EP 02010452 A 20020508**; JP 2001150651 A 20010521; US 13214602 A 20020426