

Title (en)

Magnetic actuators

Title (de)

Magnetische Betätiger

Title (fr)

Actionneurs magnétiques

Publication

EP 0759625 A1 19970226 (EN)

Application

EP 96306115 A 19960821

Priority

GB 9517226 A 19950823

Abstract (en)

Actuator (10), particularly for motor vehicle powered door locking systems, utilises a solenoid (12) exemplified in Figure 1 whose poles coact with poles of permanent magnets (16,18). Relative movement between the solenoid and magnets shifts a plunger (14) or lever to provide drive output. The solenoid is switched to give magnetic polarity at a solenoid pole coacting with a first permanent magnet pole (16a) unlike opposite to the polarity of the latter to provide an attractive force, while at the same time making the polarity of another solenoid pole which coacts with a second permanent magnet pole (18a) of like polarity to the latter to provide a repulsive force in the same direction. The plunger or the like is returned by reversing the current direction in the solenoid, driving the magnets in the opposite direction. A latching action holding the element at the selected position even when the solenoid is de-energised is provided by the engaged permanent magnet pole. <IMAGE>

IPC 1-7

H01F 7/16; **H01F 7/14**

IPC 8 full level

H01F 7/14 (2006.01); **H01F 7/16** (2006.01); **H01F 7/122** (2006.01)

CPC (source: EP)

H01F 7/14 (2013.01); **H01F 7/1615** (2013.01); **H01F 7/1646** (2013.01); **H01F 7/122** (2013.01)

Citation (search report)

- [X] GB 2227608 A 19900801 - H U DEV CORP [US]
- [A] US 3928988 A 19751230 - LUTH CLAUS-PETER
- [A] FR 2315754 A1 19770121 - MECANISMES COMP IND DE [FR]
- [A] PATENT ABSTRACTS OF JAPAN vol. 011, no. 059 (E - 482) 24 February 1987 (1987-02-24)
- [A] PATENT ABSTRACTS OF JAPAN vol. 008, no. 119 (E - 248) 5 June 1984 (1984-06-05)

Cited by

EP2367180A3; EP1953774A3; CN100342462C; GB2369931B; EP4184709A1; US7532098B2; WO2016075571A1; WO2004001777A1; KR100926868B1; WO2022043112A1

Designated contracting state (EPC)

DE ES FR GB IT SE

DOCDB simple family (publication)

EP 0759625 A1 19970226; GB 9517226 D0 19951025; WO 9708717 A1 19970306

DOCDB simple family (application)

EP 96306115 A 19960821; GB 9517226 A 19950823; GB 9602034 W 19960821