

Title (en)
Electromagnetic actuator

Title (de)
Elektromagnetischer Aktuator

Title (fr)
Actionneur électromagnétique

Publication
EP 1615242 A3 20110914 (DE)

Application
EP 05012955 A 20050616

Priority
DE 102004034296 A 20040706

Abstract (en)
[origin: DE102004034296B3] The device has an electromagnet (1) with a core (1.2) and a stimulation coil (1.1), an armature (2) and spring element (5) and a yoke (1.3) extending in the armature's direction of motion and connected to the core. The armature has a polarized permanent magnet (2.2) enclosed by upper and lower armature plates (2.3,2.1) in a sandwich construction that contacts the yoke at least with one end of the upper plate and there is a secondary air gap (3) between one end of the lower plate and the yoke.

IPC 8 full level
H01F 7/14 (2006.01); **H01F 7/122** (2006.01); **H01F 3/14** (2006.01); **H01F 7/08** (2006.01); **H01F 7/16** (2006.01)

CPC (source: EP)
H01F 7/122 (2013.01); **H01F 7/14** (2013.01); **H01F 3/14** (2013.01); **H01F 7/1646** (2013.01); **H01F 2007/085** (2013.01)

Citation (search report)

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- [A] GB 2003327 A 19790307 - OLYMPUS OPTICAL CO
- [A] US 5574416 A 19961112 - MARUYAMA TERUTAKA [JP], et al
- [A] EP 0232728 A1 19870819 - SIEMENS AG [DE]
- [A] DE 19641407 C1 19980115 - EH SCHRACK COMPONENTS AG [AT]

Cited by
CN108140465A; CN111313648A; CN111835175A; CN111490658A; US10522278B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR LV MK YU

DOCDB simple family (publication)
DE 102004034296 B3 20050623; EP 1615242 A2 20060111; EP 1615242 A3 20110914; EP 1615242 B1 20150826

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DE 102004034296 A 20040706; EP 05012955 A 20050616