

Title (en)
Bistable electromagnetic actuator

Title (de)
Bistabiler elektromagnetischer Aktuator

Title (fr)
Actionneur électromagnétique bistable

Publication
EP 1710813 A1 20061011 (FR)

Application
EP 05113066 A 20051229

Priority
FR 0453262 A 20041230

Abstract (en)

The actuator has a plunger (14) integrated and coaxial to an actuating rod (13). The rod is adjusted in a magnetic field frame (28) with less gap providing a mechanical guiding in one direction to prevent the plunger from sticking on one of two permanent magnets (24, 25). The rod is adjusted in the frame with a large gap in another direction, passing before the surfaces of the magnets in order to tilt the rod.

IPC 8 full level
H01F 7/08 (2006.01); **H01F 7/121** (2006.01); **H01F 7/16** (2006.01)

CPC (source: EP)
H01F 7/1615 (2013.01); **H01H 33/6662** (2013.01); **H01F 7/081** (2013.01); **H01F 7/121** (2013.01); **H01F 7/122** (2013.01);
H01F 2007/1669 (2013.01); **H01F 2007/1692** (2013.01)

Citation (search report)

- [A] EP 0477746 A2 19920401 - HELLA KG HUECK & CO [DE]
- [DA] WO 03030188 A1 20030410 - ABB PATENT GMBH [DE], et al
- [A] GB 2145879 A 19850403 - CLIFT MICHAEL, et al
- [A] US 5140203 A 19920818 - REDER HERBERT [DE], et al
- [A] US 4484167 A 19841120 - GIBAS CHRISTOPH [DE]
- [A] WO 03005394 A1 20030116 - SCHNEIDER ELECTRIC IND SAS [FR], et al
- [A] US 2004085169 A1 20040506 - MATSUSAKA NOBORU [JP], et al

Cited by
EP2395519A1; CN103474287A; GB2525065B; WO2015114375A1; US8237527B2; JP2011258955A; KR101388085B1

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 LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

FR 2880466 A1 20060707; FR 2880466 B1 20070209; AT E498186 T1 20110215; CN 1819076 A 20060816; CN 1819076 B 20100526;
DE 602005026253 D1 20110324; EP 1710813 A1 20061011; EP 1710813 B1 20110209

DOCDB simple family (application)

FR 0453262 A 20041230; AT 05113066 T 20051229; CN 200510121613 A 20051230; DE 602005026253 T 20051229; EP 05113066 A 20051229