

Title (en)

ACTUATOR THAT FUNCTIONS BY MEANS OF A MOVABLE COIL ARRANGEMENT

Title (de)

MITTELS EINER BEWEGLICHEN SPULENANORDNUNG ARBEITENDER AKTUATOR

Title (fr)

ACTIONNEUR FONCTIONNANT AU MOYEN D'UN ENSEMBLE BOBINE MOBILE

Publication

EP 1334492 A1 20030813 (DE)

Application

EP 01996866 A 20011114

Priority

- DE 10056332 A 20001114
- EP 0113175 W 20011114

Abstract (en)

[origin: WO0241332A1] The invention relates to an actuator for actuating a valve installed in a hydraulic or compressed air system, comprising a coil support which can be displaced by means of air space induction in a magnetically conducting housing on a magnetic cylinder composed of a permanent magnet and a cylinder pole disk. The invention is characterised in that the dimensions of the permanent magnet (16) and the pole disk (17) correspond to each other in such a way that the diameter of the front surface of the permanent magnet (16) is at least the same size as the circumferential surface of a neighbouring pole disk (17) and that the width of the coil (23) associated with the pole disk (17) exceeds the width of the pole disk (17) by the lift amplitude of the coil support (19). According to the invention, the actuator for actuating a valve used in fluidic engineering is disposed in such a way that the coil support (19) is displaceable in a fluidic medium and the air gap (24), arranged between the coil support (19) and a magnetic cylinder pipe (15) surrounding the permanent magnet (16) and the associated pole disk (17) has a maximum width whereby a laminated lubricating film is formed without displacing the surrounding fluid.

IPC 1-7

H01F 7/06

IPC 8 full level

H01F 7/06 (2006.01); **H02K 33/18** (2006.01)

CPC (source: EP KR US)

H01F 7/06 (2013.01 - KR); **H01F 7/066** (2013.01 - EP US); **Y10T 137/8242** (2015.04 - EP US)

Citation (search report)

See references of WO 0241331A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

WO 0241332 A1 20020523; AT E357731 T1 20070415; AU 1702802 A 20020527; CA 2441997 A1 20020523; CA 2441997 C 20110329; CN 1225751 C 20051102; CN 1486496 A 20040331; DE 50112241 D1 20070503; EP 1334492 A1 20030813; EP 1334493 A1 20030813; EP 1334493 B1 20070321; JP 2004514393 A 20040513; JP 4052384 B2 20080227; KR 100840842 B1 20080623; KR 20030064410 A 20030731; US 2004003849 A1 20040108; US 2004051607 A1 20040318; US 6975195 B2 20051213; US 7164336 B2 20070116; WO 0241331 A1 20020523

DOCDB simple family (application)

EP 0113200 W 20011114; AT 01996867 T 20011114; AU 1702802 A 20011114; CA 2441997 A 20011114; CN 01821992 A 20011114; DE 50112241 T 20011114; EP 0113175 W 20011114; EP 01996866 A 20011114; EP 01996867 A 20011114; JP 2002543451 A 20011114; KR 20037006509 A 20030514; US 41670703 A 20030911; US 44323703 A 20030523