Title (en)

MAGNETIC ACTUATOR WITH REDUCED RESPONSE TIME

Title (de)

MAGNETISCHER BETÄTIGER MIT VERMINDERTEM ZEITVERHALTEN

Title (fr)

ACTIONNEUR MAGNETIQUE A TEMPS DE REPONSE REDUIT

Publication

EP 1399938 B1 20050126 (FR)

Application

EP 02758514 A 20020624

Priority

- FR 0202176 W 20020624
- FR 0108324 A 20010625

Abstract (en)

[origin: FR2826504A1] Magnetic actuator comprising a closed magnetic circuit (26) for guiding a magnetic flux. The magnetic circuit (26) comprises a fixed magnetic piece (30, 31, 32) with a yoke (30) and a mobile piece (22) magnetically connected to each other and more or less to a main pole gap (29), defined by at least one section (28) of the mobile piece (22) and the yoke (30). Within the pole gap (29) the flux is retained by being established essentially transverse to the mobile piece (22). The fixed piece (30, 31, 32) comprises means for retaining flux (40), which, together with the mobile piece (22), defines an auxiliary pole gap (38) in which the flux is established laterally to the mobile piece (22). The flux is retained on either side of the principal pole gap (29), on one side by means of the yoke (30) and on the other side jointly by the mobile piece (22) and the means (40) for retaining flux using that section (28), which contributes to defining the principal pole gap (29). The auxiliary pole gap (38) has a dimension in the sense in which the magnetic flux is established which is minimal at the level of at least one region of the section (28), contributing to the definition of the principal pole gap (29).

IPC 1-7

H01H 50/00; F04B 43/04

IPC 8 full level

F04B 43/04 (2006.01); **H01H 50/00** (2006.01); H01H 50/42 (2006.01)

CPC (source: EP US)

F04B 43/043 (2013.01 - EP US); **H01H 50/005** (2013.01 - EP US); H01H 50/42 (2013.01 - EP US); Y10T 29/49075 (2015.01 - EP US)

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

FR 2826504 A1 20021227; **FR 2826504 B1 20030912**; DE 60202769 D1 20050303; DE 60202769 T2 20060112; EP 1399938 A1 20040324; EP 1399938 B1 20050126; US 2004246082 A1 20041209; US 6859122 B2 20050222; WO 03001548 A1 20030103

DOCDB simple family (application)

FR 0108324 A 20010625; DE 60202769 T 20020624; EP 02758514 A 20020624; FR 0202176 W 20020624; US 48209503 A 20031222