

Title (en)

ELECTROMAGNETIC ACTUATOR WITH CONTROLLED ATTRACTION FORCE

Title (de)

ELEKTROMAGNETISCHER AKTUATOR MIT KONTROLLIERTER ANZIEHUNGSKRAFT

Title (fr)

ACTIONNEUR ELECTROMAGNETIQUE A FORCE D ATTRACTION CONTROLEE.

Publication

**EP 1481406 B1 20071128 (FR)**

Application

**EP 03720653 A 20030228**

Priority

- FR 0300658 W 20030228
- FR 0202631 A 20020301

Abstract (en)

[origin: WO03075293A1] The invention concerns an electromagnetic actuator comprising an actuating member (6) connected to a relay armature (8) which is mobile under the effect of a drive member including at least a coil (1) for generating a magnetic flux in the core (2) having a surface extending opposite one surface of the relay armature (8), one at least of the opposite surfaces comprising at least one recessed portion (10), the relay armature (8) and the core (2) being arranged to define, in a first zone (12) of the relay armature (8) and of the core (2) including the recessed portion, a first magnetic path which is interrupted by an air gap at least equal to the recess of the recessed portion (10) when the relay armature (8) is pressed on the core (2), and in a second zone (13) of the relay armature (8) and of the core (2) excluding the recessed portion (10) a second magnetic path which is interrupted only by a residual air gap when the relay armature (8) is pressed on the core (2), the recessed portion having a total area not greater than the area bringing the magnetic flux to saturation in the second zone of the relay armature.

IPC 8 full level

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