

Title (en)

ELECTROMAGNETIC ACTUATOR WITH TWO STABLE END-OF-TRAVEL POSITIONS, IN PARTICULAR FOR CONTROLLING AIR INTAKE DUCT VALVES FOR INTERNAL COMBUSTION ENGINES

Title (de)

ELEKTROMAGNETISCHES BETÄTIGUNGSGLIED MIT ZWEI STABILEN ENDANSCHLAGPOSITIONEN, INSBESONDERE ZUR STEUERUNG VON LUFTEINLASSKANALVENTILEN FÜR VERBRENNUNGSMOTOREN

Title (fr)

ACTIONNEUR ELECTROMAGNETIQUE A DEUX POSITIONS STABLES DE FIN DE COURSE, NOTAMMENT POUR LA COMMANDE DE VANNES DE CONDUITS D'ADMISSION D'AIR POUR MOTEURS A COMBUSTION INTERNE

Publication

EP 1421590 B1 20141001 (FR)

Application

EP 02796330 A 20020830

Priority

- FR 0202974 W 20020830
- FR 0111245 A 20010830
- FR 0112425 A 20010927

Abstract (en)

[origin: WO03019582A1] The invention concerns an electromagnetic actuator comprising a stator structure (2) consisting of two ferromagnetic circuits (3, 4) provided with at least an electric excitation coil (5, 5A; 6, 6A) and between which is mounted mobile between two stable end-of-travel positions (8, 9) and countering the action of elastic return means (10), an armature (7) made of soft ferromagnetic material symmetrically connected to a load to be controlled, the armature (7) and the stator structure (2) being symmetrical relative to the axis (12) of rotation of the armature (7). The invention is characterised in that each ferromagnetic circuit (3, 4) comprises four stator poles with which are urged to co-operate in pairs the armature (7) in one or the other of its stable end-of-travel positions. The invention is particularly applicable for controlling combustion air intake duct valve of internal combustion engines.

IPC 8 full level

H01F 1/00 (2006.01); **F01L 9/20** (2021.01); **F01L 9/22** (2021.01); **H01F 7/14** (2006.01)

CPC (source: EP)

F01L 9/20 (2021.01); **F01L 9/22** (2021.01); **H01F 7/145** (2013.01); **F01L 2009/2169** (2021.01)

Citation (examination)

- WO 9115061 A1 19911003 - MOTOROLA INC [US]
- DE 10002628 A1 20010726 - LEIBER HEINZ [DE]

Designated contracting state (EPC)

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

DOCDB simple family (publication)

WO 03019582 A1 20030306; EP 1421590 A1 20040526; EP 1421590 B1 20141001; FR 2834119 A1 20030627; FR 2834119 B1 20040521

DOCDB simple family (application)

FR 0202974 W 20020830; EP 02796330 A 20020830; FR 0112425 A 20010927