

Title (en)

FLEXIBLE ELECTROMAGNETIC VALVE ACTUATOR MODELING AND PERFORMANCE

Title (de)

ENTWURF EINES FLEXIBLEN BETÄIGERS FÜR EIN ELEKTROMAGNETISCHES VENTIL UND LEISTUNG

Title (fr)

MODÉLISATION ET PERFORMANCE D'UN ACTIONNEUR DE SOUPAPE ÉLECTROMAGNÉTIQUE FLEXIBLE

Publication

**EP 2212602 A4 20131106 (EN)**

Application

**EP 08848481 A 20081110**

Priority

- US 2008082993 W 20081110
- US 98644507 P 20071108
- US 98676707 P 20071109

Abstract (en)

[origin: WO2009062155A1] The system contains a first planar permanent magnet having a first direction of magnetization and a first opening formed therein. A second planar permanent magnet has a second direction of magnetization and a second opening formed therein. The second opening is axially aligned with the first opening. The direction of magnetization of the first planar permanent magnet opposes the direction of magnetization of the second planar permanent magnet. A plurality of stationary coils are provided, wherein at least one of the stationary coils is located within the first opening and at least one of the stationary coils is located within the second opening. A pair of extension members traverses the first opening and the second opening. A magnetizable slug is integral with each of the extension members.

IPC 8 full level

**F16K 31/02** (2006.01); **F01L 1/26** (2006.01); **F01L 9/20** (2021.01); **H01F 7/16** (2006.01)

CPC (source: EP)

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Citation (search report)

- [Y] US 3460081 A 19690805 - TILLMAN ALFRED
- [Y] US 5494219 A 19960227 - MALEY DALE C [US], et al
- [Y] US 4779582 A 19881025 - LEQUESNE BRUNO P B [US]
- [AP] US 2008191825 A1 20080814 - WRIGHT ANDREW M [US], et al
- See references of WO 2009062155A1

Designated contracting state (EPC)

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