Title (en)

BISTABLE ELECTROMAGNETIC ACTUATING DEVICE

Title (de

BISTABILE ELEKTROMAGNETISCHE STELLVORRICHTUNG

Title (fr)

DISPOSITIF D'ACTIONNEMENT ÉLECTROMAGNÉTIQUE BISTABLE

Publication

EP 2474009 B1 20180124 (DE)

Application

EP 10743039 A 20100811

Priority

- DE 102009039562 A 20090901
- EP 2010004890 W 20100811

Abstract (en)

[origin: WO2011026553A1] The invention relates to a bistable electromagnetic actuating device with an armature unit (10, 12, 14, 16, 18, 20, 22), which is capable of being moved along a longitudinal axis of movement between at least two actuating positions relative to a stationary coil unit (26) and in response to said coil unit being energized and which has engagement means (40) at one or both ends for interacting with a downstream assembly to be actuated. According to the invention, the armature unit has permanent magnet means (12, 14) on both sides of the coil unit in the direction of the longitudinal axis of movement, said permanent magnet means being designed to interact with a stationary core region (24) associated with the coil unit in such a way that, in response to the energization of the coil unit with a DC voltage signal of a first polarity, the armature unit is brought into a first one of the actuating positions, which is preferably at the end and is stable in the de-energized state, and, in response to the energization of the coil unit with a DC voltage signal of a second polarity, the armature unit is brought into a second one of the actuating positions, which is axially opposite the first actuating position, and is preferably at the end and stable in the de-energized state.

IPC 8 full level

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CPC (source: EP)

H01F 7/122 (2013.01); H01F 7/1646 (2013.01); F01L 2013/0052 (2013.01); H01F 2007/1669 (2013.01)

Citation (examination)

JP S6010707 A 19850119 - MATSUSHITA ELECTRIC WORKS LTD

Cited by

WO2021110944A1; US11967460B2

Designated contracting state (EPC)

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DOCDB simple family (publication)

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