

Title (en)
MAGNETIC ACTUATOR AND ELECTROMAGNETIC RELAY

Title (de)
MAGNETISCHER ANTRIEB UND ELEKTROMAGNETISCHES RELAIS

Title (fr)
ACTIONNEUR MAGNÉTIQUE ET RELAIS ELECTROMAGNÉTIQUE

Publication
EP 3678158 B1 20210721 (EN)

Application
EP 19398001 A 20190104

Priority
EP 19398001 A 20190104

Abstract (en)
[origin: EP3678158A1] The present invention relates to a magnetic actuator for a three-state switching relay, and an electromagnetic using the same. The magnetic actuator comprises an armature and a magnetic system for causing the armature to rotate about its center region from a neutral position to any of a first operating position and a second operating position in response to an input control signal. The magnetic system comprises: an electromagnet to create a magnetic flux field based on an input control signal, a core member, at least two outer poles on an outer side of the electromagnet, and at least two permanent magnets, each permanent magnet arranged in a gap between a respective outer pole and the core. Each permanent magnet is magnetically polarized so as to form a path with the core member and the respective outer pole for the created magnetic flux.

IPC 8 full level
H01H 51/22 (2006.01); **H01F 7/122** (2006.01); **H01F 7/14** (2006.01); **H01H 51/26** (2006.01); **H01F 7/121** (2006.01)

CPC (source: EP)
H01F 7/122 (2013.01); **H01F 7/14** (2013.01); **H01H 51/2227** (2013.01); **H01H 51/2236** (2013.01); **H01H 51/26** (2013.01)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 3678158 A1 20200708; **EP 3678158 B1 20210721**; EP 3678159 A1 20200708; EP 3678159 B1 20211013

DOCDB simple family (application)
EP 19398001 A 20190104; EP 19398017 A 20191220