

Title (en)
MAGNETOTHERMAL ACTUATOR

Title (de)
MAGNETOTHERMISCHES STELLGLIED

Title (fr)
Actionneur magnétothermique.

Publication
EP 2678877 B1 20150128 (FR)

Application
EP 12709944 A 20120221

Priority
• FR 1151527 A 20110225
• FR 2012050364 W 20120221

Abstract (en)
[origin: WO2012114037A1] The invention relates to a magnetothermal actuator, comprising: a magnetic actuator consisting of a coil (1) arranged in series in an electric line, surrounding a mobile core (2), and suitable for driving the latter between two positions constituting two states of the actuator, i.e. an operative state and an inoperative state, respectively; a first means (4) for returning the mobile core (2) to a position corresponding to the inoperative state of the actuator; and a thermal actuator consisting of a permanent magnet (10) magnetically engaging with a component (8) made of a heat-sensitive material having a low Curie temperature, with a view to maintaining the magnetothermal actuator in the inoperative state when the temperature of said component (8) is below the Curie temperature. Said actuator is characterised in that the component made of heat-sensitive material (8) is attached to a part (7, 15), the temperature of which increases if the current is raised, a second return means (9) being inserted between the permanent magnet (10) and said component (8), one of the latter being secured to a stationary portion and the other one being secured to a portion that is mobile relative to the coil (1) with a view to separating said permanent magnet and said component from one another when the temperature of the heat-sensitive component (8) exceeds the Curie temperature, said second return means (9) moving the permanent magnet and the component from a first relative position corresponding to the inoperative state of the actuator to a second relative position corresponding to the operative state thereof.

IPC 8 full level
H01H 71/14 (2006.01)

CPC (source: EP)
H01H 71/142 (2013.01); **H01H 71/40** (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)
WO 2012114037 A1 20120830; AU 2012220430 A1 20131017; AU 2012220430 B2 20141211; CN 103493167 A 20140101;
CN 103493167 B 20151223; EP 2678877 A1 20140101; EP 2678877 B1 20150128; FR 2972076 A1 20120831; FR 2972076 B1 20130405

DOCDB simple family (application)
FR 2012050364 W 20120221; AU 2012220430 A 20120221; CN 201280020459 A 20120221; EP 12709944 A 20120221;
FR 1151527 A 20110225