

Title (en)
ELECTROMAGNETIC ACTUATOR HAVING A HIGH UNLOCKING FORCE

Title (de)
ELEKTROMAGNETISCHER AKTUATOR MIT HOHER ENTRIEGELUNGSKRAFT

Title (fr)
ACTIONNEUR ELECTROMAGNETIQUE A GRANDE FORCE DE DEVERROUILLAGE

Publication
EP 2820664 A1 20150107 (FR)

Application
EP 13712868 A 20130228

Priority
• FR 1251866 A 20120229
• FR 2013050413 W 20130228

Abstract (en)
[origin: WO2013128125A1] The invention relates to an electromagnetic trigger, of the differential relay type, comprising: a U-shaped armature (1), the ends of the two legs (4, 5) of which form two coplanar polar surfaces; a pivoting plate (2) that pivots between two positions, in which it, respectively, is at distance, i.e. there is a gap between it and said armature (1) and, in the armed position of the trigger, it makes contact with said polar surfaces and thus closes the magnetic circuit formed by said armature (1) and said plate (2), the hinge (3) of the plate (2) being located in the immediate vicinity of the end of one of the legs (4) of the armature (1); a permanent magnet (6) for biasing the magnetic circuit, placed between the legs (4, 5) of the armature (1) and creating a permanent magnetic force attracting the plate (2) toward the polar surfaces, which magnetic force acts against a return force exerted by a spring (13); and an inductive coil (16) encircling the magnetic circuit, connected, for example, to a circuit to be controlled, with a view to modifying the initial balance between the magnetic force and the return force of the spring (13). The magnet (6) is positioned in the vicinity of the leg (5) of the armature (1) opposite the leg (4) proximate the hinge (3) of the plate (2).

IPC 8 full level
H01H 51/22 (2006.01); **H01H 50/24** (2006.01); **H01H 71/32** (2006.01); **H01H 83/14** (2006.01)

CPC (source: EP)
H01H 51/2236 (2013.01); **H01H 83/144** (2013.01); **H01H 50/24** (2013.01); **H01H 71/321** (2013.01)

Citation (search report)
See references of WO 2013128125A1

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

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
FR 2987493 A1 20130830; **FR 2987493 B1 20140321**; AU 2013224790 A1 20141016; AU 2013224790 B2 20160707; CN 104246957 A 20141224; CN 104246957 B 20180102; EP 2820664 A1 20150107; EP 2820664 B1 20170118; ES 2621667 T3 20170704; IN 1908MUN2014 A 20150710; PL 2820664 T3 20170731; PT 2820664 T 20170406; WO 2013128125 A1 20130906

DOCDB simple family (application)
FR 1251866 A 20120229; AU 2013224790 A 20130228; CN 201380020167 A 20130228; EP 13712868 A 20130228; ES 13712868 T 20130228; FR 2013050413 W 20130228; IN 1908MUN2014 A 20140924; PL 13712868 T 20130228; PT 13712868 T 20130228