

Title (en)

MOVEABLE CONTACT PIECE, AND ELECTROMAGNETIC RELAY PROVIDED WITH SAME

Title (de)

BEWEGLICHES KONTAKTSTÜCK UND ELEKTROMAGNETISCHES RELAIS DAMIT

Title (fr)

PIÈCE DE CONTACT MOBILE, ET RELAIS ÉLECTROMAGNÉTIQUE ÉQUIPÉ DE CELLE-CI

Publication

EP 3021340 A4 20170419 (EN)

Application

EP 14822237 A 20140708

Priority

- JP 2013146713 A 20130712
- JP 2014068133 W 20140708

Abstract (en)

[origin: EP3021340A1] Provided is a movable plate 60 which needs less energy consumption, less components, and less assembling processes, but ensures a high productivity. The movable contact plate, comprising three stacked conductive thin plate springs 61, 65, 67, has one end connected to a movable contact terminal 54 and the other end supporting movable contacts 56, 57 integrally fixed thereto. The plate is drivingly moved in its thicknesswise direction by an engagement at a distal end thereof with a card 40 to make and break contacts with stationary contacts 52, 53. The inward conductive thin plate spring has at its distal end a driving elastic tongue 64a and the outward conductive thin plate spring has at its distal end a pair of returning elastic tongues 67b, 67c which are configured to take a condition that only one of the returning elastic tongues makes a contact with the card while the movable contact plate is being moved toward a condition where the movable and stationary contacts are disconnected.

IPC 8 full level

H01H 50/56 (2006.01); **H01H 3/00** (2006.01); **H01H 50/64** (2006.01)

CPC (source: CN EP)

H01H 3/001 (2013.01 - EP); **H01H 50/24** (2013.01 - EP); **H01H 50/56** (2013.01 - EP); **H01H 50/58** (2013.01 - CN EP);
H01H 50/642 (2013.01 - EP); **H01H 51/2227** (2013.01 - EP); **H01H 51/24** (2013.01 - EP)

Citation (search report)

- [A] JP 2013030308 A 20130207 - PANASONIC CORP
- [A] US 2003016104 A1 20030123 - MADER LEOPOLD [AT], et al
- [A] EP 2466608 A2 20120620 - TYCO ELECTRONICS AUSTRIA GMBH [AT]
- See references of WO 2015005314A1

Cited by

EP3051564A4; US10546707B2

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 3021340 A1 20160518; EP 3021340 A4 20170419; EP 3021340 B1 20191002; BR 112015004479 A2 20170704; CN 104428862 A 20150318;
CN 104428862 B 20161228; JP 2015018763 A 20150129; JP 5692299 B2 20150401; MX 2015003166 A 20150714; MX 344919 B 20170110;
RU 2015107311 A 20170817; WO 2015005314 A1 20150115

DOCDB simple family (application)

EP 14822237 A 20140708; BR 112015004479 A 20140708; CN 201480001658 A 20140708; JP 2013146713 A 20130712;
JP 2014068133 W 20140708; MX 2015003166 A 20140708; RU 2015107311 A 20140708