Title (en)

ARRANGEMENT OF CONTACT SPRINGS FOR ELECTROMAGNETIC RELAYS

Publication

EP 0013991 B2 19880608 (DE)

Application

EP 80100371 A 19800124

Priority

- DE 2902870 A 19790125
- DE 2902885 A 19790125

Abstract (en)

[origin: EP0013991A1] 1. Contact spring arrangement for polarized electromagnetic relays, in which the actuation force of the armature (8) created by the exciting current in cooperation with a permanent magnet arrangement progressively increases with increasing deviation from a zone of zero permanent magnetic force in mutually opposite directions of deviation up to a final attraction force - always reduced by the resilient force of the contact springs (1) -, wherein at least one contact spring (1) cooperates with at least one fixed contact (5) is fixed at an end or centrally to a terminal (3) and is covered with contact material in the respective region opposing a fixed contact (5), and wherein the contact spring (1) is guided by an actuating member (12) movable by the armature (8), characterized in that the actuating member (12) embraces the contact spring (1) and includes actuation pieces of which a first actuation piece (7) active in closing the contact (4, 5) engages the contact spring (1) on the side remote from the fixed contact (5) and a second actuating piece (6) active in opening the contact (4, 5) engages the contact spring (1) on the side facing the first contact (5), that the resilient length (L1 + L2 in Fig. 1 ; L2 or L2 ' in Fig. 2 ; ...) which rules the closing of the contact (4, 5) and lies between the location of engagement of the first actuating piece (7) at the contact spring and the contact location, is larger than the resilient length (L3 in Fig. 1 ; ...) which rules the opening of the contact and lies between the location of engagement of the second actuating piece (6) at the contact spring (1) and the contact location, and that measures concerning the cross-section of the portion which rules the opening of the contact have been taken which cause a substantial stiffening of this section relative to the portion of the contact spring (1) which rules the closing of the contact.

IPC 1-7

H01H 50/56

IPC 8 full level

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

CPC (source: EP)

H01H 50/56 (2013.01); H01H 3/001 (2013.01); H01H 2001/265 (2013.01)

Cited by

EP0203515A3; CN108682597A; CN105393328A; DE3240800A1; US4571566A; EP0168058A3; EP0022953A1; EP2752862A1; WO2015007855A1; US9916954B2

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