Title (en)

Contact unit for electromagnetic relays

Title (de)

Kontakteinheit für elektromagnetische Relais

Title (fr)

Unité de contact pour relais électromagnétiques

Publication

EP 1011122 B1 20050706 (DE)

Application

EP 99123867 A 19991201

Priority

DE 19858755 A 19981218

Abstract (en)

[origin: US2001054546A1] For increasing the reliability of contact closure in safety relays, a contact spring (10) is provided with two contact pieces (15, 16) which are disposed at the free end of the contact spring (10), spaced transversely of the longitudinal axis thereof and cooperate with contact pieces (17, 18) disposed on a common fixed contact. The contact spring (10) has a zone (19) in which it is not only flexible but also sufficiently torsional about its longitudinal axis in order to ensure the closure of both contact couples. Disposing the free end of the contact spring (10) carrying the contact pieces (15, 16) at an angle with respect to the fixed contact (12) achieves smooth and low-bounce contact closure and at the same time provides the function of a pre-contact and a main contact.

IPC 1-7

H01H 50/54

IPC 8 full level

H01H 50/56 (2006.01); **H01H 1/26** (2006.01); **H01H 50/54** (2006.01); **H01H 50/64** (2006.01); H01H 9/38 (2006.01)

CPC (source: EP US)

H01H 50/548 (2013.01 - EP US); H01H 1/2075 (2013.01 - EP US); H01H 1/2083 (2013.01 - EP US); H01H 9/38 (2013.01 - EP US)

Cited by

CN105374583A; DE102015112947B4

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

US 2001054546 A1 20011227; **US 6362710 B2 20020326**; AT E299290 T1 20050715; AT E475982 T1 20100815; DE 19858755 C1 20000608; DE 59912238 D1 20050811; DE 59915189 D1 20100909; DK 1011122 T3 20050801; EP 1011122 A2 20000621; EP 1011122 A3 20010425; EP 1011122 B1 20050706; EP 1011122 B8 20050831; EP 1575075 A2 20050914; EP 1575075 A3 20080910; EP 1575075 B1 20100728; ES 2242347 T3 20051101; ES 2347967 T3 20101126; JP 2000182456 A 20000630; JP 4265057 B2 20090520; PT 1011122 E 20050930; PT 1575075 E 20100908; SI 1011122 T1 20051231; SI 1575075 T1 20101130; US 6300854 B1 20011009

DOCDB simple family (application)

US 93367801 A 20010822; AT 05012458 T 19991201; AT 99123867 T 19991201; DE 19858755 A 19981218; DE 59912238 T 19991201; DE 59915189 T 19991201; DK 99123867 T 19991201; EP 05012458 A 19991201; EP 99123867 A 19991201; ES 05012458 T 19991201; ES 99123867 T 19991201; JP 35556699 A 19991215; PT 05012458 T 19991201; PT 99123867 T 19991201; SI 9930829 T 19991201; SI 9931047 T 19991201; US 46138699 A 19991215