

Title (en)
Connector assembly with a magnetic fixation

Title (de)
Verbinderanordnung mit magnetischer Befestigung

Title (fr)
Ensemble de connecteur avec fixation magnétique

Publication
EP 2533374 A1 20121212 (EN)

Application
EP 11004567 A 20110606

Priority
EP 11004567 A 20110606

Abstract (en)
The invention relates to a connector assembly (1) for electrically connecting a first electrical or electronic item to a second electrical or electronic item, comprising a first connector (2) having a first magnetic assembly (3) with at least one magnetic element and having at least two contacts (4) of an electrically conductive material, electrically connected to one of the first and second electrical or electronic items and electrically insulated from each other, and a second connector (5) having a second magnetic assembly (6) with at least one magnetic element and having at least two contacts (7) of an electrically conductive material, electrically connected to the other of the first and second electrical or electronic items and electrically insulated to each other, wherein the contacts (4) of the first connector (2) are maintained in electrically conductive relationship with the contacts (7) of the second connector (5) by magnetic attraction between the first magnetic assembly (3) and second magnetic assembly (6). This connector assembly (1) is constructed so that the contacts (4) of one of the connectors (2) are designed as concentric tracks (4), the contacts (7) of the other of the connectors (5) are positioned such that in a coupled state of the connector assembly (1) each single contact (7) of the other connector (5) abuts on a different contact (4) of the one connector (2), the two connectors (2,5) can, in principle, be coupled in more than two angular positions relative to each other and to a central axis (8) common to the concentric tracks (4) with always the same pair of contacts (4,7) being in electrically conductive relationship in a coupled state of the connector assembly (1), and the first connector (2) has at least one guide (9) and/or the second connector (5) has at least one guide (10) which are arranged such that in a coupled state of the connector assembly (1) they prevent a displacement of the connectors (2,5) relative to each other which would result in a loss of the electrically conductive relationship of a contact (4) of the first connector (2) with the corresponding contact (7) of the second connector (5).

IPC 8 full level
H01R 13/62 (2006.01); **H01R 24/38** (2011.01)

CPC (source: EP)
H01R 13/6205 (2013.01); **H01R 24/38** (2013.01); **H01R 13/2421** (2013.01)

Citation (applicant)
US 7311526 B2 20071225 - ROHRBACH MATTHEW DEAN [US], et al

Citation (search report)
• [XY] FR 2665305 A1 19920131 - SAGEM [FR]
• [XY] US 2010159713 A1 20100624 - NISHIHARA LANCE SUSHIN [US], et al
• [XY] WO 2004008581 A1 20040122 - MCLEISH GRAHAM [GB]
• [XY] DE 202011003043 U1 20110421 - MEISEL THILO [DE]
• [Y] US 2007072443 A1 20070329 - ROHRBACH MATTHEW D [US], et al

Cited by
WO2024108247A1; KR101391112B1; CN103457129A; CN103441394A; CN103441397A; CN103405157A; CN109547890A; CN107251338A; EP3680992A1; CN103414074A; CN105514681A; EP3214703A4; EP3273547A1; CN103441396A; JP2018532242A; FR3048560A1; CN108701938A; AU2017226859B2; RU2692767C1; GB2496290A; GB2496290B; GB2532898A; GB2539339A; GB2532898B; GB2539339B; US9671074B2; US10276994B2; US9677749B2; US9664362B2; WO2021204813A1; WO2020208563A3; WO2017148867A1; WO2015181230A1; WO2022262138A1; WO2016171727A1; US10566734B1; US11616324B2; US8863416B2; US9119495B2; US10440588B2; US10897719B2; US9590359B1; US10008815B2; US10693266B2; US9677748B1; US10574006B2; US9648919B2; US11491884B2; US12083908B2; WO2017072620A1; WO2016119001A1; WO2017058325A1; US11374351B2; US11616320B2

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)
EP 2533374 A1 20121212

DOCDB simple family (application)
EP 11004567 A 20110606