

Title (en)

Electrical plug-in connector assembly with locking member

Title (de)

Elektrosteckernordnung mit Verriegelungselement

Title (fr)

Ensemble connecteur électrique enfichable avec élément de verrouillage

Publication

EP 2685570 A1 20140115 (EN)

Application

EP 12176217 A 20120712

Priority

EP 12176217 A 20120712

Abstract (en)

The present invention relates to an electrical plug-in connector assembly (1), in particular for establishing an electrical connection with an airbag arrangement in a vehicle, comprising a connector (2), a mating connector (3) adapted to be mated with the connector (2) along a plug direction (P), and a locking member (4) adapted to be moved in an actuation direction (A), wherein in a final state (F) of the plug-in connector assembly (1), the connector (2) is in a fully mated position (M) with the mating connector (3) and the locking member (4) is in a locking position (L) where it is supported at least at the connector (2) and secures the connector (2) and the mating connector (3) in the fully mated position (M). Further, the present invention relates to the connector (2) and the mating connector (3). In order to provide high retention forces, the present invention provides that the actuation direction (A) extends essentially perpendicularly to the plug direction (P) and in that the locking member (4) is in mesh with the mating connector (3) at least in the final state (F). The locking member (4) may provide a secondary lock independent to a primary lock for latching the connector (2) and the mating connector (3) in the fully mated position (M) and may further serve as a connector positioning assurance ("CPA").

IPC 8 full level

H01R 13/627 (2006.01); **H01R 13/639** (2006.01); **H01R 13/641** (2006.01)

CPC (source: EP)

H01R 13/6271 (2013.01); **H01R 13/639** (2013.01); **H01R 13/641** (2013.01); **H01R 2201/26** (2013.01)

Citation (search report)

- [XY] US 5435742 A 19950725 - CECIL JR PAUL D [US]
- [X] EP 1575132 A2 20050914 - TYCO ELECTRONICS AMP GMBH [DE]
- [X] DE 19525257 A1 19970116 - SIEMENS AG [DE]
- [Y] EP 1130692 A2 20010905 - J S T MFG CO LTD [JP], et al
- [Y] WO 2009053778 A1 20090430 - FRAMATOME CONNECTORS INT [FR], et al

Cited by

EP3396790A1; CN108832427A; US10290972B2; US9614327B2

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 2685570 A1 20140115; **EP 2685570 B1 20180829**; WO 2014009309 A1 20140116

DOCDB simple family (application)

EP 12176217 A 20120712; EP 2013064372 W 20130708