

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
2 April 2009 (02.04.2009)

PCT

(10) International Publication Number
WO 2009/042082 A3

- (51) International Patent Classification:
H01R 13/422 (2006.01) H01R 13/436 (2006.01)
- (21) International Application Number:
PCT/US2008/010941
- (22) International Filing Date:
18 September 2008 (18.09.2008)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
11/860,755 25 September 2007 (25.09.2007) US
- (71) Applicant (for all designated States except US): **TYCO ELECTRONICS CORPORATION** [US/US]; 1050 Westlakes Drive, Berwyn, PA 19312 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **MARTIN, Galen, M.** [US/US]; 12 Cornell Drive, Camp Hill, PA 17011 (US). **FORISKA, Matthew, F.** [US/US]; 128 Locust Street, Girard, PA 16417 (US).
- (74) Agent: **VACCARELLI, Lisa, Burgin;** Tyco Technology Resources, 4550 New Linden Hill Road, Suite 140, Wilmington, DE 19808 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
30 July 2009

(54) Title: CONNECTOR WITH REDUNDANT TERMINAL LOCKING

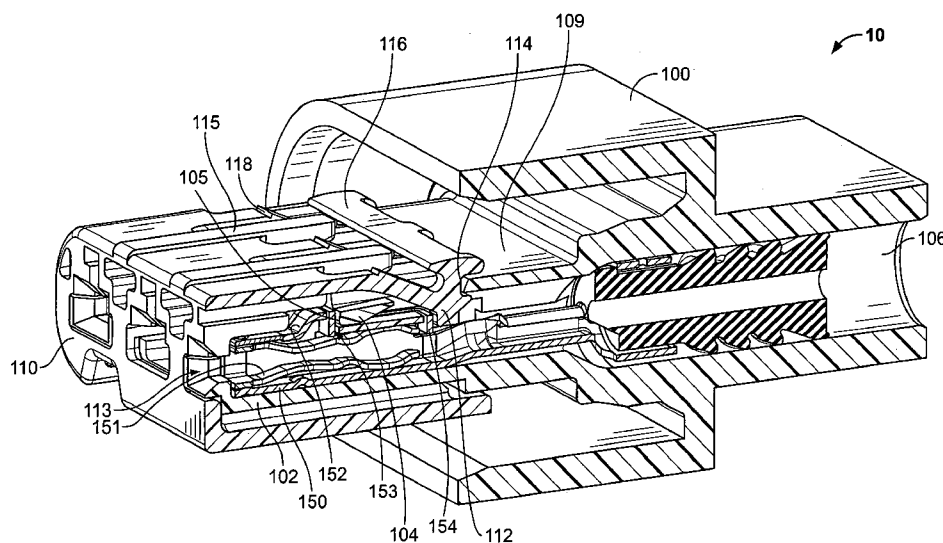


FIG. 4

(57) Abstract: A connector (10) is disclosed. The connector includes a connector housing (100, 110) having a terminal channel (106) and a terminal (150) positioned within the terminal channel. The connector includes a primary locking mechanism including a locking beam (104) configured to engage a first terminal locking surface (153) and a secondary locking mechanism including a locking hinge (115) having a locking foot (112) configured to engage a second terminal locking surface (154). The locking hinge is configured to pivot from a staging position to permit passage of the terminal into the connector through the terminal channel to an operative position to retain the terminal within the terminal channel and establish a position of maximum rearward travel of the terminal within the terminal channel.

WO 2009/042082 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2008/010941A. CLASSIFICATION OF SUBJECT MATTER
INV. H01R13/422 H01R13/436

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
H01R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 836 251 A (WHITAKER CORP [US]) 15 April 1998 (1998-04-15) figures 1,2	1-4,7-11
X	EP 1 408 588 A (DELPHI TECH INC [US]) 14 April 2004 (2004-04-14) figures 1-3	1-4,7-11
X	US 2003/211785 A1 (FUJITA SHINYA [JP] ET AL) 13 November 2003 (2003-11-13) paragraph [0067] - paragraph [0083]; figures 1,3,7,18-24	1,2,5,6
X	US 2004/235365 A1 (FUJITA SHINYA [JP]) 25 November 2004 (2004-11-25) figure 1	1,2,5,6
	----- -/--	

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- * & * document member of the same patent family

Date of the actual completion of the international search

15 June 2009

Date of mailing of the international search report

23/06/2009

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Arenz, Rainer

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2008/010941

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 827 609 B1 (MARTIN GALEN M [US] ET AL) 7 December 2004 (2004-12-07) the whole document -----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2008/010941

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0836251	A	US 6039589 A	21-03-2000
EP 1408588	A	NONE	
US 2003211785	A1	DE 10320706 A1	08-01-2004
US 2004235365	A1	DE 102004023479 A1 JP 2004348989 A	05-01-2005 09-12-2004
US 6827609	B1	DE 102004054572 A1	16-06-2005