

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
11 October 2007 (11.10.2007)

PCT

(10) International Publication Number  
**WO 2007/113564 A3**

- (51) International Patent Classification:  
*H01R 4/24* (2006.01)
- (21) International Application Number:  
PCT/GB2007/001242
- (22) International Filing Date: 3 April 2007 (03.04.2007)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
0606675.7 3 April 2006 (03.04.2006) GB
- (71) Applicant (for all designated States except US):  
**BRAND-REX LIMITED** [GB/GB]; The OldCourt-  
yard, 11 Lower Cookham Road, Maidenhead SL6 8JN  
(GB).

AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, 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, 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, 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, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

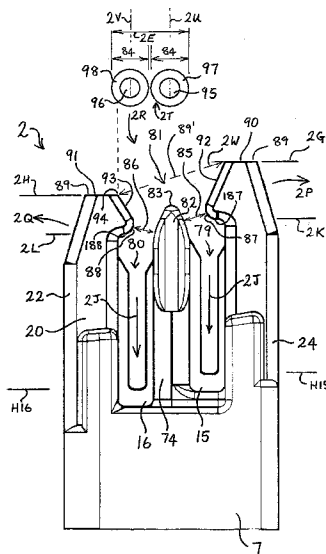
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **BRIGGS, Andrew, Ian** [GB/GB]; 19 Lyon Road, Killin, Perthshire FK21 8TE (GB).
- (74) Agent: **BAIN SMITH, Timothy**; Raworth Moss & Cook, Raworth House, 36 Sydenham Road, Croydon, Surrey CR0 2EF (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

**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:  
29 November 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: IMPROVEMENTS IN AND RELATING TO ELECTRICAL CONNECTORS



(57) Abstract: An insulation displacement connector block (2) is provided for termination of a twisted pair cable (99). The connector block comprises at least two adjacent insulation displacement terminals (15, 16) arranged for making electrical connection to insulated wires (97, 98) of a twisted pair of wires (991) of the cable. The terminals each having an open mouth (79,80) arranged to receive a single one of the wires, the open mouths facing a single entrance (81) through which both wires are arranged to be inserted each to its own terminal. An upstanding tongue (82) is provided between the terminals, the tongue having a substantially pointed end (83) facing the entrance, the pointed end extending to the entrance and not beyond, the tongue dividing the entrance to provide two gaps (85, 86).

WO 2007/113564 A3

**INTERNATIONAL SEARCH REPORT**

International application No  
PCT/GB2007/001242

**A. CLASSIFICATION OF SUBJECT MATTER**  
INV. H01R4/24

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	US 6 830 488 B2 (BUSH WAVELL [US] ET AL) 14 December 2004 (2004-12-14) column 2, line 48 - line 58 column 2, line 65 - column 3, line 3 figure 6B	1,2,4,5, 12,14
Y	-----	3,7,15, 16
X	US 2004/102097 A1 (CLARK GORDON P [US] ET AL) 27 May 2004 (2004-05-27) paragraphs [0030], [0032]; figures 1,6	1,4,8, 12,14
Y	-----	3,7
	-----	
	-/--	

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

25 September 2007

Date of mailing of the international search report

05/10/2007

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

GARCIA CONGOSTO, M

## INTERNATIONAL SEARCH REPORT

International application No

PCT/GB2007/001242

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 6 050 842 A (FERRILL JESS BRITTON [US] ET AL) 18 April 2000 (2000-04-18) column 5, line 4 - line 6; figure 2 -----	1
Y	FR 2 766 018 A (PULSE LINE SA [FR]) 15 January 1999 (1999-01-15) figures 1-5 -----	15,16
A	US 3 816 819 A (JUDD E) 11 June 1974 (1974-06-11) figures 3-5 -----	19
A	US 4 160 573 A (WEISENBURGER LAWRENCE P) 10 July 1979 (1979-07-10) column 8, line 4 - line 6; figure 9 -----	19

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/GB2007/001242

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: 13, 18, 32  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

International Application No. PCT/GB2007 /001242

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

Continuation of Box II.2

Claims Nos.: 13,18,32

Claims 13, 18, and 32 do not contain any clear feature (Article 6 PCT), they only rely on a general reference to the application text and drawings (Rule 6.2(a) PCT). It is therefore not possible to interpret these claims.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/GB2007 /001242

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-12,14-17

"An insulation displacement connector block comprising an upstanding tongue between the terminals, the tongue having a substantially pointed end facing the entrance, wherein the pointed end extending to the entrance and not beyond, the tongue dividing the entrance to provide two gaps".  
---

2. claims: 19-31

"An insulation displacement connector block having means for sequentially ensuring termination of the individual wires of a twisted pair cable to terminals arranged for making electrical connection to insulated wires"  
---

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/GB2007/001242
---

Patent document cited in search report	Publication date	Publication date	Patent family member(s)	Publication date
US 6830488	B2	14-12-2004	CA 2526936 A1	25-11-2004
			EP 1623486 A1	08-02-2006
			MX PA05012200 A	08-02-2006
			US 2004229517 A1	18-11-2004
			WO 2004102749 A1	25-11-2004
US 2004102097	A1	27-05-2004	US 2005037670 A1	17-02-2005
GB 1497494	A	12-01-1978	AR 210126 A1	30-06-1977
			AT 358642 B	25-09-1980
			AT 328576 A	15-02-1980
			AU 502941 B2	16-08-1979
			AU 1351176 A	03-11-1977
			BE 841550 A1	08-11-1976
			BR 7602943 A	23-11-1976
			CA 1063690 A1	02-10-1979
			CH 603008 A5	15-08-1978
			DE 2619558 A1	02-12-1976
			DK 207876 A	13-11-1976
			FI 761325 A	13-11-1976
			FR 2311423 A1	10-12-1976
			IT 1060019 B	10-07-1982
			JP 51140187 A	02-12-1976
			NL 7604778 A	16-11-1976
			NO 761417 A	15-11-1976
			SE 425531 B	04-10-1982
			SE 7605297 A	13-11-1976
US 6050842	A	18-04-2000	AU 4594897 A	17-04-1998
			CN 1231777 A	13-10-1999
			DE 69715221 D1	10-10-2002
			DE 69715221 T2	22-05-2003
			EP 0928505 A1	14-07-1999
			JP 3795532 B2	12-07-2006
			JP 2001501354 T	30-01-2001
			WO 9813902 A1	02-04-1998
FR 2766018	A	15-01-1999	NONE	
US 3816819	A	11-06-1974	CA 995780 A1	24-08-1976
US 4160573	A	10-07-1979	CA 1094657 A1	27-01-1981
			DE 2849419 A1	05-07-1979
			ES 253794 Y	01-11-1981
			ES 475230 A1	16-04-1979
			FR 2409613 A1	15-06-1979
			GB 2008336 A	31-05-1979
			GB 2084410 A	07-04-1982
			HK 79486 A	31-10-1986
			IT 1100221 B	28-09-1985
			JP 1429604 C	09-03-1988
			JP 54082093 A	29-06-1979
JP 62033709 B	22-07-1987			