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| <div> <div>(84)</div> <div>           Designated Contracting States:<br/> <b>AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE</b><br/>           Designated Extension States:<br/> <b>AL LT LV MK RO SI</b> </div> </div> <div> <div>(30)</div> <div>Priority: 23.07.1997 GB 9715378</div> </div> <div> <div>(71)</div> <div>Applicant: <b>TEC Electrical Components Limited</b><br/><b>Enfield, West Yorkshire EN1 1UZ (GB)</b></div> </div> | <div> <div>(72)</div> <div>Inventor: <b>Reed, Norman,</b><br/><b>c/o TEC Electrical Components Ltd.</b><br/><b>Enfield, Middlesex, E1 1UZ (GB)</b></div> </div> <div> <div>(74)</div> <div>Representative: <b>Sherrard-Smith, Hugh et al</b><br/><b>Appleyard Lees,</b><br/><b>15 Clare Road</b><br/><b>Halifax, HX1 2HY, West Yorkshire (GB)</b></div> </div> |
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(54)

Connector assemblies

(57)

A box panel 14 includes a plurality of male connectors 12A, 12B, 12C, 12D. That box panel is fixed on an aircraft. A rack panel 16 including female connectors 10A, 10B, 10C, 10D and 10E, that are aligned with corresponding male connectors is able to slide towards the box panel 14. When the connectors initially contact, any slight misalignment is taken into account by the female connectors moving in their panel in a direction transverse to the direction that the connectors are moved towards each other. In addition, the female connectors are sprung relative to their panel so that, when the panels are connected, each male and female connector is urged towards each other.

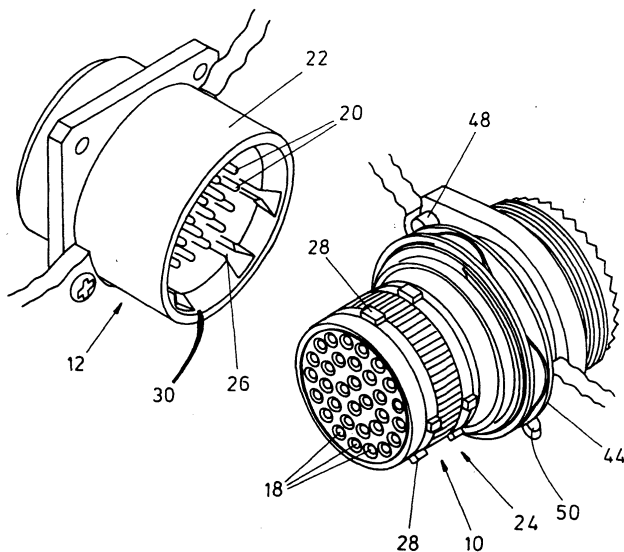


FIG. 1



European Patent  
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# EUROPEAN SEARCH REPORT

Application Number  
EP 98 30 5840

| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                |                                                     |                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------------------------------------|
| Category                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Citation of document with indication, where appropriate, of relevant passages                                                  | Relevant to claim                                   | CLASSIFICATION OF THE APPLICATION (Int.Cl.6) |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | US 3 094 364 A (T.R.LINGG)<br>18 June 1963 (1963-06-18)<br>* column 3, line 1 - column 6, line 52;<br>figures 1-8 *            | 1-15                                                | H01R13/74<br>H01R13/631                      |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | EP 0 549 386 A (ECIA EQUIP COMPOSANTS IND AUTO) 30 June 1993 (1993-06-30)<br>* claim 1; figures 1,4,5 *                        | 1,2,4-6,<br>9,11,12,<br>15                          |                                              |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | US 4 909 748 A (KOZONO SEIJI ET AL)<br>20 March 1990 (1990-03-20)<br>* column 2, line 65 - column 5, line 25;<br>figures 1-3 * | 1-15                                                |                                              |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | EP 0 349 134 A (AMP INC)<br>3 January 1990 (1990-01-03)<br>* abstract; figures 1,3-5 *                                         | 1-15                                                |                                              |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | EP 0 717 470 A (MOLEX INC)<br>19 June 1996 (1996-06-19)                                                                        |                                                     |                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                |                                                     | TECHNICAL FIELDS SEARCHED (Int.Cl.6)         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                |                                                     | H01R                                         |
| The present search report has been drawn up for all claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                |                                                     |                                              |
| Place of search<br>THE HAGUE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                | Date of completion of the search<br>18 October 1999 | Examiner<br>Waern, G                         |
| CATEGORY OF CITED DOCUMENTS<br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document<br>T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |                                                                                                                                |                                                     |                                              |

EPO FORM 1503 03.92 (P04001)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 98 30 5840

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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18-10-1999

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|-------------------------------------------|---------------------|----------------------------|---------------------|
| US 3094364 A                              | 18-06-1963          | CH 396129 A                |                     |
|                                           |                     | DE 1515362 A               | 11-12-1969          |
|                                           |                     | FR 1294526 A               | 24-10-1962          |
|                                           |                     | GB 918009 A                |                     |
|                                           |                     | NL 266688 A                |                     |
| EP 0549386 A                              | 30-06-1993          | FR 2685825 A               | 02-07-1993          |
|                                           |                     | DE 69208628 D              | 04-04-1996          |
|                                           |                     | DE 69208628 T              | 01-08-1996          |
|                                           |                     | ES 2084311 T               | 01-05-1996          |
| US 4909748 A                              | 20-03-1990          | DE 3903839 A               | 17-08-1989          |
|                                           |                     | GB 2218576 A,B             | 15-11-1989          |
| EP 0349134 A                              | 03-01-1990          | US 4812133 A               | 14-03-1989          |
|                                           |                     | CA 1300242 A               | 05-05-1992          |
|                                           |                     | DE 68913828 D              | 21-04-1994          |
|                                           |                     | DE 68913828 T              | 22-09-1994          |
|                                           |                     | ES 2050233 T               | 16-05-1994          |
|                                           |                     | JP 2256183 A               | 16-10-1990          |
| EP 0717470 A                              | 19-06-1996          | KR 9502037 B               | 08-03-1995          |
|                                           |                     | JP 2724697 B               | 09-03-1998          |
|                                           |                     | JP 8255659 A               | 01-10-1996          |

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82