



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p><b>(51) International Patent Classification<sup>5</sup> :</b>  <b>H01R 13/52</b></p>	<p><b>A1</b></p>	<p><b>(11) International Publication Number:</b> <b>WO 92/21163</b>  <b>(43) International Publication Date:</b> 26 November 1992 (26.11.92)</p>
<p><b>(21) International Application Number:</b> PCT/US92/04034 <b>(22) International Filing Date:</b> 8 May 1992 (08.05.92) <b>(30) Priority data:</b> 698,589                      10 May 1991 (10.05.91)                      US <b>(71) Applicant:</b> BICORE MONITORING SYSTEMS [US/US]; 2 Faraday, Irvine, CA 92718 (US). <b>(72) Inventor:</b> STUPECKY, Josef, J. ; 30662 Via Estoril, Laguna Niguel, CA 92677 (US). <b>(74) Agents:</b> SIMPSON, Andrew, H. et al.; Knobbe, Martens, Olson &amp; Bear, 620 Newport Center Drive, 16th Floor, Newport Beach, CA 92660 (US).</p>		<p><b>(81) Designated States:</b> AT (European patent), BE (European patent), CA, CH (European patent), DE (European patent), DK (European patent), ES (European patent), FR (European patent), GB (European patent), GR (European patent), IT (European patent), JP, LU (European patent), MC (European patent), NL (European patent), SE (European patent).</p> <p><b>Published</b> <i>With a revised version of the international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p> <p><b>(88) Date of publication of the revised version of the international search report:</b> 10 June 1993 (10.06.93)</p>
<p><b>(54) Title:</b> DISPOSABLE ELECTRO-FLUIDIC CONNECTOR WITH DATA STORAGE</p>		
<p><b>(57) Abstract</b></p> <p>A modular constructed connector (2) for interconnecting with a single male (4) and female (3) connector a plurality of electrical lines (18) and fluid lines (17) while maintaining a consistent bubble-tight fluid interconnection. The modular design permits the number of fluidic (17) and electrical (18) connections to be varied depending upon the particular application. In one embodiment, a programmable microchip (204) is mounted within this connector. This chip stores the response characteristics of a flow meter (221) used, for example, as an air flow measurement device in a respiratory circuit.</p>		

\* (Referred to in PCT Gazette No. 14/1993, Section II)

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**INTERNATIONAL SEARCH REPORT**

International application No.  
PCT/US92/04034

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(5) :H01R 13/52

US CL :439/194, 353; 604/905, 283; 285/322, 921, 137.1, 119; 128/898

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)

U.S. : 439/195, 210, 909; 73/861.53; 128/725; 285/309, 312, 907

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 practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A,E	US, A, 5,137,524 (Lynn et al.) 11 August 1992.	1-7 & 11-23
A	US, A, 4,895,570 (Larkin) 23 January 1990.	1-7 & 11-23
A	US, A, 4,900,065 (Houck) 13 February 1990.	1-7 & 11-23
A	US, A, 4,076,279 (Klotz et al.) 28 February 1978.	1-7 & 11-23
A	US, A, 4,526,431 (Kasukawa) 02 July 1985.	1-7 & 11-23
A	US, A, 3,673,541 (Volinskie) 27 June 1972.	1-7 & 11-23
A	US, A, 4,701,159 (Brown et al.) 20 October 1987.	1-7 & 11-23

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

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be part of particular relevance	"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
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"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)	"Z" document member of the same patent family
"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	

Date of the actual completion of the international search  
10 SEPTEMBER 1992

Date of mailing of the international search report  
**07 MAY 1993**

Name and mailing address of the ISA/US  
Commissioner of Patents and Trademarks  
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1992-05-07

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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US92/04034

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A,P	US, A, 5,052,386 (Fischer, Jr.) 01 October 1991.	1-7 & 11-23
A,P	US, A, 5,047,021 (Utterberg) 10 September 1991.	1-7 & 11-23
A	US, A, 3,842,389 (Glover) 15 October 1974.	1-7 & 11-23
A	US, A, 4,723,948 (Clark et al.) 09 February 1988.	1-7 & 11-23
A	EP, A, 0,183,396 (Taylor) 04 June 1986.	1-7 & 11-23

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US92/04034

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international 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.: 8-10  
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:  
  
Claims 8-10 are improper multiple dependent claims in that they depend from other multiple dependent claims.
  
3.  Claims Nos.: 8-10  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

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

Group I, claims 1-15, drawn to an electrical connector, classified in U.S. CL 439, subclass 210.

Group II, claims 16-23, drawn to the combination of a pneumatic and fluid connector with a memory device, a sensor and a catheter, classified in U.S. Cl 604, subclass 283, and method of use of such a device; classified in U.S. CL 128, subclass 898.

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.