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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

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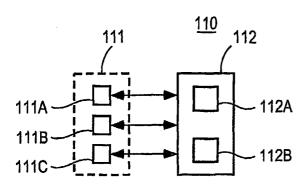
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- (88) Date of publication of the international search report: 4 May 2006

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: MONITORING SYSTEMS AND METHODS FOR FLUID TESTING



(57) Abstract: Various sensor unit configurations are disclosed within the context of a fluid quality monitoring system. The distribution of sensor units can be accomplished using existing product distribution channels to sell, distribute and install sensor units so that a fluid distribution monitoring system can be established at relatively low cost, on a wider basis, and by locating sensor units at the most desirable location from problem detection standpoint, the location of the end user.

al application No FunuS2005/015997

A.	CLASSIFICATION OF SUBJECT MATTER
	G01N33/18

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

B. FIELDS SEARCHED

 $\frac{\text{Minimum documentation searched (classification system followed by classification symbols)}{\text{G01N}} \quad \text{C02F}$

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, WPI Data, PAJ, INSPEC, COMPENDEX, FSTA, MEDLINE, BIOSIS

C. DOCUM	ENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where appropriate, of the r	Relevant to claim No.		
X	GB 2 131 169 A (WATER RESEARCH 13 June 1984 (1984-06-13)	1-13, 15-66, 79-89, 91-108		
	page 1, line 118 - page 2, line	24		
X	US 6 290 908 B1 (FUKUNAGA MASAO 18 September 2001 (2001-09-18) abstract; figures 1-4 column 3, line 57 - column 4, locolumn 5, lines 44-48 column 8, lines 51,52 column 9, lines 55-63 column 11, lines 32-40	•	1-116	
X Furtir	ner documents are listed in the continuation of Box C.	X See patent family annex.		
Special or	ategories of cited documents :			
'A" docume consid 'E" earlier d filing d 'L" docume which i citation 'O" docume other n	ent defining the general state of the art which is not lered to be of particular relevance tocument but published on or after the international late in the publication date of another nor other special reason (as specified) ent referring to an oral disclosure, use, exhibition or	"T" later document published after the int or priority date and not in conflict with cited to understand the principle or the invention of particular relevance; the cannot be considered novel or cannot involve an inventive step when the description of particular relevance; the cannot be considered to involve an involve an inventive step when the document is combined with one or ments, such combination being obvious in the art.	n the application but heavy underlying the claimed invention to considered to coument is taken alone claimed invention hentive step when the ore other such docupants to a person skilled	
Date of the a	actual completion of the international search	Date of mailing of the international search report		
1	3 December 2005	0 9. 03. 20	06	
Name and m	nailing 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 Hanisch, C		

In onal application No
PUT/US2005/015997

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT							
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.					
Υ	US 4 766 550 A (BYERS ET AL) 23 August 1988 (1988-08-23) abstract; figure 15 column 18, lines 12-31	14, 67-78, 90, 109-116					
Y	US 2003/177851 A1 (HENRY KENT D ET AL) 25 September 2003 (2003-09-25) abstract; figures 19,24 paragraph [0002] paragraphs [0128] - [0131]	14, 67-78, 90, 109-116					
,	paragraphs [0128] - [0131] 						
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en en se							

tional application No. PCT/US2005/015997

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:
Claims Nos.: 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:
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
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.: 1-116
Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-116

Fluid monitoring characterised by confirming a detection condition prior to reporting it.

2. claims: 117-121

Recalibration system characterised by using two sensors and recalibrating one sensor by measurement data of the other.

Inty al application No
PCI/US2005/015997

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
GB 2131169	A	13-06-1984	NONE		
US 6290908	B1	18-09-2001	NONE		
US 4766550	Α	23-08-1988	EP JP	0220666 A2 62106367 A	06-05-1987 16-05-1987
US 2003177851	A1	25-09-2003	NONE		