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(71) Applicants (for all designated States except US):

MAGMA GLOBAL LIMITED [GB/GB]; Ground Floor Building, 1000 Lakeside North Harbour, Western Road, Portsmouth P06 3EZ (GB). OXFORD RF SENSORS LIMITED [GB/GB]; 9400 Garsington Road, Oxford Business Park, Oxford OX4 2HN (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): JONES, Martin, Peter, William [GB/GB]; Saltings, Dell Quay Road, Dell Quay, Chichester PO20 7EE (GB). TAVNER, Charles, Alexander [GB/GB]; Flat 10, 2 Archie Street, London SE1 3JT (GB). PARKER, Alan, David [GB/GB]; 39 Anna

Pavlova Close, Abingdon, Oxfordshire OX14 1TF (GB). GREGG, John, Francis [IE/GB]; 39 Anna Pavlova Close, Abingdon, Oxfordshire OX14 1TF (GB).

(74) Agent: DOCHERTY, Andrew; Marks & Clerk LLP, Aurora, 120 Bothwell Street, Glasgow G2 7JS (GB).

(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, CL, 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, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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[Continued on next page]

(54) Title: FLUID CONDUIT

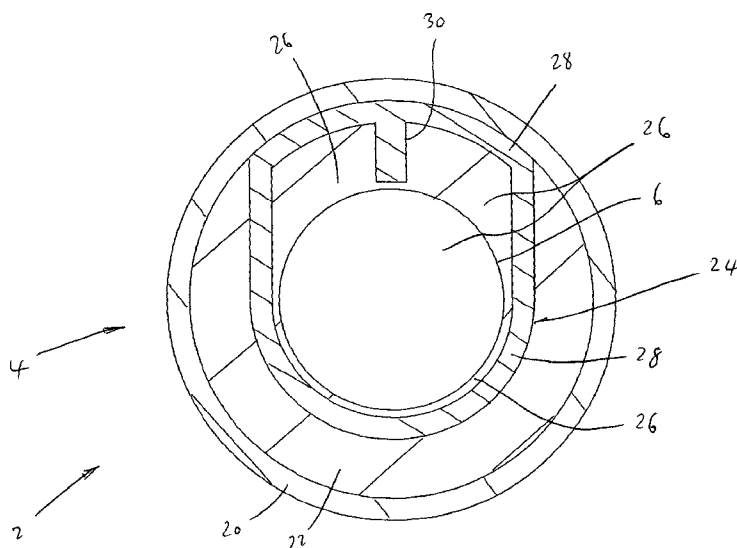


Figure 2

(57) Abstract: A fluid conduit (2) comprises a wall (4) defining a fluid flow path (6) and a confinement feature (24) within the wall (4) and being configured to confine energy within a cavity (26), wherein at least a portion of the fluid flow path (6) extends through the cavity (26). The confinement feature (24) may be configured to confine electromagnetic energy. The fluid conduit (2) may comprise an oscillator defined by the cavity (26) and a positive feedback arrangement (34). The fluid conduit (2) may be configured for sensing a property of a fluid present in or flowing through the fluid conduit (2) or for use in sensing a property of a fluid present in or flowing through the fluid conduit (2). More specifically, the present invention deals with a microwave cavity sensor wherein the cavity member (24) is embedded in the wall (4) of the fluid conduit (2), the wall (4) including a composite region (20).



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3 January 2013

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2012/000424

A. CLASSIFICATION OF SUBJECT MATTER
INV. G01N22/00 G01N29/22 F16L11/08
ADD.
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)
G01N F16L
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)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 1 578 125 A (RAYCHEM CORP) 5 November 1980 (1980-11-05)	1-3,5-9, 13-17, 19-28, 31-34 4,35
Y	page 1, lines 12-16 page 2, line 129 - page 3, line 35 figures 1,2	
Y	----- US 2005/131387 A1 (PURSLEY MATT D [US]) 16 June 2005 (2005-06-16) abstract paragraphs [0039] - [0041] figure 9 ----- -/--	4

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	"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
"E" earlier application or patent but published on or after the international filing date	"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
"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)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"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 27 August 2012	Date of mailing of the international search report 08/11/2012
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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 Couteau, Olivier
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2012/000424

Box No. 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.:
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 No. 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 fees, this Authority did not invite payment of additional fees.
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.:

1-35

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- 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: 1-35

confinement feature

2. claims: 36-41

region devoid of reinforcing elements

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2012/000424

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 3 189 676 A (JACQUES MULLER) 15 June 1965 (1965-06-15) column 2, lines 25-50 column 3, lines 28-45 figures 1,11,12	35
A	----- WO 2009/118569 A1 (ISIS INNOVATION [GB]; GREGG JOHN FRANCIS [GB]; BARI MAZHAR [IE]) 1 October 2009 (2009-10-01) cited in the application the whole document	1-35
A	----- IE 82 102 A (COEY JOHN MICHAEL DAVID; GREGG JOHN FRANCIS; MORAIS BORGES RUI PEDRO G) 6 February 2002 (2002-02-06) the whole document -----	1-35

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/GB2012/000424

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB 1578125	A	05-11-1980	NONE
US 2005131387	A1	16-06-2005	NONE
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IE 82102	A	06-02-2002	-----