

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
21 December 2000 (21.12.2000)

PCT

(10) International Publication Number  
**WO 00/77480 A3**

(51) International Patent Classification<sup>7</sup>: **G01F 23/36**

(21) International Application Number: PCT/GB00/02329

(22) International Filing Date: 15 June 2000 (15.06.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
9913935.4 15 June 1999 (15.06.1999) GB

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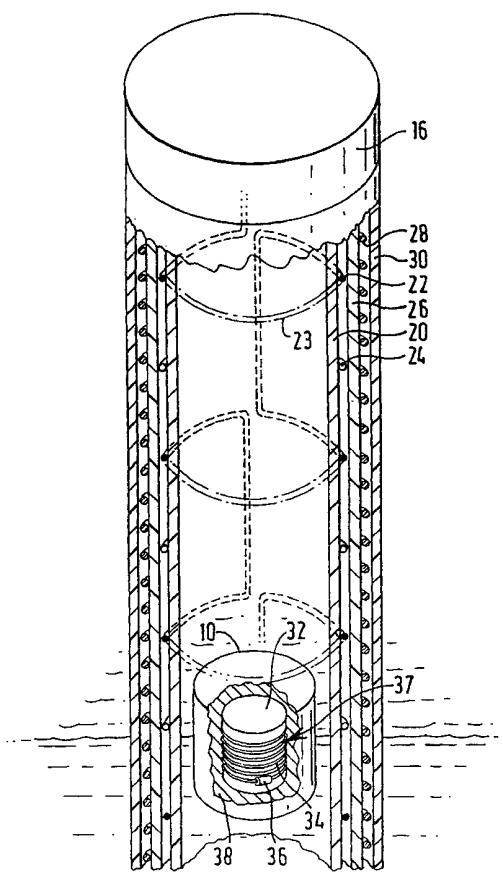
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(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO,

[Continued on next page]

(54) Title: POSITION ENCODER



(57) Abstract: A linear position sensor is provided which employs phase quadrature sensor windings, an excitation winding and a resonator. When an excitation current is applied to the excitation winding, it causes the resonator to resonate which in turn induces signals in the sensor windings. The sensor windings are spatially arranged so that the electromagnetic coupling between them and the resonator varies with the position of the resonator. The excitation windings, phase quadrature windings and resonant circuit are arranged so that the magnetic fields involved in the operation of the position sensor are substantially parallel to each other and the direction of movement of the resonator. Consequently, the effect of rotation of the resonator or lateral movement of it relative to the excitation and phase quadrature windings is alleviated.



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NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,  
TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

**Published:**

— *With international search report.*

**(84) Designated States (regional):** ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

**(88) Date of publication of the international search report:**

8 February 2001

*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.*

# INTERNATIONAL SEARCH REPORT

Inter. Application No  
PCT/GB 00/02329

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 G01F23/36

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)  
IPC 7 G01F

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

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 723 446 A (SAITO YASUO ET AL) 9 February 1988 (1988-02-09) column 1 -column 4 column 6, line 29 - line 35	1,44-49
A	column 12, line 22 - line 29; figures 2,3,8	2-43
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A	EP 0 295 609 A (KOLLMORGEN CORP) 21 December 1988 (1988-12-21) page 19, line 28 -page 20, line 35 page 29, line 15 - line 38 page 43, line 7 - line 15; figures 17,32	1-49
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A	US 5 421 193 A (CARLIN JOHN A ET AL) 6 June 1995 (1995-06-06) page 1 -page 11; figures 9,,7,12	1-49
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Patent family members are listed in annex.

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Date of the actual completion of the international search

12 September 2000

Date of mailing of the international search report

20/09/2000

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# INTERNATIONAL SEARCH REPORT

Internat <sup>l</sup> Application No PCT/GB 00/02329
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