

(19)  
(12)

(KR)  
(A)

(51) 。 Int. Cl. <sup>7</sup>  
A61B 5/06

(11)  
(43)

2003 - 0006979  
2003 01 23

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(21) 10 - 2002 - 0030987  
(22) 2002 06 03

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(30) 09/882,126 2001 06 15 (US)

(71) ,  
08933

(72) 34400 1

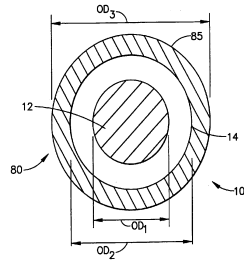
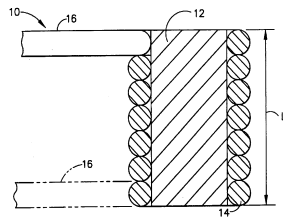
(74)

:

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(54)

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, , , , ,

1a

1b

1a

2

1a

1b

3a

3b

4

5

(Wiegand effect material)

\*

\*

10 : ( ) 12 :

14 : 16 :

22 : 24 :

26 : 32, 34 :

48 : 80 :

(orientation)

가

5,558,091 , 가 5,391,199 5,443,489 , WO94/04938 WO96/05768

가 /

가

5,558,091 3 가

(galvanomagnetic film) 3 x 0.75 x 0.75mm

5,558,091 3

가

0.8mm

(drift) 가

WO96/05768

5,391,199 , x

, PCT PCT/GB93/01736 , WO94/04938 PCT PCT/IL97/00009

6mm, 가 0.8 x 0.8 x 0.8mm , 3 가 0.6 x 0.6 x 0. 가 , 0.6mm 가 가

( )

가

PCT WO96/05768

3

3

6

3

/ 가

(calibration)

'768

6mm

1.3mm

6

가

6,203,493

가

가

가

VLSI

6,201,

387 B1

가

4

0.8mm

가

가



가

" " " " (position sensor)" " (location sensor)"  
 가 /

1a 1b (12) (12)  
 10) (10) 1b (8)  
 0) (10) /

6) (10) 3.0 4.0mm (L) (L) (1)  
 (14) (10) (16) (10)

1b (10) (12) 0.3mm (OD<sub>1</sub>), 0.25mm  
 (OD<sub>1</sub>) (10) (OD<sub>2</sub>) 0.5mm (80) 0.4mm  
 (10) (85)  
 (80) 0.67mm (2F ) (OD<sub>3</sub>) (10) (80)  
 (80)  
 (10) (80)

(10) (80) , 3  
 10) (10) (10) (80) " " (10) (L) , (L)  
 (10) (10) (OD<sub>2</sub>) 2 3 (L) 가 , (L)  
 (10) (OD<sub>2</sub>) 6 , (10)  
 , /OD ,  
 (10) .

가 , (12)  
 0.254mm(0.010in) 가  
 (Vicalloy)( HID  
 ) 가 (self - nucle  
 ating), 600mV (Bar  
 khausen jump) " , " , " , "  
 가 . " , " , "

(10) (12) , (10) , 20% 80%  
 2% , 20% , (10) ,  
 , 25% 50% , (10)

(10) (12) , 52% , 10% 38%  
 (12) 가 ,

twist and detwist) 가 가 ( ) (

가 " " 가 (magnetic coercivity) 가 ,

" 가 가 , " 가

가 , 5 10μs

(14)

(10)

- 80 260

(10)

가 (10) (12) (CuNiFe)

( SPC ) (ARNOKROME)™

(12) CuNiFe

가 가 (10) (1)

2)

( ) (10) (80)

(10) (30)( 4) ,

2000 7 20 09/620,316

1mm, 0.5mm

(10)

(30)( 4)

(12)

(10)

(10)

1, 3a 3b

(30 80 ) (G<sub>r</sub>) 3a 1

30 80 (G<sub>s</sub>) 3b 1

20

(10)

(10) 8

(12) ( )

(10) 1

10)

} (10) (12) (

{ (10)}

(10) 가 2

(22) (24)

(water bath)(26) (10) (22) ,

(36, 38) (10) (10)

3

2, 3, 1 (28, 30) 2  
 (32, 34) 가  
 3 3 (10) (10)  
 3kHz (AC) (10)  
 30 80 5 (30) (10) {S  
 (T)} (G<sub>r</sub>), (G<sub>s</sub>), (a<sub>0</sub>) 20  
 (b<sub>0</sub>) (10) (12)가  
 4kHz 가 (10) (10) 4kHz (I) 가  
 4kHz 4kHz (30) (10) { 4 (30)  
 4kHz } (I) (10) (48)  
 (G<sub>r</sub>) 3a 1 ( )  
 (30 80 ) (gradient value)( % ),  
 1 80 (T)

1

$$G_r(\%) = \frac{|R(T) - R(80)|}{R(80)} \times 100$$

, G<sub>r</sub> % (% ), R(T) (T) , R(80) 80  
 13% 3a (b<sub>0</sub>)  
 (10) 0.30%/degree (30) (b<sub>0</sub>), 0.30(  
 ) (48)  
 가 , kHz V/가 (S)가 (10)  
 (G<sub>s</sub>)가 3b 2 80 (T) (S) (G<sub>s</sub>)(  
 % ),

2

$$G_s(\%) = \frac{|V(T) - V(80)|}{V(80)} \times 100$$

, G<sub>s</sub> % (% ), V(T) (T) , V(80) 80  
 (a<sub>0</sub>) 0.025%/degree (30) (a<sub>0</sub>), 0.25  
 (48) 1.24%

(a<sub>0</sub>) (30) (10) (b<sub>0</sub>)  
 (a<sub>0</sub>, b<sub>0</sub>) (30) 1 3a 3b (48)  
 가 (S<sub>0</sub>) (R<sub>0</sub>) (10){ (80) } (10)  
 EPROM 20 23 (48)

(10) (80) ( (80)  
 ) 가 AC (30) 4kHz  
 (10) (I) (10) R(T)=V/I (48) {R  
 (T)} (10) (T)가 3

3

$$T = \frac{R(T) - R_0}{b_0}$$

, R(T) (10) , R<sub>0</sub>  
 , b<sub>0</sub>  
 (T) 4 (10) {S(T)  
 }

4

$$S(T) = S_0 + a_0 X T$$

, S<sub>0</sub> (10) , a<sub>0</sub> ( S<sub>0</sub>, a<sub>0</sub>  
 ), T  
 (30) ( ) 5  
 {S(T)}

5

$$B = \frac{V}{S(T)}$$

, B (10) , V (10) , S(T)  
 (B) (10) (10)

(80) (30) 가 1mm, 0.5mm  
(10)

4 (30) ( )  
(80)  
(80) (80a)  
(44) (80) (80a)  
(80) 4mm (91) 100  
(80, 80a) (junction box) (46)  
(91) 가  
(46) (80a) (80) ( )  
(48) RF (50)가 (80) (91) RF  
(46) RF (52) (44) RF (50)

4 40cm ( )  
) 3  
(91) RF 10 RF 70W  
10 가 가  
(10) (10) (80) (80) (48) (12) (12)  
가 RF RF  
RF ( ) 2

열회귀 실험

	1		2		3		4		5		6		7		8																	
	감도	저항	감도	저항	감도	저항	감도	저항	감도	저항	감도	저항	감도	저항	감도	저항																
30	2.6290	1.39	176.30	12.59	2.3925	1.30	165.20	12.89	2.4537	1.31	171.60	13.17	2.8664	1.26	185.60	13.25	3.3480	1.00	235.7	12.18	2.4057	1.25	167.4	13.02	2.4290	1.32	160.30	20.27	2.5002	1.11	175.40	11.74
35	2.6327	1.25	178.90	10.99	2.3958	1.18	168.00	11.01	2.4567	1.18	174.30	11.42	2.8696	1.14	188.90	11.28	3.3506	0.92	239.3	10.49	2.4081	1.15	169.6	11.58	2.4319	1.20	161.70	19.23	2.5029	1.00	177.40	10.48
40	2.6356	1.13	181.80	9.19	2.3990	1.03	171.00	9.06	2.4598	1.06	177.20	9.59	2.8728	1.03	192.10	9.42	3.3533	0.84	242.6	8.90	2.4108	1.04	171.9	10.08	2.4356	1.05	166.30	15.94	2.5053	0.91	179.20	9.38
45	2.6390	1.00	184.40	7.65	2.4025	0.88	173.90	7.25	2.4632	0.92	179.90	7.95	2.8765	0.90	194.90	7.85	3.3568	0.74	246.7	7.17	2.4141	0.90	174.7	8.30	2.4387	0.92	171.00	12.75	2.5070	0.84	180.60	8.53
50	2.6419	0.89	187.40	5.92	2.4057	0.74	176.40	5.73	2.4870	0.76	182.60	6.35	2.8801	0.77	197.80	6.27	3.3605	0.62	250.9	5.38	2.4167	0.79	177.3	6.71	2.4428	0.75	174.10	10.74	2.5093	0.75	183.50	8.81
55	2.6457	0.75	190.40	4.25	2.4067	0.62	178.90	4.25	2.4705	0.62	185.30	4.80	2.8838	0.64	200.80	4.68	3.3642	0.51	254.4	3.93	2.4198	0.66	179.6	5.35	2.4462	0.61	172.90	11.51	2.5134	0.58	185.10	5.89
60	2.6489	0.63	192.80	2.98	2.4116	0.50	181.80	2.59	2.4744	0.46	188.20	3.19	2.8975	0.52	203.80	3.14	3.3674	0.42	258.7	2.20	2.4232	0.52	182.2	3.84	2.4494	0.48	183.90	4.84	2.5157	0.49	191.40	2.40
65	2.6519	0.51	195.80	1.38	2.4148	0.36	184.30	1.19	2.4774	0.34	191.80	1.25	2.8913	0.38	207.30	1.40	3.3708	0.32	261.7	1.03	2.4265	0.38	184.6	2.49	2.4516	0.39	190.20	1.37	2.5168	0.45	194.10	0.96
70	2.6557	0.37	198.50	0.00	2.4176	0.25	188.50	0.00	2.4799	0.24	194.20	0.00	2.8952	0.25	210.20	0.00	3.3749	0.20	264.4	0.00	2.4293	0.27	186.9	1.23	2.4548	0.26	192.80	0.00	2.5215	0.26	196.00	0.00
75	2.6599	0.21			2.4207	0.12			2.4833	0.10	196.40		2.8986	0.13	212.20		3.3780	0.10	267.9		2.4326	0.13	189.2	0.00	2.4580	0.13			2.5247	0.13		
80	2.6655	0.00			2.4236	0.00			2.4858	0.00			2.9024	0.00			3.3815	0.00			2.4358	0.00			2.4611	0.00			2.5280	0.00		
slope	-0.0266		-0.3165		-0.0259		-0.3233		-0.0289		-0.3305		-0.0254		-0.3279		-0.0205		-0.3124		-0.0253		-0.2934		-0.0266		-0.5271		-0.0219		-0.3069	

[ 1 ]

(mm) (3kHz V/가 )

	(mm)	(V/가 )
	5.9	3.0
	0.4	3.3
	0.5	7.0 8.0

2 , ( ) (12) (10)  
2 가 , 0.5mm 가

(10) , (10)가 7.0 8.0V/가 , (10) ,

80 , (10) 0.5mm , ,

(10) , 가 ,

(10) , 가 ,

(10) (30) (80) ( ) (10)

( ) 가 , AC , (80) (30)

(30) (10) AC , 3kHz

Z , (10) 4kHz

(80)가 , (80) (80) (80)  
 (80) (10) (30)  
 (80) (10)  
 , 4kHz 가 (10) (10) 가  
 (48) (30) (1) (10)  
 가 (48) (10)  
 (48) ( )  
 ) (48) (b<sub>0</sub>)( ) ,  
 (48) (10)  
 , (10) (80) , (80)  
 ( ) (30) 3kHz 1  
 , 4kHz 2  
 (I) (10)  
 (80)가 가 , (10) 가 (I)  
 가 (48) , (48)  
 (10) (10)  
 , (30) 가 80 ,  
 가 (10) ,  
 가

(57)

1.

- 2.
- 1 , .
- 3.
- 2 , .
- 4.
- 1 , 가 .
- 5.
- 4 , 가 , .
- 6.
- 5 , AC .
- 7.
- 6 , 3kHz .
- 8.
- 7 , 4kHz .
- 9.
- 1 , .
- 10.

9 , .

11.

10 , .

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18.

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19.

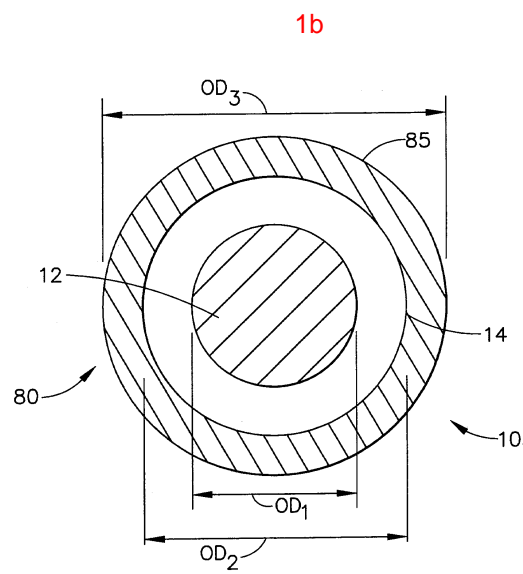
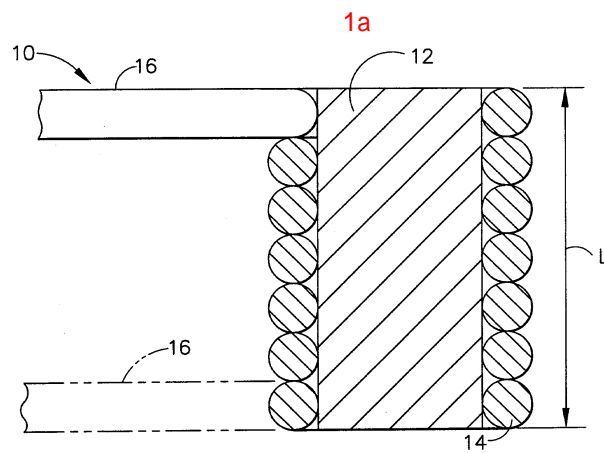
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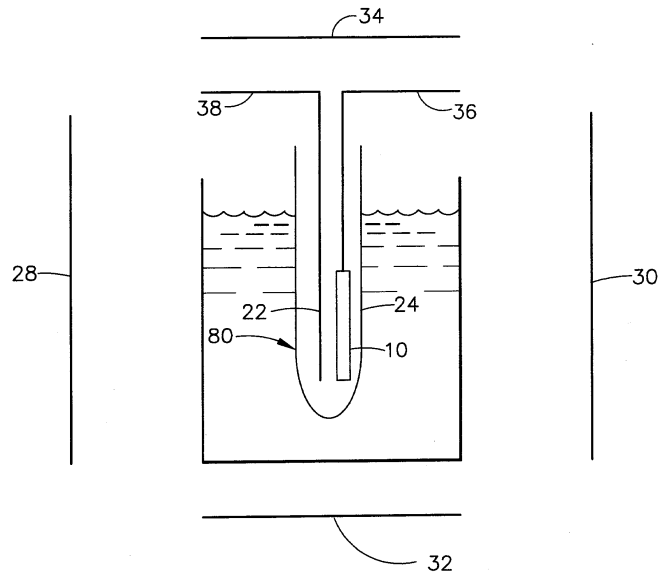
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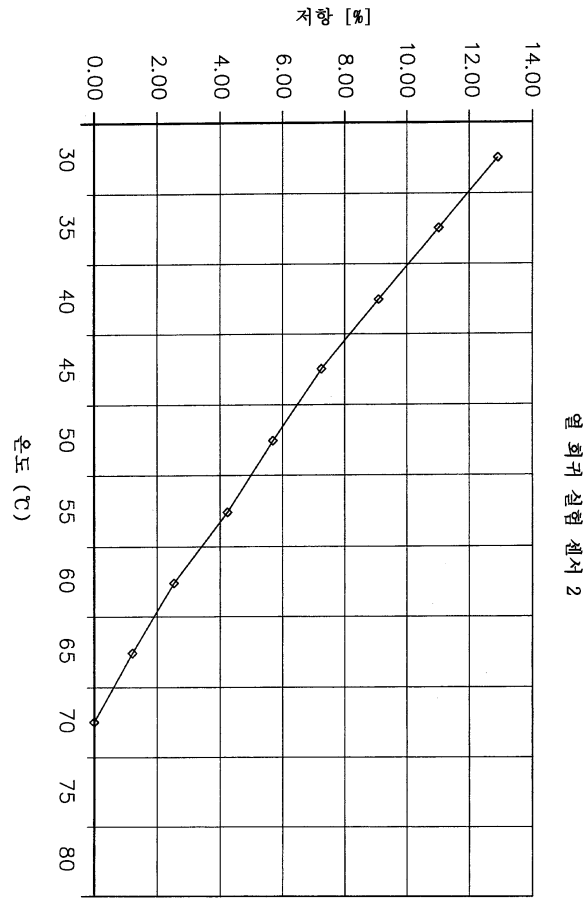
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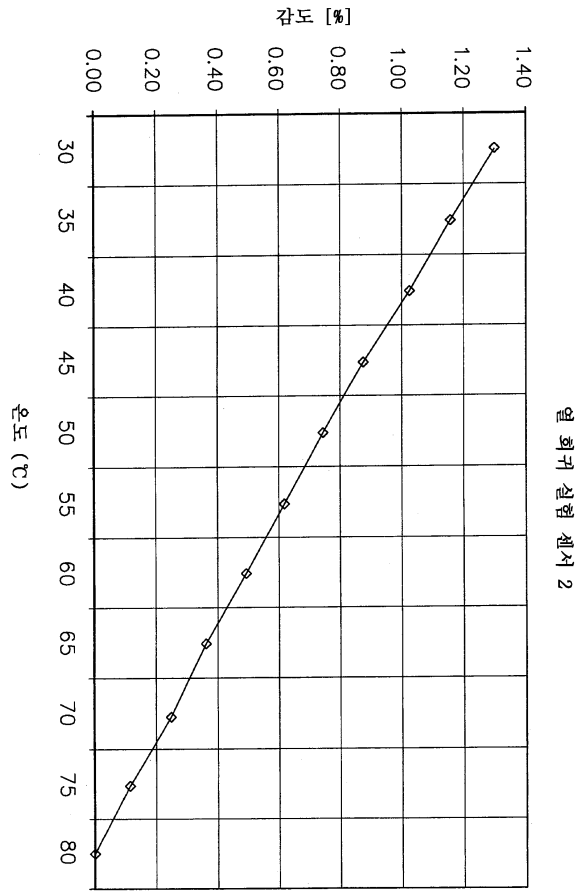
2



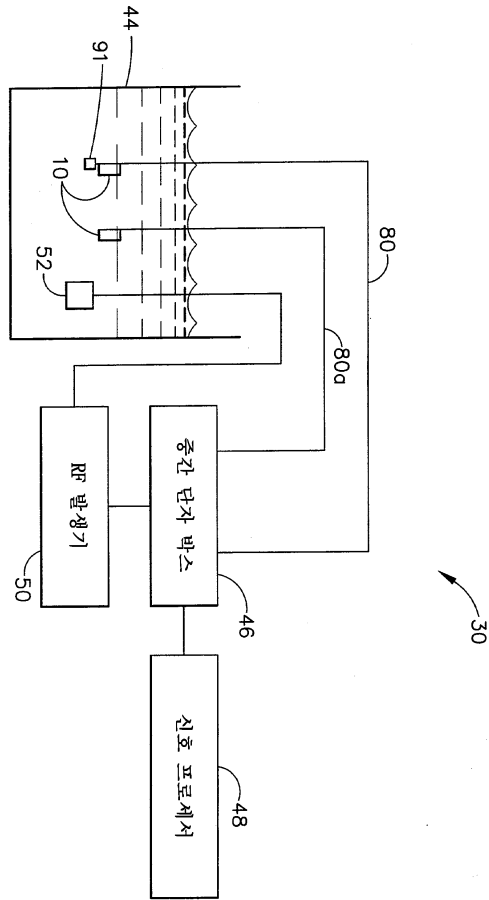
3a



3b

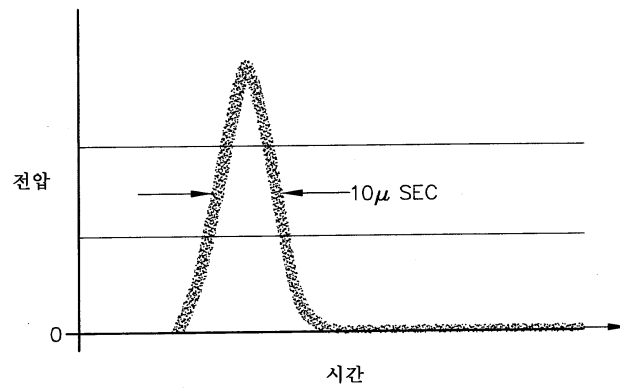


4



5

위갠드 모듈-펄스 출력



专利名称(译)	具有位置传感器的医疗装置的温度测量和温度灵敏度调节的方法		
公开(公告)号	<a href="#">KR1020030006979A</a>	公开(公告)日	2003-01-23
申请号	KR1020020030987	申请日	2002-06-03
[标]申请(专利权)人(译)	生物感觉有限公司		
申请(专利权)人(译)	生物感觉, 鼻子的激光炮		
当前申请(专利权)人(译)	生物感觉, 鼻子的激光炮		
[标]发明人	GOVARI ASSAF		
发明人	GOVARI,ASSAF		
IPC分类号	G01B7/00 A61B5/028 A61B5/01 A61B17/00 G01B7/30 A61B19/00 A61B5/06 A61B5/00 G01K7/16		
CPC分类号	G01B7/003 A61B5/015 A61B5/028 A61B5/06 A61B2019/5251 A61B2017/00084 A61B19/46 G01B7/30 A61B5/062 A61B90/06 A61B2034/2051		
代理人(译)	李, 何炳 李昌勋		
优先权	09/882126 2001-06-15 US		
外部链接	<a href="#">Espacenet</a>		

摘要(译)

目的：提供一种温度测量方法，这是由于尺寸小的位置传感器或在高温下保持高精度的传感器线圈所致。组成：温度测量方法和用于调节与具有位置传感器的医疗设备温度相关的灵敏度的方法（10），具有制备具有位置传感器的医疗设备的过程和用于测量位置电压的过程 传感器（10）。根据测得的电压确定电阻值，并根据该电阻值确定位置传感器的温度值。使用位置传感器（10）确定温度值。因此，温度是使用位置传感器（10）本身直接测量和监控的。此外，位置传感器（10）的灵敏度基于温度来确定。来自位置传感器的位置数据根据灵敏度进行调整。

