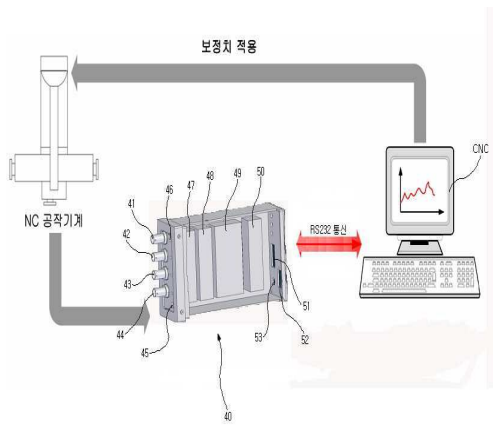
	(19)	(KR)	(45)	2010 04 23
	(12)	(B1)	(11) (24)	10-0954728 2010 04 19
(51)	Int. Cl.		(73)	
	<i>B23Q 15/18</i> (2006 01)	<i>G05B 19/404</i> (2006 01)		171
(21)	10-2007-0137066		(72)	
(22)	2007 12 26			
	2007 12 26			
(65)	10-2009-0069413			104-507
(43)	2009 07 01			
(56)				1 105-1201
	JPO5116053 A*		( )	
	JPO5116056 A*		(74)	
	KR100579083 B1*			
	KR1019880002387 B1*			
	*			
	:	1		:

(54)

(57) (X Y,

Z) A/D A/D A/D  
 : CNC RS232  
 CNC  
 - 4



(72)

1 105-710

111-401

NK137G

(NRL)

2008 07 01 ~ 2008 12 31

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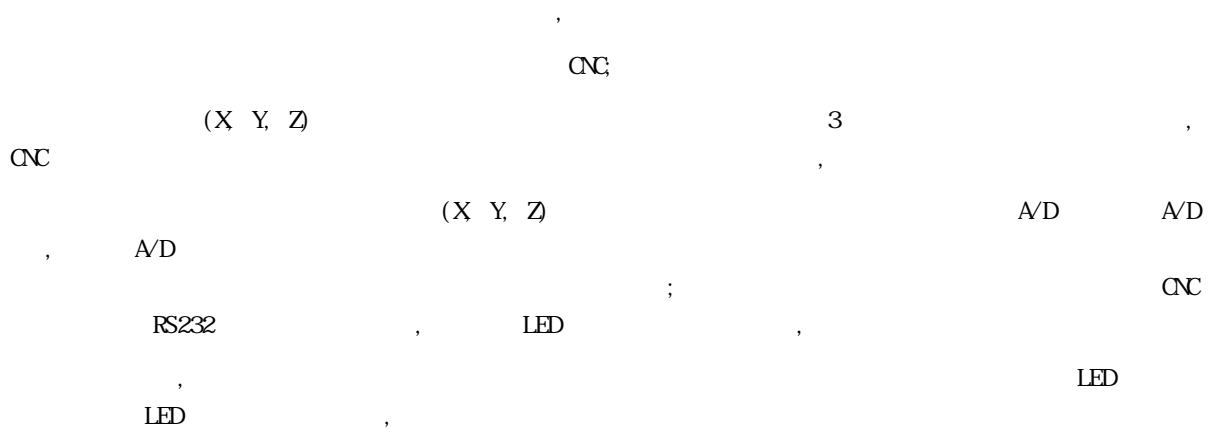
1

2

3

4

5



6

7

8

[0001]

[0002]

X Y Z

70%

[0003]

CNC(Computerized Numerical Controller)

[0004]

[0005]

[0006]

PC

[0007]

1

[0008]

1

[0009]

1

X , Y , Z

, X , Y , Z ,

X , Y , Z ,

A/D

X , Y , Z

A/D

PC

A/D

[0010]

X , Y , Z ,

2

[0011]

2

2

X ,

Y , Z ,

3

[0012]

3

3

X

, Y , Z ,

3

16 5

[0013]

NC

I/O

CNC

NC

[0014]

1

PC

(Offset)

+

PC

[0015] , /

[0016] CNC (X Y, Z)  
A/D A/D , A/D  
; CNC  
RS232

[0017] , LED

[0018] , LED  
LED

[0019] ,

[0020] ,

[0021] ,  
CNC (X Y, Z) 3  
, CNC  
(X Y, Z) A/D A/D  
A/D ;  
CNC RS232

[0022] , LED

[0023] , LED  
LED

[0024] ,

[0025] ,

[0026] , PC  
3

[0027] , CNC

[0028] ,

[0029] , 4 7

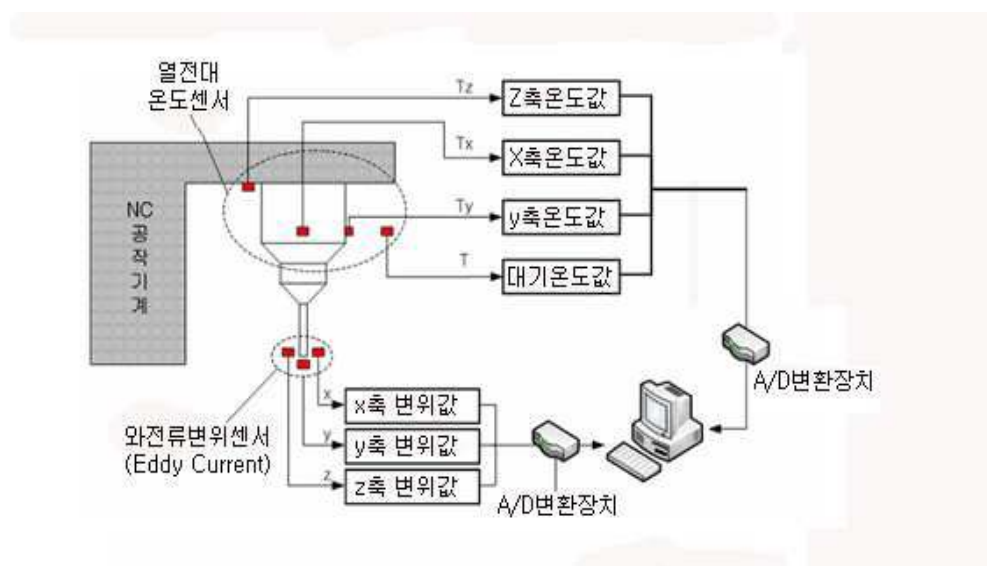
- [0030] 4 .
- [0031] 4 , (40) CNC . ,  
(40) 3  
CNC CNC
- [0032] (40) , ( ) X , Y , Z ,  
X (41), Y (42), Z (43), (44)  
LED(46) (41, 42, 43, 44)  
(45) (40)
- [0033] (40) A/D (48)  
LED(46) LED (47)  
DSP(49) CNC RS232 (50) DSP(49)  
DSP(49)
- [0034] (40) CNC , CNC RS232 RS232  
DSP(digital signal processor : 49) JTAG (51)  
(53)
- [0035] (40) 5
- [0036] 5
- [0037] 5 (40) (40)
- [0038] 5 , A/D (48) ( ) X , Y , Z ,  
A/D (491) , A/D (48)  
16  
RS232 CNC A/D (48)  
( )  
0 ~ 3.3V 0 ~ 100  
(491) LED (47)  
LED (47) LED (491)  
(492) (492)  
(492)  
CNC (492)  
(492)  
CNC (491) (491) RS232 (50)  
CNC CNC  
6
- [0039] 6
- [0040] 6 , NC [ : SP\_UFR(...) ] (Link) [ :  
/Channel/UserFrame/LinkShift(...)] (VC++) HMI(Human Man Interface,  
CNC ) CEM ( ) CNC ,

CNC

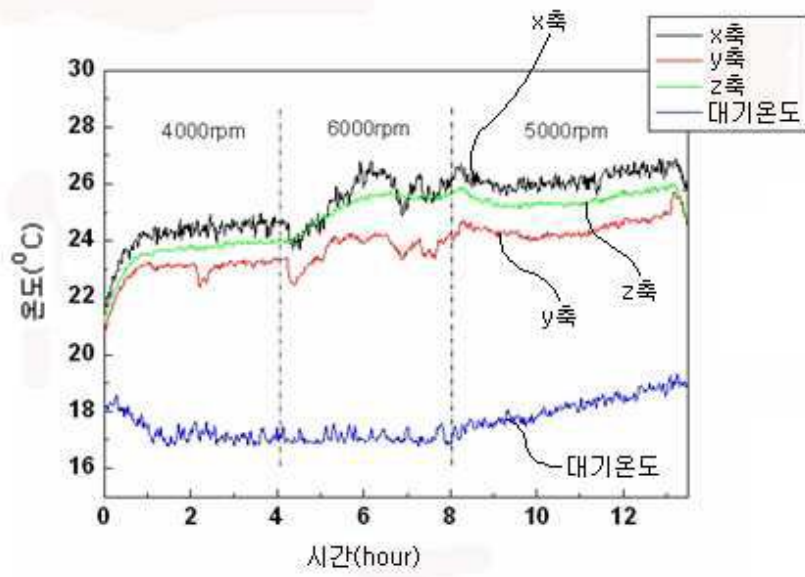
7

[0041]	7				
[0042]	7		7		X
	, Y , Z ,			7	
		3.9	3	7	16.5
	76.4%				
[0043]	1				
[0044]	2				
[0045]	3				
[0046]	4				
[0047]	5				
[0048]	6				
[0049]	7				
[0050]	*				
[0051]	40 :		45 :		
[0052]	47 : LED		48 : A/D		
[0053]	49 : DSP		50 : RS232		

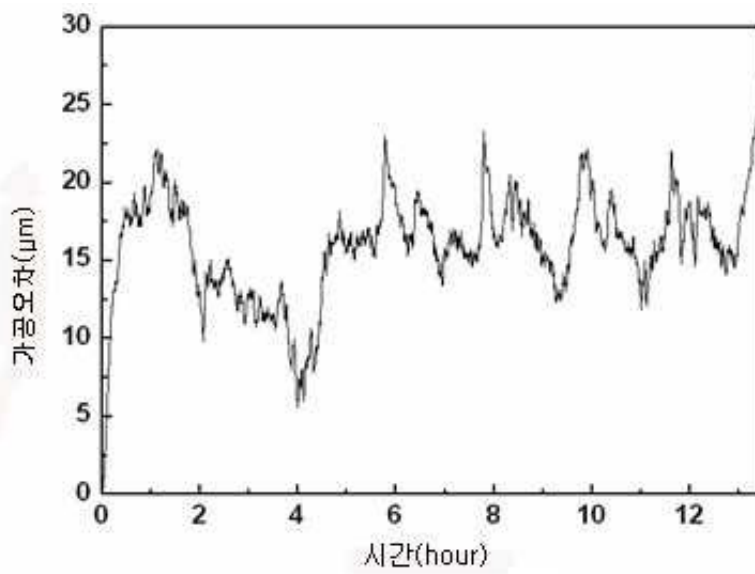
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2

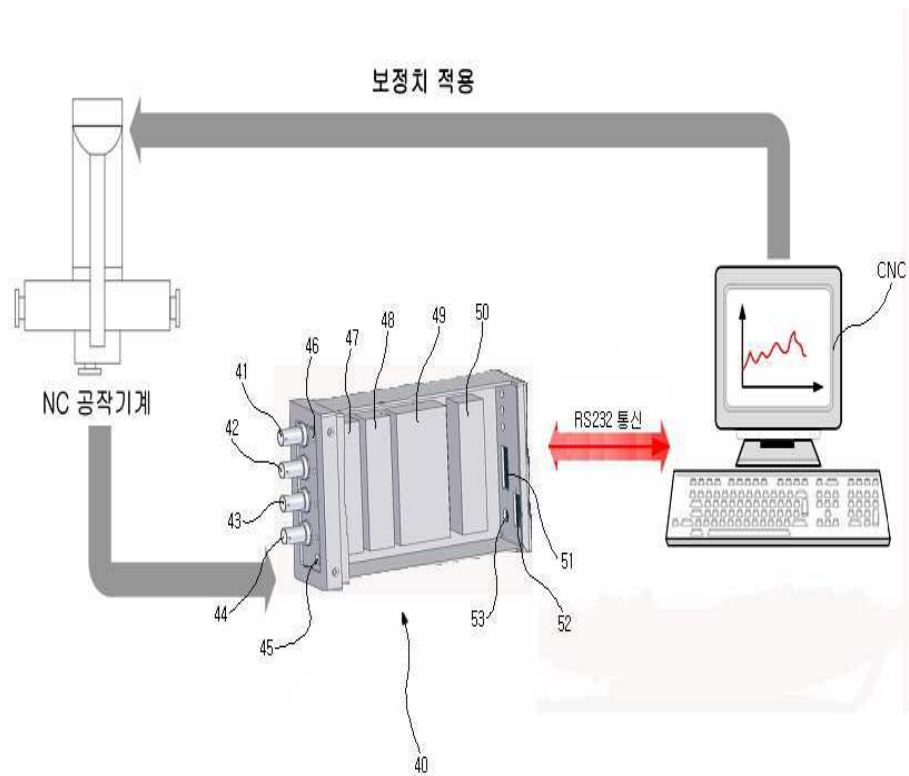


3

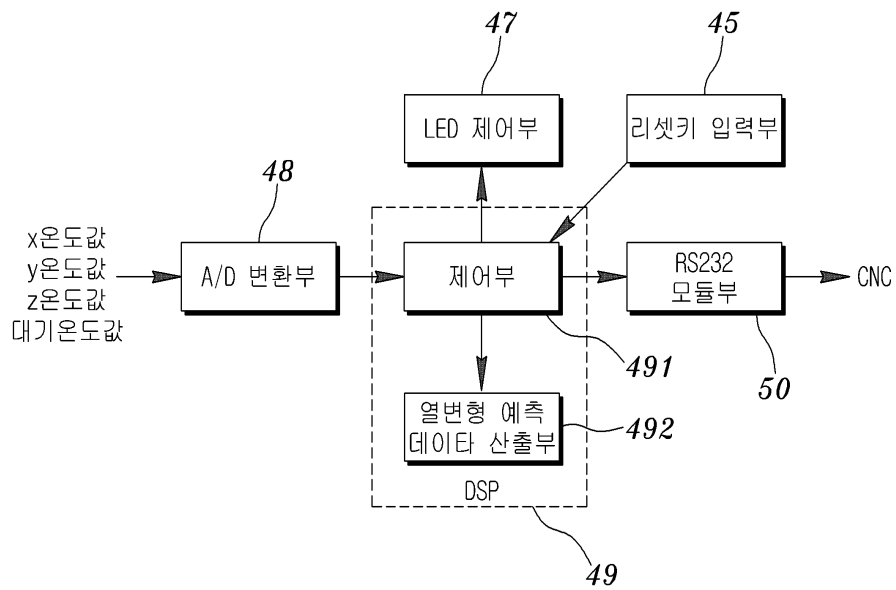




4



5



6

CNC실정방법 NC Kernel 변수 [예: \$P\_UIFR(...)] 및 Link 변수 [예: /Channe/UserFrame/InShift(...)]의 접근용 사용자 코드(VC++)작성 및 HMI(기계커널영역)에 OEM서브모듈로 임베디드를 함으로 CNC에 실장

NRL KEMand

The screenshot displays the 'Thermal Compensation' window of a CNC control system. It includes a 'Predicting Model' section with X, Y, and Z axis coordinates. The 'Thermal Compensation' section shows a table of parameters for different axes (X, Y, Z, A) and positions (MCS, VICE, Current, Compens). A 'Thermocouple Sensing' graph is visible at the bottom. To the right, a 'Parameter' table lists various work offsets (G54-G59) with their corresponding X1, Y1, and Z1 values.

Parameter	Channel	Auto	WKS DRIVE/TEST WPD
Channel reset			KIMTEST MPF Program aborted
Channel reset			RVV
Settable work offset			
G54	Coarse		X1 [mm] -76.600 Y1 [mm] 76.555 Z1 [mm] -100.000
G55	Coarse		X1 [mm] 0.000 Y1 [mm] 0.000 Z1 [mm] 0.000
G56	Coarse		X1 [mm] -310.000 Y1 [mm] -172.000 Z1 [mm] -312.000
G57	Coarse		X1 [mm] 0.000 Y1 [mm] 0.000 Z1 [mm] -8.220
G58	Coarse		X1 [mm] -300.000 Y1 [mm] -200.000 Z1 [mm] -150.000
G59	Coarse		X1 [mm] 0.000 Y1 [mm] 0.000 Z1 [mm] 0.000
G59.5	Coarse		X1 [mm] -20.000 Y1 [mm] -131.700 Z1 [mm] -30.000
G59.6	Coarse		X1 [mm] 0.000 Y1 [mm] 0.000 Z1 [mm] 0.000
G59.7	Coarse		X1 [mm] -373.500 Y1 [mm] -240.000 Z1 [mm] -340.000
G59.8	Coarse		X1 [mm] -207.200 Y1 [mm] -172.000 Z1 [mm] -304.000
G59.9	Coarse		X1 [mm] 0.000 Y1 [mm] 0.000 Z1 [mm] 0.000
G59.10	Coarse		X1 [mm] 0.000 Y1 [mm] 0.000 Z1 [mm] 0.000

Offset자동변경 통합Agent (DA GUI)에서 열 변형 보정모델 결과에 따른 기계연결 Offset 값의 CNC Parameter 자동변경

7

