

**Honeywell**

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**IPC1000**




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
IPC1000( )	.
IPC1000	
.	
	IPC1000
	.

1.	가	.
2.		
	.	
3.		,
		.
4.		.
5.	가	
	,	,
	.	
6.		
		.

가 .


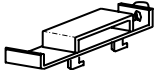
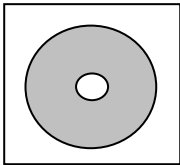
.

	“ ” . ,
	Frame Ground
	(1) " " .  (2) " " . Software Hardware System Down

	" 가 " .
	(1) " " .  (2) " " 가 .

IPC1000

- 1. ( )
- 2.
- 3.

	IPC1000	1	IPC1000-R LonWorks IPC1000-L
		2	
CD 		1	RS-232 IPC1000 IPC1000



1.	.....	1	
1.1	.....	1	
1.2	.....	1	
1.3	.....	2	
2.	.....	3	
2.1	.....	3	
2.2	.....	4	
2.3	.....	4	
2.4	.....	5	
2.5	.....	5	10
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4.9	.....	40	


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# 1.

1.1 : IPC1000

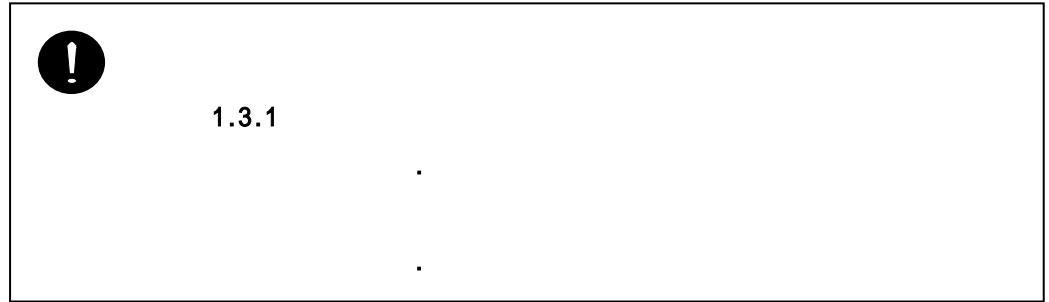
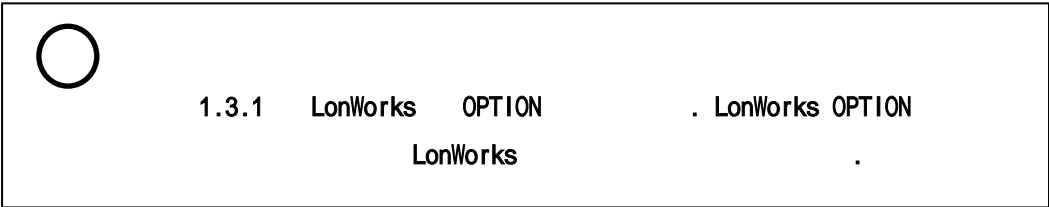
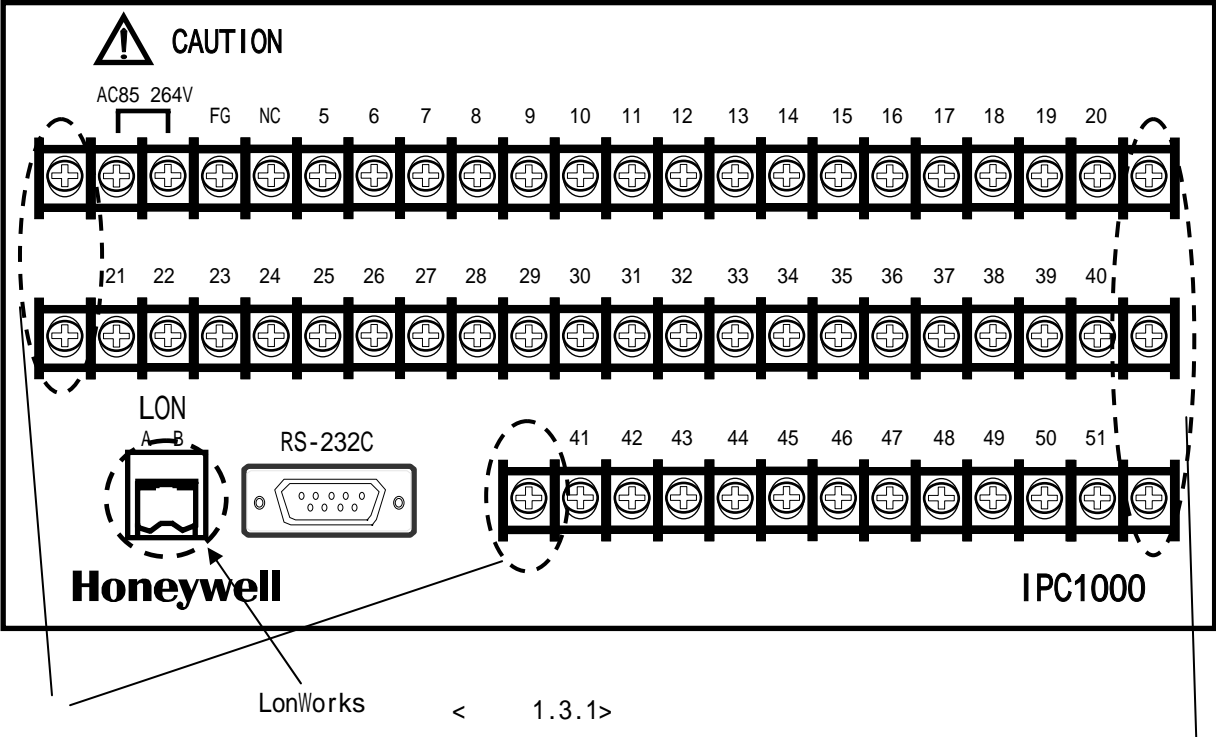
## 1.2

No		No		No	
1	<input type="checkbox"/> AC 85 264V	21	A Pt100 /	41	COM
2		22	B JPt100	42	RUN/STOP
3	FG	23	B JPt100	43	, 1
4	NC	24	A Pt100 /	44	, 2
5	COM	25	B JPt100	45	, 3
6	NC	26	B JPt100	46	, 4
7	NC	27	+ DC4 20 mA	47	, 5
8	RUN	28	-	48	, 6
9	END	29	NC	49	, 7
10	RUN	30	COMMON	50	, 8
11	DOWN	31	SSR	51	, 9
12	TROUBLE	32	SSR		
13	INNER SIGNAL1				
14	INNER SIGNAL2				
15	INNER SIGNAL3				
16	INNER SIGNAL4				
17	TIME SIGNAL1	33	+	1	BLOWER
18	TIME SIGNAL2	34	-	2	OVER TEMP
19	TIME SIGNAL3	35	+	3	DRY TEMP
20	TIME SIGNAL4	36	-	4	WET TEMP
		37	+	5	1
		38	-	6	2
		39	+	7	No Water
		40	-	8	No Water Pressure
				9	



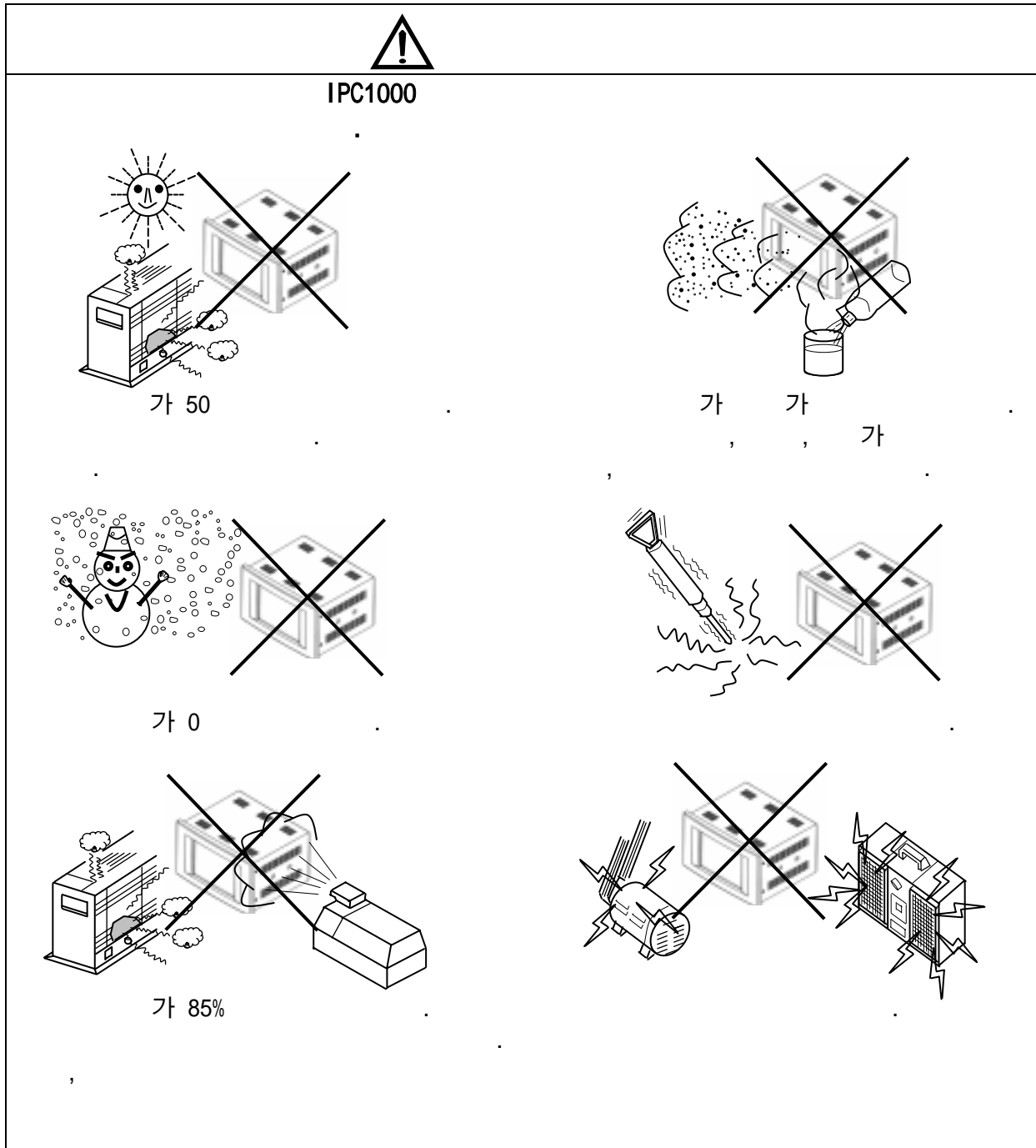
CONTROL SET ( 3.2.1) SIGNAL SELECT I.S  
TIME SIGNAL 1,2,3,4 INNER SIGNAL 5,6,7,8 .  
( 17, 18, 19, 20)

1.3



## 2.

### 2.1



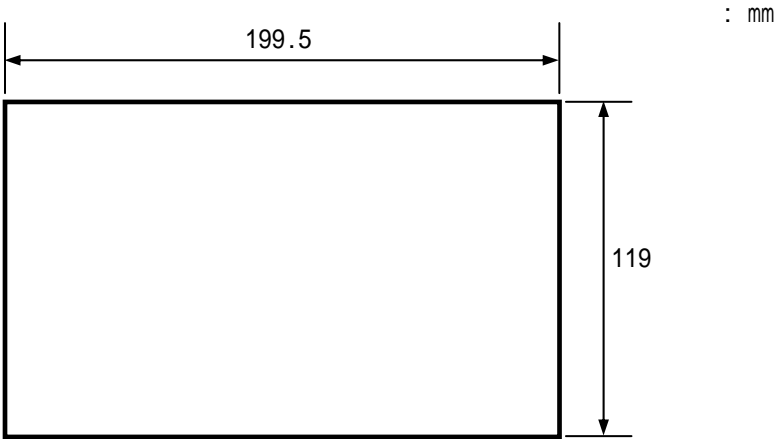
2.2

IPC1000( ) 가 .

- 1)
- 2) ( , )
- 3) , 가 ,
- 4)

- 5) IPC1000 ,
- FG
- 6)
- 7) , 1
- 8) IPC1000
- 가
- 9) 0 2
- 2

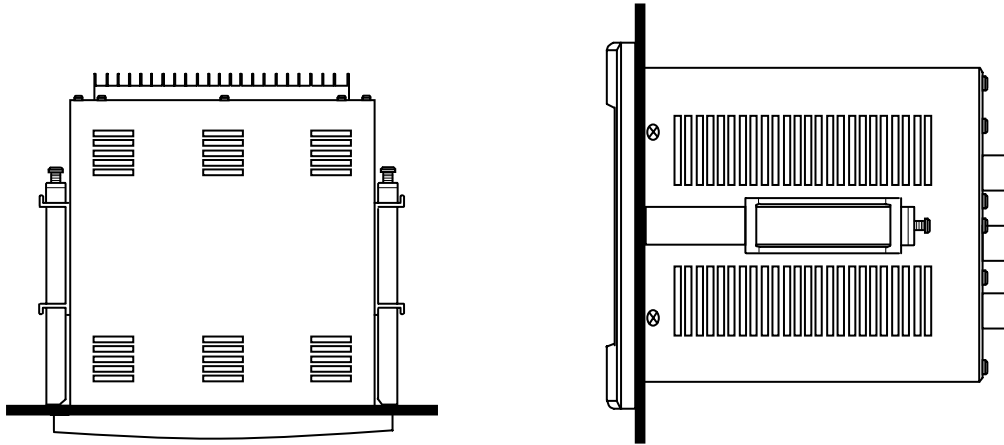
2.3



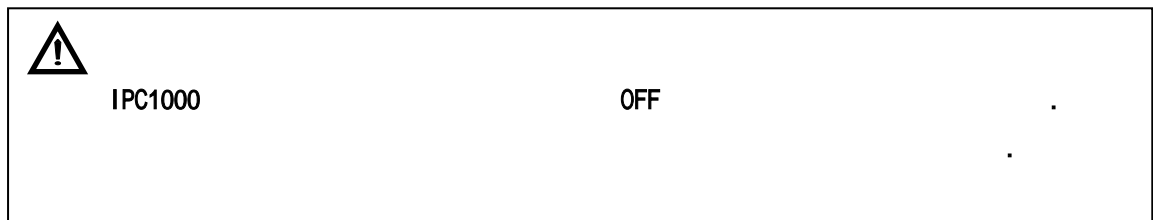
< 2.3.1>

---

## 2.4

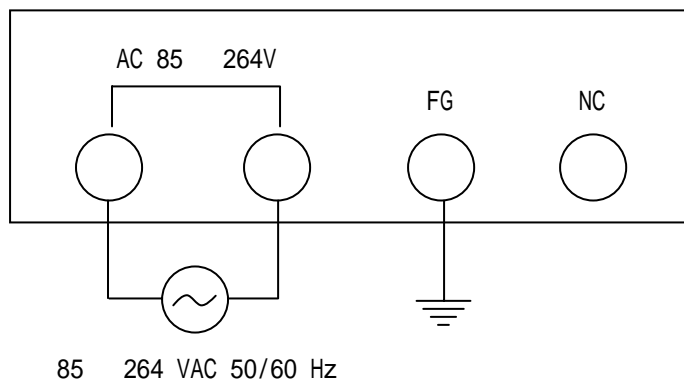


< 2.4.1>



## 2.5

1)



< 2.5.1>



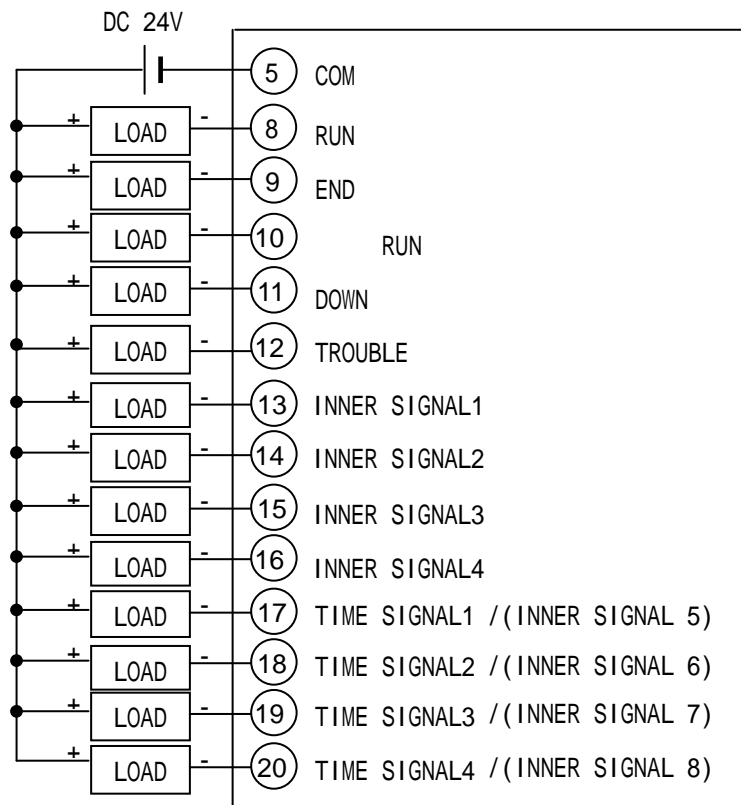
2.5.1

2.5.2 Frame Ground(FG)

.

.

2) (SSR)



IPC1000 Open Collector  
30VDC, 50mA ,  
47 Ω  
LOAD  
24VDC

< 2.5.3 >



1. RUN

: 8

:

ON

가 "STOP", "END", "READY", "BREAK", "TROUBLE"

OFF

가 "RUN", "HOLD", "WAIT",

"COLD", "HOT"

ON

2. END

: 9

:

ON

OFF

.

### 3. RUN

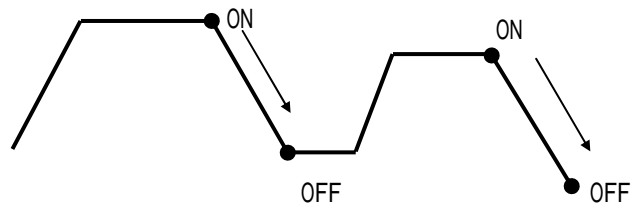
: 10

:  
ON ,  
OFF .

### 4. DOWN

: 11

:  
SP 2.5.4  
ON , WAIT 가  
ON 가 WAIT 가 OFF 가  
OFF 가 .



< 2.5.4> DOWN SSR ON-OFF

### 5. TROUBLE

: 12

: ALARM 1 9( 43,44,45,46,47,48,49,  
50,51) ON TROUBLE ON .  
TROUBLE OFF 가 TROUBLE OFF 가  
TROUBLE "CLEAR"  
. TROUBLE  
OFF .

### 6. INNER SIGNAL 4 TIME SIGNAL 4

:

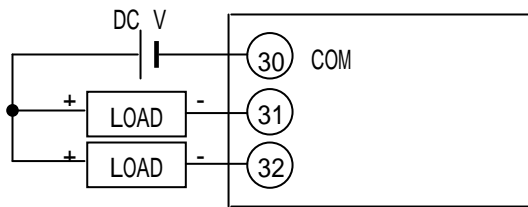
INNER SIGNAL 1	13	TIME SIGNAL 1	17
INNER SIGNAL 2	14	TIME SIGNAL 2	18
INNER SIGNAL 3	15	TIME SIGNAL 3	19
INNER SIGNAL 4	16	TIME SIGNAL 4	20

:

INNER SIGNAL	PAGE 20	25
TIME SIGNAL	"	" 30 32

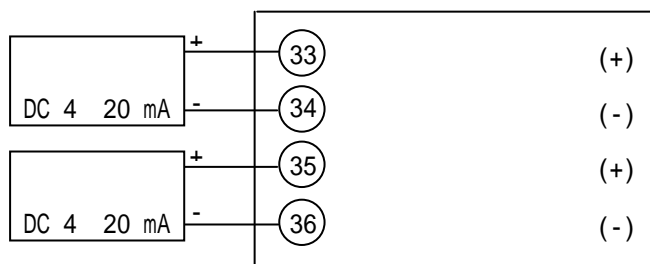
---

3) (SSR) (PID )



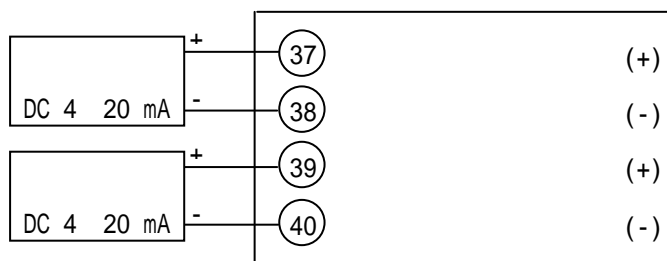
< 2.5.5>

4) (PID )



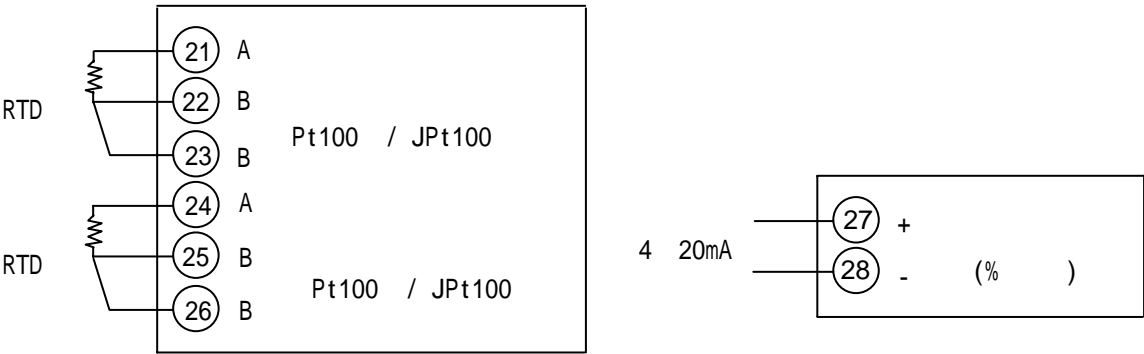
< 2.5.6>

5)



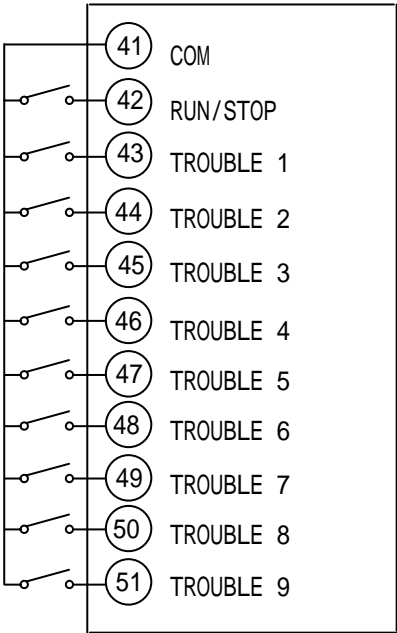
< 2.5.7>

6)



< 2.5.8>

7)



< 2.5.9>



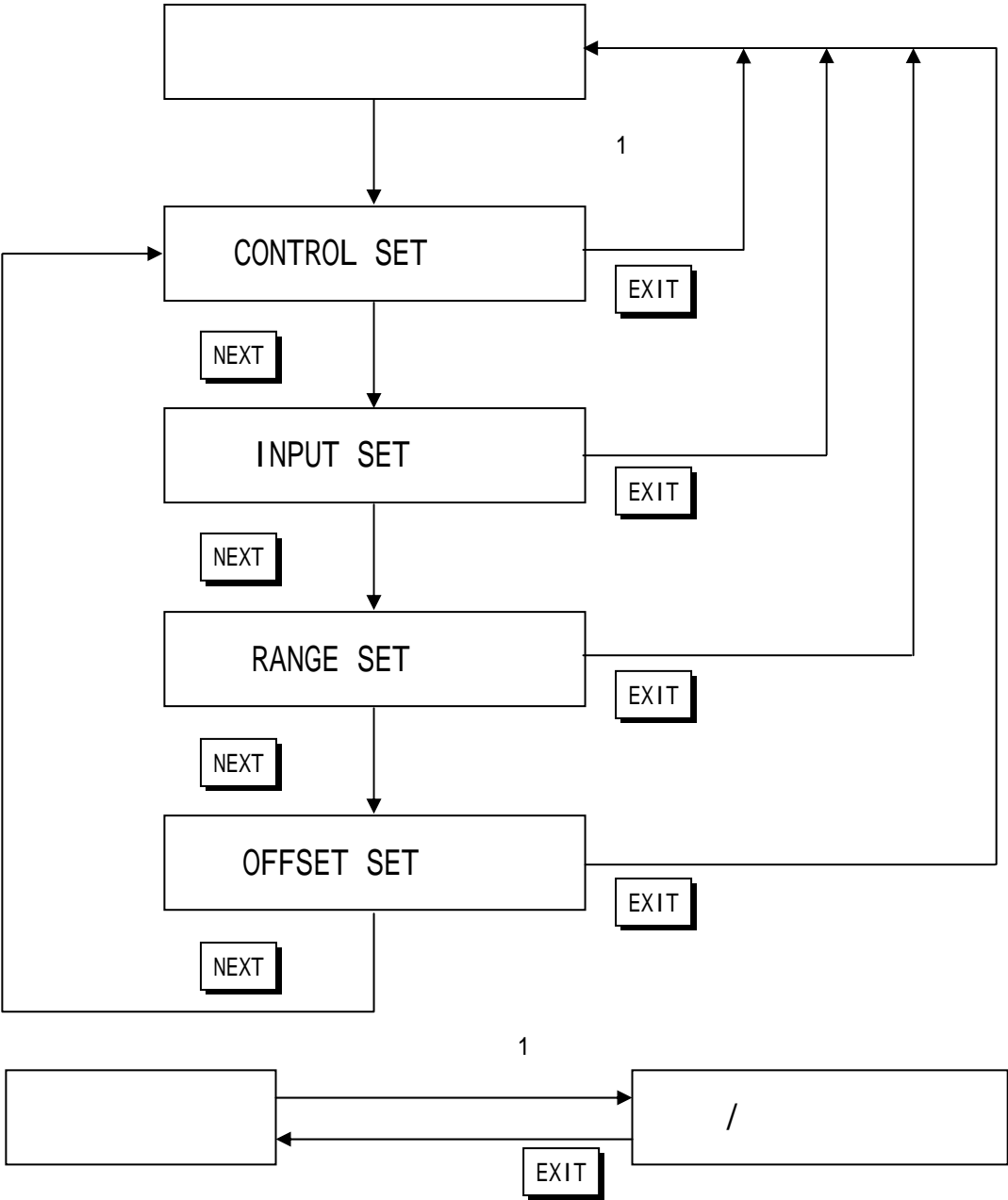
ON/OFF

3. IPC1000 SET UP

3.1.1

3.1

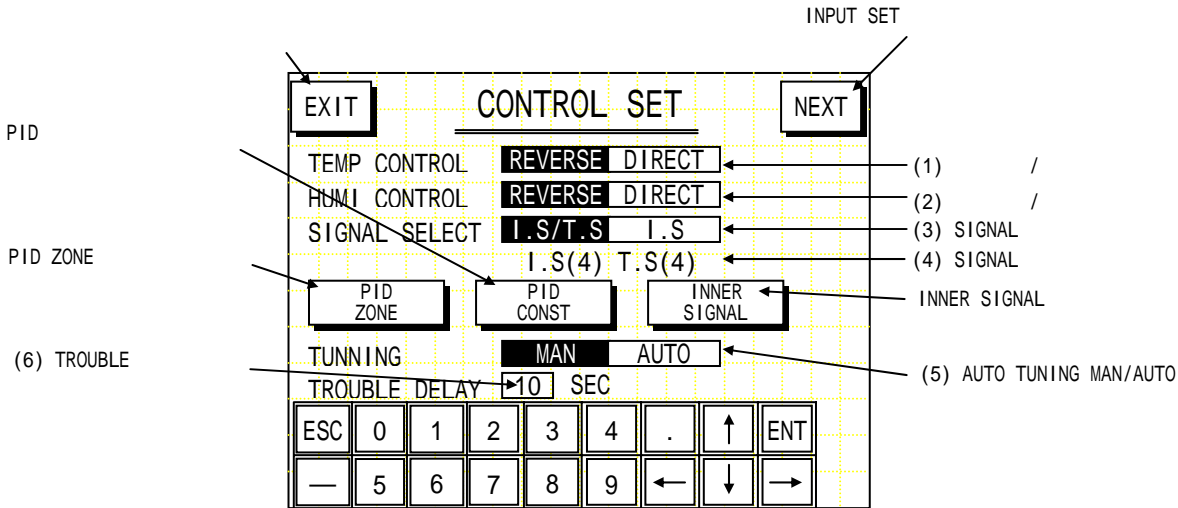
ROTATION ( 3.1.1) , \_\_\_\_\_  
(CONTROL SET ) 1  
\_\_\_\_\_.



< 3.1.1>

3.2 CONTROL SET

, DIGITAL , PID , AUTO TUNING



< 3.2.1>

1.

REVERSE (1)

. REVERSE

DIRECT (1)

. DIRECT

2.

REVERSE (2)

. REVERSE

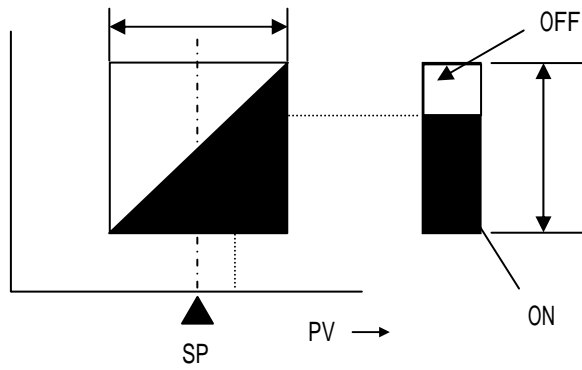
DIRECT (2)

. DIRECT



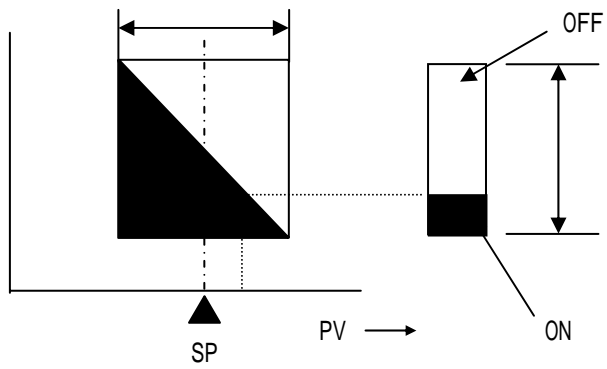
/

1. (DIRECT) : ,



< 3.2.2>

2. (REVERSE) : 가 , 가



< 3.2.3>

### 3. INNER(4)/TIME(4) SIGNAL      INNER(8) SIGNAL

```
IPC1000          4      INNER SIGNAL      TIME SIGNAL          ,
INNER SIGNAL      8          .( , INNER SIGNAL      8
          TIME SIGNAL 4          .)
```

INNER SIGNAL 4      TIME SIGNAL 4

3.2.1 I.S/T.S (3) I.S/T.S  
 , SIGNAL (4)가 "I.S(4) T.S(4)"

INNER SIGNAL 8

3.2.1 I.S (3) . I.S ,  
SIGNAL (4)가 "I.S(8)" .

I.S/T.S		I.S	
INNER SIGNAL 1	: 13	INNER SIGNAL 1	: 13
INNER SIGNAL 2	: 14	INNER SIGNAL 2	: 14
INNER SIGNAL 3	: 15	INNER SIGNAL 3	: 15
INNER SIGNAL 4	: 16	INNER SIGNAL 4	: 16
TIME SIGNAL 1	: 17	INNER SIGNAL 5	: 17
TIME SIGNAL 2	: 18	INNER SIGNAL 6	: 18
TIME SIGNAL 3	: 19	INNER SIGNAL 7	: 19
TIME SIGNAL 4	: 20	INNER SIGNAL 8	: 20

#### 4. AUTO TUNING MAN/AUTO

## AUTO TUNING

AUTO TUNING MAN

3.2.1 MAN (5) . MAN

MAN (TEMP, HUMI) AUTO TUNING  
 , AUTO TUNING .

AUTO TUNING AUTO

3.2.1 AUTO (5) . AUTO

AUTO (TEMP, HUMI) AUTO TUNING  
 , AUTO TUNING .

## 5. TROUBLE

TROUBLE

TROUBLE

1 99

(6)  
ENT

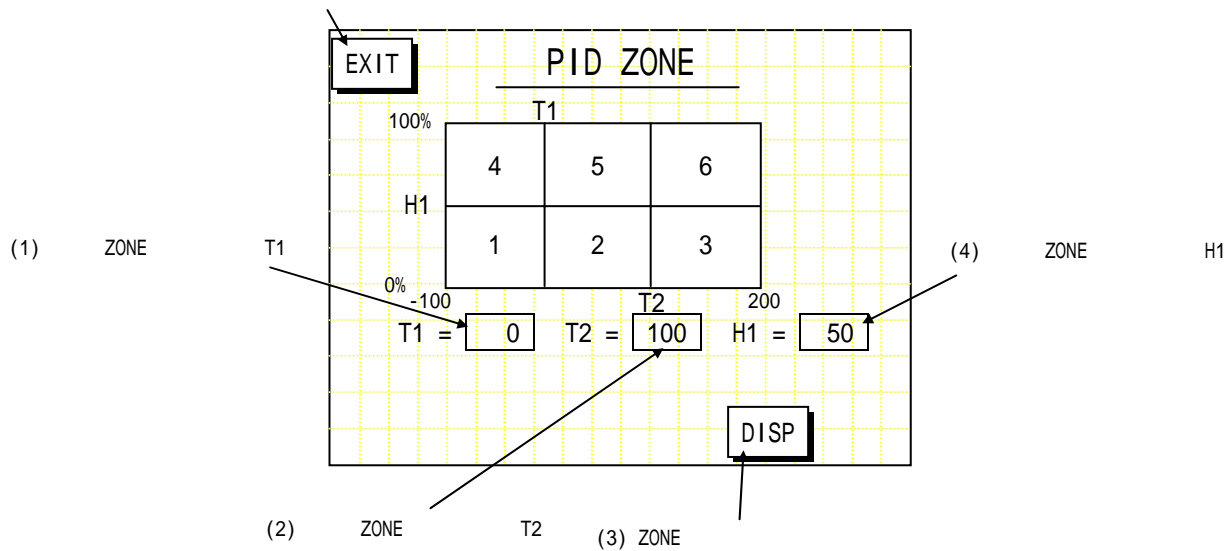
가 ,  
, ESC

## 3.3 PID ZONE

PID 6 ZONE , (SP)

ZONE PID  
ZONE 5 , 1 PID

CONTROL SET



< 3.3.1>

1. T1 (1), T2 (2), H1 (4)

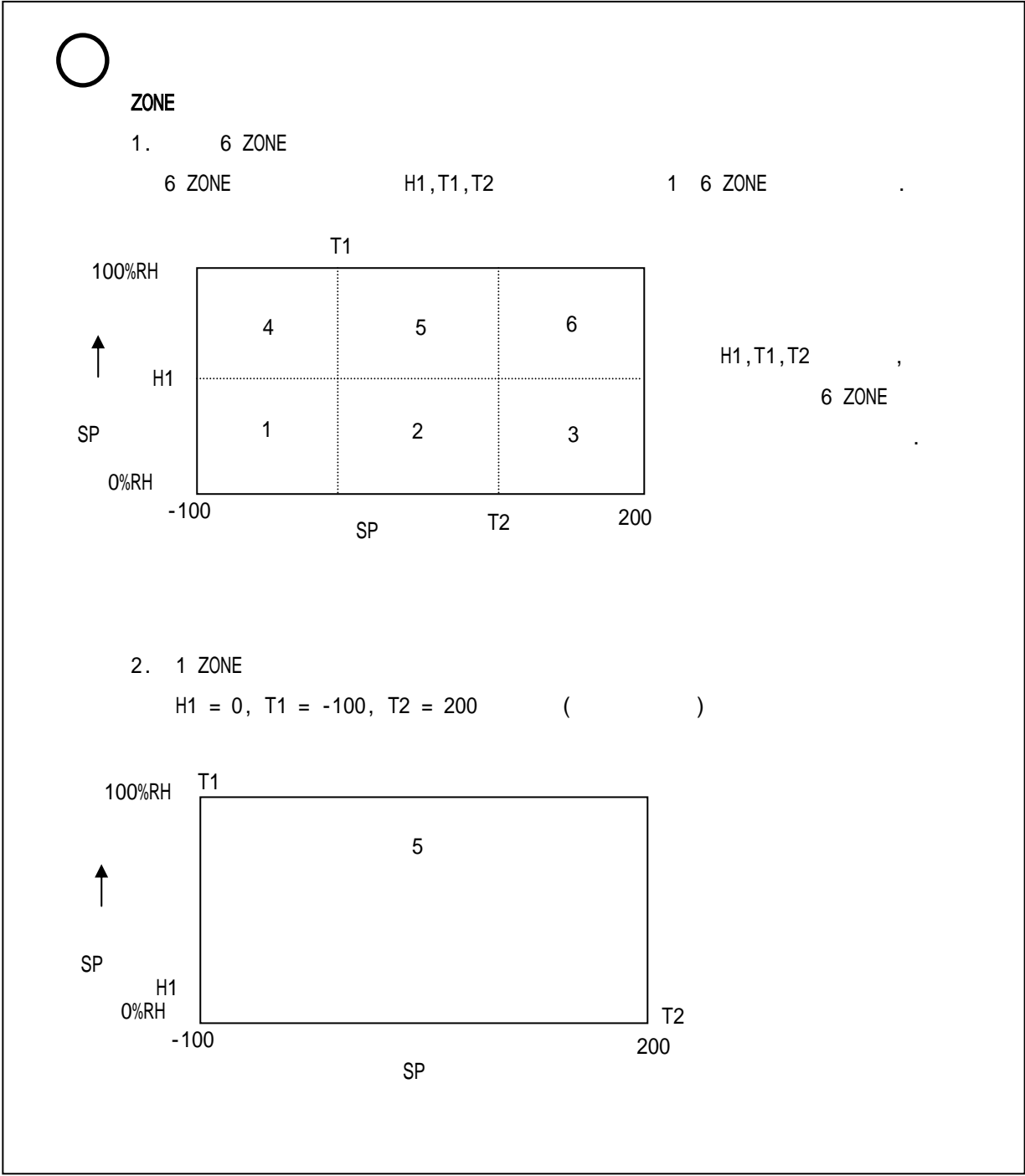
가

ENT

, ESC

2. 1 DISP (3) ZONE 3.3.1

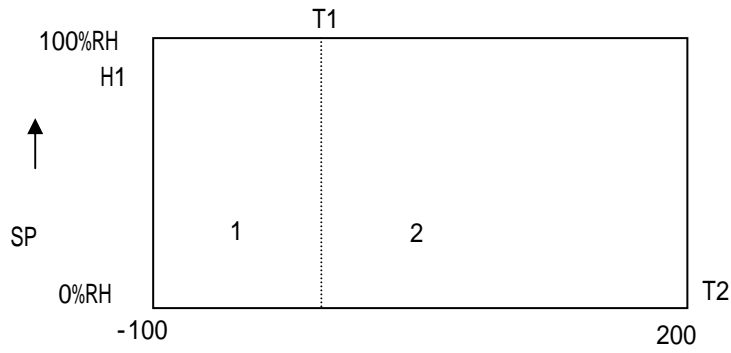
3. T1 T2 -100 200 , H1 0 100%RH



3. 2 ZONE

H1 = 100, T2 = 200

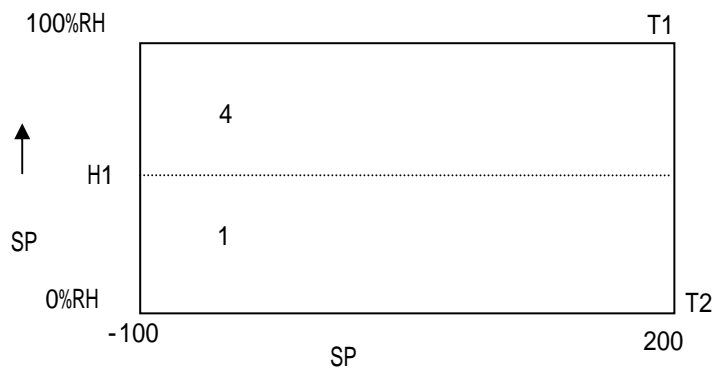
. T1 ZONE



4. 2 ZONE

T1 = 200, T2 = 200

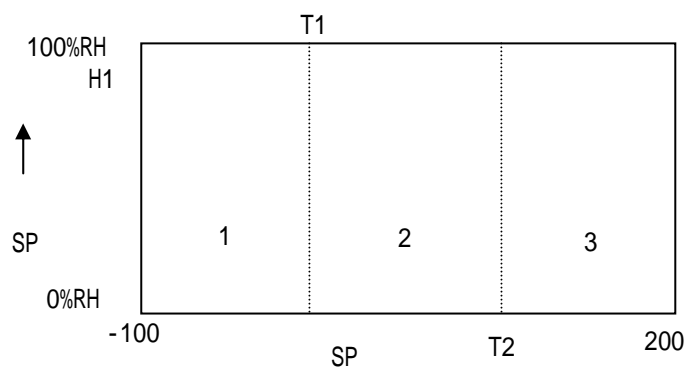
. H1 ZONE



5. 3 ZONE

H1 = 100

. T1, T2 ZONE



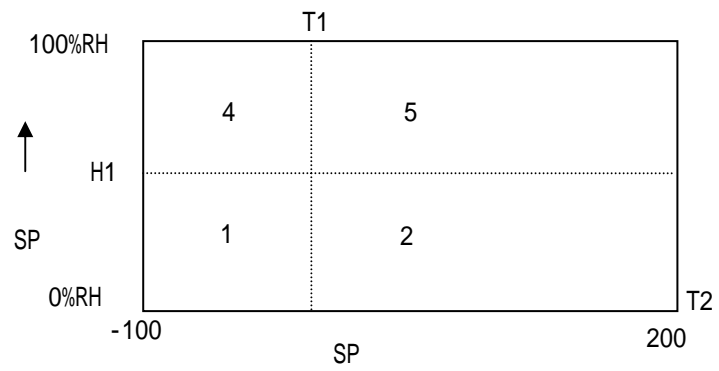
6. 4 ZONE

T2 = 200

. H1, T1 ZONE

,

.



가

T1

T2

T1 > T2

,

.

T2

T1

.

3.4 PID CONST

ZONE P,I,D, ARW , AUTO TUNING PID  
ZONE .

CONTROL SET

ZONE PID

		P(%)	I (SEC)	D(SEC)	ARW(%)
1	TEMP	50.0	005	005	000
	HUMI	50.0	008	009	100
2	TEMP	50.0	005	005	000
	HUMI	50.0	005	005	000
3	TEMP	50.0	005	005	000
	HUMI	50.0	008	009	100

PAGE

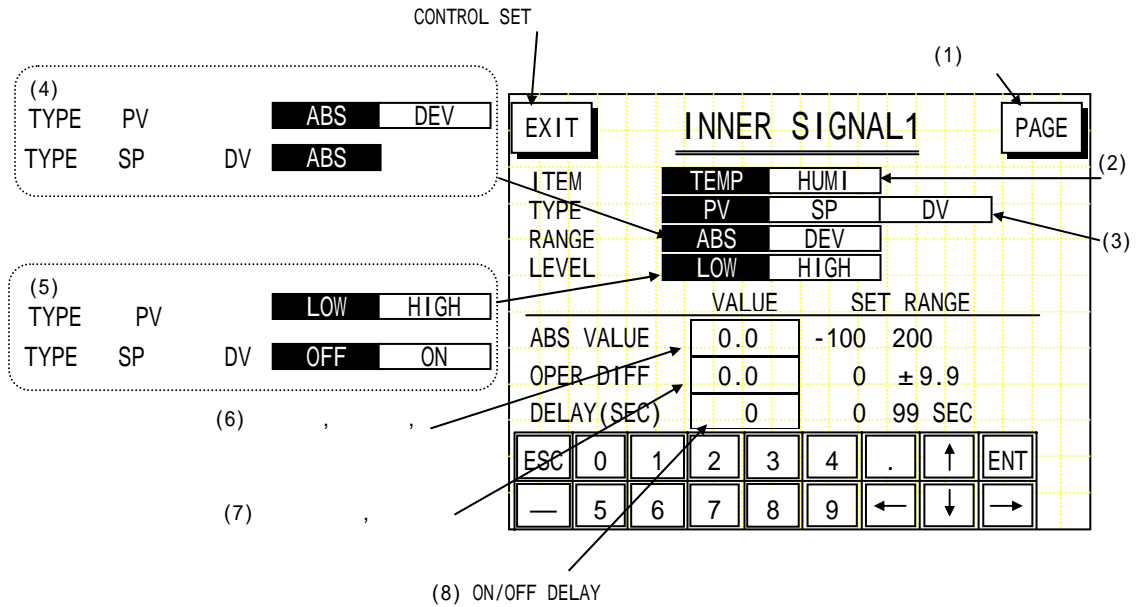
1,2,3 4,5,6

< 3.4.1>

1.  가 , PID  
ARW ENT , ESC .
2. ZONE PID ARW .  
P = 5.0 % , I = 120 , D = 30 , ARW = 100 %
3.  
P( ) : 0.0 999.9 %  
I( ) : 0 3600  
D( ) : 0 3600  
ARW : 0 100 %

### 3.5 INNER SIGNAL

DIGITAL INNER SIGNAL




< 3.5.1>

1. /PV/ABS/HIGH, (ABS VALUE), (OPER DIFF), DELAY(SEC)
- (2) TEMP . TEMP .
- (3) PV . PV .
- (4) ABS . ABS .
- (5) HIGH . HIGH .
- (6) . SET RANGE
- 가 . ( : -100 200 )
- (7) .
- SET RANGE 가 . ( : 0 ±9.9 )
- DELAY (8) DELAY . DELAY
- SET RANGE 가 . (0 99 SEC)
2. /PV/DEV/HIGH, (DEV VALUE), (OPER DIFF), DELAY(SEC)
- (2) TEMP . TEMP .
- (3) PV . PV .
- (4) DEV . DEV .
- (5) HIGH . HIGH .

(6) SET RANGE  
가 . ( : -99.9 99.9 )  
(7)  
SET RANGE 가 . ( : 0 ±9.9 )  
DELAY (8) DELAY . DELAY  
SET RANGE 가 . (0 99 SEC)

3. /SP/ABS/ON, (MIN VALUE), (MAX VALUE), DELAY(SEC)  
(2) TEMP . TEMP  
(3) SP . SP  
SP ABS  
(5) ON . ON  
(6)  
SET RANGE 가 . ( : -100 200 )  
(7)  
SET RANGE 가 . ( : -100 200 )  
DELAY (8) DELAY . DELAY  
SET RANGE 가 . (0 99 SEC)

4. /DV/ABS/ON, (MIN VALUE), (MAX VALUE), DELAY(SEC)  
(2) TEMP . TEMP  
(3) DV . DV  
DV ABS  
(5) ON . ON  
(6)  
SET RANGE 가 . ( : -100 200 )  
(7)  
SET RANGE 가 . ( : -100 200 )  
DELAY (8) DELAY . DELAY  
SET RANGE 가 . (0 99 SEC)



가  
SP DV

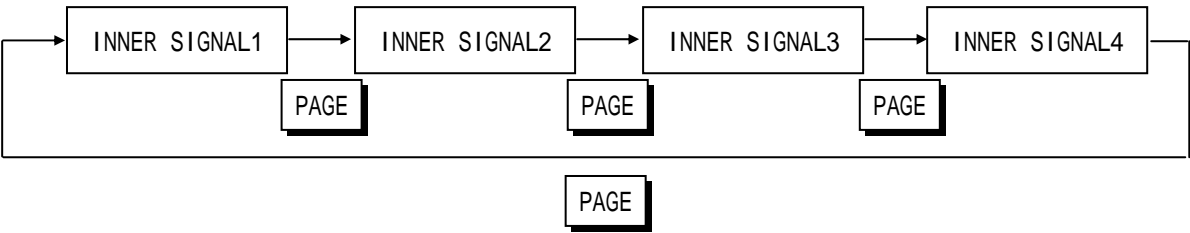
5.

, ( , )  
.

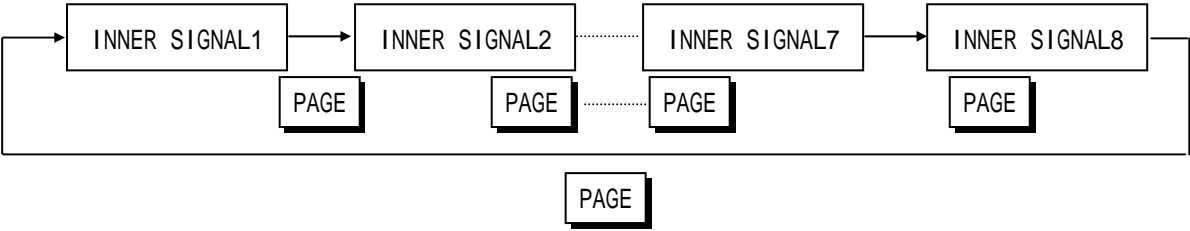
6. INNER SIGNAL PAGE  
INNER SIGNAL

INNER SIGNAL NO.1  
INNER SIGNAL

3.5.1 PAGE 3.5.2  
3.5.3 .



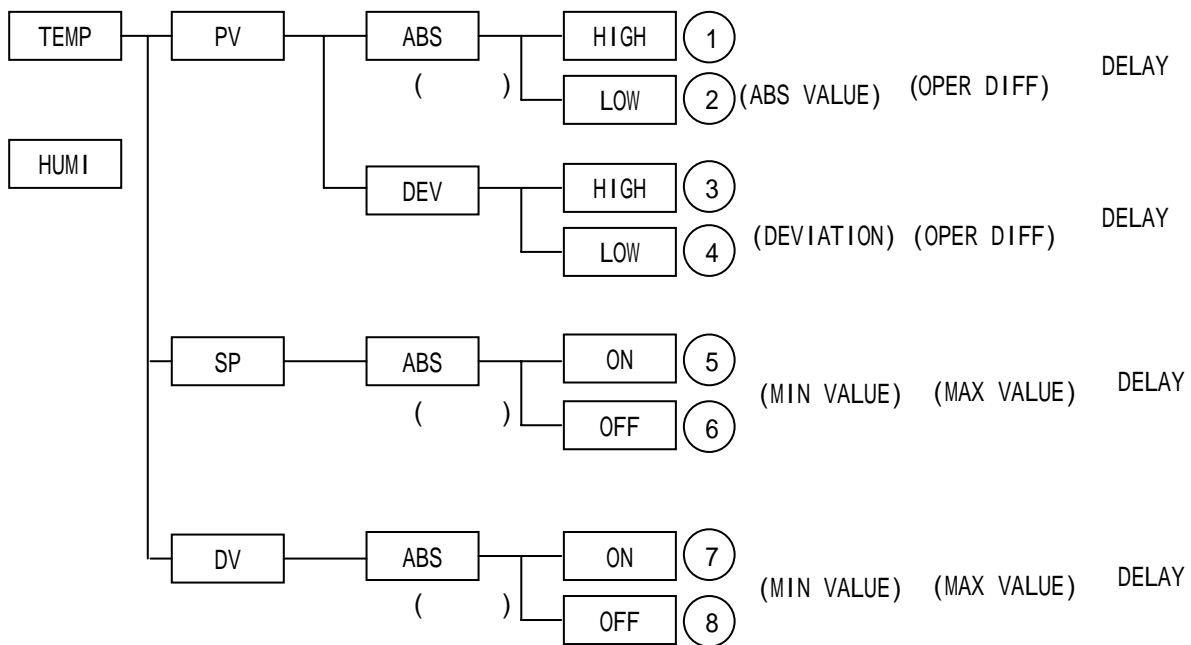
< 3.5.2> I.S/T.S



< 3.5.3> I.S



## INNER SIGNAL



### < 5.3.4> INNER SIGNAL

1.

ON / OFF                      × 4                      × 8  
 , ,                      가 .  
 / , / / , / ,  
 LOW / HIGH,                      ON / OFF

2.

:  
 : TEMP / HUMI  
 : PV / SP / DV                      ON · OFF  
 PV :  
 SP : (PROGRAM )  
 DV : ( )  
 : ABS / DEV                      (ABS)                      (DEV) .  
 PV                      가 . SP, DV                      ABS  
 : ON / OFF                      SP, DV  
 ON/OFF  
 LOW / HIGH                      PV  
 ON

[	LOW :	(가 ) (가 ) PV 가	( )	OFF
	HIGH :	( ) ( ) PV 가	( )	ON

3. : .

PV / ABS (LOW HIGH )  
( ) , , DELAY .

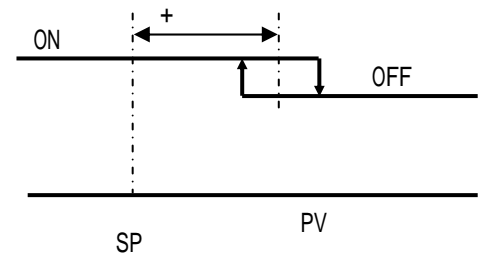
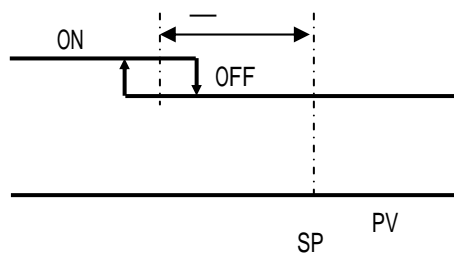
PV / DEV (LOW HIGH )  
, , DELAY .

SP DV (ON OFF )  
, , DELAY .

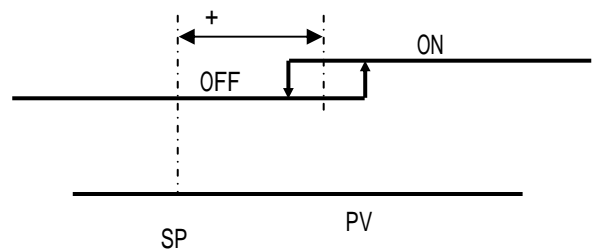
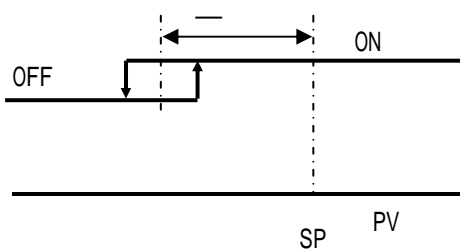
DELAY : ON OFF DELAY  
. DELAY .

4. PV,DEV

= LOW



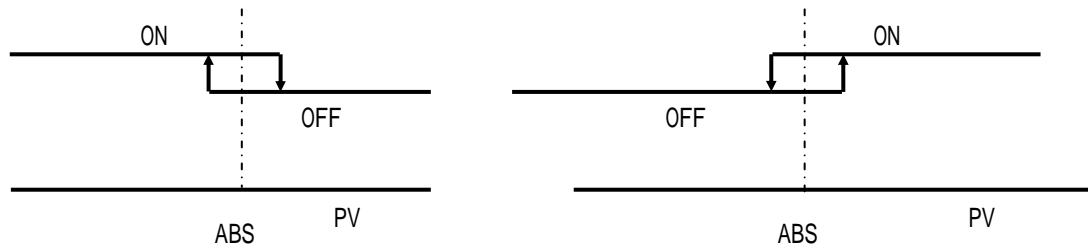
= HIGH



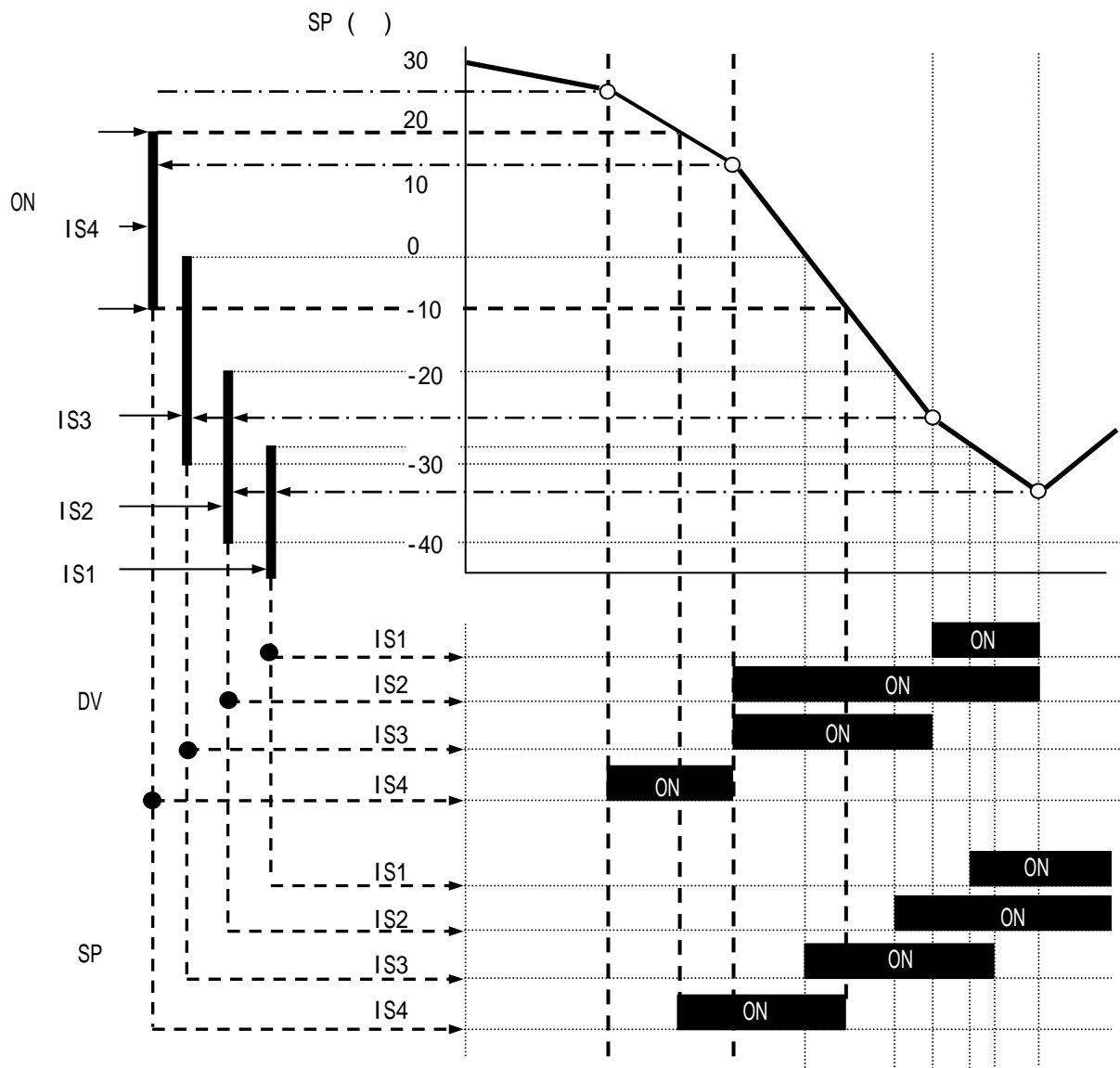
## 5. PV, ABS

= LOW

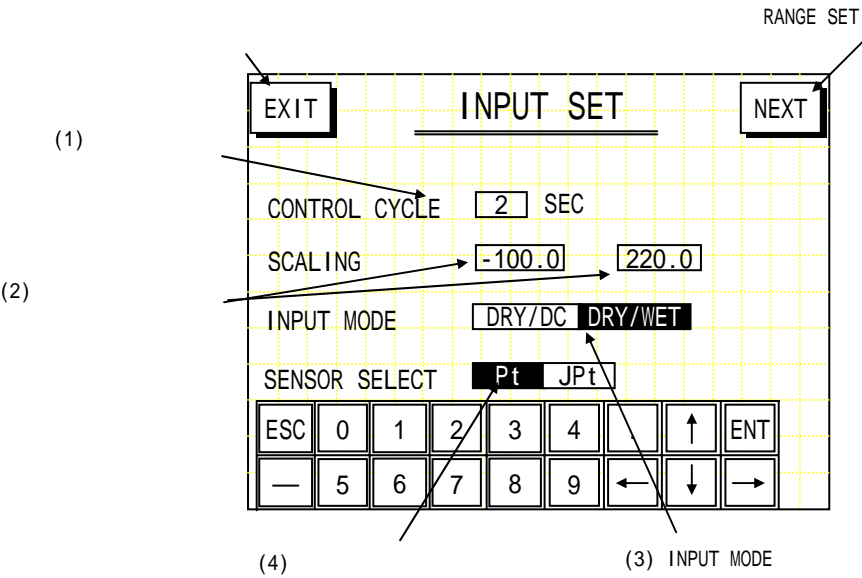
= HIGH



6.	SP	DV
----	----	----



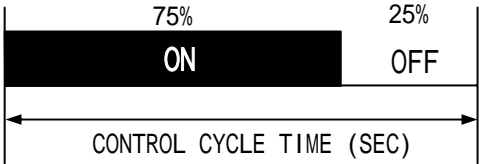
3.6 INPUT SET



< 3.6.1>

1. CYCLE

(1) 가 ,  
ENT , ESC  
3.6.2 .



< 3.6.2> MV = 75%

2.

(2) 가 ,

4 mA SCALE .

(2) 가 , 20 mA SCALE

SCALING 4 20mA .

) SCALING 0 90 가 0

4mA 가 90

20mA , 가 0 90

4 20mA .

( SCALING -100.0 220.0 )

( 4 20mA) 0 100%RH

3.

INPUT MODE (3)  DRY/WET .

DRY/WET ( ) ( )

INPUT MODE (3)  DRY/DC .

DRY/DC ( ) (4 20mA)

4 20mA

4.


/ Pt100 JPt100 .

Pt100

(4) Pt .

JPt100

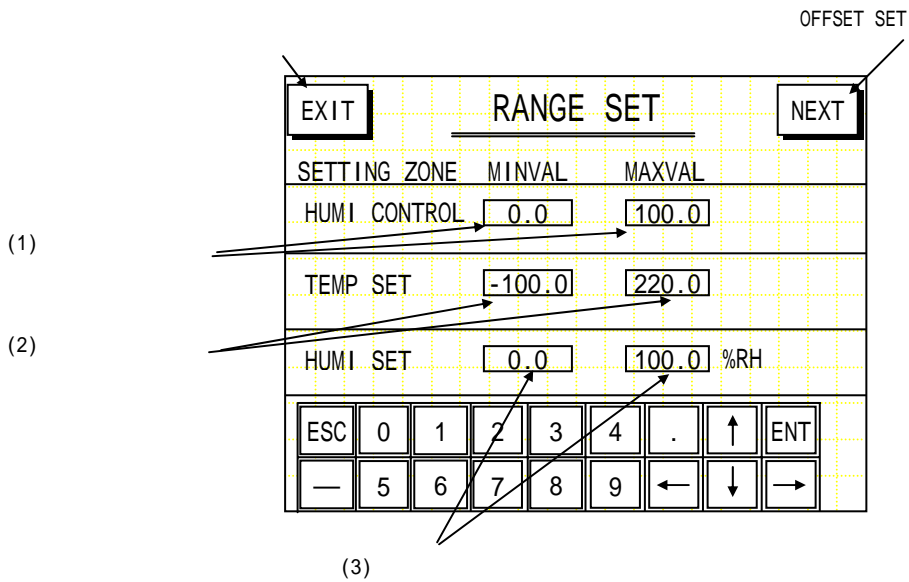
(4) JPt .

 가
 

>

3.7 RANGE SET

/



< 3.7.1>

1.

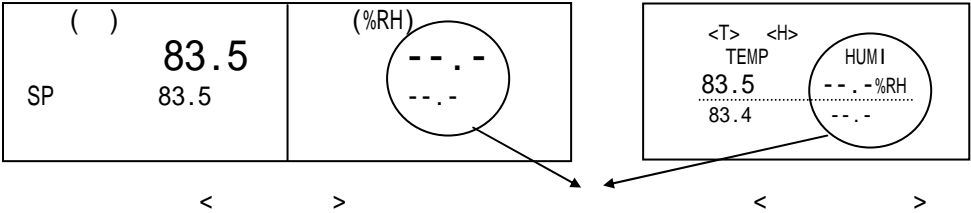
(SP)

3.7.2

" ———.—"

(1) 가 ,

(1) 가 ,



< 3.7.2>

---

2.

(SP) .  
가 OVER RANGE 가  
.  
(2) 가 ,  
.  
(2) 가 ,  
.

3.

(SP) .  
가 OVER RANGE 가  
.  
(3) 가 ,  
.  
(3) 가 ,  
.



가

>

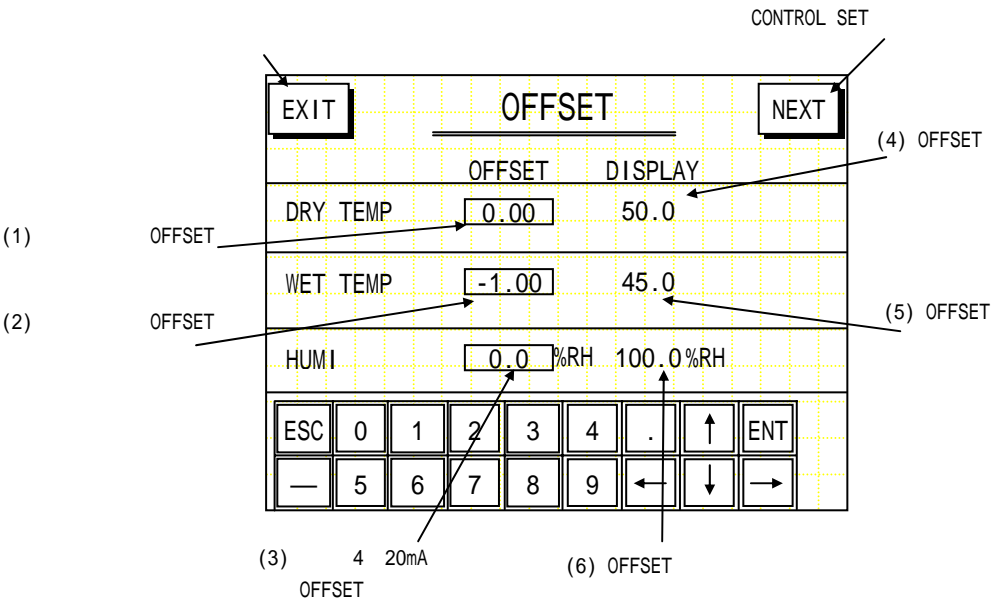
,

.

.

3.8 OFFSET

, , (4 20mA) OFFSET .



< 3.8.1>

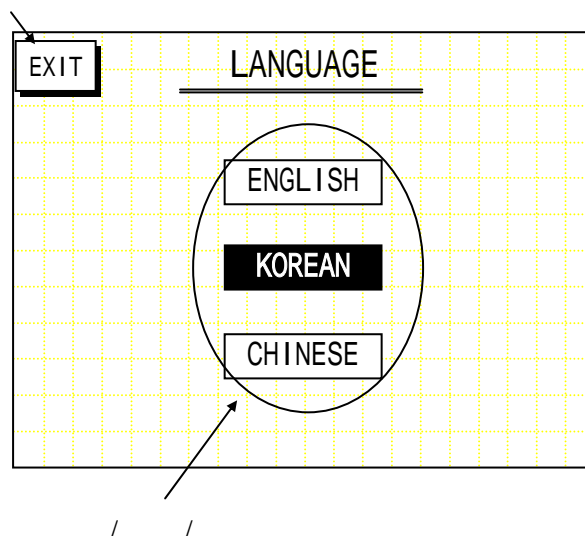
1. OFFSET  
OFFSET (1) 가 , OFFSET  
.  
DRY/DC DRY/WET  
) 50.0 OFFSET +1.00  
PV 51.00 가 +1 , OFFSET -1.00  
49.00 가 -1  
PV (4)  
: -9.99 +9.99

2. OFFSET  
OFFSET (2) 가 , OFFSET  
.  
DRY/WET  
) 50.0 OFFSET +1.00  
PV 51.00 가 +1 , OFFSET -1.00  
49.00 가 -1  
PV (5)  
: -9.99 +9.99

3. 4 20mA OFFSET  
 4 20mA OFFSET (3) 가 ,  
 OFFSET .  
 DRY/DC .  
 ) 50.0%RH OFFSET +1.0%RH  
 PV 51.0%RH 가 +1%RH , OFFSET  
 -1.0%RH 49.0%RH 가 -1%RH .  
 PV (6) .  
 : -9.9 +9.9 %RH

### 3.9 LANGUAGE

↔ ↔



< 3.9.1>

## 4. SPECIFICATION

### 4.1

		-100.0 220.0
		0.0 100.0%RH
		0.00 99.99 ( )
		(LCD)
		86.37( )X115.17( )mm
		240( )X320( )
		CCFL (Brightness : 100 cd/m <sup>2</sup> )
		40 X30 (8X8 )
		( )
A/D		15 (300 0.01 )
		± 0.1%FS+1digit
		± 1%RH FS+1digit
		0.01 / 0.1 가
		1
		± 10 PPM(25 ), -10 70 :+10/-120 PPM)
		, 5 : 2 ( , Full Charge )
		EEPROM , 10
		AC 85 264 V 50/60Hz
		- : DC500V 20M
		- : AC1500V 1
		0 50
		: ( ), :
		210mm(가 )X130mm( )X188mm( )
		199.5mm(가 )X119mm( )

## 4.2

		1) : Pt100 ,JPt100 ( 가 ) : Pt100 ,JPt100 ( 가 ) 2) : Pt100 ,JPt100 ( 가 ) : 4 20mA
RUN/STOP		X 1 ( RUN/STOP )
		X 9 ( 1 9 ) OFF , 9
	PID	X1
	PID	X1
	PID	DC 4 20mA X1( 500 )
	PID	DC 4 20mA X1( 500 )
	1) ( ) / (가 ) 가 2) /DC4 20mA ( 가 )	
INNER SIGNAL		ON / OFF X 4 X 8 , , 가 / , / / , LOW / HIGH, ON / OFF, 가 ×4, ×8 ( , INNER SIGNAL 8 TIME SIGNAL )
RUN		X 1
END		X 1
TIME SIGNAL		X 4
DOWN		X 1
TROUBLE		X 1
		: 4 20mA -100 220 ( 가 ) : 4 20mA 0 100%RH( )
		RS232( ), LonWorks(OPTION)
MAX DC30V, MAX50mA/1ch		47

### 4.3

	1 800 ( 800 )
	1 99 59
	1 30( 30 )
	6 가
	10
(REPEAT)	1 X 1( 999) X 5( 999)
HOLD	HOLD ( 가 ) HOLD ( 가 )
WAIT ( , )	1) Rear Wait , 가 0 ± WAIT ( ± WAIT) 가 2) Front Wait , 가 ± WAIT : ±0 9.9 / 0 99 %RH
ADVANCE	ADVANCE STEP 0 STEP ) Wait Advance 1) Rear Wait 2) Front Wait 0 (SP)= .
PROGRAM RUN	1) RUN 2) : RUN/STOP,ON / 1 3) : , , 가 1) RUN ON . 2) 1) 2) RUN .
STOP	1) STOP 2) STOP RUN/STOP ON / 1 ( ) STOP OFF 가 .

POWER FAILURE		4 4 BREAK : HOT START : COLD START : 가 ( ) HOT START
TIME SIGNAL		X 4
	SIGNAL MODE	3 가 (0 9 ) 1) ON-OFF 2) 3) : 0 OFF( OFF) : 1 ON( ON) : 2 9 가 (8 )
	TIME MODE	ON-DELAY ( ON ) CUT-BACK ( OFF 가 )
	STEP MODE	ON-DELAY ( ON )

#### 4.4

	PID	PID X1 PID DC 4 20mA( 500 )X1
	ON/OFF	( ON/OFFX9) - INNER SIGNAL
	PID	PID X1 PID DC 4 20mA( 500 )X1
	ON/OFF	( ON/OFFX9) - INNER SIGNAL
RUN		ON/OFF X 1(SP ON, 0.0%RH OFF)
	(P)	0.0 999.9 %
	(I)	0 3600
	(D)	0 3600
		1 99
	ARW	0 100 %

PID ZONE	<div>6 ZONE</div> <div>PID 가 ( SP</div> <div>PID 가</div> <div>1) 3 X 2 = 6</div>
RUN	<div>ON/OFF X 1</div> <div>RUN "ON" END "OFF"</div>
END	<div>ON/OFF X 1</div> <div>END "ON" RUN "OFF"</div>
TIME SIGNAL	<div>ON/OFF X 4</div> <div>ON/OFF 10 가</div>
	<div>( OFF)</div> <div>( , ,STOP)</div> <div>OFF 가 .</div>

#### 4.5 (INNER SIGNAL )

	<div>ON/OFF X 6</div> <div>(MAX DC30V MAX50mA/1ch 47 )</div>
	(TEMP) / (HUMI)
	(SP) / (PV) / (DV)
	(ABS) / (DEV)
	ZONE ON/OFF / (LOW/HIGH)
	-100.0 200.0 0 100.0 %RH
	-99.9 +99.9 -99.9 +99.9 %RH
	± 0.0 ± 9.9 ± 0.0 ± 9.9 %RH
ON	0 99

	TEMP/HUMI	INNER SIGNAL
	PV/SP/DV	ON/OFF 가 PV: , SP: DV: ( )
	LOW/HIGH	(ABS) (DEV)
	ON/OFF	SP DV ZONE (ON/OFF) ZONE : 2 MIN MAX -100.0 200.0 2 MIN MAX 0.0 100.0%RH ON/OFF : ON ZONE ON ON ZONE OFF OFF ZONE ON OFF ZONE OFF

#### 4.6

		1)
		2)
		가
		-100.0 200.0
		0 100%RH(0.0 99.9 가 )
		0 9.9 /min, 0 9.9 %RH/min,
		AUTO TUNING PID
		-100.0 200.0
		0 100%RH(0.0 99.9 가 )

#### 4.7

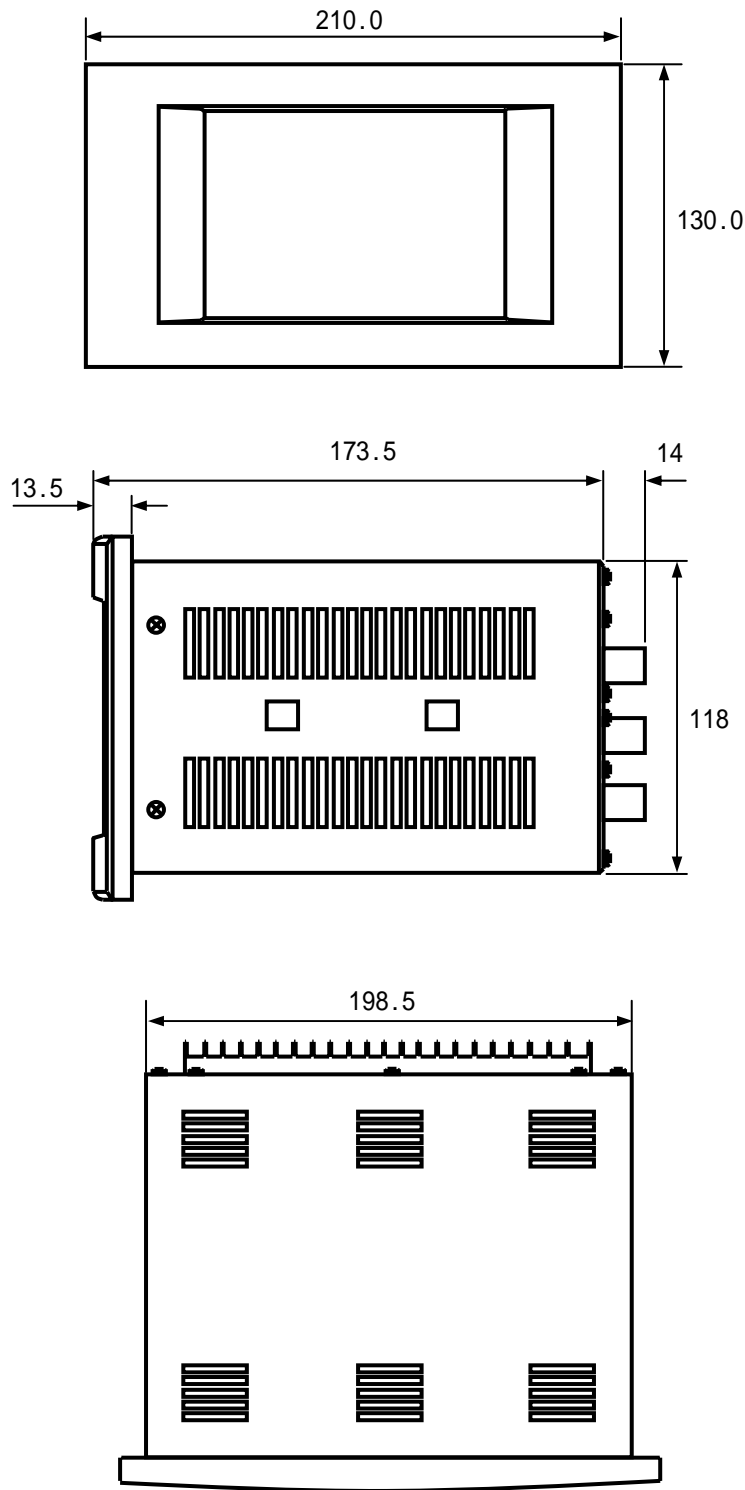
		+ ( / )
		-100 200, -50 150, 0 200, -80 120 가
		0 100%RH
		4, 12, 24, 48, 96 , 8 가
		PV , SP 가 ( )
, ,		, , 가 (2000 가 )
		0 100 가 0 100%RH 가
		0.0%RH : OFF : "____.____" OFF
LCD brightness		LCD 가
(TOTAL TIME)		RUN ( ) 9,999 59 , END 0
		ON/TIMER OFF 가 (0 99min) OFF ON
(RUN LOCK)		RUN/STOP
		10 가

4.8

	ON / OFF X 9 ( ( ) ON ) 1) 2) ON/OFF OFF
	9 No.
	( 9 )
	CLEAR .

4.9

: mm



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**Honeywell**

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**S&C**

2 가 191

6

: (02) 799 - 6175~6

A / S : (02) 799 - 6121~5

2001 02