

REX - C100

REX - C700

REX - C400

REX - C900

REX - C410

WSTĘPNE USTAWIANIE RĘCZNE

Multilizer demo

RKC RKC Instrument Inc



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Jest to podręcznik dla ustanowienia wstępnego REX-C100-, C400,-C410,-C700, dotykowy lub dostosować części innych niż wymienione w niniejszej instrukcji. Urządzenie zostało wyprodukowane i dostarczoną pod ścisłą kontrolą jakości przez nas. Jest jednak niektóre przedmiotem dręczone lub zauważyć, Twój Uprzejmie informujemy, i porady z naszym działem handlowym, najbliższego biura firmy również środek, gdzie użytkownik kupił bardzo cenimy.

SPIS TREŚCI

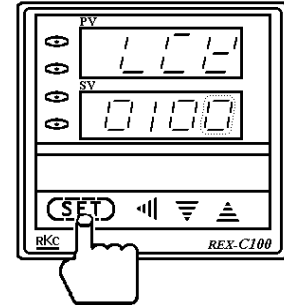
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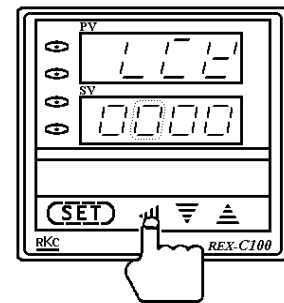
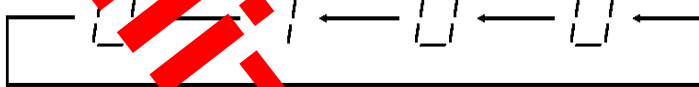
1. Mogę n i t i l s e t m o d e c h n g i n g

1,1 Wprowadzania początkowej ustawianie trybu

- (1) Prasa **(SET)** klawisz, aby ustawić zamek danych parametru symbolu ($\lfloor _ \rfloor \lfloor _ \rfloor$) na wartości mierzonej (PV) wyświetlacz. W tej chwili, najmniej znaczące cyfry na wartość zestawu (SV) Wyświetlacz świeci jasno jednostki. Cyfrę, która świeci jasno jest o ustawienia.

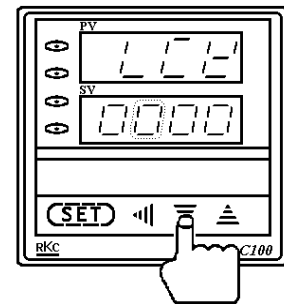


- (2) Prasa **|||** Kluczem do zmiany cyfry, które świeci jasno do set cyfry. Cyfra, którym światel brightly przesuwają się jako Wynik z każdym **|||** klawisz jest wciśnięty.

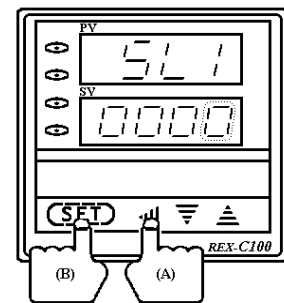


- (3) Prasa **≡**, aby ustawić **≡**. Naciskając **≡** klucz krokach cyfry i naciskając klawisz **≡** klucz zmniejsza liczb.

00000 : Brak wstępnie zablokiowane zestaw




- (4) Przytrzymaj oba **|||** (A) i **(SET)** (B) jednocześnie klawisze aż do **511** / wydaje.

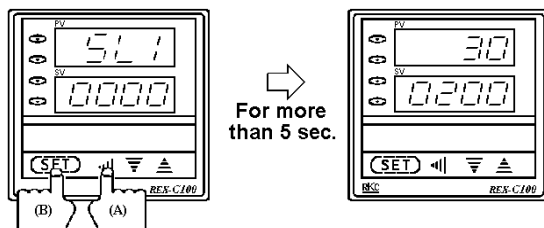


Ostrzeżenia

1. W celu wstępnego ustawianie trybu zawsze ustawić blokowanie danych ($\lfloor _ \rfloor \lfloor _ \rfloor$) do **'00000'**. Każda wartość inna niż **'00000'** nie można wprowadzić wstępne ustawianie trybu.
2. Jeśli kontroler jest ustawiony na wstępne ustawianie trybu, są wyłączone wszystkie rezultaty.
3. Przykład REX C900 opisano tutaj, ale sama procedura stosowana do innych kontrolerów (REX-C100, C400-, -C410, i-C700).

(1) Wyjść z wstępnego ustawiania trybu

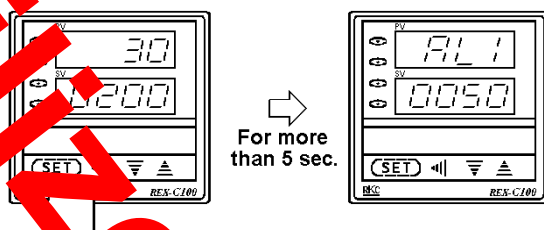
Naciskaj zarówno  klucz (A) i **(SET)** (B) klawisze jednocześnie więcej niż 5 sekund może wejść do Tryb wyświetlania PV/SV.




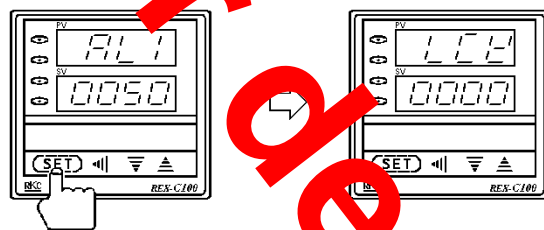
% Na wyjściu, jeśli kontroler wyjścia z wstępnego ustawiania trybu w dowolnym punkcie, tryb ustawienia tak dalece ustawiony staje się nieprawidłowy.

(2) Blokowanie trybu zestawu (zmiana zawartości zestawu danych blokady ustawienia)

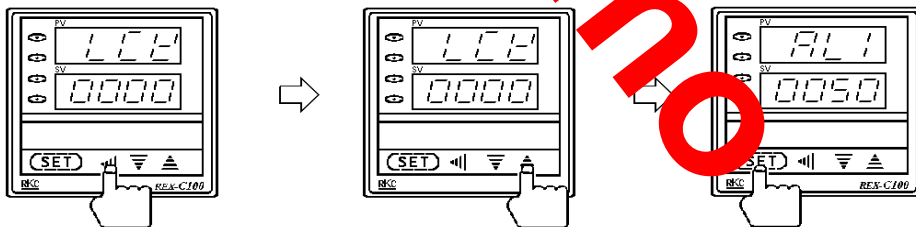
1. Prasa  , aby przejść do trybu ustawiania parametrów.



2. Naciśnij **(SET)** klucza przez określoną liczbę razy, aby pokazać  "Od mierzonej wartości (PV) wyświetlacz Jednostka.



3. Prasa  klucz  klawisze do u  . Naciśnij **(SET)** klucz do rejestrow .



Przestroga

Jeśli wyjścia regulatora od pierwszego ustawionego trybu, potwierdzają, że zbiór danych Blokady dost         

<Każdy stan po awarii zasilania w początkowej tryb ustawiania>

- Ustawienie przed awarią zasilania jest ważne
- Chwilowy zanik zasilania (w ciągu 20 ms.) Nie wywierają złego wpływu na instrumenty.
- Jeśli długo awarii zasilania, wyjścia instrumentu od pierwszego ustawionego trybu. Po przywróceniu zasilania, urządzenie jest ustawione na tryb wyświetlania PV/SV. Zmierzone wartości (PV) w tej chwili pokazuje, że w czasie zasilania odzysku, a zestaw wartości (SV) jest taki sam jak przed awarią zasilania.

2.1 Opis każdego parametru

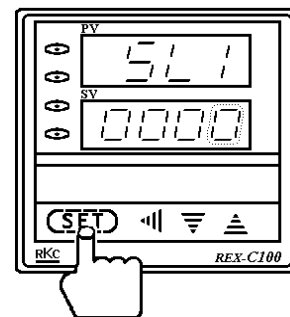
"SL 1" pojawia się na wyświetlanie, a każdy klawisz z (SET) kluczowych udoskonań symbol parametr, jak pokazano na Poniższa tabela. Po jednego cyklu wyświetlacz pokazuje "SL 1".

ZMIERZONE WARTOŚCI (PV) UNIT DISPLAY	USTAWIENIE OPIS
SL 1	Wybór typu wejścia
SL 2	Wybór jednostki inżynierii (C, F)
SL 3	Przerwa alarm grzałki (HBA) wybór Kontrola pętli podział alarmu (LBA) zaznaczenia Specjalne specyfikacji [Z-132] wybór Wybór kontroli pętli podział alarmu wyjście terminali
SL 4	Pierwszy alarm (ALM1) wybór typu Pierwszego alarmu (ALM1) posiadają wybór działań
SL 5	Drugi alarm (ALM2) wybór typu Drugi alarmu (ALM2) posiadają wybór działań
SL 6	Bezpośrednia / wyboru akcji Kontrola działania typ zaznaczenia Wyjście wybór sterowniczej (ogrzewanie / chłodzenie z boku)
SL 7	Energize / de-energize alarmowy zaznaczenia Specjalne specyfikacji [Z-124] wybór
SL 8	SL 8 "Nie można ustawić.
PH 1	PV i przechylenia wstępnego ustawienia
PH 2	Ustawienie szczeliny różnicy działania ON / OFF
PH 1	Ustawienie szczeliny różnicowej pierwszego alarmu (ALM1) % Nie wyświetlanie pojawia się, kiedy nie pierwszego alarmu (ALM1) Funkcja nie świadczona.
PH 2	Ustawienie szczeliny różnicowej drugi alarmu (ALM2) ☐ No display appears when no second alarm (ALM2) function is provided.
SL H	High-limit setting for set-value (SV)
SL L	Low-limit setting for set-value (SV)

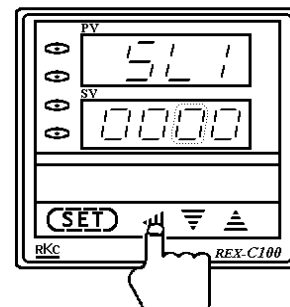
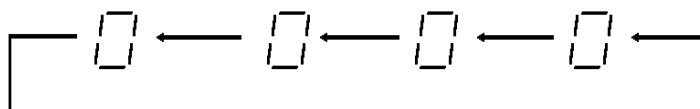
2.2 Each parameter setting

u Method of setting

- (2) Press the **(SET)** key to display the input type selection parameter symbol ($\frac{5}{\square} \frac{1}{\square}$) on the measured-value (PV) display unit. At this time, the least significant digit on the set-value (SV) display unit lights brightly. The digit which lights brightly is settable.

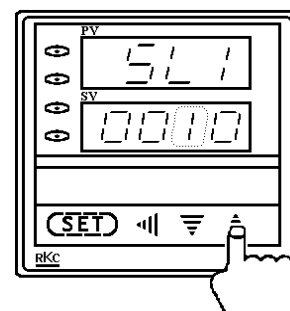


- (3) Press the \lll key to shift the digit which lights brightly up to the tens digit. The digit which lights brightly shifts as follows every time the \lll key is pressed.

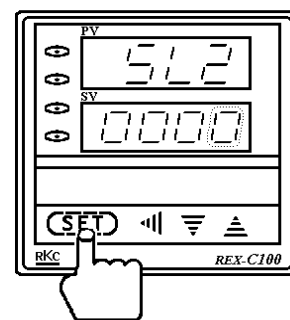


- (4) Press the \triangle key to set $\square \neq \square$. Pressing the \triangle key increments numerals, and pressing the ∇ key decrements numerals.

$\frac{5}{\square} \frac{1}{\square}$: Thermocouple type L



- (5) After finishing the setting, press the **(SET)** key to register (shifts to next parameter).



Cautions

1. If no key operation is performed for more than 60 sec. during setting or when any parameter other than $\frac{5}{\square} \frac{1}{\square}$ is displayed, the display returns to $\frac{5}{\square} \frac{1}{\square}$.
2. An example of the REX-C900 is described here, but the same procedure applies to other controllers (REX-C100, -C400, -C410, and -C700).

(1) Input type selection (SET I))

Set-value (SV) display unit

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VALUE	INPUT TYPE	HARDWARE
0 0 0 0	TC	a
0 0 0 1		
0 0 1 0		
0 0 1 1		
0 1 0 0		
0 1 1 1		
1 0 0 0		
1 0 0 1		
1 0 1 0		
1 0 1 1		
0 1 0 1		b
0 1 1 0		
1 1 0 0	RTD	c
1 1 0 1		
1 1 1 0	Voltage	d
1 1 1 1		
1 1 1 0	Current	e
1 1 1 1		

Cautions

- Conduct setting so as to meet the instrument specification (input type).
Setting change between different symbols may cause malfunction, but the setting can be changed when hardware types have the same symbol. However, when the setting is changed, always reset $\square \text{SET I} \text{H} \square$ and $\square \text{SET I} \text{L} \square$. (See page 14).
- $\square \text{SET I} \text{H} \square$ setting displays are only $\text{I} \square$ and $\text{J} \square$.

(2) Engineering unit and cooling type selection (E₁ E₂)

Set-value (SV) display unit

E	E		
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VALUE				DESCRIPTION	
			<div>□</div>	EC	Engineering unit selection
			<div>┆</div>	EF	
		<div>□</div>		Air-cooling (Type A) <div>□</div> 1	Cooling type selection
		<div>┆</div>		Water-cooling (Type W) <div>□</div> 2	
<div>□</div>	<div>□</div>			Fixed	

- 1 Type A : Heating / cooling PID action (Air-cooling)
□ 2 Type W : Heating / cooling PID action (Water-cooling)

Cautions

- For the voltage and current input types, the engineering unit setting of E_C or E_F is ignored.
- When control action is of the type D (PID action [direct action] or type F (PID action [reverse action]), □ Cooling type selection □ setting is ignored.
- Do not set the upper 2 digits to numeric values other than □ E E □ since they are not used.
- E₁ E₂ □ setting displays are only E □ and F □ .

(3) Selection of break alarm (HBA, LBA) etc. (Z1 Z)

Set-value (SV) display unit

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VALUE				DESCRIPTION	
				Without HBA function	Heater break alarm (HBA) selection
				With HBA function	
				Without LBA function	Control loop break alarm (LBA) selection
				With LBA function	
				Without Z-132 specification	Special specification
				With Z-132 specification	[Z-132] selection
				First alarm side	Selection of control loop break alarm output terminals
				Second alarm side	

Z-132 specification : Heater break alarm output is delayed.

Cautions

- ☐ With HBA function ☐ setting is ignored for the following instruments :

 - C Instrument with deviation or process alarm as the second alarm (ALM2)
 - C Instrument with control loop break alarm (LBA)
 - C Instrument whose control output is the current output type
- ☐ With LBA function ☐ setting is ignored for the following instruments :

 - C Instrument with deviation or process alarm as the first alarm (ALM1) and second alarm (ALM2)
 - C Instrument with heater break alarm (HBA)
 - C Instrument whose control action is type W (Heating / cooling PID action [Water-cooling]) or type A (Heating / cooling PID action [Air-cooling]).
- For the instrument without heater break alarm (HBA), ☐ With Z-132 specification ☐ setting is ignored.
- ☐ setting displays are only ☐ and ☐.

(4) First-alarm (ALM1) type selection (FAL_#)

Set-value (SV) display unit

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VALUE				DESCRIPTION		
	F	A	L	No first alarm	Deviation alarm	First alarm (ALM1) type selection (See page 10)
	F	A	H	High alarm		
	L	A	L	Low alarm		
	F	L	A	High / Low alarm		
	L	L	A	Band alarm		
	F	L	L	High alarm		
	L	L	L	Low alarm		
F				Without alarm hold action	Process alarm	First alarm (ALM1) hold action selection
L				With alarm hold action		

Cautions

- The following instrument is set to FAL_0000 .
 C Instrument without the first alarm (ALM1).
 C Instrument which outputs control loop break alarm (LBA) from the first alarm side. [FAL_# setting details : For FAL_100 100]
- FAL_# setting displays are only F and # .

(5) Second-alarm (ALM2) type selection (‘SEI’ ‘SEI’)

Set-value (SV) display unit

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VALUE				DESCRIPTION		
	0	0	0	No second alarm		Second alarm (ALM2) type selection (See page 10)
	0	0	1	High alarm	Deviation alarm	
	1	0	1	Low alarm		
	0	1	0	High / Low alarm		
	1	1	0	Band alarm		
	0	1	1	High alarm	Process alarm	
	1	1	1	Low alarm		
0				Without alarm hold action		Second alarm (ALM2) hold action selection
1				With alarm hold action		

- C Instrument without the second alarm (ALM2).
C Instrument with the heater break alarm (HBA).

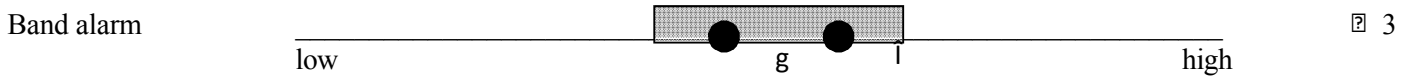
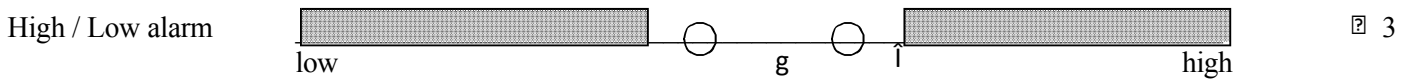
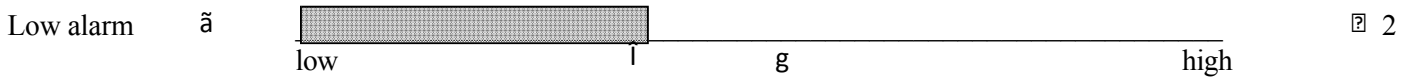
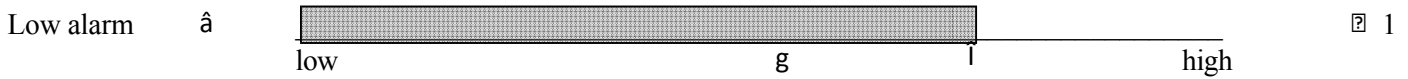
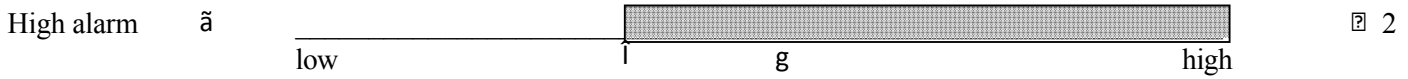
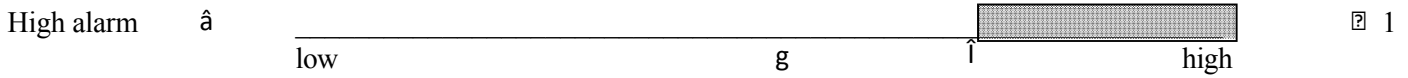
Cautions

- The following instrument is set to 00000 .
C Instrument without the second alarm (ALM2).
C Instrument with the heater break alarm (HBA).
C Instrument which outputs control loop break alarm (LBA) from the second alarm side. [‘SEI’ ‘SEI’
setting details : For 000 10]
- ‘SEI’ ‘SEI’ setting displays are only 0 and # .

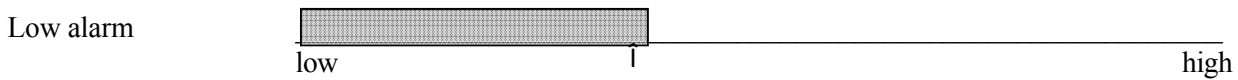
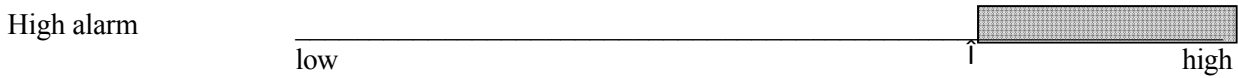
ALARM TYPES

[g : Set-value (SV) \hat{I} : Alarm set-value : Alarm status (ALM1 or ALM2 LED lighting)]

< DEVIATION ALARM >



< PROCESS ALARM >



- | | |
|-----|--|
| ☐ 1 | Alarm status where the alarm set-value is set to plus (+) side for the set-value (SV). |
| ☐ 2 | Alarm status where the alarm set-value is set to minus (-) side for the set-value (SV). |
| ☐ 3 | Status when alarm is activated at 2 equal deviation points from the set-value (SV) with the alarm set-value (absolute deviation) is set. |

(6) Control-output selection etc. ($\overline{\text{D}}$, $\overline{\text{F}}$, $\overline{\text{A}}$, $\overline{\text{W}}$)

Set-value (SV) display unit

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VALUE				DESCRIPTION	
			$\overline{\text{D}}$	Direct action (Type D)	Direct / reverse action selection
			$\overline{\text{F}}$	Reverse action (Type F, A, W)	
		$\overline{\text{A}}$		PID action (Type D, F) $\overline{\text{A}}$ 1	Control action type selection
		$\overline{\text{W}}$		Heating / cooling PID action (Type A, W) $\overline{\text{W}}$ 1	
	$\overline{\text{M}}$			Time proportional output (M, V, G output) $\overline{\text{M}}$ 2	Control output type selection (Heating side)
	$\overline{\text{V}}$			Continuous output (Current 4 to 20 mA DC)	
$\overline{\text{M}}$				Time proportional output (M, V output) $\overline{\text{M}}$ 2	Control output type selection (Cooling side)
$\overline{\text{V}}$				Continuous output (Current 4 to 20 mA DC)	

- $\overline{\text{A}}$ 1 Type D : PID action [Direct action]
 Type F : PID action [Reverse action]
 Type A : Heating / cooling PID action [Air-cooling]
 Type W : Heating / cooling PID action [Water-cooling]

- $\overline{\text{M}}$ 2 M output : Relay contact G output : Trigger (For triac driving)
 V output : Voltage pulse

Cautions

1. Conduct setting so as to meet the instrument specification. An incorrect setting may cause a malfunction.
2. When control action is of the type D or F, $\overline{\text{A}}$ Control output type selection (Cooling side) $\overline{\text{W}}$ setting is ignored.
3. For the REX-C100, always set the control action type selection to PID action.
4. $\overline{\text{D}}$, $\overline{\text{F}}$, $\overline{\text{A}}$, $\overline{\text{W}}$ setting displays are only $\overline{\text{D}}$ and $\overline{\text{F}}$.

(7) Energize / de-energize alarm selection etc. (Z-1)

Set-value (SV) display unit

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VALUE				DESCRIPTION	
				Energize alarm	Energize / de-energize alarm selection (First alarm side)
				De-energize alarm	
				Energize alarm	Energize / de-energize alarm selection (Second alarm side)
				De-energize alarm	
				Without Z-124 specification	Special specification [Z-124] selection
				With Z-124 specification	(First alarm side)
				Without Z-124 specification	Special specification [Z-124] selection
				With Z-124 specification	(Second alarm side)

Z-124 specification : No alarm action caused by burnout is performed.

Cautions

- Instrument without the first alarm (ALM1) and second alarm (ALM2) is set to .
 C Instrument without the first alarm (ALM1).
 [Z-1 1] setting details : For .
 C Instrument without the second alarm (ALM2).
 [Z-1 2] setting details : For .
- setting displays are only and .

(8) PV bias setting ($\overline{\text{PV}}\text{BIAS}$)

Set-value (SV) display unit

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(Setting range)

- (1) TC and RTD inputs : -1999 to 9999°C [°C]
C For a resolution of 1°C [°C]
C For a resolution of 0.1°C [°C]
(2) Voltage and current inputs : -199.9 to +999.9°C [°C]
: -199.9 to +200.0%

(9) Differential gap setting of ON / OFF action $\overline{\text{DIF}}\text{GAP}$]

Set-value (SV) display unit

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(Setting range)

- (1) TC and RTD inputs : 0 to 100 or 0.0 to 100.0
(2) Voltage and current inputs : 0.0 to 10.0

(10) Differential gap setting of first alarm (ALM1) $\overline{\text{ALM1}}\text{GAP}$]

Set-value (SV) display unit

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(Setting range)

- (1) TC and RTD inputs : 0 to 100 or 0.0 to 100.0
(2) Voltage and current inputs : 0.0 to 10.0

Caution

No display appears when no alarm function is provided.

[$\overline{\text{ALM1}}\text{GAP}$ setting : $\square\square\square\square\square\square\square\square$].

(11) Differential gap setting of second alarm (ALM2) $\overline{\text{ALM2}}\text{GAP}$]

Set-value (SV) display unit

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(Setting range)

- (1) TC and RTD inputs : 0 to 100 or 0.0 to 100.0
(2) Voltage and current inputs : 0.0 to 10.0

Caution -

No display appears when no alarm function is provided.

[$\overline{\text{ALM2}}\text{GAP}$ setting : $\square\square\square\square\square\square\square\square$].

(12) High-limit setting for set-value (SV) [$\overline{\text{SV}}_{\text{H}} \text{ } \overline{\text{SV}}_{\text{L}}$]

Set-value (SV) display unit

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INPUT TYPE		RANGE	
TC	K	0 to 1372 °C	0 to 2502 °F
	J	0 to 1200 °C	0 to 2192 °F
	L	0 to 800 °C	0 to 1600 °F
	E	0 to 1000 °C	0 to 1832 °F
	N	0 to 1300 °C	0 to 2372 °F
	R, S	0 to 1769 °C	0 to 3216 °F
	B	0 to 1820 °C	0 to 3308 °F
	W5Re / W26Re	0 to 2320 °C	0 to 4000 °F
	PLII	0 to 1390 °C	0 to 2534 °F
	T	-199.9 to +400.0 °C	-199.9 to +752.0 °F
	U	-199.9 to +600.0 °C	-199.9 to +999.9 °F
RTD	Pt100 ^S (JIS / IEC) J Pt100 ^S (JIS)	-199.9 to +649.0 °C	
	Pt100 ^S (Conforming to JIS / IEC)	-199.9 to +999.9 °F	
Voltage	0 to 5V DC 1 to 5V DC	0.0 to 100.0% (Fixed)	
Current	0 to 20mA DC 0 to 20mA DC	0.0 to 100.0% (Fixed)	

② 1 IEC (International Electrotechnical Commission) is equivalent to JIS, DIN and ANSI.

② 2 Limit setting becomes [$\overline{\text{SV}}_{\text{H}} \text{ } \overline{\text{SV}}_{\text{L}}$] \$ [$\overline{\text{SV}}_{\text{H}} \text{ } \overline{\text{SV}}_{\text{L}}$].

Caution : Prior to conducting limiter setting change, see □ Input range table □ on page 16.

(13) Low-limit setting for set-value (SV) [$\overline{\text{SV}}_{\text{H}} \text{ } \overline{\text{SV}}_{\text{L}}$]

Set-value (SV) display unit

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(Setting range)

See the above table.

Limit setting becomes [$\overline{\text{SV}}_{\text{H}} \text{ } \overline{\text{SV}}_{\text{L}}$] \$ [$\overline{\text{SV}}_{\text{H}} \text{ } \overline{\text{SV}}_{\text{L}}$].

Caution : Prior to conducting limiter setting change, see □ Input range table □ on page 16.

When changing the high-limit [$\overline{\text{SV}}_{\text{H}} \text{ } \overline{\text{SV}}_{\text{L}}$] and the low-limit [$\overline{\text{SV}}_{\text{H}} \text{ } \overline{\text{SV}}_{\text{L}}$] limiter settings, always set the set-value (SV) within the limiter range. High-limit setting \$ set-value (SV) \$ low-limit setting

2.3 Each Parameter checks

- (1) When all the settings are finished, press the **(SET)** key to check each parameter.
- (2) When the contents of the initial setting are changed, change the model code plate stuck to inside of the controller and outside of the case by referring to the following table.
- (3) After each parameter has been checked, return the controller to the control mode by referring to □ 1.2 Exiting the initial set mode□ (P.2).

MODEL CODE									DESCRIPTION
REX-	C100 C400 C410 C700 C900	G	G	G	G	G	G	G	48 x 48 mm 96 x 48 mm 48 x 96 mm 72 x 72 mm 96 x 96 mm
Control action		F D W A							PID action (Reverse action) PID action (Direct action) Heating / Cooling PID action (Water-cooling) i Heating / Cooling PID action (Air-cooling) i
Input type		G							See page 16. Input Range Table □ MODEL CODE□
Input range			G						See page 16. Input Range Table □ MODEL CODE□
First control output [OUT(1)] (Heating side)				M V 8 G					Relay contact Voltage pulse Current 4 to 20mA DC Trigger (for triac driving)
Second control output [OUT(2)] (Cooling side)					None M V 8				No second control output (Control action : D, F) Relay contact i Voltage pulse i Current 4 to 20mA DC i
First alarm (ALM1)						N A B C D E F G H J K L R			No first alarm (ALM1) Deviation high alarm (without hold action) Deviation low alarm (without hold action) Deviation high / low alarm (without hold action) Band alarm Deviation high alarm (with hold action) Deviation low alarm (with hold action) Deviation high / low alarm (with hold action) Process high alarm (without hold action) Process low alarm (without hold action) Process high alarm (with hold action) Process low alarm (with hold action) Control loop break alarm
Second alarm (ALM2)						N A B C D E F G H J K L P S			No second alarm (ALM2) Deviation high alarm (without hold action) Deviation low alarm (without hold action) Deviation high / low alarm (without hold action) Band alarm Deviation high alarm (with hold action) Deviation low alarm (with hold action) Deviation high / low alarm (with hold action) Process high alarm (without hold action) Process low alarm (without hold action) Process high alarm (with hold action) Process low alarm (with hold action) Heater break alarm (CTL-6) Heater break alarm (CTL-12)

☑ For the REX-C100, the content marked with i cannot be selection.

☑ When control output is trigger output for triac driving, only the first alarm is available (For the REX-C100).

INPUT RANGE TABLE

INPUT TYPE		INPUT RANGE	MODEL CODE		INPUT TYPE		INPUT RANGE	MODEL CODE	
T H E R M O C O U P L E	K (JIS / IEC)	0 to 200℃ 0 to 400℃ 0 to 600℃ 0 to 800℃ 0 to 1000℃ 0 to 1200℃ 0 to 1372℃ 0 to 800℉ 0 to 1600℉ 0 to 2502℉ □	K	01 02 03 04 05 06 07 A1 A2 A3 ZZ	T H E R M O C O U P L E	PLII (NBS)	0 to 1300℃ 0 to 1390℃ 0 to 2400℉ 0 to 2534℉ □	A	01 02 A1 A2 ZZ
		0 to 200℃ 0 to 400℃ 0 to 600℃ 0 to 800℃ 0 to 1000℃ 0 to 1200℃ 0 to 800℉ 0 to 1600℉ 0 to 2192℉ □		01 02 03 04 05 06 A1 A2 A3 ZZ			01 02 03 A1 A2 A3 ZZ		
		0 to 1600℃ 0 to 1769℃ 0 to 3200℉ 0 to 3216℉ □		01 02 A1 A2 ZZ			01 02 03 04 05 06 07 08 09 10 A1 A2 A3 A4 A5 A6 A7 A8 A9 ZZ		
		0 to 1600℃ 0 to 1769℃ 0 to 3200℉ 0 to 3216℉ □		01 02 A1 A2 ZZ			01 02 03 04 05 06 07 08 09 10 A1 A2 A3 A4 A5 A6 A7 A8 A9 ZZ		
		400 to 1800℃ 0 to 1820℃ 800 to 3200℉ 0 to 3308℉ □		01 02 A1 A2 ZZ			01 02 03 04 05 06 07 08 09 10 A1 A2 A3 A4 A5 A6 A7 A8 A9 ZZ		
		0 to 800℃ 0 to 1000℃ 0 to 1600℉ 0 to 1832℉ □		01 02 A1 A2 ZZ			01 02 03 04 05 06 07 08 09 10 A1 A2 A3 A4 A5 A6 A7 A8 A9 ZZ		
		0 to 1200℃ 0 to 1300℃ 0 to 2300℉ 0 to 2372℉ □		01 02 A1 A2 ZZ			01 02 03 04 05 06 07 08 09 10 A1 A2 A3 A4 A5 A6 A7 A8 A9 ZZ		
		-199.9 to +400.0℃ -199.9 to +100.0℃ -100.0 to +200.0℃ 0.0 to 350.0℃ -199.9 to +752.0℉ -100.0 to +200.0℉ -100.0 to +400.0℉ 0.0 to 450.0℉ 0.0 to 752.0℉ □		01 02 03 04 A1 A2 A3 A4 A5 ZZ			01 02 03 04 05 06 07 08 09 10 A1 A2 A3 A4 A5 A6 A7 A8 A9 ZZ		
		0 to 2000℃ 0 to 2320℃ 0 to 4000℉ □		01 02 A1 ZZ			01 02 03 04 05 06 07 08 09 10 A1 A2 A3 A4 A5 ZZ		
		W5Re / W26Re (ASTM)		0 to 2000℃ 0 to 2320℃ 0 to 4000℉ □			W		01 02 A1 ZZ
□ When the range is specified separately, the □ MODEL CODE□ becomes □ □									

□ When the range is specified separately, the
□ MODEL CODE □ becomes □