4-2-6 Option Menu (opt)

aUg

Process Time for Averaging Measured Value

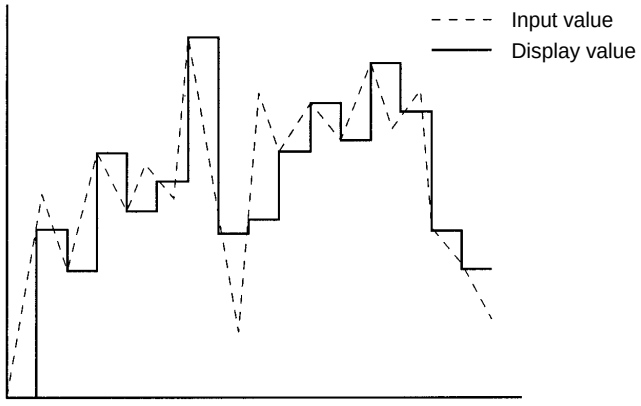
FUNCTION

The K3NR averages its measured value at regular preset intervals. Therefore, when the K3NR is used to measure the rpm of a machine, for example, the value indicated by the PV display will be stable without being influenced by the fluctuation of the input pulse intervals or the rotation of the machine. If the input pulse intervals are larger than the preset regular intervals, the K3NR calculates the rpm using the input pulse intervals.

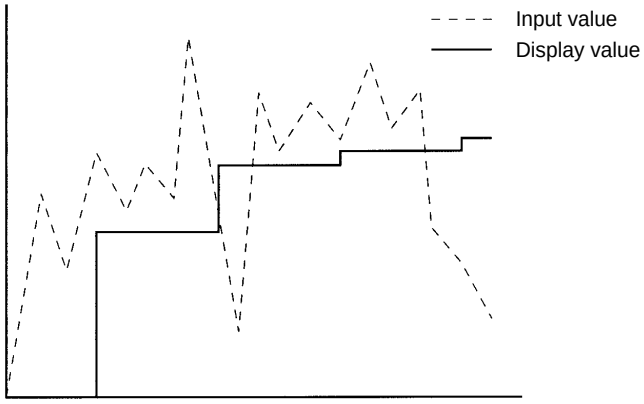
SETTING

Setting		Default
fast:	Averaged every 60 ms	fast
0.5:	Averaged every 500 ms	
1:	Averaged every 1 s	
2:	Averaged every 2 s	
4:	Averaged every 4 s	
8:	Averaged every 8 s	
16:	Averaged every 16 s	

REFERENCE



Without average processing



After average processing

SETTING EXAMPLE

Follow the steps described below to set the process time for averaging measured value to 4 s.

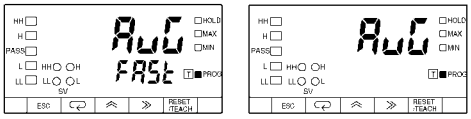
Set Value LED Display Model

Basic Model

1, 2, 3...

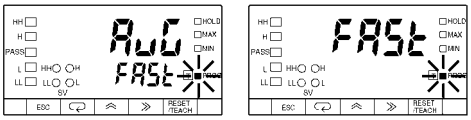
1. Press the Mode Key for more than one second while the opt option menu is displayed. The aUg process time for averaging measured value setting will appear.

Set Value LED Display Model **Basic Model**



2. Press the Shift Key to display present set value fast for changing. The PROG indicator will flash.

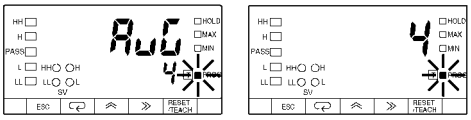
Set Value LED Display Model **Basic Model**



3. Repeatedly press the Up Key until 4 is displayed. The setting will be validated automatically if no change is made for five seconds. The aUg process time for averaging measured value setting will be displayed again.

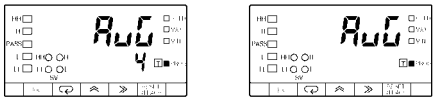
Note Press the Mode Key to enter the displayed setting immediately. The next parameter will be displayed.

Set Value LED Display Model **Basic Model**



When no operation is executed for five seconds

Set Value LED Display Model **Basic Model**



stime

Startup Compensation Time

FUNCTION

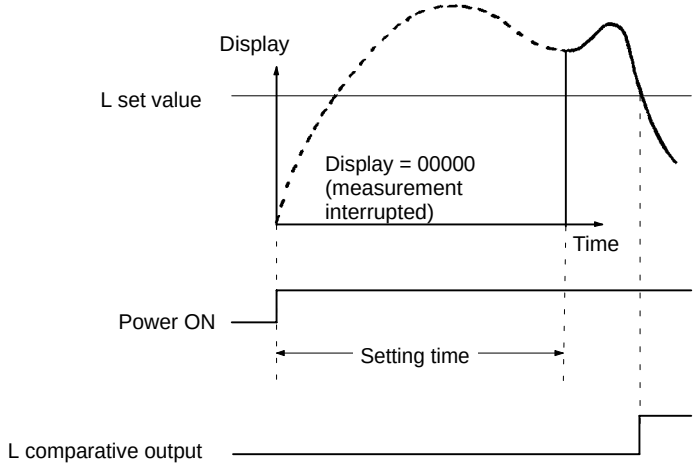
- The interval between the moment the K3NR is turned and the moment the K3NR starts measurement operation is set in the option menu.
- The startup compensation time parameter keeps the measurement operation from sending an unnecessary output corresponding to instantaneous, fluctuating input from the moment the K3NR is turned ON until the end of the preset period.

SETTING

Setting range	Unit	Default
0.0 to 99.9	S	0.0

REFERENCE

The K3NR will display “00000” with all outputs turned OFF until the K3NR is in measurement operation.



SETTING EXAMPLE

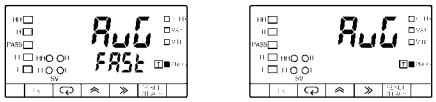
Follow the steps described below to set the startup compensation time to 2 seconds.

Set Value LED Display Model **Basic Model**

1, 2, 3...

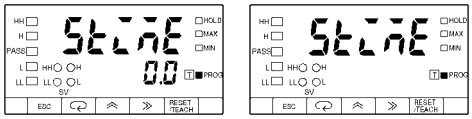
1. Press the Mode Key for more than one second while the opt option menu is displayed. The aUg process time for averaging measured value setting will appear.

Set Value LED Display Model **Basic Model**



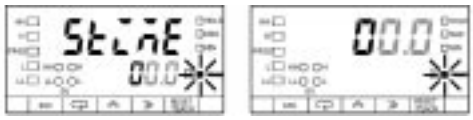
2. Press the Mode Key to display the stine startup compensation time setting.

Set Value LED Display Model **Basic Model**



3. Press the Shift Key to display the prior set value 00.0 for changing. The PROG indicator will flash.

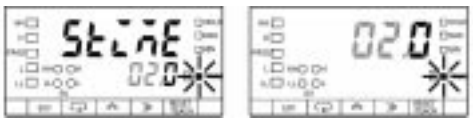
Set Value LED Display Model **Basic Model**



4. Press the Up and Shift Keys to set the value to 02.0. The setting will be validated automatically if no change is made for five seconds. The stine startup compensation time setting will be displayed again.

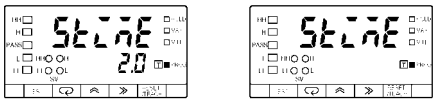
   Note Press the Mode Key to enter the set value immediately. The next parameter will be displayed for setting.

Set Value LED Display Model **Basic Model**



When no operation is executed for five seconds

Set Value LED Display Model **Basic Model**



memo

Power Failure Memory

FUNCTION

Retains the process value at the time of power failure if the operating mode of the K3NR is set to F7 (pulse counting).

SETTING

Setting	Default
on: Stored off: Not Stored	off

SETTING EXAMPLE

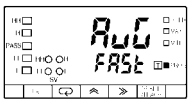
Follow the steps described below to set on to enable power failure memory.

Set Value LED Display Model **Basic Model**

1, 2, 3...

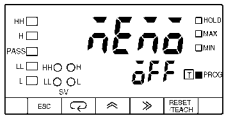
1. Press the Mode Key for more than one second while the opt option menu is displayed. The aUg average processing setting will appear.

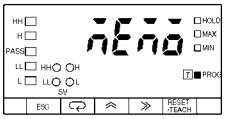
Set Value LED Display Model **Basic Model**



2. Repeatedly press the Mode Key until the memo power failure memory setting is displayed.

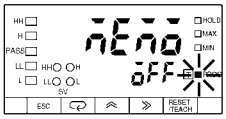
Set Value LED Display Model **Basic Model**

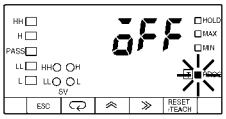




3. Press the Shift Key to display the set data off for changing. The PROG indicator will flash.

Set Value LED Display Model **Basic Model**

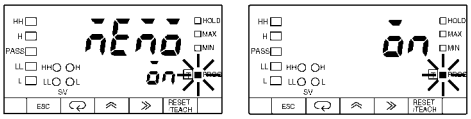




4. Press the Up Key to display on. The setting will be validated automatically if no change is made for five seconds. The memo power failure memory setting will be displayed again.

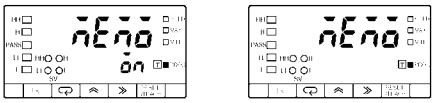
   Note Press the Mode Key to enter the displayed setting immediately. The next parameter will be displayed for setting.

Set Value LED Display Model **Basic Model**



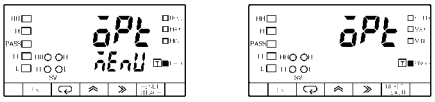
When no operation is executed for five seconds

Set Value LED Display Model **Basic Model**



5. Press the Escape Key to display the opt option menu.

Set Value LED Display Model **Basic Model**



hys

Hysteresis

FUNCTION

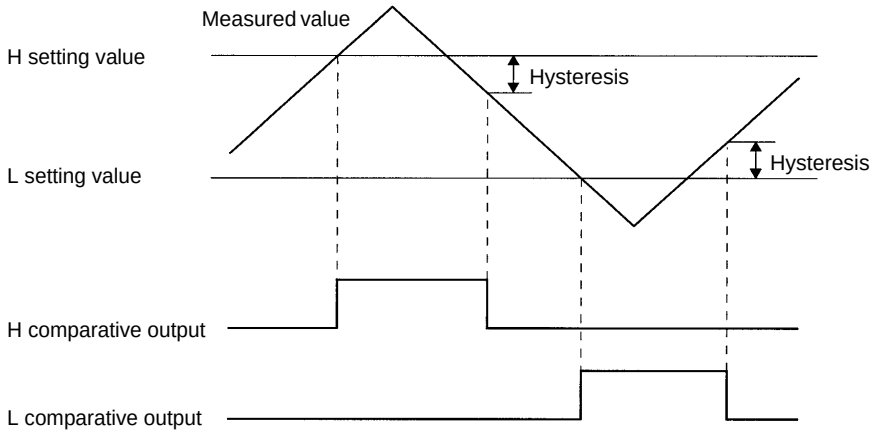
- The hysteresis can be set in the option menu to prevent “chattering” of the output if the measured value fluctuates in the vicinity of the setting values.
- The hysteresis can be set within a range of 1 and 9999 digits for four consecutive digits beginning with the leftmost digit regardless of the decimal point.
- The value set to 0 is regarded as 1.
- The decimal point position set in the scaling menu becomes valid.

SETTING

Setting range	Unit	Default
1 to 9999	---	1

REFERENCE

If the comparative output is a level output, however, the hysteresis will be enabled when the measured value starts to become smaller than the HH, H, LL, and L setting values.



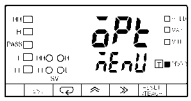
MODELS

This setting is only available for the K3NR with the Comparative Output Unit.

SETTING EXAMPLE

Follow the steps described below to set the hysteresis to 30.

Set Value LED Display Model

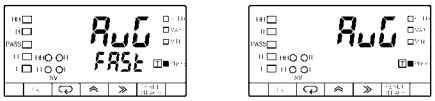


Basic Model

1, 2, 3...

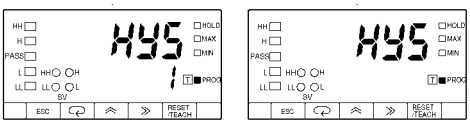
1. Press the Mode Key for more than one second while the opt option menu is displayed. The aUg average processing setting will appear.

Set Value LED Display Model **Basic Model**



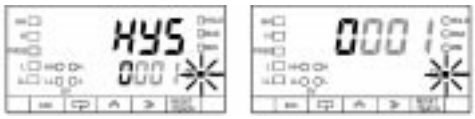
2. Repeatedly press the Mode Key until the hys hysteresis setting is displayed.

Set Value LED Display Model **Basic Model**



3. Press the Shift Key to display the prior set value 0001 for changing. The PROG indicator will flash.

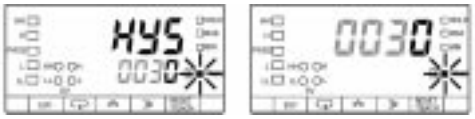
Set Value LED Display Model **Basic Model**



4. Press the Up and Shift Keys to set the value to 0030. The setting will be validated automatically if no change is made for five seconds. The hys hysteresis setting will be displayed again.

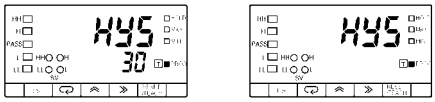
   Note Press the Mode Key to enter the set value immediately. The next parameter will be displayed for setting.

Set Value LED Display Model **Basic Model**



When no operation is executed for five seconds

Set Value LED Display Model **Basic Model**



c-out

Comparative Output Pattern

FUNCTION

SETTING

REFERENCE

- The pattern of HH, H, L, LL, and PASS comparative outputs is set in the option menu.
- This function is not available when the operating mode is set to “F7.”

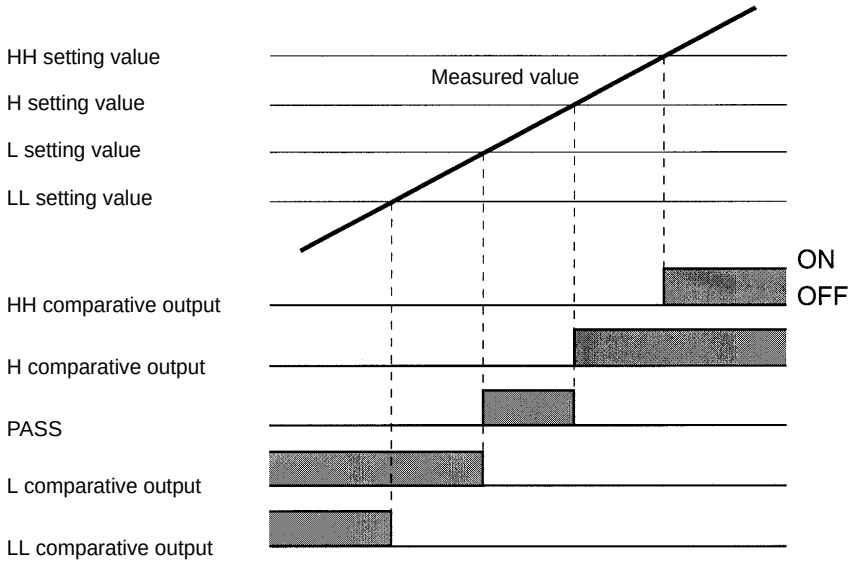
Setting	Default
nomal: Standard output =one: Zone output leUel: Level output	nomal

Standard Output

H or HH Comparative Output:
Turns ON when the measured value is larger than the H or HH setting value.

PASS Output:
Turns ON when LL, L, H, and HH comparative outputs are all OFF.

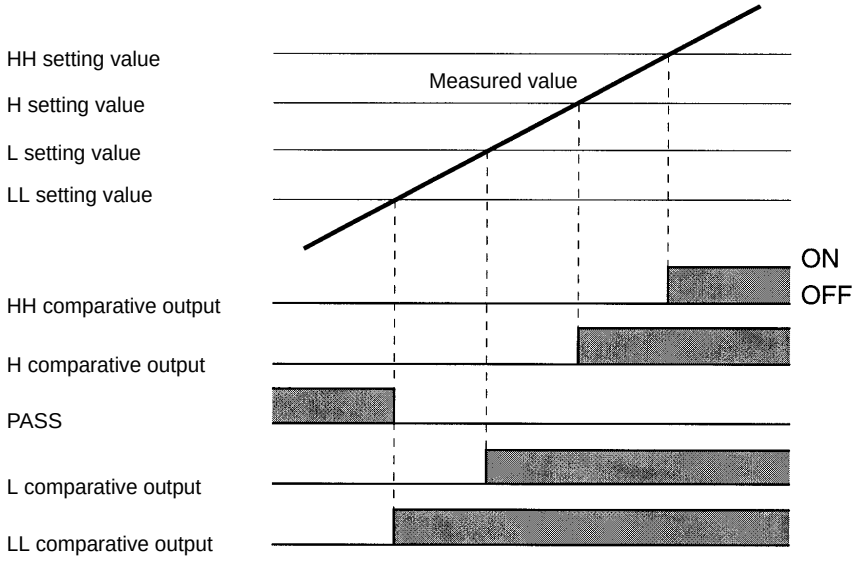
L or LL Comparative Output:
Turns ON when the measured value is smaller than the L or LL setting value.



Level Output

LL, L, H, or HH Comparative Output:
Turns ON when the measured value exceeds the LL, L, H, or HH setting value.

PASS Output:
Turns ON when the LL, L, H, and HH comparative outputs are all OFF.



Zone Output

HH Comparative Output:
Turns ON when the measured value exceeds the HH setting value.

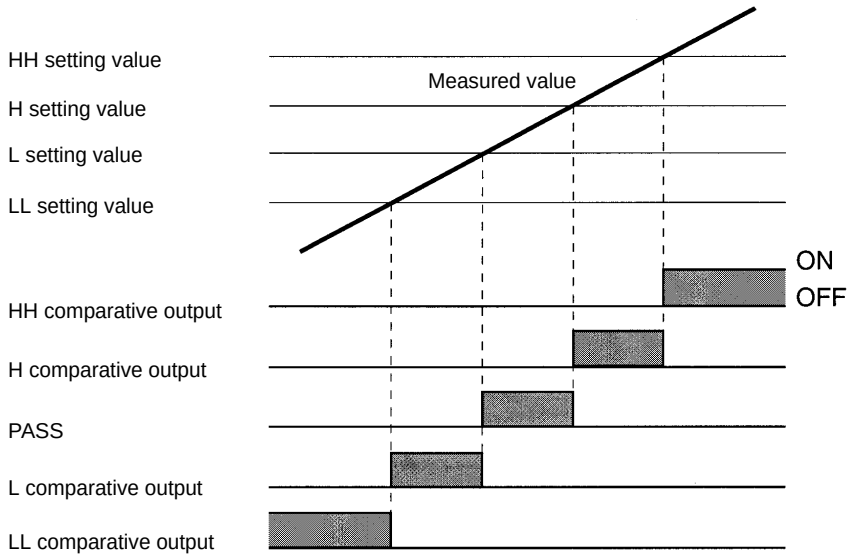
H Comparative Output:
Turns ON when the measured value is between the H and HH setting values.

PASS Output:
Turns ON when the measured value is between the L and H setting values.

L Comparative Output:
Turns ON when the measured value is between the LL and L setting values.

LL Comparative Output:
Turns ON when the measured value falls below the LL setting value.

Be sure to set the setting values so they satisfy the following formula:
LL < L < H < HH



MODELS

This setting is only available for the K3NR with the Comparative Output Unit.

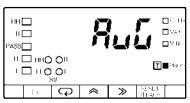
SETTING EXAMPLE

Follow the steps described below to set the comparative output pattern to level output.

Set Value LED Display Model **Basic Model**

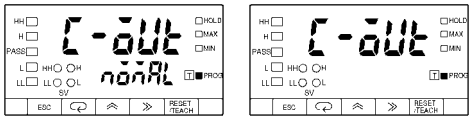
1, 2, 3... 1. Press the Mode Key for more than one second while the opt option menu is displayed. The aUg process time for averaging measured value setting will appear.

Set Value LED Display Model **Basic Model**



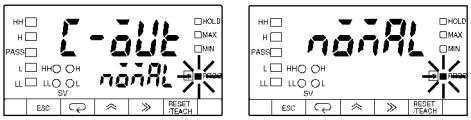
2. Repeatedly press the Mode Key until the c-out comparative output pattern setting is displayed.

Set Value LED Display Model **Basic Model**



3. Press the Shift Key to display the prior setting nomal for changing. The PROG indicator will flash.

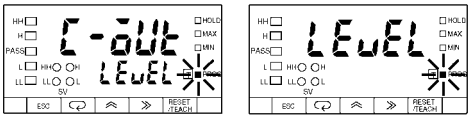
Set Value LED Display Model **Basic Model**



4. Press the Up Key twice to display leUel. The setting will be validated automatically if no change is made for five seconds. The c-out comparative output pattern setting will be displayed again.

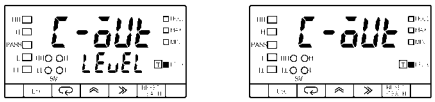
   Note Press the Mode Key to enter the setting immediately. The next parameter will be displayed for setting.

Set Value LED Display Model **Basic Model**



When no operation is executed for five seconds

Set Value LED Display Model **Basic Model**



lset.h

Upper Limit (H) of Linear Output Range

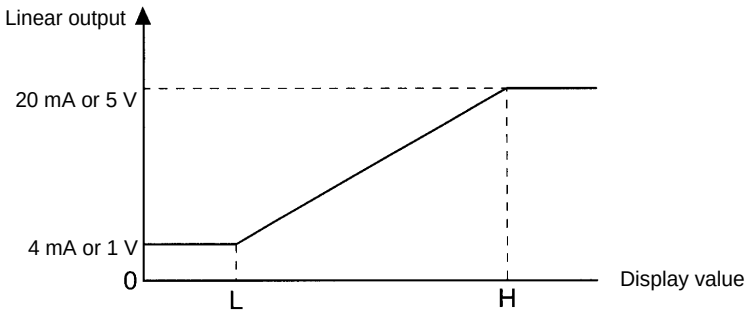
lset.l

Lower Limit (L) of Linear Output Range

FUNCTION

Linear output setting is made in the option menu to enable the K3NR to have voltage or current output in proportion to the change in display value.

- The maximum and minimum values of linear output are set in this parameter.



- L can be greater or less than H.
- L cannot be the same as H, otherwise H will be automatically set to a value obtained by adding 1 to L.
- The teaching function can be used for setting linear output ranges.

SETTING

Setting range	Default	
–19999 to 99999	H linear output range	99999
	L linear output range	–19999

REFERENCE

Refer to *6-1 Teaching Function*.

MODELS

This setting is available for the K3NR with the Linear Output Board.

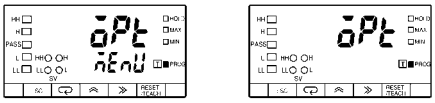
SETTING EXAMPLE

Follow the steps described below to set the following.

H: 100.00
L: 0.00

(Assume that the decimal point is set between the 2nd and 3rd digit from the right in the prescale menu.)

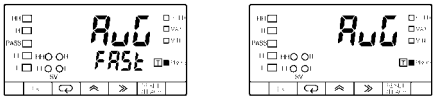
Set Value LED Display Model **Basic Model**



1, 2, 3...

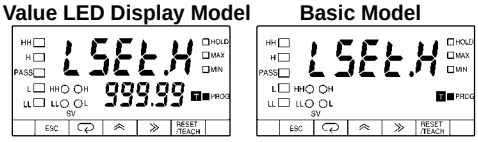
1. Press the Mode Key for more than one second while the opt option menu is displayed. The aUg process time for averaging measured value setting will appear.

Set Value LED Display Model **Basic Model**



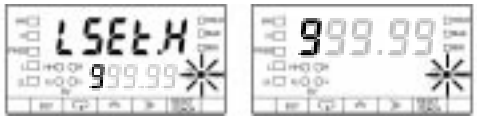
2. Repeatedly press the Mode Key until the lset.h H linear output range setting is displayed.

Set Value LED Display Model **Basic Model**



3. Press the Shift Key to display the prior set value 999.99 for changing. The PROG indicator will flash.

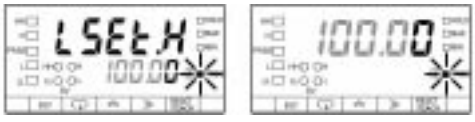
Set Value LED Display Model **Basic Model**



4. Press the Up and Shift Keys to set the value to 100.00. The setting will be validated automatically if no change is made for five seconds. The lset.h H linear output range setting will be displayed again.

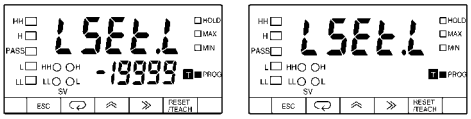
   Note Press the Mode Key to enter the set value immediately. The next parameter will be displayed for setting.

Set Value LED Display Model **Basic Model**



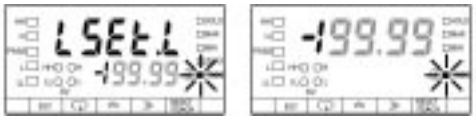
5. Press the Mode Key to display the lset.l L linear output range setting.

Set Value LED Display Model **Basic Model**



6. Press the Shift Key to display the prior set value -199.99 for changing. The PROG indicator will flash.

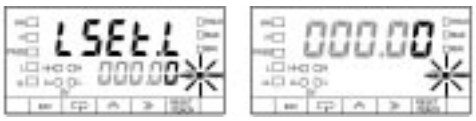
Set Value LED Display Model **Basic Model**



7. Press the Up and Shift Keys to set the value to 000.00. The setting will be validated automatically if no change is made for five seconds. The lset.l L linear output range setting will be displayed again.

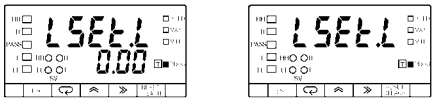
   Note Press the Mode Key to enter the set value immediately. The next parameter will be displayed for setting.

Set Value LED Display Model **Basic Model**



When no operation is executed for five seconds

Set Value LED Display Model **Basic Model**



r-l

Remote/Local Programming

FUNCTION

SETTING

MODELS

- The K3NR can be set to remote or local mode in the option menu. The K3NR in remote mode is operated through the host computer and the K3NR in local mode is operated through the front panel key input.

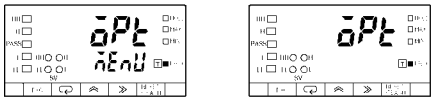
Setting	Default
Remote: rmt Local: lcl	lcl

This setting is available for the K3NR with the Communications Output Board.

SETTING EXAMPLE

Follow the steps described below to set the K3NR to remote programming.

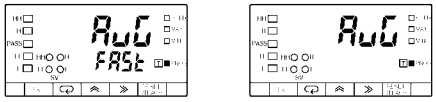
Set Value LED Display Model **Basic Model**



1, 2, 3...

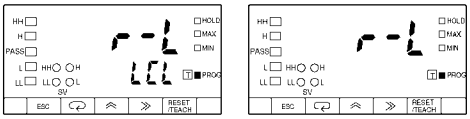
1. Press the Mode Key for more than one second while the opt option menu is displayed. The aUg setting will appear.

Set Value LED Display Model **Basic Model**



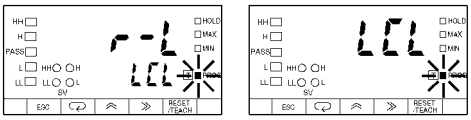
2. Repeatedly press the Mode Key until the r-l remote/local setting is displayed.

Set Value LED Display Model **Basic Model**



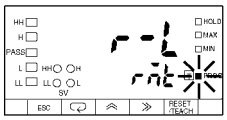
3. Press the Shift Key to display the prior setting lcl for changing. The PROG indicator will flash.

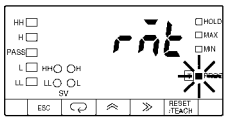
Set Value LED Display Model **Basic Model**



4. Press the Up Key to display rmt.

Set Value LED Display Model **Basic Model**





5. The setting will be validated automatically if no change is made for five seconds. The aUg process time for averaging measured value setting will be displayed again.

   Note Press the Mode Key to enter the setting immediately. The r-l remote/local setting will be displayed again.

Set Value LED Display Model **Basic Model**