

# REX - P 2 4

# Engineer's setting mode

IM24P02-E1

In this material, the setting method for REXP24 is described on the items (PG11PG13) in the engineer's setting mode. And the change of these items causes the change of model code. Accordingly, the change of the setting must be done with enough care and please do not forget to change the label correctly for the maintenance in the future.

As for the ordinary engineer's setting mode such as the setting of autotuning , alarm and PID constants, please refer to the instruction manuals attached to the delivered products. (Refer to page 10 " Item 12. Settings of each specification " in the instruction manual.)

## 1. How to switch to the engineer's setting mode.

- ① Stop the operation of the product(REXP24) and enter the reset state.  
(The item of PG6 to PG13 can be changed only in the reset state.)
- ② At the normal mode(reset state), if SET key is pushed for more than 3 seconds, PG 1 (Parameter Group 1) is displayed and the engineer's setting mode is activated.
- ③ In this state, if "^" or "v" key is pushed, the PG(Parameter Group) can be switched.
- ④ If the contents of the setting is different from the default value, Please note down the contents of the change and keep it for the future maintenance.(If PG11 to PG13 will be changed, the contents of each setting will be changed to the default values.)
- ⑤ Call PG14 on the PV display and push the set key to make the SV display show the numeric value, and make the setting to 0100 by the "^" or "v" key.
- ⑥ Display the PG(Parameter Group) in which the necessary item to be changed is included, and call the necessary character(symbol)by pushing the SET key.
- ⑦ Change the set value(contents) by the "^" or "v" key and fix it by pushing the SET key.
- ⑧ Return to the normal mode by pushing the Mode key.

## 2. Setting details

PG 1 0 A missing number (Not displayed)

PG 1 1 Input type selection  
 °C °F °C : Celsius display(°C) °F : Fahrenheit display(°F)  
 \_\_ I n P Input types (Refer to input codes.)

PG 1 2 Control selection  
 CONT 0 : Reverse action 1 : Direct action  
 PID 0 : Ordinary PID control 1 : Level PID control  
 ENDP 0 : At end= keep on controlling 1 : At end= Stop controlling

PG 1 3 Alarm types  
 \_\_ A S 1 First alarm selection  
 1 : Deviation high alarm 2 : Deviation low alarm 3 : Deviation high/low alarm  
 4 : Band alarm 5 : Process high alarm 6 : Process low alarm  
 7 : Set value high alarm 8 : Set value low alarm  
 \_\_ A H 1 First alarm hold action selection  
 0 : No hold action  
 1 : Hold action is valid when the instrument is power-on or transferred operation mode from STOP to execution(RUN).  
 2 : Hold action is valid when the instrument is power-on or transferred operation mode from STOP to execution(RUN) or changed the set-value .  
 A H O 1 First alarm differential gap.  
 Numerical value input : 0 ~ 10°C [°F] or 0.0 ~ 10.0°C [°F]  
 .....(Default value = 2 or 2.0)  
 E Y C 1 First alarm energized / deenergized selection  
 0 : Energized alarm 1 : Deenergized alarm  
 A E O 1 The action of first alarm at the input abnormality  
 0 : Alarm ON when measured value is in alarm action range.  
 1 : Compulsory alarm O N  
 2 : Compulsory alarm O F F

Attention : The settings of the second alarm (AS2, AH2, AH02, EYC2, AE02) are same as those of the first alarm.

PG 1 4 Set data locking.....(Default value = 0000)  
 \_\_ L C K L C K ( 0 0 0 0 ; PG 1 ~ PG 5 Enable setting )  
 ( 0 0 0 1 ; PG 1 ~ PG 5 Only monitoring )  
 ( 0 0 1 0 ; PG 1 ~ PG 9 Enable setting )  
 ( 0 0 1 1 ; PG 1 ~ PG 9 Only monitoring )  
 ( 0 1 0 0 ; PG 1 ~ PG 1 3 Enable setting )  
 ( 0 1 0 1 ; PG 1 ~ PG 1 3 Only monitoring )

# Model Code

T y p e				C o n t e n t s				
REX-P24	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	48×48 mm size Program Controller
Control Action	F	D	L	M				PID Reverse Action with Autotuning PID Direct Action with Autotuning Level PID Reverse Action with Autotuning Level PID Direct Action with Autotuning
Input	<input type="checkbox"/>							Refer to Input Codes
Input	<input type="checkbox"/>							Refer to Input Codes
Control Output			M	V	7	8		Relay Contact Voltage Pulse, 0/12V DC Current : 0 to 20mA DC Current : 4 to 20mA DC
External Contact Input			N	Y				None Supplied ( 2 points)
Digital Output 1			N	<input type="checkbox"/>				None Refer to Digital Output Code
Digital Output 2			N	<input type="checkbox"/>				None Refer to Digital Output Code
Water proof/Dust proof (USA of NEAMA 4X front cover)			N	1				None Water proof/Dust proof (USA of NEAMA 4X front cover)

### Input Code

Type	Code	Select	Range
K	K 22	0	-199.9~999.9°C
	K 16	1	-200~1372°C
	KB2	50	-199.9~999.9 F
	KB3	51	-330~2500 F
J	J 14	2	-199.9~999.9°C
	J 15	3	-200~1200°C
	JA9	52	-199.9~999.9 F
	JB1	53	-330~2192 F
T	T 01	4	-199.9~400.0°C
	TA1	54	-199.9~752.0 F
R	R 02	5	0~1769°C
	RA2	55	0~3261 F
S	S 02	6	0~1769°C
	SA2	56	0~3261 F

Type	Code	Select	Range
B	B 02	7	0~1820°C
	BA2	57	0~3308 F
E	E 06	8	-200~1000°C
	EA5	58	-300~1832 F
N	N 02	9	0~1300°C
	NA2	59	0~2372 F
P L II	A 02	10	0~1390°C
	AA2	60	0~2534 F
5Re/W26Re	W 02	11	0~2320°C
	WA4	61	0~4208 F
U	U 08	12	0~600°C
	UA4	62	0~1100 F
L	L 05	13	0~900°C
	LA2	63	0~1600 F

\* Accuracy is not guaranteed between 0 to 400°C (0 to 752°F) for type B and 0 to 32F for W5Re/W26Re, PL I, and N Thermocouple inputs.

Type	Code	Select	Range
Pt100	D 20	15	-199.9~660.0°C
	DA1	65	-199.9~999.9 F
JPt100	P 20	14	-199.9~510.0°C
	DB6	64	-199.9~950.0 F

### Digital Output Code

A	Deviation high alarm	B	Deviation low alarm	C	Deviation high/low alarm
D	Band alarm	E	Deviation high alarm with hold	F	Deviation low alarm with hold
G	Deviation high/low alarm with hold	H	Process high alarm	J	Process low alarm
K	Process high alarm with hold	L	Process low alarm with hold	Q	Deviation high alarm with re-hold
R	Deviation Low alarm with re-hold	T	Deviation high/low alarm with re-hold	V	Set value high alarm
W	Set value low alarm	Y	Time signal output	Z	Pattern end output/ Time-up output



- Before operating this product, read the instruction manual carefully to avoid incorrect operation.
- This product is intended for use with industrial machines, test and measuring equipment. It is not designed for use with medical equipment.
- If it is possible that an accident may occur as a result of the failure of the product or some other abnormality, an appropriate independent protection device must be installed.
- When installing this product, avoid the following:  
\* Direct exposure to sunlight.

- \* The ambient temperature is lower than 0°C degrees or higher than 50°C
- \* In areas subject to high humidity. Ambient humidity should not be lower than 45% or higher than 85%RH.
- \* Direct contact with water.
- \* Corrosive environments.
- \* Hazardous areas containing explosive or flammable gases.
- \* Vibration or shock.
- \* Areas subject to electrical noise caused by inductive interference, static electricity or magnetic fields.

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Due to continuous product improvement, product specifications are subject to change without prior notice.