

1	0-0	Temperature Unit	Set the unit for temperature input to Celsius (°C) or Parrenneit (°F).	L(C)/F(F)	.0
	Entl	PID • ON/OFF	Set either 2-PID control or ON/OFF control.	onof/Pid	ON/OFF
	[P	Control Period	Set the time-proportional control period for the control output. (Displayed only when PID control is selected.)	0.5, 1 to 99	20 or 2 (s)
	õrEu	Direct/Reverse Operation	Set either reverse option (heating control) or direct operation (cooling control).	قد - د (reverse control) قد - ط (direct control)	Or-r (reverse control)
	RLE I	Alarm Type	Set the alarm type.*E5CWL only.	*Refer to table on the right.	2 (Deviation upper limit)

Step 2 Operation Level: Used to monitor the process value and to set the set point, alarm value, etc.

Display	Parameter name	Description	Setting/monitoring range	Default
PV/SP Monitor the process value and set the set point.		Monitor the process value and set the set point.	-	SV: 0 (°C)
RL - 1	Alarm value	Set the alarm value. The location of the decimal point depends on the input type. *E5CWL only.	- 1999 to 9999	0 (°C)
r-5	RUN/STOP	Start and stop control operation. *1	rün/Stöp	RUN

Step 3 Adjustment Level: Used to tune parameters and set control parameters.

Display	Parameter name	Description	Setting/monitoring range	Default
L.AdJ	Adjustment Level	This display indicates that you have moved to Adjustment Level.	_	-
RE	AT Execute/Cancel	Starts and stops autotuning. (Displayed only when PID control is selected.)	ā ^{F,F} /ān	OFF
ins	Temperature Input Shift	Set a compensation value for the temperature input in increments of 0.1°C or 0.1°F.	- 199.9 to 999.9	0.0 (°C)
Ρ	Proportional Band	Set the proportional band in increments of 0.1°C or 0.1°F.(Displayed only when PID control is selected.)	0. / to 999.9	8.0 (°C)
č	Integral Time	Set the integral time in increments of 1 s. (Displayed only when PID control is selected.)	0 to 3999	233 (s)
d	Derivative Time	Set the derivative time in increments of 1 s. (Displayed only when PID control is selected.)	0 to 3999	40 (s)
öf-r	Manual Reset Value	Set the manipulated value to use for P or PD control (I = 0). The offset will be canceled.	0.0 to 100.0	50.0 (%)
нус	Hysteresis	Set the hysteresis to use to achieve stable operation when switching the control output ON/OFF during ON/OFF control. (Displayed only when ON/OFF control is selected.)	0. I to 999.9	1.0 (°C)

Step 4 Protect Level: Used to set parameters to restrict key operations.

Display	Parameter name	Description	Setting/monitoring range	Default
öRPE	Operation/Adjustment Protect	Set protection for Operation Level and Adjustment Level.	*Refer to table on the right.	0
inPt	Initial Setting Protect	Set protection for Initial Setting Level.	*Refer to table on the right.	1
6YPE	Operation Control Key Protect	Set protection for the AT Key and RUN/STOP Key (operation control keys).	*Refer to table on the right.	0

*1: Displayed only when Operation Control Key Protection is set to 4

*2: The setting cannot be changed during autotuning. Autotuning will be stopped if you move to Initial Setting Level or stop control operation.

Displays during Autotuning
 ESCSL: The current deviation indicator will flash.
 ESCSL: The AT Execute/Cancel characters on display No. 1 and the PV/SP characters on display No. 2 will flash.

		2	-100 to 850	-100 to 1500
	J	3	-20.0 to 400.0	0.0 to 750.0
	т	4	-200 to 400	-300 to 700
		5	-199.9 to 400.0	-199.9 to 700.0
	R	6	0 to 1700	0 to 3000
	S	7	0 to 1700	0 to 3000

The default input type is 0.

Input type: Platinum Resistance Thermometer

Input	Setting	Setting range (°C)	Setting range (°F)
Pt100	8	-200 to 850	-300 to 1500
	9	-199.9 to 500.0	-199.9 to 900.0

The default input type is 8.

Troubleshooting

Display	Meaning	Action				
S.Err (S.ERR)	Input error ^{*1}	Check the wiring of inputs, disconnections, short circuits and input type.				
E (E111)	RAM memory error	Turn the power OFF then back ON again. $\ensuremath{^{\circ}2}$				
E / / //รูปกั (E111)/(SUM) *3	Non-volatile memory memory error	Press the A and Keys for at least 3 seconds to initialize the settings and clear the non-volatile memory error.*2				

The control output and the alarm output will turn OFF when an error occurs

If the control output and the adam output will be processed for a high emperature error.)
 If the input value exceeds the display limit (-1999 to 9999) but it is still within the control range, cccc will be displayed for values under -1999.
 Under these conditions, the control output and alarm output will operate normally.

*1: This error is displayed only when the process value and set point are displayed.
*2: If the display does not change, the Controller needs to be repaired.
If operation returns to normal, then noise may have caused the problem. Check for noise.
*3: On the ESCSL, *F* 111 and Su³ will alternate on the display at 1-second intervals.
On the ESCWL, *E* 111 will be displayed on display No. 1 and Su⁵ will be displayed on display No. 2.

Level	PV/SP	0	0	0	0	
	Others (Alarm Value)	\odot	$^{\odot}$	×	×	
Ac	ljustment Level	0	×	×	×	

Display or changing to another level is not possible

©: Can be displayed and changed. O: Can only be displayed.

Default: 0

Default: 1

- ⊚ : Can be displayed and changed
- Solution of the second s

Operation Control Key Protection

	Setting					
Operation Control	0	1	2	3	4	
AT Execute/Cancel (⊡+S)	0	×	0	×	Δ	
RUN/STOP (🖙+🙈)	0	0	×	×	Δ	

Default: 0

- O: Operation control keys are enabled but operation control using parameters is disabled.
- \triangle : Operation control keys are disabled but operation control using parameters is enabled.
- ×: Operation control keys and operation control using parameters are disabled.

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