

SETTING LIST

Mode	Parameter Name	Setting Range	Unit	Default	Remarks	Setting
Protect	SECr Security	0 to 6	None	1		
	KEYP Key protect	0/1/2/3	None	0		
Manual	Manual MV	-5.0 to 105.0*1 *1	%	0.0		
Level 0	Ptcrn Pattern No.	0 to 7	None	0		
	HOLD Hold	OFF/ON	None	OFF	At program operation	
	Adv Advance	OFF/ON	None	OFF	At program operation	
Program	Ptcrn Pattern No.	0 to 7	None	0		
	Stps Number of steps	1 to 16	None	8		
	SP0 to 15 Steps 0 to 15 SP/ Target SP 0 to 7	SP lower limit to SP upper limit	EU	0	*2	
	P-r0 to 7 Ramp rate 0 to 7	0 to 9999	*3	0	*2	
	t0 to 15 Step 0 to 15 time/ Soak time 0 to 7	0.00 to 99.59	*4	0.00	*2	
	rPt Pattern execution count	0 to 9999	Times	1		
	AL-1 Alarm value 1	-1999 to 9999	EU	0		
	AL-2 Alarm value 2	-1999 to 9999	EU	0		
	AL-3 Alarm value 3	-1999 to 9999	EU	0		
	tS15 Time signal 1 enabled step	0 to 15	None	0		
	on1 Time signal 1 ON time	0.00 to 99.59	*4	0.00		
	off1 Time signal 1 OFF time	0.00 to 99.59	*4	0.00		
	tS25 Time signal 2 enabled step	0 to 15	None	0		
	on2 Time signal 2 ON time	0.00 to 99.59	*4	0.00		
	off2 Time signal 2 OFF time	0.00 to 99.59	*4	0.00		
	At AT Execute/Cancel	OFF/ AT-1/AT-2	None	OFF		
	P Proportional band	0.1 to 999.9	%FS	10.0		
	I Integral time	0 to 3999	sec	233		
	d Derivative time	0 to 3999	sec	40		
	[-SC Cooling coefficient	0.01 to 99.99	None	1.00	At heating and cooling control	
Level 1	[-db Dead band	-19.99 to 99.99	%FS	0.00	At heating and cooling control	
	db Position-proportional dead band	0.1 to 10.0	%	2.0	At position-proportional control	
	off-r Manual reset value	0.0 to 100.0	%	50.0		
	HYS Hysteresis (heat)	0.01 to 99.99	%FS	0.10		
	[HYS Hysteresis (cool)	0.01 to 99.99	%FS	0.10	At heating and cooling control	
	[P Control period (heat)	1 to 99	sec	20		
	[-[P Control period (cool)	1 to 99	sec	20	At heating and cooling control	
	Hb Heater burnout	0.0 to 50.0	A	0.0	Heater burnout detection	

Mode	Parameter Name	Setting Range	Unit	Default	Remarks	Setting
Level 2	r-L Remote/Local	RMT/LCL	None	LCL		
	Stb Standby time	0.00 to 99.59	Hour, Min.	0.00		
	LbA LBA detection time	0 to 9999	Sec	0		
	hU-r MV at reset	-5.0 to 105.0 *1	%	0.0		
	hU-E MV at PV error	-5.0 to 105.0 *2	%	0.0		
	oL-H MV upper limit	MV lower limit +0.1 to 105.0*5	%	105.0		
	oL-L MV lower limit	-5.0 to MV upper limit -0.1*6	%	-5.0		
	oRL MV change rate limiter	0.0 to 100.0	%FS	0.0		
	LnF Input digital filter	0 to 9999	sec	0		
	oC-H Open/close hysteresis	0.1 to 20.0	%	0.8		
	ALH1 Alarm 1 hysteresis	0.01 to 99.99	%	0.02		
	ALH2 Alarm 2 hysteresis	0.01 to 99.99	%	0.02		
	ALH3 Alarm 3 hysteresis	0.01 to 99.99	%	0.02		
	LnSH Input shift upper limit	-199.9 to 999.9	°C/°F	0.0	Temperature input	
	LnSL Input shift lower limit	-199.9 to 999.9	°C/°F	0.0	Temperature input	
Setup	Ln-t Input type	0 to 21	None	2		
	Ln-H Scaling upper limit	Scaling lower limit +1 to 9999	None	100	Analog input	
	Ln-L Scaling lower limit	-1999 to scaling upper limit -1	None	0	Analog input	
	dP Decimal point	0 to 3	None	0	Analog input	
	d-U °C/°F selection	°C/°F	None	°C	Temperature input	
	LnLt Parameter initialize	Yes/No	None	NO		
	oUt1 Control output 1 assignment	*7	None	HEAT		
	oUt2 Control output 2 assignment	*7	None	AL-1		
	SUb1 Auxiliary output 1 assignment	*8	None	AL-2		
	SUb2 Auxiliary output 2 assignment	*8	None	AL-3		
	ALt1 Alarm 1 type	1 to 11	None	2	Output assignment needed	
	ALIn Alarm 1 open in alarm	N-O/N-C	None	N-O	Output assignment needed	
	ALt2 Alarm 2 type	1 to 11	None	2	Output assignment needed	
	AL2n Alarm 2 open in alarm	N-O/N-C	None	N-O	Output assignment needed	
	ALt3 Alarm 3 type	1 to 11	None	2	Output assignment needed	
	AL3n Alarm 3 open in alarm	N-O/N-C	None	N-O	Output assignment needed	
	oREu Direct/Reverse operation	OR-R/OR-D	None	OR-R		

*1 During heating and cooling control, the lower limit becomes -105.0%

*2 Use “Program List” (see below) for the setting value of each step.

*3 EU/time unit of ramp rate

*4 Program time unit

*5 During heating and cooling control, the setting range becomes 0.0 to 105.0%.

*6 During heating and cooling control, the setting range becomes -105.0 to 0.0%.

*7 HEAT/COOL/AL-1/AL-2/AL-3/HBA/LBA/TS-1/TS-2/PEND/STG

*8 AL-1/AL-2/AL-3/HBA/LBA/TS-1/TS-2/PEND/STG/S.ERR/E333

Mode	Parameter Name	Setting Range	Unit	Default	Remarks	Setting
Expansion	SL-H Set point upper limit	Set point lower limit +1 to scaling upper limit	EU	1300	*9	
	SL-L Set point lower limit	Scaling lower limit to Set point upper limit -1	EU	-200	*9	
	EnbL PID / ON/OFF	PID / ON/OFF	None	PID		
	P-on Operation at power ON	CON/RST/RUN/MAN	None	CON		
	ESet End condition	RST/SP	None	RST		
	t-U Program time unit	HHMM/MMSS	None	HHMM		
	t-Pr Step time/Rate of rise programming	TIME/PR	None	OFF		
	PrU Time unit of ramp rate	M/H	None	OFF		
	PnSt PV start	PV/SP	None	SP		
	Wt-b Wait width	0 to 9999	EU	0		
	rPRL Alarm during ramp step enable	ON/OFF	None	ON		
	rUnR Run all enable	ON/OFF	None	OFF		
	ALFA α	0.00 to 1.00	None	0.65		
	At-G AT calculated gain	0.1 to 10.0	None	1.0		
	rEt Automatic return of display mode	0 to 99	Sec	0		
	At-H AT hysteresis	0.1 to 9.9	%FS	0.2		
	LbAb LB detection width	0.0 to 999.9	%FS	0.2		
Option	Eu-1 Event input assignment 1	NON/RST/MAN/HOLD/ADV/PTN0 to 2	None	NON		
	Eu-2 Event input assignment 2	NON/RST/MAN/HOLD/ADV/PTN0 to 2	None	NON		
	Eu-3 Event input assignment 3	NON/RST/RMT/MAN/HOLD/ADV/PTN0 to 2	None	NON		
	Eu-4 Event input assignment 4	NON/RST/RMT/MAN/HOLD/ADV/PTN0 to 2	None	NON		
	SbLt Communication stop bit	1/2	bit	2		
	LEn Communication data length	7/8	bit	7		
	PrtY Communication parity	NONE/EVEN/ODD	None	EVEN		
	bPS Communication baud rate	1.2/2.4/4.8/9.6/19.2	kbps	9.6		
	U-nb Communication unit No.	0 to 99	None	0		
	tr-t Transfer output type	SP/PV/O/C-O/V-M	None	SP		
	tr-H Transfer output upper limit	*11	*11	*10		
	tr-L Transfer output lower limit	*11	*11	*10		
	HbL HBA latch	ON/OFF	None	OFF		
	CLb Motor calibration	ON/OFF	None	OFF		
	nbL Travel time	1 to 999	Sec	30		
	P-db PV dead band	0 to 9999	EU	0		

*9 When temperature input is selected, the range of the sensor selected in the “input type” parameter (setup mode) corresponds to the scaling upper and lower limit value.

*10 Set the transfer output type parameter according to the following table.

Transfer Output Type		Transfer Output Lower Limit to Transfer Output Upper Limit
SP	:Present SP	-1999 to 9999
PV	:Process value	-1999 to 9999
O	:Manipulated variable (heat)	-5.0 to 105.0% (standard control), 0.0 to 105.0% (heating and cooling control)
C-O	:Manipulated variable (cool)	0.0 to 105.0%
V-M	:Valve opening	-10.0 to 110.0%

- Default : [SP]

Time Setup Program List

Program name

Pattern No.

Pattern execution count

Program time unit: Hour, minute/minute, second

Alarm value 1:

$$/2/$$

3/

Pattern									
Step									
Set point									
Time									
Time signal 1	ON								
	OFF								
Time signal 2	ON								
	OFF								