Temperature Controller

GZ400/GZ900 Parameter List

IMR03D03-E2

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Thank you for purchasing this RKC product. In order to achieve maximum performance and ensure proper operation of the instrument, carefully read all the instructions in this manual. Please place the manual in a convenient location for easy reference. This manual describes the parameter of the GZ400/900.

For detailed handling procedures and key operations, refer to separate **GZ400/GZ900 Instruction Manual**.
The manual can be downloaded from the official RKC website:
https://www.rkcinst.co.jp/english/download-center/

About this manual

- GZ400/900 are available in two types: single input type and dual input type.
  The dual input type is further categorized into two types: Dual PV type and PV + Remote setting type.
  For a dual input model, the same parameter may exist in both Input 1 and Input 2.
  1 or 2 is added to the top of the parameters for identification.

Display example of the dual input type — Input 1_Set value (SV): 1. SV — Input 2_Set value (SV): 2. SV

1. is not added to the top of the parameters list for the single input type.

Display example of a single input type — Set value (SV): SV

This manual uses the dual inputs for explanation. For other types such as a single input type, ignore the first character "**1.**" at the top of the parameter.

[Notation in this manual]
This part is not displayed on the single input type. → (1.) SV

- Parameters with "♣" in the Name will be displayed only when all the display conditions are satisfied.
- Parameters marked with "★" are included in the memory area function.
- The numbers in the No. field means "Screen number" and is used when the screen is registered with the Parameter select function.
- Each mode title describes the key operations to switch from Monitor & SV Setting Mode to other modes. (The Monitor & SV Setting Mode describes the key operation to return from other modes)

A. Monitor & SV Setting Mode — MONI

No.	Symbol	Name	Data range	Factory set value
1	—	Input 1_Measured value (PV)/ Input 1_Set value (SV)	PV display unit: Input 1_Input range low − (Input 1_5 % of input span) to Input 1_Input range high + (Input 1_5 % of input span) [Varies with the setting of the Decimal point position.] SV display unit: • Input 1_Set value (SV) (Auto mode: at RUN) • STOP display • Remote setting input value (at Remote mode) • Input 1_Manual manipulated output value (at Manual mode)	—
1	—	PV select Measured value (PV)/ Input 1_Set value (SV) ♣	PV display unit: When controlling with Input 1: Input 1_Input range low − (Input 1_5 % of input span) to Input 1_Input range high + (Input 1_5 % of input span) When controlling with Input 2: Input 2_Input range low − (Input 2_5 % of input span) to Input 2_Input range high + (Input 2_5 % of input span) [Varies with the setting of the Decimal point position.] SV display unit: • Input 1_Set value (SV) (Auto mode: at RUN) • STOP display • Input 1_Manual manipulated output value (at Manual mode)	—
2	—	Input 2_Measured value (PV)/ Input 2_Set value (SV) ♣	PV display unit: Input 2_Input range low − (Input 2_5 % of input span) to Input 2_Input range high + (Input 2_5 % of input span) [Varies with the setting of the Decimal point position.] SV display unit: • Input 2_Set value (SV) (Auto mode: at RUN) • STOP display • Input 2_Manual manipulated output value (at Manual mode)	—
3	—	Measured value (PV) of differential temperature input/ Set value (SV) of differential temperature input ♣	PV display unit: −19999 to +99999 * or −1999 to +9999 ** * In case of Input data type 0 or 2 ** In case of Input data type 1 [Varies with the setting of the Decimal point position.] SV display unit: −(Input 1_Input span) to +(Input 1_Input span) [Varies with the setting of the Decimal point position.]	—
4	—	Input 1_Measured value (PV)/ Input 2_Measured value (PV) ♣	PV display unit: Input 1_Input range low − (Input 1_5 % of input span) to Input 1_Input range high + (Input 1_5 % of input span) [Varies with the setting of the Decimal point position.] SV display unit: Input 2_Input range low − (Input 2_5 % of input span) to Input 2_Input range high + (Input 2_5 % of input span) [Varies with the setting of the Decimal point position.]	—
24	1. SV	Input 1_ Set value (SV) ♣ ★	Input 1_Setting limiter low to Input 1_Setting limiter high [Varies with the setting of the Decimal point position.]	0
25	2. SV	Input 2_ Set value (SV) ♣ ★	Input 2_Setting limiter low to Input 2_Setting limiter high [Varies with the setting of the Decimal point position.]	0
26	dSV	Set value (SV) of differential temperature input ♣ ★	−(Input 1_Input span) to +(Input 1_Input span) [Varies with the setting of the Decimal point position.]	0
5	SVR	Remote setting input value monitor ♣	Input 1_Setting limiter low to Input 1_Setting limiter high [Varies with the setting of the Decimal point position.]	—
6	1. MV	Input 1_ Manipulated output value monitor [heat-side] ♣	−5.0 to +105.0 %	—
7	1. MVc	Input 1_ Manipulated output value monitor [cool-side] ♣	−5.0 to +105.0 %	—
8	2. MV	Input 2_ Manipulated output value monitor ♣	−5.0 to +105.0 %	—
9	CT1	Current transformer 1 (CT1) input value monitor ♣	0.0 to 100.0 A	—
10	CT2	Current transformer 2 (CT2) input value monitor ♣	0.0 to 100.0 A	—
11	EVENT	Comprehensive event state	When an event occurs, the character of the occurring event is displayed on the Set value (SV) display unit. If two or more events occur at the same time, the relevant characters are displayed alternately every 0.5 seconds. Ev1: Event 1 Ev2: Event 2 Ev3: Event 3 Ev4: Event 4 HbA1: Heater break alarm 1 (HBA1) HbA2: Heater break alarm 2 (HBA2) LbA1: Control loop break alarm 1 (LBA1) LbA2: Control loop break alarm 2 (LBA2) In1.UP: Input 1_Input error high In1.Lo: Input 1_Input error low In2.UP: Input 2_Input error high In2.Lo: Input 2_Input error low	—
12	APT	Memory area soak time monitor	0 hours 00 minutes 00 seconds to 9 hours 59 minutes 59 seconds * 0 hours 00 minutes to 99 hours 59 minutes 0 minutes 00 seconds to 199 minutes 59 seconds 0.00 seconds to 59.99 seconds (Calculation is performed every 50ms.) * Displayed only for when the input data type is 0 or 2. [Data range of Memory area soak time monitor can be selected on the Soak time unit.]	—
13	ILR	Interlock release ♣	oFF: Interlock release on: Interlock state	oFF

B. Parameter Select Mode — <MODE+ ▽

Up to 16 user specified screens can be displayed.
Refer to How to use Parameter select function (P. 4).

C. Operation Transfer Mode — <MODE (2 seconds)

No.	Symbol	Name	Data range	Factory set value
15	R/S	RUN/STOP transfer	rUn: RUN (Control start) StoP: STOP (Control stop)	rUn
16	1. ATU	Input 1_ Autotuning (AT) ♣	oFF: PID control on: Start Autotuning When the Autotuning (AT) is finished, the control will automatically return to "oFF."	oFF
17	2. ATU	Input 2_ Autotuning (AT) ♣	oFF: PID control on: Start Autotuning When the AT is finished, the control will automatically return to "oFF."	oFF
18	1. STU	Input 1_ Startup tuning (ST)	oFF: ST unused on 1: Execute once * on2: Execute always * When the ST is finished, the control will automatically return to "oFF."	oFF
19	2. STU	Input 2_ Startup tuning (ST) ♣	oFF: ST unused on 1: Execute once * on2: Execute always * When the ST is finished, the control will automatically return to "oFF."	oFF
20	1. A/M	Input 1_ Auto/Manual transfer ♣	AUTo: Auto mode Man: Manual mode	AUTo
21	2. A/M	Input 2_ Auto/Manual transfer ♣	AUTo: Auto mode Man: Manual mode	AUTo
22	R/L	Remote/Local transfer ♣	• When "Remote setting input" is selected at Select function for Input 2 LoC: Local mode rEn: Remote mode	LoC
			• When "Control with PV select" is selected at Select function for input 2 In P1: Input 1 In P2: Input 2	InP1
			• When "2-loop control/Differential temperature control" is selected at Select function for input 2 2Loop: 2-loop control dIFF: Differential temperature control	2Loop
23	L/E	Control area Local/External transfer ♣	LoC: Local mode EXT: External mode	LoC

D. Setting Lock Mode — (SET) (4 seconds)

No.	Symbol	Name	Data range	Factory set value
—	LoCK	Set data unlock/lock transfer	oFF: Unlock state on: Lock state	oFF
—	LCKLV	Set lock level	0: Unlock 1: Lock 00000 ← SV display unit SV setting mode * + Parameter select mode Operation transfer mode Parameter setting mode Setup setting mode Engineering mode Set Lock/Unlock at each digit. * Set value (SV), Interlock release	00000
—	AREALK	Area lock	0: Memory area is adjustable when the setting data is locked. 1: Memory area is not adjustable when the setting data is locked.	0
—	bLInd	Select Blind function	oFF: Blind function: OFF on: Blind function: ON	oFF
—	PALK	Fix parameter setting	0: Adjustable 1: Fixed 00000 ← SV display unit Autotuning (AT) Fixed to PID control Auto/Manual transfer Fixed to Auto mode Remote/Local transfer Fixed to Local mode Control response parameter Fixed to Slow Hot/Cold start Fixed to Hot start 2 Independently set parameters to be fixed at each digit.	00000
—	PSLd	Parameter select direct registration	oFF: Direct registration: OFF on: Direct registration: ON	oFF
—	PSL01	Parameter select setting 1	0 to 313 (Screen No.) 0: No registration	0
—	⋮	⋮	⋮	⋮
—	PSL16	Parameter select setting 16	0 to 313 (Screen No.) 0: No registration	0

E. Memory Area Transfer Mode — AREA

No.	Symbol	Name	Data range	Factory set value
14	AREA	Memory area transfer ♣	1 to 16	1

F. Parameter Setting Mode — (SET) (2 seconds)

No.	Symbol	Name	Data range	Factory set value
—	Pn00	Parameter group No. 00	This is the first parameter symbol of Parameter group No. 00.	—
24	1. SV	Input 1_ Set value (SV) ★	Input 1_Setting limiter low to Input 1_Setting limiter high [Varies with the setting of the Decimal point position.]	0
25	2. SV	Input 2_ Set value (SV) ♣ ★	Input 2_Setting limiter low to Input 2_Setting limiter high [Varies with the setting of the Decimal point position.]	0
26	dSV	Set value (SV) of differential temperature input ♣ ★	−(Input 1_Input span) to +(Input 1_Input span) [Varies with the setting of the Decimal point position.]	0
—	Pn40	Parameter group No. 40 ♣	This is the first parameter symbol of Parameter group No. 40.	—
27	EV 1	Event 1 set value (EV1) Event 1 set value (EV1) [high] ♣ ★	Deviation: • When assigned to Input_1 or Differential temperature input −(Input 1_Input span) to +(Input 1_Input span) • When assigned to Input 2 −(Input 2_Input span) to +(Input 2_Input span) • When Control with PV select is selected at Select function for input 2. −(PV select input span) to +(PV select input span) [Varies with the setting of the Decimal point position.] Input value or Set value: • When assigned to Input 1 Input 1_Input range low to Input 1_Input range high • When assigned to Input 2 Input 2_Input range low to Input 2_Input range high • When assigned to Differential temperature input −(Input 1_Input span) to +(Input 1_Input span) • When Control with PV select is selected at Select function for input 2. PV select input range low to PV select input range high [Varies with the setting of the Decimal point position.] Manipulated output value: −5.0 to +105.0 %	For Deviation, Input value and Set value: TC/RTD inputs: 10 V/I inputs: 5 % of input span For Manipulated output value: 50.0
28	EV 1'	Event 1 set value (EV1') [low] ♣ ★	Deviation: • When assigned to Input_1 or Differential temperature input −(Input 1_Input span) to +(Input 1_Input span) • When assigned to Input 2 −(Input 2_Input span) to +(Input 2_Input span) • When Control with PV select is selected at Select function for input 2. −(PV select input span) to +(PV select input span) Input value or Set value: • When assigned to Input 1 Input 1_Input range low to Input 1_Input range high • When assigned to Input 2 Input 2_Input range low to Input 2_Input range high • When assigned to Differential temperature input −(Input 1_Input span) to +(Input 1_Input span) • When Control with PV select is selected at Select function for input 2. PV select input range low to PV select input range high [Varies with the setting of the Decimal point position.]	TC/RTD inputs: −10 V/I inputs −5 % of input span
29	EV2	Event 2 set value (EV2) Event 2 set value (EV2) [high] ♣ ★	Same as Event 1 set value (EV1)/Event 1 set value (EV1) [high]	
30	EV2'	Event 2 set value (EV2') [low] ♣ ★	Same as Event 1 set value (EV1') [low]	
31	EV3	Event 3 set value (EV3) Event 3 set value (EV3) [high] ♣ ★	Same as Event 1 set value (EV1)/Event 1 set value (EV1) [high]	
32	EV3'	Event 3 set value (EV3') [low] ♣ ★	Same as Event 1 set value (EV1') [low]	
33	EV4	Event 4 set value (EV4) Event 4 set value (EV4) [high] ♣ ★	Same as Event 1 set value (EV1)/Event 1 set value (EV1) [high]	
34	EV4'	Event 4 set value (EV4') [low] ♣ ★	Same as Event 1 set value (EV1') [low]	
—	Pn51	Parameter group No. 51	This is the first parameter symbol of Parameter group No. 51.	—
35	1. P	Input 1_ Proportional band [heat-side] ★	TC/RTD inputs: 0 (0.0, 0.00) to Input 1_Input span (Unit: °C [°F]) (When Control with PV select: 0 to PV select input span) [Varies with the setting of the Decimal point position.] Voltage (V)/Current (I) inputs: 0.0 to 1000.0 % of Input 1_ Input span (When Control with PV select: 0.0 to 1000.0 % of PV select input span) 0 (0.0, 0.00): ON/OFF action	TC/RTD inputs: 30 V/I inputs: 3.0
36	1. I	Input 1_ Integral time [heat-side] ♣ ★	0 to 3600 seconds, 0.0 to 3600.0 seconds or 0.00 to 360.00 seconds or 0.000 to 36.000 seconds 0 (0.0, 0.00, 0.000): PD action [Varies with the setting of the Integral/ Derivative time decimal point position.]	240.00
37	1. d	Input 1_ Derivative time [heat-side] ♣ ★	0 to 3600 seconds, 0.0 to 3600.0 seconds or 0.00 to 360.00 seconds or 0.000 to 36.000 seconds 0 (0.0, 0.00, 0.000): PI action [Varies with the setting of the Integral/ Derivative time decimal point position.]	60.00
38	1. oHH	Input 1_ ON/OFF action differential gap (upper) ♣	TC/RTD inputs: 0 (0.0, 0.00) to Input 1_Input span (Unit: °C [°F]) (When Control with PV select: 0 to PV select input span) [Varies with the setting of the Decimal point position.] Voltage (V)/Current (I) inputs: 0.0 to 100.0 % of Input 1_ Input span (When Control with PV select: 0.0 to 100.0 % of PV select input span)	TC/RTD inputs: 1 V/I inputs: 0.1
39	1. oHL	Input 1_ ON/OFF action differential gap (lower) ♣	Same as Input 1_ON/OFF action differential gap (upper)	
40	1. rPT	Input 1_ Control response parameter ★	0: Slow 1: Medium 2: Fast [When the P or PD action is selected, this setting becomes invalid]	PID control: 0 Heat/Cool PID control: 2
41	1.PACT	Input 1_Proactive intensity ★	0 to 4 0: No function	2
42	1. MR	Input 1_Manual reset ♣ ★	−100.0 to +100.0 %	0.0
43	1. FF	Input 1_ FF amount ♣ ★	−100.0 to +100.0 %	0.0
44	1. oLH	Input 1_ Output limiter high [heat-side] ♣ ★	Input 1_Output limiter low [heat-side] to 105.0 %	105.0
45	1. oLL	Input 1_ Output limiter low [heat-side] ♣ ★	−5.0 % to Input 1_Output limiter high [heat-side]	−5.0
46	1. LbA	Input 1_ Control loop break alarm (LBA) time ★	0 to 7200 seconds 0: No function	0 or 480
47	1. Lbd	Input 1_ LBA deadband (LBD) ★	0 to Input 1_Input span (When Control with PV select: 0 to PV select input span) [Varies with the setting of the Decimal point position.]	0
48	2. P	Input 2_ Proportional band ♣ ★	TC/RTD inputs: 0 (0.0, 0.00) to Input 2_Input span (Unit: °C [°F]) [Varies with the setting of the Decimal point position.] Voltage (V)/Current (I) inputs: 0.0 to 1000.0 % of Input 2_ Input span 0 (0.0, 0.00): ON/OFF action	TC/RTD inputs: 30 V/I inputs: 3.0
49	2. I	Input 2_ Integral time ♣ ★	Same as Input 1_Integral time [heat-side]	
50	2. d	Input 2_ Derivative time ♣ ★	Same as Input 1_Derivative time [heat-side]	
51	2. oHH	Input 2_ ON/OFF action differential gap (upper) ♣	TC/RTD inputs: 0 (0.0, 0.00) to Input 2_Input span (Unit: °C [°F]) [Varies with the setting of the Decimal point position.] Voltage (V)/Current (I) inputs: 0.0 to 100.0 % of Input 2_ Input span	TC/RTD inputs: 1 V/I inputs: 0.1
52	2. oHL	Input 2_ ON/OFF action differential gap (lower) ♣	Same as Input 2_ON/OFF action differential gap (upper)	
53	2. RPT	Input 2_ Control response parameter ♣ ★	0: Slow 1: Medium 2: Fast [When the P or PD action is selected, this setting becomes invalid]	0
54	2.PACT	Input 2_ Proactive intensity ♣ ★	0 to 4 0: No function	2
55	2. MR	Input 2_Manual reset ♣ ★	−100.0 to +100.0 %	0.0
56	2. FF	Input 2_ FF amount ♣ ★	−100.0 to +100.0 %	0.0
57	2. oLH	Input 2_ Output limiter high ♣ ★	Input 2_Output limiter low to 105.0 %	105.0
58	2. oLL	Input 2_ Output limiter low ♣ ★	−5.0 % to Input 2_Output limiter high	−5.0
59	2. LbA	Input 2_ Control loop break alarm (LBA) time ♣ ★	0 to 7200 seconds 0: No function	0 or 480
60	2. Lbd	Input 2_ LBA deadband (LBD) ♣ ★	0 to Input 1_Input span [Varies with the setting of the Decimal point position.]	0
—	Pn56	Parameter group No. 56 ♣	This is the first parameter symbol of Parameter group No. 56.	—
61	1. Pc	Input 1_ Proportional band [cool-side] ♣ ★	TC/RTD inputs: 1 (0.1, 0.01) to Input 1_Input span (Unit: °C [°F]) (When Control with PV select: 1 to PV select input span) [Varies with the setting of the Decimal point position.] Voltage (V)/Current (I) inputs: 0.1 to 1000.0 % of Input 1_ Input span (When Control with PV select: 0.1 to 1000.0 % of PV select input span)	TC/RTD inputs: 30 V/I inputs: 3.0
62	1. Ic	Input 1_ Integral time [cool-side] ♣ ★	Same as Input 1_Integral time [heat-side]	
63	1. dc	Input 1_ Derivative time [cool-side] ♣ ★	Same as Input 1_Derivative time [heat-side]	
64	1. db	Input 1_ Overlap/ Deadband ♣ ★	TC/RTD inputs: −(Input 1_Input span) to +(Input 1_Input span) (When Control with PV select: −(PV select input span) to +(PV select input span)) (Unit: °C [°F]) [Varies with the setting of the Decimal point position.] Voltage (V)/Current (I) inputs: −100.0 to +100.0 % of Input 1_ Input span (When Control with PV select: −100.0 to +100.0 % of PV select input span) Minus (−) setting results in Overlap. However, the overlapping range is within the proportional range.	TC/RTD inputs: 0 V/I inputs: 0.0
65	1.oLHc	Input 1_ Output limiter high [cool-side] ♣ ★	Input 1_Output limiter low [cool-side] to 105.0 %	105.0
66	1.oLLc	Input 1_ Output limiter low [heat-side] ♣ ★	−5.0 % to Input 1_Output limiter high [cool-side]	−5.0
—	Pn70	Parameter group No. 70	This is the first parameter symbol of Parameter group No. 70.	—
67	TRGA	Select Trigger type for Memory area transfer ★	0 to 63 0: No assignment +1: Event 1 +2: Event 2 +4: Event 3 +8: Event 4 +16: Digital input 1 (DI1) Close edge +32: Digital input 1 (DI1) Open edge To select two or more functions, sum each value.	0
68	AST	Area soak time ★	0 hours 00 minutes 00 seconds to 9 hours 59 minutes 59 seconds * 0 hours 00 minutes to 99 hours 59 minutes 0 minutes 00 seconds to 199 minutes 59 seconds 0.00 seconds to 59.99 seconds (Calculation is performed every 50ms.) * Settable only for when the Input data type is 0 or 2. [Data range of Area soak time can be selected on the Soak time unit.]	0:00 (0.00 seconds)
69	LNKA	Link area number ★	0 to 16 0: No link	0
70	1.SVRU	Input 1_ Setting change rate limiter (up) ★	0 to Input 1_Input span (When Control with PV select: 0 to PV select input span) 0: No function [Varies with the setting of the Decimal point position.]	0
71	1.SVRd	Input 1_ Setting change rate limiter (down) ★	Same as Input 1_Setting change rate limiter (up)	
72	1A/MA	Input 1_ Auto/Manual transfer selection (Area) ★	0: No transfer 1: Auto mode (bumpless) 2: Auto mode (bump) 3: Manual mode (bumpless) 4: Manual mode (bump)	0
73	1. MVA	Input 1_ Manipulated output value (Area) ★	PID control: −5.0 to +105.0 % Heat/Cool PID control: −105.0 to +105.0 %	PID control: −5.0 Heat/Cool PID control: 0.0
74	2.SVRU	Input 2_ Setting change rate limiter (up) ♣ ★	0 to Input 2_Input span 0: No function [Varies with the setting of the Decimal point position.]	0
75	2.SVRd	Input 2_ Setting change rate limiter (down) ♣ ★	Same as Input 2_Setting change rate limiter (up)	
76	2A/MA	Input 2_ Auto/Manual transfer selection (Area) ♣ ★	0: No transfer 1: Auto mode (bumpless) 2: Auto mode (bump) 3: Manual mode (bumpless) 4: Manual mode (bump)	0
77	2. MVA	Input 2_ Manipulated output value (Area) ♣ ★	−5.0 to +105.0 %	−5.0

No.	Symbol	Name	Data range	Factory set value
78	R/LA	Remote/Local transfer selection (Area) ♣ ★	• When "Remote setting input" is selected at Select function for Input 2 0: No transfer 1: Local mode 2: Remote mode	0
			• When "Control with PV select" is selected at Select function for input 2 0: No transfer 1: Input 1 2: Input 2	
			• When "2-loop control/Differential temperature control" is selected at Select function for input 2 0: No transfer 1: 2-loop control 2: Differential temperature control	
—	PnT1	Parameter group No. 71	This is the first parameter symbol of Parameter group No. 71	—
79	1.norP	Input 1_Number of knee point ♣ ★	0 to 5 0: Input knee point correction function is disabled	5
80	1. rP1	Input 1_Knee point input value 1 ♣ ★	Input 1_Input range low to Input 1_Input range high [Varies with the setting of the Decimal point position.]	Input 1_ Input range high
81	1. rP2	Input 1_Knee point input value 2 ♣ ★	Same as Input 1_Knee point input value 1	
82	1. rP3	Input 1_Knee point input value 3 ♣ ★	Same as Input 1_Knee point input value 1	
83	1. rP4	Input 1_Knee point input value 4 ♣ ★	Same as Input 1_Knee point input value 1	
84	1. rP5	Input 1_Knee point input value 5 ♣ ★	Same as Input 1_Knee point input value 1	
85	1. rV1	Input 1_Knee point correction value 1 ♣ ★	Deviation setting: –(Input 1_Knee point correction limit value) to +(Input 1_Knee point correction limit value) Direct setting: Input 1_Input range low to Input 1_Input range high [Varies with the setting of the Decimal point position.]	Deviation setting: 0 Direct setting: Input 1_ Input range high
86	1. rV2	Input 1_Knee point correction value 2 ♣ ★	Same as Input 1_Knee point correction value 1	
87	1. rV3	Input 1_Knee point correction value 3 ♣ ★	Same as Input 1_Knee point correction value 1	
88	1. rV4	Input 1_Knee point correction value 4 ♣ ★	Same as Input 1_Knee point correction value 1	
89	1. rV5	Input 1_Knee point correction value 5 ♣ ★	Same as Input 1_Knee point correction value 1	
—	PnT2	Parameter group No. 72	This is the first parameter symbol of Parameter group No. 72	—
90	2.norP	Input 2_Number of knee point ♣ ★	0 to 5 0: Input knee point correction function is disabled	5
91	2. rP1	Input 2_Knee point input value 1 ♣ ★	Input 2_Input range low to Input 2_Input range high [Varies with the setting of the Decimal point position.]	Input 2_ Input range high
92	2. rP2	Input 2_Knee point input value 2 ♣ ★	Same as Input 2_Knee point input value 1	
93	2. rP3	Input 2_Knee point input value 3 ♣ ★	Same as Input 2_Knee point input value 1	
94	2. rP4	Input 2_Knee point input value 4 ♣ ★	Same as Input 2_Knee point input value 1	
95	2. rP5	Input 2_Knee point input value 5 ♣ ★	Same as Input 2_Knee point input value 1	
96	2. rV1	Input 2_Knee point correction value 1 ♣ ★	Deviation setting: –(Input 2_Knee point correction limit value) to +(Input 2_Knee point correction limit value) Direct setting: Input 2_Input range low to Input 2_Input range high [Varies with the setting of the Decimal point position.]	Deviation setting: 0 Direct setting: Input 2_ Input range high
97	2. rV2	Input 2_Knee point correction value 2 ♣ ★	Same as Input 2_Knee point correction value 1	
98	2. rV3	Input 2_Knee point correction value 3 ♣ ★	Same as Input 2_Knee point correction value 1	
99	2. rV4	Input 2_Knee point correction value 4 ♣ ★	Same as Input 2_Knee point correction value 1	
100	2. rV5	Input 2_Knee point correction value 5 ♣ ★	Same as Input 2_Knee point correction value 1	

G. Setup Setting Mode (SET)+(MODE)

No.	Symbol	Name	Data range	Factory set value
—	Sn 10	Setting group No. 10	This is the first parameter symbol of Setting group No. 10.	—
101	PVCY	Display update cycle	1: 50 ms 6: 300 ms 2: 100 ms 7: 350 ms 3: 150 ms 8: 400 ms 4: 200 ms 9: 450 ms 5: 250 ms 10: 500 ms	1
—	Sn21	Setting group No. 21	This is the first parameter symbol of Setting group No. 21.	—
102	1. Pb	Input 1_PV bias	–(Input 1_Input span) to +(Input 1_Input span) (When Control with PV select: –(PV select input span) to +(PV select input span)) [Varies with the setting of the Decimal point position.]	0
103	1. dF	Input 1_ PV digital filter	0.00 to 10.00 seconds 0.00: Filter OFF	0.00
104	1. PR	Input 1_PV ratio	0.500 to 1.500	1.000
105	1. PLC	Input 1_ PV low input cut-off ♣	0.00 to 25.00 % of Input 1_Input span (When Control with PV select: 0.00 to 25.00 % of PV select input span	0.00
—	Sn22	Setting group No. 22 ♣	This is the first parameter symbol of Setting group No. 22.	—
106	2. Pb	Input 2_PV bias (RS bias) ♣	–(Input 2_Input span) to +(Input 2_Input span) [Varies with the setting of the Decimal point position.]	0
107	2. dF	Input 2_ PV digital filter (RS digital filter) ♣	0.00 to 10.00 seconds 0.00: Filter OFF	0.00
108	2. PR	Input 2_PV ratio (RS ratio) ♣	Input 2_PV ratio 0.500 to 1.500 RS ratio 0.001 to 9.999	1.000
109	2. PLC	Input 2_ PV low input cut-off ♣	0.00 to 25.00 % of Input 2_Input span	0.00
—	Sn30	Setting group No. 30 ♣	This is the first parameter symbol of Setting group No. 30.	—
110	r1	OUT1 proportional cycle time ♣	0.1 to 100.0 seconds	Relay contact output: 20.0 Voltage pulse output, Transistor output: 2.0 or 20.0
111	r2	OUT2 proportional cycle time ♣	Same as Proportional cycle time of OUT1	
112	r3	OUT3 proportional cycle time ♣	0.1 to 100.0 seconds	Voltage pulse output: 2.0 or 20.0
113	MR1	OUT1 minimum ON/OFF time of proportional cycle ♣	0 to 1000 ms	0
114	MR2	OUT2 minimum ON/OFF time of proportional cycle ♣	0 to 1000 ms	0
115	MR3	OUT3 minimum ON/OFF time of proportional cycle ♣	0 to 1000 ms	0
—	Sn45	Setting group No. 45 ♣	This is the first parameter symbol of Setting group No. 45.	—
116	HbA1	Heater break alarm 1 (HBA1) set value ♣	0.0 to 100.0 A 0.0: HBA function OFF	0.0
117	HbC1	Number of heater break alarm 1 (HBA1) delay times ♣	0 to 255 times	5
—	Sn46	Setting group No. 46 ♣	This is the first parameter symbol of Setting group No. 46.	—
118	HbA2	Heater break alarm 2 (HBA2) set value ♣	0.0 to 100.0 A 0.0: HBA function OFF	0.0
119	HbC2	Number of heater break alarm 2 (HBA2) delay times ♣	0 to 255 times	5
—	Sn51	Setting group No. 51	This is the first parameter symbol of Setting group No. 51.	—
120	1. MMV	Input 1_Manual manipulated output value ♣	PID control: Input 1_Output limiter low [heat-side] to Input 1_Output limiter high [heat-side] Heat/Cool PID control: –(Input 1_Output limiter high [cool-side]) to +(Input 1_Output limiter high [heat-side])	PID control: –5.0 Heat/Cool PID control: 0.0
121	1LEV1	Input 1_Level PID setting 1 ♣	Input 1_Input range low to Input 1_Input range high (When Control with PV select: PV select input range low to PV select input range high) [Varies with the setting of the Decimal point position.]	Input 1_ Input range high (Control with PV select: PV select input range high)
122	1LEV2	Input 1_Level PID setting 2 ♣	Same as Input 1_Level PID setting 1	
123	1LEV3	Input 1_Level PID setting 3 ♣	Same as Input 1_Level PID setting 1	
124	1LEV4	Input 1_Level PID setting 4 ♣	Same as Input 1_Level PID setting 1	
125	1LEV5	Input 1_Level PID setting 5 ♣	Same as Input 1_Level PID setting 1	
126	1LEV6	Input 1_Level PID setting 6 ♣	Same as Input 1_Level PID setting 1	
127	1LEV7	Input 1_Level PID setting 7 ♣	Same as Input 1_Level PID setting 1	
—	Sn52	Setting group No. 52 ♣	This is the first parameter symbol of Setting group No. 52.	—
128	2. MMV	Input 2_Manual manipulated output value ♣	Input 2_Output limiter low to Input 2_Output limiter high	–5.0
129	2LEV1	Input 2_Level PID setting 1 ♣	Input 2_Input range low to Input 2_Input range high [Varies with the setting of the Decimal point position.]	Input 2_ Input range high
130	2LEV2	Input 2_Level PID setting 2 ♣	Same as Input 2_Level PID setting 1	
131	2LEV3	Input 2_Level PID setting 3 ♣	Same as Input 2_Level PID setting 1	
132	2LEV4	Input 2_Level PID setting 4 ♣	Same as Input 2_Level PID setting 1	
133	2LEV5	Input 2_Level PID setting 5 ♣	Same as Input 2_Level PID setting 1	
134	2LEV6	Input 2_Level PID setting 6 ♣	Same as Input 2_Level PID setting 1	
135	2LEV7	Input 2_Level PID setting 7 ♣	Same as Input 2_Level PID setting 1	
—	Sn53	Setting group No. 53	This is the first parameter symbol of Setting group No. 53.	—
136	1. AR6	Input 1_AT bias	–(Input 1_Input span) to +(Input 1_Input span) (When Control with PV select: –(PV select input span) to +(PV select input span)) [Varies with the setting of the Decimal point position.]	0
137	1ARTM	Input 1_ AT remaining time monitor	0 hours 00 minutes to 48 hours 00 minutes	—
138	1TUNE	Input 1_ AT/ST status monitor	0: AT/ST complete 1: AT running now 2: ST running now –1: Aborted. Setting changed. –2: Aborted. Abnormal input. –3: Aborted. Timeout. –4: Aborted. Abnormal calculated values.	—
—	Sn54	Setting group No. 54 ♣	This is the first parameter symbol of Setting group No. 54.	—
139	2. AR6	Input 2_AT bias ♣	–(Input 2_Input span) to +(Input 2_Input span) [Varies with the setting of the Decimal point position.]	0
140	2ARTM	Input 2_ AT remaining time monitor ♣	0 hours 00 minutes to 48 hours 00 minutes	—
141	2TUNE	Input 2_ AT/ST status monitor ♣	Same as Input 1_AT/ST status monitor	—
—	Sn57	Setting group No. 57	This is the first parameter symbol of Setting group No. 57.	—
142	FFSL	FF amount learning ♣	0 to 3 0: No learning +1: Learn Input 1 +2: Learn Input 2 To select two or more functions, sum each value.	0
143	1.ExdU	Input 1_ Determination point of external disturbance	–(Input 1_Input span) to +(Input 1_Input span) (When Control with PV select: –(PV select input span) to +(PV select input span)) [Varies with the setting of the Decimal point position.]	–1
144	2.ExdU	Input 2_ Determination point of external disturbance ♣	–(Input 2_Input span) to +(Input 2_Input span) [Varies with the setting of the Decimal point position.]	–1
—	Sn58	Setting group No. 58 ♣	This is the first parameter symbol of Setting group No. 58.	—
145	2PVLV	PV select transfer level ♣	Input 1_Input range low to Input 1_Input range high [Varies with the setting of the Decimal point position.]	Input 1_ Input range high
146	2PVTM	PV select transfer time ♣	0.0 to 100.0 seconds	0.0
—	Sn91	Setting group No. 91	This is the first parameter symbol of Setting group No. 91.	—
147	1PHLd	Input 1_ Peak hold monitor	Input 1_Input range low – (Input 1_5 % of input span) to Input 1_Input range high + (Input 1_5 % of input span) [Varies with the setting of the Decimal point position.]	—
148	1bHLd	Input 1_Bottom hold monitor	Same as Input 1_Peak hold monitor	
149	1HLdR	Input 1_ Hold reset	HoLd: Hold rESEt: Reset Returns to Hold state automatically after reset.	HoLd
150	2PHLd	Input 2_ Peak hold monitor ♣	Input 2_Input range low – (Input 2_5 % of input span) to Input 2_Input range high + (Input 2_5 % of input span) [Varies with the setting of the Decimal point position.]	—
151	2bHLd	Input 2_Bottom hold monitor ♣	Same as Input 2_Peak hold monitor	
152	2HLdR	Input 2_ Hold reset ♣	Same as Input 1_Hold reset	

H. Engineering Mode (SET)+(MODE (2 seconds)

No.	Symbol	Name	Data range	Factory set value
—	Fn 10	Function block No. 10	This is the first parameter symbol of Function block No. 10.	—
153	SPCH	STOP display selection	0: Stop on PV display 1: Stop on SV display 2: Stop on MV display	1
154	ALC	ALM lamp lighting condition	0 to 4095 0: OFF +1: Event 1 +2: Event 2 +4: Event 3 +8: Event 4 +16: Heater break alarm 1 (HBA1) +32: Heater break alarm 2 (HBA2) +64: Control loop break alarm 1 (LBA1) +128: Control loop break alarm 2 (LBA2) +256: Input 1_Input error high +512: Input 1_Input error low +1024: Input 2_Input error high +2048: Input 2_Input error low To select two or more functions, sum each value.	255
155	dSoP	PV flashing display at input error	0: Flashing display 1: Non-flashing display	0
156	1.dS.SV	Show/Hide Input 1_SV	0: Hide Input 1_SV 1: Show Input 1_SV	1
157	2.dS.SV	Show/Hide Input 2_SV ♣	0: Hide Input 2_SV 1: Show Input 2_SV	1
158	1.dS.MV	Show/Hide Input 1_MV	0: Hide 1: Show Input 1_Manipulated output value (MV) 2: Show Memory area soak time 3: Show Current transformer 1 (CT1) input value 4: Show Current transformer 2 (CT2) input value	1
159	2.dS.MV	Show/Hide Input 2_MV ♣	0: Hide 1: Show Input 2_Manipulated output value (MV) 2: Show Memory area soak time 3: Show Current transformer 1 (CT1) input value 4: Show Current transformer 2 (CT2) input value	1
160	dS.MoN	Select hide items in Monitor mode	0 to 31 0: Show all +1: Remote setting input value monitor +2: Manipulated output value (MV) monitor +4: Current transformer (CT) input value monitor +8: Comprehensive event state +16: Memory area soak time To select two or more functions, sum each value.	0
161	dS.Mod	Select hide items in Operation transfer mode	0 to 63 0: Show all +1: RUN/STOP transfer +2: Autotuning (AT) +4: Startup tuning (ST) +8: Auto/Manual transfer +16: Remote/Local transfer (PV select transfer, 2-loop control/Differential temperature control) +32: Control area Local/External transfer To select two or more functions, sum each value.	0
—	Fn 11	Function block No. 11	This is the first parameter symbol of Function block No. 11.	—
162	SETKY	Data registration	0: SET key method 1: Direct registration	0
163	FnKY	FUNC key assignment	0: Unused 1: RUN/STOP transfer 2: Autotuning (AT) (Common to Input 1 and 2) 3: Input 1_Autotuning (AT) 4: Input 2_Autotuning (AT) 5: Auto/Manual transfer (Common to Input 1 and 2) 6: Input 1_Auto/Manual transfer 7: Input 2_Auto/Manual transfer 8: Remote/Local transfer (PV select transfer, 2-loop control/ Differential temperature control) 9: Control area Local/External transfer 10: Interlock release 11: Hold reset (Common to Input 1 and 2) 12: Input 1_Hold reset 13: Input 2_Hold reset 14: Set data unlock/lock transfer 15: Area jump	1
164	Fn.FyP	FUNC key operation selection	0: Press once 1: Press and hold	0
—	Fn21	Function block No. 21	This is the first parameter symbol of Function block No. 21	—
165	1. INP	Input 1_ Input type	0: TC input K 1: TC input J 2: TC input R 3: TC input S 4: TC input B 5: TC input E 6: TC input N 7: TC input T 8: TC input W5Re/W26Re 9: TC input PLII 10: TC input U 11: TC input L 12: TC input PR40-20 13: RTD input Pt100 14: RTD input JPt100 15: Current input 0 to 20 mA DC 16: Current input 4 to 20 mA DC 17: Voltage input 0 to 10 V DC 18: Voltage input 0 to 5 V DC 19: Voltage input 1 to 5 V DC 20: Voltage input 0 to 1 V DC 21: Voltage input –10 to +10 V DC 22: Voltage input –5 to +5 V DC 23: Voltage input 0 to 100 mV DC 24: Voltage input 0 to 10 mV DC	Based on Model code
166	1.UNIT	Input 1_ Display unit ♣	0: °C 1: °F	Based on Model code
167	1.PGdP	Input 1_ Decimal point position	0: No decimal place 1: One decimal place 2: Two decimal places 3: Three decimal places 4: Four decimal places TC inputs: W5Re/W26Re, PR40-20: 0 (fixed) Thermocouples other than those shown above: 0 to 1 RTD inputs: 0 to 2 Voltage (V)/Current (I) Inputs: In case of Input data type 0 or 2: 0 to 4 In case of Input data type 1: 0 to 3 (When Control with PV select: Decimal point position setting of Input 1 and Input 2 is compared and the smaller will be used.)	Based on Model code
168	1.PGSH	Input 1_ Input range high	(Input 1_Input range low + 1digit) to Input 1_Maximum value of input range [Varies with the setting of the Decimal point position.]	Based on Model code
169	1.PGSL	Input 1_ Input range low	Input 1_Minimum value of input range to (Input 1_Input range high – 1digit) [Varies with the setting of the Decimal point position.]	Based on Model code
170	1. PoV	Input 1_ Input error determination point (high)	Input 1_Input error determination point (low) to Input 1_Input range high + (Input 1_5 % of input span) [Varies with the setting of the Decimal point position.]	Input 1_ Input range high + (Input 1_5 % of input span)
171	1. PUN	Input 1_ Input error determination point (low)	Input 1_Input range low – (Input 1_5 % of input span) * to Input 1_Input error determination point (high) [Varies with the setting of the Decimal point position.] * When Input type of Input 1 is RTD, low limit value is about 2 Ohms. (Pt100: –245.5 °C [–409.8 °F], JPt100: –237.6 °C [–395.7 °F])	Input 1_ Input range low – (Input 1_5 % of input span)
172	1.rCJC	Input 1_ Temperature compensation calculation ♣	0: No temperature compensation calculation 1: With temperature compensation calculation	1
173	1. boS	Input 1_Burnout direction ♣	0: Upscale 1: Downscale	0
174	1.rVSL	Input 1_ Selection of knee point function	0: Disable input knee point correction function 1: Enable input knee point correction function	0
175	1. rVS	Input 1_ Selection of correction value setting	0: Deviation setting (set as a deviation from the knee point input value) 1: Direct setting (value after the correction can directly be set)	0
176	1.rVLM	Input 1_Knee point correction limit value	0 to Input 1_Input span [Varies with the setting of the Decimal point position.]	10
177	1. SQR	Input 1_ Square root extraction ♣	0: Unused 1: Used	0
178	1. INV	Input 1_ Inverting input ♣	0: Unused 1: Used	0
179	INdT	Input data type	0: Number of measured value digits: 5 Number of RKC communication digits: 7 Modbus: Double word PLC communication: Double word (System data: Single word) Display of time unit: hour/minute/second, hour/minute, minute/second, second 1: Number of measured value digits:4 Number of RKC communication digits: 6 Modbus: Single word * PLC communication: Single word Display of time unit: hour/minute, minute/second, second 2: HA series equivalent (Communication identifiers of RKC communication and register address of Modbus switch to the HA series equivalent data.) Number of measured value digits: 5 Number of RKC communication digits: 7 Modbus: Double word PLC communication: Double word (System data: Single word) Display of time unit: hour/minute/second, hour/minute, minute/second, second * The data of the FB series and its equivalent are included.	0
180	PFRQ	Power supply frequency	0: 50 Hz 1: 60 Hz	0
—	Fn22	Function block No. 22 ♣	This is the first parameter symbol of Function block No. 22	—
181	2. INP	Input 2_ Input type ♣	Same as Input 1_Input type Setting range varies with the models. · When Measured Input 2 is selected: 0 to 24 · When Remote setting input is selected: 15 to 24	
182	2.UNIT	Input 2_ Display unit ♣	Same as Input 1_ Display unit	
183	2.PGdP	Input 2_ Decimal point position ♣	0: No decimal place 1: One decimal place 2: Two decimal places 3: Three decimal places 4: Four decimal places TC inputs: W5Re/W26Re, PR40-20: 0 (fixed) Thermocouples other than those shown above: 0 to 1 RTD inputs: 0 to 2 Voltage (V)/Current (I) Inputs: In case of Input data type 0 or 2: 0 to 4 In case of Input data type 1: 0 to 3	Based on Model code
184	2.PGSH	Input 2_ Input range high ♣	TC/RTD inputs and Voltage (V)/Current (I) Inputs (For other than Remote setting input): (Input 2_Input range low + 1digit) to Input 2_Maximum value of input range Voltage (V)/Current (I) Inputs (For Remote setting input): (Input 2_Input range low + 1digit) to Input 1_Maximum value of input range [Varies with the setting of the Decimal point position.]	Based on Model code
185	2.PGSL	Input 2_ Input range low ♣	TC/RTD inputs and Voltage (V)/Current (I) Inputs (For other than Remote setting input): Input 2_Minimum value of input range to (Input 2_Input range high – 1digit) Voltage (V)/Current (I) Inputs (For Remote setting input): Input 1_Minimum value of input range to (Input 2_Input range high – 1digit) [Varies with the setting of the Decimal point position.]	Based on Model code
186	2. PoV	Input 2_ Input error determination point (high) ♣	Input 2_Input determination point (low) to Input 2_Input range high + (Input 2_5 % of input span) [Varies with the setting of the Decimal point position.]	Input 2_ Input range high + (Input 2_ 5 % of input span)
187	2. PUN	Input 2_ Input error determination point (low) ♣	Input 2_Input range low – (Input 2_5 % of input span) * to Input 2_Input determination point (high) [Varies with the setting of the Decimal point position.] * When Input type of Input 2 is RTD, low limit value is about 2 Ohms. (Pt100: –245.5 °C [–409.8 °F], JPt100: –237.6 °C [–395.7 °F])	Input 2_ Input range low – (Input 2_ 5 % of input span)
188	2.rCJC	Input 2_ Temperature compensation calculation ♣	0: No temperature compensation calculation 1: With temperature compensation calculation	1
189	2. boS	Input 2_ Burnout direction ♣	0: Upscale 1: Downscale	0
190	2.rVSL	Input 2_ Selection of knee point function ♣	0: Disable input knee point correction function 1: Enable input knee point correction function	0
191	2. rVS	Input 2_ Selection of correction value setting ♣	0: Deviation setting (set as a deviation from the knee point input value) 1: Direct setting (value after the correction can directly be set)	0
192	2.rVLM	Input 2_Knee point correction limit value ♣	0 to Input 2_Input span [Varies with the setting of the Decimal point position.]	10
193	2. SQR	Input 2_ Square root extraction ♣	0: Unused 1: Used	0
194	2. INV	Input 2_ Inverting input ♣	0: Unused 1: Used	0

No.	Symbol	Name	Data range	Factory set value
—	Fn23	Function block No. 23 ♣	This is the first parameter symbol of Function block No. 23	—
195	dI SL 1	DI1 function selection ♣	0: No function 1: RUN/STOP transfer 2: Auto/Manual transfer (Common to Input 1 and 2) 3: Input 1_ Auto/Manual transfer 4: Input 2_ Auto/Manual transfer 5: Remote/Local transfer (PV select transfer, 2-loop control/ Differential temperature control) 6: Interlock release 7: Hold reset (Common to Input 1 and 2) 8: Input 1_Hold reset 9: Input 2_Hold reset 10: Autotuning (AT) (Common to Input 1 and 2) 11: Input 1_ Autotuning (AT) 12: Input 2_ Autotuning (AT) 13: Set data unlock/lock transfer 14: Direct/Reverse action transfer 15: Memory area transfer (2 points, Without area set signal) 16: Memory area transfer (8 points, Without area set signal) 17: Memory area transfer (8 points, With area set signal) 18: Memory area transfer (16 points, Without area set signal) 19: Memory area transfer (16 points, With area set signal) 20: Area jump	Based on Model code
196	dI SL2	DI2 function selection ♣	0 to 14 Same as DI1 function selection (0 to 14)	Based on Model code
197	dI SL3	DI3 function selection ♣	0 to 14 Same as DI1 function selection (0 to 14)	Based on Model code
198	dI SL4	DI4 function selection ♣	0 to 14 Same as DI1 function selection (0 to 14)	Based on Model code
199	dI SL5	DI5 function selection ♣	0 to 14 Same as DI1 function selection (0 to 14)	Based on Model code
200	dI SL6	DI6 function selection ♣	0 to 14 Same as DI1 function selection (0 to 14)	Based on Model code
201	dI INV	DI logic invert ♣	0 to 31 0: No logic invert +1: RUN/STOP transfer +2: Auto/Manual transfer +4: Remote/Local transfer (PV select transfer, 2-loop control/Differential temperature control) +8: Set data unlock/lock transfer +16: Direct/Reverse action transfer To select two or more functions, sum each value.	0
202	dI TIM	Area switching time (Without area set signal) ♣	1 to 5 seconds	2
—	Fn30	Function block No. 30	This is the first parameter symbol of Function block No. 30	—
203	oSL 1	OUT1 function selection	0: No assignment 1: Input 1_Control output [heat-side] 2: Input 1_Control output [cool-side] 3: Input 2_Control output 4: Retransmission output 5: Logic calculation output (Event, HBA, LBA, Input error) 6: RUN state output 7: Input 1_Manual mode state output 8: Input 2_Manual mode state output 9: Remote mode state output (Output of differential temperature control state, Input 2 state output of Control with PV select) 10: Input 1_Autotuning (AT) state output 11: Input 2_Autotuning (AT) state output 12: Output while Set value of Input 1 is changing 13: Output while Set value of Input 2 is changing 14: Output of the communication monitoring result 15: FAIL output (Permanently configured to be de-energized)	Based on Model code
204	oSL2	OUT2 function selection	Same as OUT1 function selection	Based on Model code
205	oSL3	OUT3 function selection ♣	Same as OUT1 function selection	4
206	oLG1	OUT1 logic calculation selection	0 to 4095 0: OFF +1: Event 1 +2: Event 2 +4: Event 3 +8: Event 4 +16: Heater break alarm 1 (HBA1) +32: Heater break alarm 2 (HBA2) +64: Control loop break alarm 1 (LBA1) +128: Control loop break alarm 2 (LBA2) +256: Input 1_Input error high +512: Input 1_Input error low +1024: Input 2_Input error high +2048: Input 2_Input error low To select two or more functions, sum each value.	0
207	oLG2	OUT2 logic calculation selection	Same as OUT1 logic calculation selection	Based on Model code
208	oLG3	OUT3 logic calculation selection ♣	Same as OUT1 logic calculation selection	0
209	ExC	Energized/ De-energized selection	0 to 127 0: All outputs are energized +1: OUT1 de-energized +2: OUT2 de-energized +4: OUT3 de-energized +8: DO1 de-energized +16: DO2 de-energized +32: DO3 de-energized +64: DO4 de-energized To select two or more functions, sum each value.	0
210	ILS	Interlock selection	0 to 4095 0: Unused +1: Event 1 +2: Event 2 +4: Event 3 +8: Event 4 +16: Heater break alarm 1 (HBA1) +32: Heater break alarm 2 (HBA2) +64: Control loop break alarm 1 (LBA1) +128: Control loop break alarm 2 (LBA2) +256: Input 1_Input error high +512: Input 1_Input error low +1024: Input 2_Input error high +2048: Input 2_Input error low To select two or more functions, sum each value.	0
211	SS	Output action at control stop	0 to 7 0: OFF +1: Logic calculation output: Action continues +2: Retransmission output: Action continues +4: Instrument status output: Action continues To select two or more functions, sum each value.	0
212	UNI o	Universal output type selection (OUT3) ♣	0: Voltage pulse output 1: Current output (4 to 20 mA DC) 2: Current output (0 to 20 mA DC)	1

No.	Symbol	Name	Data range	Factory set value
—	Fn31	Function block No. 31 ♣	This is the first parameter symbol of Function block No. 31	—
213	Ro 1	Retransmission output 1 type ♣	0: No retransmission output 1: Input 1_Measured value (PV) 2: Input 1_Local SV 3: Input 1_SV monitor value 4: Input 1_Deviation 5: Input 1_Manipulated output value [heat-side] 6: Input 1_Manipulated output value [cool-side] 7: Input 2_Measured value (PV) 8: Input 2_Local SV 9: Input 2_SV monitor value 10: Input 2_Deviation 11: Input 2_Manipulated output value 12: Remote setting input value 13: Current transformer 1 (CT1) input value 14: Current transformer 2 (CT2) input value 15: Measured value (PV) of differential temperature input	0
214	RHS 1	Retransmission output 1 scale high ♣	No retransmission output, Input 1_ Measured value (PV), Input 1_ Local SV, Input 1_ SV monitor value, and Remote setting input value: Input 1_ Input range high Input 1_Input range low to Input 1_Input range high {When Control with PV select: PV select input range low to PV select input range high} [Varies with the setting of the Decimal point position.] Input 1_Deviation: −(Input 1_Input span) to +(Input 1_Input span) [Varies with the setting of the Decimal point position.] Input 2_Measured value (PV), Input 2_ Local SV, and Input 2_SV monitor value: Input 2_ Input range high Input 2_Input range low to Input 2_Input range high [Varies with the setting of the Decimal point position.] Input 2_Deviation: −(Input 2_Input span) to +(Input 2_Input span) [Varies with the setting of the Decimal point position.] Manipulated output value: −5.0 to +105.0 % Current transformer (CT) input value: 0.0 to 100.0 % Measured value (PV) of differential temperature input: −(Input 1_Input span) to +(Input 1_Input span) [Varies with the setting of the Decimal point position.]	{Control with PV select: PV select input range high} Input 1_ Deviation: +(Input 1_ Input span) Input 2_ Measured value (PV), Input 2_ Local SV, and Input 2_ SV monitor value: Input 2_ Input range high Input 2_ Deviation: +(Input 2_ Input span) Manipulated output value, and Current transformer (CT) input value: 100.0 Measured value (PV) of differential temperature input: 100
215	RLS 1	Retransmission output 1 scale low ♣	Data range is the same as Retransmission output 1 scale high. [Factory set value] • No retransmission output, Input 1_Measured value (PV), Input 1_Local SV, Input 1_SV monitor value, and Remote setting input value: Input 1_Input range low (Control with PV select: PV select input range low) • Input 1_Deviation: −(Input 1_Input span) • Input 2_Measured value (PV), Input 2_Local SV, and Input 2_SV monitor value: Input 2_Input range low • Input 2_Deviation: −(Input 2_Input span) • Manipulated output value, and Current transformer (CT) input value: 0.0 • Measured value (PV) of differential temperature input: −100	
—	Fn32	Function block No. 32 ♣	This is the first parameter symbol of Function block No. 32	—
216	Ro2	Retransmission output 2 type ♣	Same as Retransmission output 1 type	0
217	RHS2	Retransmission output 2 scale high ♣	Same as Retransmission output 1 scale high	
218	RLS2	Retransmission output 2 scale low ♣	Same as Retransmission output 1 scale low	
—	Fn33	Function block No. 33 ♣	This is the first parameter symbol of Function block No. 33	—
219	Ro3	Retransmission output 3 type ♣	Same as Retransmission output 1 type	1
220	RHS3	Retransmission output 3 scale high ♣	Same as Retransmission output 1 scale high	
221	RLS3	Retransmission output 3 scale low ♣	Same as Retransmission output 1 scale low	
—	Fn34	Function block No. 34 ♣	This is the first parameter symbol of Function block No. 34	—
222	doSL 1	DO1 function selection ♣	0: No assignment 1: Logic calculation output (Event, HBA, LBA, Input error) 2: RUN state output 3: Input 1_Manual mode state output 4: Input 2_Manual mode state output 5: Remote mode state output (Output of differential temperature control state, Input 2 state output of Control with PV select) 6: Input 1_Autotuning (AT) state output 7: Input 2_Autotuning (AT) state output 8: Output while Set value of Input 1 is changing 9: Output while Set value of Input 2 is changing 10: Output of the communication monitoring result 11: FAIL output (Permanently configured to be de-energized)	Based on Model code
223	doSL2	DO2 function selection ♣	Same as DO1 function selection	
224	doSL3	DO3 function selection ♣	Same as DO1 function selection	
225	doSL4	DO4 function selection ♣	Same as DO1 function selection	
226	doLG 1	DO1 logic calculation selection ♣	0 to 4095 0: OFF +1: Event 1 +2: Event 2 +4: Event 3 +8: Event 4 +16: Heater break alarm 1 (HBA1) +32: Heater break alarm 2 (HBA2) +64: Control loop break alarm 1 (LBA1) +128: Control loop break alarm 2 (LBA2) +256: Input 1_Input error high +512: Input 1_Input error low +1024: Input 2_Input error high +2048: Input 2_Input error low To select two or more functions, sum each value.	Based on Model code
227	doLG2	DO2 logic calculation selection ♣	Same as DO1 logic calculation selection	
228	doLG3	DO3 logic calculation selection ♣	Same as DO1 logic calculation selection	
229	doLG4	DO4 logic calculation selection ♣	Same as DO1 logic calculation selection	
—	Fn41	Function block No. 41	This is the first parameter symbol of Function block No. 41	—
230	EVA 1	Event 1 assignment ♣	1: Input 1 2: Input 2 3: Differential temperature input	1

No.	Symbol	Name	Data range	Factory set value
231	ES 1	Event 1 type	0: None 1: Deviation high (Using SV monitor value) [a] 2: Deviation low (Using SV monitor value) [a] 3: Deviation high/low (Using SV monitor value) [a] 4: Band (Using SV monitor value) [a] 5: Deviation high/low (Using SV monitor value) [High/Low individual setting] [a] 6: Band (Using SV monitor value) [High/Low individual setting] [a] 7: SV high (Using SV monitor value) 8: SV low (Using SV monitor value) 9: Process high [b] 10: Process low [b] 11: Deviation high (Using local SV) [a] 12: Deviation low (Using local SV) [a] 13: Deviation high/low (Using local SV) [a] 14: Band (Using local SV) [a] 15: Deviation high/low (Using local SV) [High/Low individual setting] [a] 16: Band (Using local SV) [High/Low individual setting] [a] 17: SV high (Using local SV) 18: SV low (Using local SV) 19: MV high [heat-side] [b] 20: MV low [heat-side] [b] 21: MV high [cool-side] [b] 22: MV low [cool-side] [b] 23: Process high/low [High/Low individual setting] [b] 24: Process band [High/Low individual setting] [b] [a] Event hold and re-hold action is available. [b] Event hold action is available.	If the Event type is specified by the initial setting code when ordering, that Event type will be the factory set value. If the Event type is not specified: 1
232	EHo 1	Event 1 hold action	0: Hold action OFF 1: Hold action ON 2: Re-hold action ON	If the Event type is specified by the initial setting code when ordering, the factory set value of Event hold action differs depending on the Event type. If the Event type is not specified: 0
233	EH 1	Event 1 differential gap	Deviation, Process and SV: • If event assignment is either Input 1 or Differential temperature. 0 to Input 1_Input span (When Control with PV select: 0 to PV select input span) • If event assignment is Input 2 0 to Input 2_Input span [Varies with the setting of the Decimal point position.] MV: 0.0 to 110.0 %	Deviation, Process and SV: TC/RTD inputs: 2 V/I inputs: 0.2 % of input span MV: 0.2
234	EVT 1	Event 1 timer	0.0 to 600.0 seconds	0.0
—	Fn42	Function block No. 42	This is the first parameter symbol of Function block No. 42	—
235	EVA2	Event 2 assignment ♣	Same as Event 1 assignment	
236	ES2	Event 2 type	Same as Event 1 type	
237	EHo2	Event 2 hold action	Same as Event 1 hold action	
238	EH2	Event 2 differential gap	Same as Event 1 differential gap	
239	EVT2	Event 2 timer	Same as Event 1 timer	
—	Fn43	Function block No. 43	This is the first parameter symbol of Function block No. 43	—
240	EVA3	Event 3 assignment ♣	Same as Event 1 assignment	
241	ES3	Event 3 type	Same as Event 1 type	
242	EHo3	Event 3 hold action	Same as Event 1 hold action	
243	EH3	Event 3 differential gap	Same as Event 1 differential gap	
244	EVT3	Event 3 timer	Same as Event 1 timer	
—	Fn44	Function block No. 44	This is the first parameter symbol of Function block No. 44	—
245	EVA4	Event 4 assignment ♣	Same as Event 1 assignment	
246	ES4	Event 4 type	Same as Event 1 type	
247	EHo4	Event 4 hold action	Same as Event 1 hold action	
248	EH4	Event 4 differential gap	Same as Event 1 differential gap	
249	EVT4	Event 4 timer	Same as Event 1 timer	
—	Fn45	Function block No. 45 ♣	This is the first parameter symbol of Function block No. 45	—
250	CTA 1	CT1 assignment ♣	0: None 1: OUT1 2: OUT2 3: OUT3	1
251	CTt 1	CT1 type ♣	0: CTL-6-P-N 1: CTL-12-S56-10L-N 2: CTL-6-P-Z	Based on Model code
252	CTR 1	CT1 ratio ♣	0 to 9999 CT type: CTL-6-P-N: 800 CTL-12-S56-10L-N: 1000 CTL-6-P-Z: 800	If CTL-6-P-N or CTL-6-P-Z is specified for the Current transformer (CT) type: 800 If CTL-12-S56-10L-N is specified for the Current transformer (CT) type: 1000
253	CLC 1	CT1 low input cut-off ♣	0.0 to 1.0 A	0.0
—	Fn46	Function block No. 46 ♣	This is the first parameter symbol of Function block No. 46	—
254	CTA2	CT2 assignment ♣	Same as CT1 assignment	
255	CTt2	CT2 type ♣	Same as CT1 type	
256	CTR2	CT2 ratio ♣	Same as CT1 ratio	
257	CLC2	CT2 low input cut-off ♣	Same as CT1 low input cut-off	
—	Fn50	Function block No. 50	This is the first parameter symbol of Function block No. 50	—
258	Pd	Hot/Cold start	0: Hot start 1 1: Hot start 2 2: Cold start 3: STOP start	0
259	MVTS	Manual manipulated output value selection	0: The last manipulated output value (Balanceless-bumpless function) 1: Manual manipulated output value	0
260	TRK	SV tracking	0 to 3 0: No SV tracking function +1: SV tracking at transferring Remote/Local * +2: SV tracking at transferring Auto/Manual * Including 2-loop control/Differential temperature control transfer To select two or more functions, sum each value.	1
261	I ddP	Integral/ Derivative time decimal point position	0: No decimal place 1: One decimal place 2: Two decimal places 3: Three decimal places	2
262	STS	ST start condition	0: Activate the Startup tuning (ST) function when the power is turned on; when transferred from STOP to RUN; or when the Set value (SV) is changed. 1: Activate the Startup tuning (ST) function when the power is turned on; or when transferred from STOP to RUN. 2: Activate the Startup tuning (ST) function when the Set value (SV) is changed.	0
—	Fn51	Function block No. 51	This is the first parameter symbol of Function block No. 51	—
263	I. oS	Input 1_ Control action	0: Brilliant II PID control (direct action) 1: Brilliant II PID control (reverse action) 2: Brilliant II Heat/Cool PID control [water cooling] 3: Brilliant II Heat/Cool PID control [air cooling] 4: Brilliant II Heat/Cool PID control [Cooling linear type]	Based on Model code

No.	Symbol	Name	Data range	Factory set value
264	I. oRU	Input 1_Output change rate limiter (up) [heat-side] ♣	0.0 to 1000.0 %/seconds of manipulated output 0.0: OFF	0.0
265	I. oRd	Input 1_ Output change rate limiter (down) [heat-side] ♣	0.0 to 1000.0 %/seconds of manipulated output 0.0: OFF	0.0
266	I.AoVE	Input 1_ Action (high) input error	0: Control continues (with the latest output) 1: Manipulated output value at input error (Manual mode) 2: Manipulated output value at input error (Auto mode)	2
267	I.AUNE	Input 1_ Action (low) input error	Same as Input 1_Action (high) input error	2
268	I. PSM	Input 1_ Manipulated output value at input error	PID control: −5.0 to +105.0 % Heat/Cool PID control: −105.0 to +105.0 %	PID control: −5.0 Heat/Cool PID control: 0.0
269	I. MMV	Input 1_ Manipulated output value at STOP [heat-side]	−5.0 to +105.0 %	−5.0
270	I. PdR	Input 1_Start determination point	0 to Input 1_Input span {When Control with PV select: 0 to PV select input span} 0: Operation starts from any start state selected by Hot/Cold start [Varies with the setting of the Decimal point position.]	3 % of Input 1_input span {Control with PV select: 3 % of PV select input span}
271	I.LPId	Input 1_ Level PID action selection ♣	0: Switching by Memory area number 1: Switching by Set value (SV) (Level PID action) 2: Switching by Measured value (PV) (Level PID action)	0
272	I. LHS	Input 1_ Level PID differential gap ♣	0 to Input 1_Input span {When Control with PV select: 0 to PV select input span} [Varies with the setting of the Decimal point position.]	TC/RTD inputs: 2 V/I inputs: 0.2 % of Input 1_ input span {Control with PV select: 0.2 % of PV select input span}
—	Fn52	Function block No. 52 ♣	This is the first parameter symbol of Function block No. 52	—
273	2. oS	Input 2_Control action ♣	0: Brilliant II PID control (direct action) 1: Brilliant II PID control (reverse action)	Based on Model code
274	2. oRU	Input 2_ Output change rate limiter (up) ♣	0.0 to 1000.0 %/seconds of manipulated output 0.0: OFF	0.0
275	2. oRd	Input 2_ Output change rate limiter (down) ♣	0.0 to 1000.0 %/seconds of manipulated output 0.0: OFF	0.0
276	2.AoVE	Input 2_ Action (high) input error ♣	0: Control continues (with the latest output) 1: Manipulated output value at input error (Manual mode) 2: Manipulated output value at input error (Auto mode)	2
277	2.AUNE	Input 2_ Action (low) input error ♣	Same as Input 2_Action (high) input error	2
278	2. PSM	Input 2_ Manipulated output value at input error ♣	−5.0 to +105.0 %	−5.0
279	2. MMV	Input 2_ Manipulated output value at STOP ♣	−5.0 to +105.0 %	−5.0
280	2. PdR	Input 2_ Start determination point ♣	0 to Input 2_Input span 0: Operation starts from any start state selected by Hot/Cold start [Varies with the setting of the Decimal point position.]	3 % of Input 2_ input span
281	2.LPId	Input 2_Level PID action selection ♣	Same as Input 1_Level PID action selection	0
282	2. LHS	Input 2_ Level PID differential gap ♣	0 to Input 2_Input span [Varies with the setting of the Decimal point position.]	TC/RTD inputs: 2 V/I inputs: 0.2 % of Input 2_ input span
—	Fn56	Function block No. 56 ♣	This is the first parameter symbol of Function block No. 56	—
283	I.oRUc	Input 1_Output change rate limiter (up) [cool-side] ♣	0.0 to 1000.0 %/seconds of manipulated output 0.0: OFF	0.0
284	I.oRdc	Input 1_ Output change rate limiter (down) [cool-side] ♣	0.0 to 1000.0 %/seconds of manipulated output 0.0: OFF	0.0
285	I.MMVc	Input 1_ Manipulated output value at STOP [cool-side] ♣	−5.0 to +105.0 %	−5.0
286	US	Undershoot suppression factor ♣	0.000 to 1.000	Water cooling: 0.100 Air cooling: 0.250 Cooling linear: 1.000
287	dbPA	Overlap/ Deadband reference point ♣	0.0 to 1.0	0.0
—	Fn57	Function block No. 57 ♣	This is the first parameter symbol of Function block No. 57	—
288	bFMSP	Bottom suppression function ♣	0: No function 1: FF amount is added by level 2: FF amount is forcibly added	0
—	Fn58	Function block No. 58 ♣	This is the first parameter symbol of Function block No. 58	—
289	2PV	Select function for input 2 ♣	0: No function 1: Remote setting input 2: 2-loop control/Differential * temperature control 3: Control with PV select 6: Input circuit error alarm * This parameter cannot be specified if the instrument is a Heat/Cool PID type. • When Measured Input 2 is selected: 0 to 3, 6 • When Remote setting input is selected: 0 to 1	Based on Model code
290	2PV.FG	Selection of PV select trigger ♣	0: Switching by level 1: Switching by signal (Key, DI and Communication)	0
291	I CA	Input circuit error alarm set value ♣	0 to Input 1_Input span 0: No function [Varies with the setting of the Decimal point position.]	TC/RTD inputs: 10 V/I inputs: 5 % of Input 1_Input span
—	Fn60	Function block No. 60 ♣	This is the first parameter symbol of Function block No. 60	—
292	CMPS	Communication protocol ♣	0: RKC communication 1: Modbus (Order of data transfer: upper word to lower word) 2: Modbus (Order of data transfer: lower word to upper word) 3: PLC communication (MITSUBISHI MELSEC series special protocol QnA-compatible 3C frame [format 4])	Based on Model code
293	Add	Device address ♣	RKC communication: 0 to 99 Modbus: 1 to 99 PLC communication: 0 to 30	RKC communication: 0 Modbus: 1 PLC communication: 0
294	bPS	Communication speed ♣	0: 2400 bps 1: 4800 bps 2: 9600 bps 3: 19200 bps 4: 38400 bps 5: 57600 bps 6: 115200 bps	3

No.	Symbol	Name	Data range	Factory set value
295	bIT	Data bit configuration ♣	0 to 11 Refer to Data bit configuration table	0
296	INT	Interval time ♣	0 to 250 ms	10
297	CMRM	Communication response monitor ♣	0 to 110F Least significant digit: 0: Normal response 1: Overrun error 2: Parity error 4: Framing error 8: Receive buffer overflow If two or more errors occur, the error values are summed up. Errors are displayed in the hexadecimal format (0 to F). 2nd digit: 0 (fixed) 3rd digit: Reception status monitor * 4th digit: Transmission status monitor * * Each time signal is sent or received, 0 and 1 are displayed in turns. Most significant digit: Lights off	—
—	Fn62	Function block No. 62 ♣	This is the first parameter symbol of Function block No. 62	—
298	MP.REG	Register type ♣	0: D register (data register) 1: R register (file register) 2: W register (link register) 3: ZR register (Method of specifying consecutive numbers when 32767 of R register is exceeded.)	0
299	MP.SRH	Register start number (High-order 4-bit) ♣	0 to 15	0
300	MP.SRL	Register start number (Low-order 16-bit) ♣	0 to 65535	1000
301	MP.Mod	Monitor item register bias ♣	12 to 65535	12
302	MP.STb	Setting item register bias ♣	0 to 65535	0
303	MP.LTM	Instrument link recognition time ♣	0 to 255 seconds	5
304	MP.TMo	PLC response waiting time ♣	0 to 3000 ms	255
305	MP.STM	PLC communication start time ♣	1 to 255 seconds	5
306	MP.SLb	Slave register bias ♣	0 to 65535	80
307	MP.MAd	Number of recognizable devices ♣	0 to 30	8
—	Fn70	Function block No. 70	This is the first parameter symbol of Function block No. 70	—
308	SVRT	Setting change rate limiter unit time	0.1 to 360.0 seconds	0.1
309	STdP	Soak time unit	0: 0 hours 00 minutes to 99 hours 59 minutes 1: 0 minutes 00 seconds to 199 minutes 59 seconds 2: 0 hours 0 minutes 0 seconds to 9 hours 59 minutes 59 seconds 3: 0.00 seconds to 59.99 seconds In case of Input data type 0 or 2: 0 to 3 In case of Input data type 1: 0 to 1 or 3	3
—	Fn71	Function block No. 71	This is the first parameter symbol of Function block No. 71	—
310	1. SLH	Input 1_ Setting limiter high	Input 1_Setting limiter low to Input 1_Input range high (When Control with PV select Input 1_Setting limiter low to PV select input range high) [Varies with the setting of the Decimal point position.]	Input 1_ Input range high (Control with PV select: PV select input range high)
311	1. SLL	Input 1_ Setting limiter low	Input 1_Input range low to Input 1_Setting limiter high (When Control with PV select PV select input range low to Input 1_Setting limiter high) [Varies with the setting of the Decimal point position.]	Input 1_ Input range low (Control with PV select: PV select input range low)
—	Fn72	Function block No. 72 ♣	This is the first parameter symbol of Function block No. 72	—
312	2. SLH	Input 2_ Setting limiter high ♣	Input 2_Setting limiter low to Input 2_Input range high [Varies with the setting of the Decimal point position.]	Input 2_ Input range high
313	2. SLL	Input 2_ Setting limiter low ♣	Input 2_Input range low to Input 2_Setting limiter high [Varies with the setting of the Decimal point position.]	Input 2_ Input range low
—	Fn91	Function block No. 91	This is the first parameter symbol of Function block No. 91	—
—	dEF	Initialization	1225: Start initialization Other values: Set values are maintained After the initialization, the value automatically returns to zero.	0
—	WT	Integrated operating time	0 to 65535 hours	—
—	TCJ	Peak hold monitor of ambient temperature	–120 to +120 °C	—
—	RoM	ROM version	The installed ROM version is displayed	—
—	GZ900	Model code monitor	Model code is displayed. Use the UP or DOWN key to scroll the display horizontally (left or right).	—
—	00000	Instrument number monitor	Instrument number is displayed.	—

Data bit configuration table

Set value	Data bit	Parity bit	Stop bit
0	8	None	1
1	8	None	2
2	8	Even	1
3	8	Even	2
4	8	Odd	1
5	8	Odd	2
6	7	None	1
7	7	None	2
8	7	Even	1
9	7	Even	2
10	7	Odd	1
11	7	Odd	2

: Not settable for Modbus

How to use Parameter select function

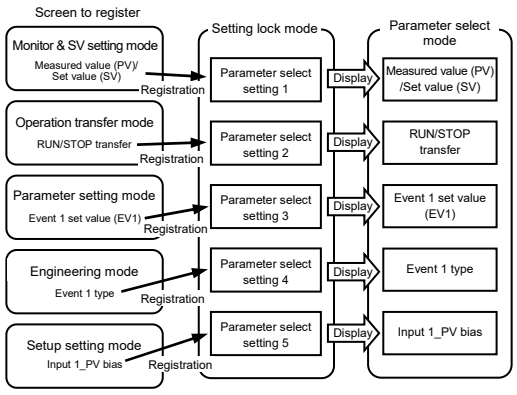
This instrument has a function that allows a user to specify desired screens to be displayed. This function is called *Parameter select function.*
Up to 16 screens can be grouped together.

■ About Parameter select function

The Parameter select function allows grouping necessary screens into a single mode for display. Screens registered in the Setting lock mode are displayed in the Parameter select mode.
The screens displayed in this mode can be operated in the same manner as they are in the original mode.

With the Parameter select function, the Setting lock mode screen and the Function block No. 91 in the Engineering mode cannot be registered.

[How does Parameter select function work?]



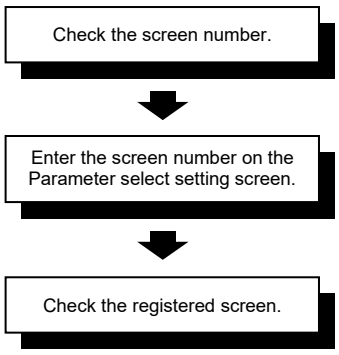
■ How to register screens

There are two ways to register screens.

● Screen number entry

Enter the predefined screen number on the Parameter select setting screen in the Setting lock mode. The registered screens in the Parameter select mode will be displayed.
There are 16 Parameter select setting screens and these are freely settable. Unregistered screens, if any, will be skipped and screens are displayed in series in the Parameter select mode.

[To register screens]



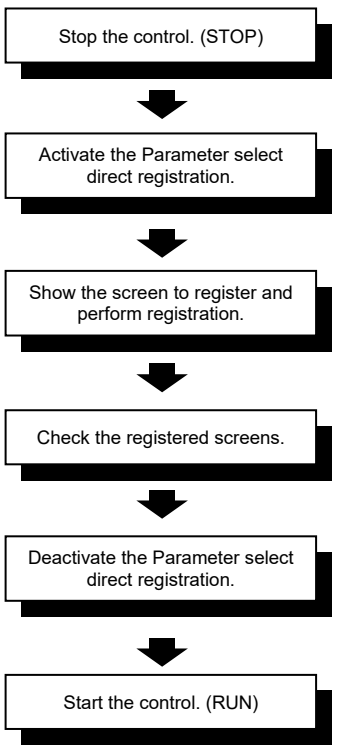
● Direct registration

Activate the direct registration on the Parameter select direct registration screen in the Setting lock mode. Display the screen to register and press the ▽ and △ keys simultaneously. The screen will be registered on the Parameter select setting screen.

Control must be stopped before attempting the direct registration.

When the direct registration is activated on the Parameter select direct registration screen, all modes except for the Setting lock mode will be locked.

[To register screens]



Refer to the separate manual **GZ400/GZ900 Instruction Manual [Part 2: Parameters/Functions] (IMR03D05-E□)** for detailed setting example of the direct registration.

[Registration example of screen number entry method]

Register the following screens in the Screen number entry method
- Input 1_Mesured value (PV)/Input 1_Set value (SV)
- RUN/STOP transfer
- Event 1 set value (EV1)

It is assumed here that Parameter select setting 1 to 3 will be used.

1. Check the screen number to register. The screen numbers can be found in the table of the list of parameters (this manual).

Screen number

No.	Symbol	Name	Data range	Factory set value
15	R/S	RUN/STOP transfer	rUn: RUN (Control start) StoP: STOP (Control stop)	rUn

Screen number of examples
- Input 1_Mesured value (PV)/Input 1_Set value (SV): 1
- RUN/STOP transfer: 15
- Event 1 set value (EV1): 27

2. Set the screen number on the Parameter select setting screen in the Setting lock mode.

A. Monitor & SV setting mode

Input 1_ Measured value (PV)/ Set value (SV) — 28.0 / 0.0

(SET) (4 seconds or more) *

D. Setting lock mode

Set data unlock/lock transfer — LoCK / oFF

* When the (SET) key is pressed and held for a certain period of time, the Parameter setting mode will be displayed once. If the SET key is kept pressing without releasing the finger from the key, the Setting lock mode is entered.

(SET) 5 or 6 times

Parameter select setting 1 — PSL01 / 00000 — Set the screen number "1" for Input 1_Measured value (PV)/Set value (SV).

△ Once

PSL01 / 00001

(SET)

Parameter select setting 2 — PSL02 / 00000 — Set the screen number "15" for the RUN/STOP transfer.

△ 5 times, <MODE Once, and △ Once

PSL02 / 00015

(SET)

Parameter select setting 3 — PSL03 / 00000 — Set the screen number "27" for the Event 1 set value (EV1).

△ 7 times, <MODE Once, and △ Twice

PSL03 / 00027

(SET)

Parameter select setting 4 — PSL04 / 00000 — Registration is completed.

(SET)+<MODE

A. Monitor & SV setting mode

Input 1_ Measured value (PV)/ Set value (SV) — 28.0 / 0.0

3. Check the registered screens.

A. Monitor & SV setting mode

Input 1_ Measured value (PV)/ Set value (SV) — 28.0 / 0.0

<MODE+▽

B. Parameter select mode

Input 1_ Measured value (PV)/ Set value (SV) — 28.0 / 0.0 — Input 1_Measured value (PV)/Set value (SV) set in the Parameter select setting 1 are displayed.

(SET)

RUN/STOP transfer — R/S / rUn — RUN/STOP transfer set in Parameter select setting 2 is displayed.

(SET)

Event 1 set value (EV1) — EV 1 / 10.0 — Event 1 set value (EV1) set in Parameter select setting 3 is displayed.

(SET)

Input 1_ Measured value (PV)/ Set value (SV) — 28.0 / 0.0 — End of checking registered screens. Returns to the top screen in the Parameter select mode.

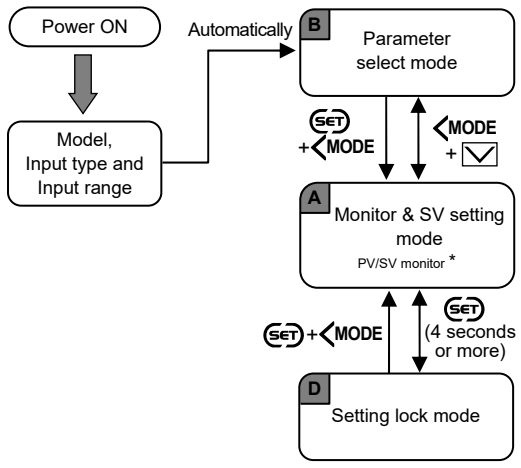
Blind Function

The Blind function is used to hide all screens except Parameter select mode, Setting lock mode, and Measured value (PV)/Set value (SV) monitor.
The Blind function can be set in the Setting lock mode.

When the blind function is activated, the instrument displays the Parameter select mode after displaying the model and the input type/range at the time of power-up.
If all of the necessary screens are placed together in the Parameter select mode, there will be no need of switching screens to other modes.

Pressing the MONI key somewhere in the Parameter select mode will bring you back to the top screen of the Parameter select mode.

[Operation flow when the Blind function is activated]



* The PV/SV monitor includes Set value (SV) setting and Manipulated output value (MV) setting.

Modes to be hidden
- C Operation transfer mode
- G Setup setting mode
- E Memory area transfer mode
- H Engineering mode
- F Parameter setting mode

■ Setting of blind function

A. Monitor & SV setting mode

Input 1_ Measured value (PV)/ Set value (SV) — 28.0 / 0.0

(SET) (4 seconds or more) *

D. Setting lock mode

Set data unlock/lock transfer — LoCK / oFF

* When the (SET) key is pressed and held for a certain period of time, the Parameter setting mode will be displayed once. If the SET key is kept pressing without releasing the finger from the key, the Setting lock mode is entered.

(SET) 2 or 3 times

Select Blind function — bLInd / oFF — Activate the blind function.

△ Once

bLInd / on — Setting is complete.

(SET)+<MODE

A. Monitor & SV setting mode

Input 1_ Measured value (PV)/ Set value (SV) — 28.0 / 0.0

<MODE+▽

B. Parameter select mode

The top screen in Parameter select mode — EV 1 / 10.0 — The screen set in Parameter select setting 1 will be displayed.

Example: Event 1 set value (EV1)

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