



For detailed handling procedures and key operations, refer to separate **FZ110/FZ400/FZ900 Instruction Manual**.
The manual can be downloaded from the official RKC website:
<https://www.rkcinst.co.jp/english/download-center/>

Display example
of a single input
type

This part is not displayed on the single input type. →

- ### A. Monitor & SV Setting Mode MONI

1

B. Parameter Select Mode  **MODE+**  

C. Operation Transfer Mode **◀MODE (2 seconds)**

D. Setting Lock Mode (4 seconds)

E. Memory Area Transfer Mode AREA

(Only FZ400/900)

F. Parameter Setting Mode  (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	$1. S_V$	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	$2. S_V$	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	dS_V	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

28	EV1	Event 1 set value (EV1') [low] ♣ ★	<u>Deviation:</u> • When assigned to Input_1 or Differential temperature input –(Input_1_Input span) to +(Input_1_Input span) • When assigned to Input 2	TC/RTD inputs: –10 V/I inputs –5 % of input span
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—	<i>PnS1</i>	Parameter group No. 51	This is the first parameter symbol of Parameter group No. 51.	—
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36	<i>f_i</i>	<i>f</i>	Input 1 Integral time [heat-side]	PID control or Heat/Cool PID control: 0 to 3600 seconds, 0.0 to 3600.0 seconds or 0.00 to 360.00 seconds 0 (0.0, 0.00): PD action Position proportioning PID control: 1 to 3600 seconds, 0.1 to 3600.0 seconds or 0.01 to 360.00 seconds [Varies with the setting of the Integral/ Derivative time decimal point position.]	240
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37	I.	Input 1: 0 to 3600 seconds, Derivative time: 0.0 to 3600.0 seconds or [heat-side]: 0.00 to 360.00 seconds * * [varies with the setting of the Integral/ Derivative time decimal point position.]	PID control or Heat/Cool PID control: 60 Position proportioning PID control:
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38	1. <i>oHh</i> 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	TC/RTD inputs: 1 V/I inputs: 0.1
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	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)

39	I. <i>oHL</i>	Input 1_ ON/OFF action differential gap (lower) ♣	Same as Input 1_ON/OFF action differential gap (upper)
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40	1. <i>RPF</i>	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 or Position proportioning PID control: 0 Heat/Cool PID control
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41	<i>IPACT</i>	Input 1_Proactive intensity ★	0 to 4 0: No function	2
42	<i>I. MR</i>	Input 1_Manual reset ♣ ★	-100.0 to +100.0 %	0.0

	<i>l. FF</i>	FF amount ★ ★	100.0 to 100.0 %	0.0
44	<i>l. aLH</i>	Input 1_ Output limiter high [heat-side] ★ ★	Input 1_Output limiter low [heat-side] to 105.0 %	105.0
45	<i>l. aLL</i>	Input 1_ Output limiter low	-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
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input_	0 to input 1 input span
LBA deadband (LBD)	(When Control with PV select: 0 to PV select input span) [Varies with the setting of the Decimal point position.]

—	P_{n56}	Parameter group No. 56 ♣	This is the first parameter symbol of Parameter group No. 56.	—
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61	I_{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
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62	I. I C	Input 1_ Integral time (anal side) • +	Same as Input 2_Integral time
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63	I_{dc}	Input 1_ Derivative time	Same as Input 1_ Derivative time [heat-side]	60
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64	<i>l.</i> <i>db</i>	Input 1 Overlap/ Deadband $\clubsuit$ $\star$	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)	TC/RTD inputs: 0 V/I inputs: 0.0
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	min. $\leq \Delta T \leq 1$ min [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.
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65	1.0LHC	Input 1_ Output limiter high (cool-side) to 105.0 %	Input 1_Output limiter low (cool-side) to 105.0 %	105.0
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66	1.oLLc	Input 1_ Output limiter low [heat-side] ♣ ★	-5.0 % to Input 1_ Output limiter high [cool-side]	-5.0
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—	P_{n70}	Parameter group No. 70	This is the first parameter symbol of Parameter group No. 70	—
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67	FRFR 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
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68	ASR	Area soak time	★ 0 hours 00 minutes 00 seconds 0 hours 59 minutes 59 seconds * 0 hours 00 minutes 0 hours 59 minutes 0 minutes 00 seconds to 199 minutes 59 seconds	0:00 (0 minutes 00 seconds)
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		Settable only for 121210000 when the Input data type is 0. [Data range of Area soak time can
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69	LINKA	Link area number	0 to 16	0
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70	ISPRU	Input 1 Setting change rate limiter (up) ★	0: No limit 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
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15/Rd	Input_1 Setting change rate limiter (down)	Same as Input 1_Setting change rate limiter (up)
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72	IR/MR	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
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13	1. <i>MVR</i>	input 1_	PID control, Position proportioning	PID control,
		Manipulated	PID control:	Position
		output value	-5.0 to +105.0 %	proportioning
		(Area)	★ Heat/Cool PID control:	PID control:
			-105.0 to +105.0 %	-5.0
				Heat/Cool
				output

74	25V RU	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.]	0.0 0
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75	25/VRD	Input 2 Setting change rate limiter (down) ★ ★	Same as Input 2_Setting change rate limiter (up)	
76	2R/MR	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

No.	Symbol	Name	Data range	Factory set value
77	2. MV R	Input 2_Manipulated output value (Area) ★ ★	-5.0 to +105.0 %	-5.0
78	R/L R	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 - When "Cascade control" is selected at Select function for input 2 0: No transfer 1: Single control 2: Cascade control - 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	0

G. Setup Setting 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.	—
79	PV CY	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

—	Sn 21	Setting group No. 21	This is the first parameter symbol of Setting group No. 21.	—
80	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
81	1. dF	Input 1_PV digital filter	0.0 to 100.0 seconds	0.0
82	1. PR	Input 1_PV ratio	0.500 to 1.500	1.000
83	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

—	Sn 22	Setting group No. 22 ★	This is the first parameter symbol of Setting group No. 22.	—
84	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
85	2. dF	Input 2_PV digital filter (RS digital filter) ★	0.0 to 100.0 seconds	0.0
86	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
87	2. PLC	Input 2_PV low input cut-off ★	0.00 to 25.00 % of Input 2_Input span	0.00

—	Sn 30	Setting group No. 30 ★	This is the first parameter symbol of Setting group No. 30.	—
88	f 1	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
89	f 2	OUT2 proportional cycle time ★	Same as Proportional cycle time of OUT1	
90	f 3	OUT3 proportional cycle time ★	0.1 to 100.0 seconds	Voltage pulse output: 2.0 or 20.0
91	Mf 1	OUT1 minimum ON/OFF time of proportional cycle ★	0 to 1000 ms	0
92	Mf 2	OUT2 minimum ON/OFF time of proportional cycle ★	0 to 1000 ms	0
93	Mf 3	OUT3 minimum ON/OFF time of proportional cycle ★	0 to 1000 ms	0

—	Sn 45	Setting group No. 45 ★	This is the first parameter symbol of Setting group No. 45.	—
94	HbR 1	Heater break alarm 1 (HBA1) set value ★	0.0 to 100.0 A	0.0
95	HbC 1	Number of heater break alarm 1 (HBA1) delay times ★	0 to 255 times	5

—	Sn 46	Setting group No. 46 ★	This is the first parameter symbol of Setting group No. 46.	—
96	HbR 2	Heater break alarm 2 (HBA2) set value ★	0.0 to 100.0 A	0.0
97	HbC 2	Number of heater break alarm 2 (HBA2) delay times ★	0 to 255 times	5

—	Sn 51	Setting group No. 51	This is the first parameter symbol of Setting group No. 51.	—
98	1. MMV	Input 1_Manual manipulated output value ★	PID control, Position proportioning 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, Position proportioning PID control: -5.0 Heat/Cool PID control: 0.0
99	1LEV 1	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)
100	1LEV 2	Input 1_Level PID setting 2 ★	Same as Input 1_Level PID setting 1	
101	1LEV 3	Input 1_Level PID setting 3 ★	Same as Input 1_Level PID setting 1	
102	1LEV 4	Input 1_Level PID setting 4 ★	Same as Input 1_Level PID setting 1	
103	1LEV 5	Input 1_Level PID setting 5 ★	Same as Input 1_Level PID setting 1	
104	1LEV 6	Input 1_Level PID setting 6 ★	Same as Input 1_Level PID setting 1	
105	1LEV 7	Input 1_Level PID setting 7 ★	Same as Input 1_Level PID setting 1	

—	Sn 52	Setting group No. 52 ★	This is the first parameter symbol of Setting group No. 52.	—
106	2. MMV	Input 2_Manual manipulated output value ★	Input 2_Output limiter low to Input 2_Output limiter high	-5.0

No.	Symbol	Name	Data range	Factory set value
107	2LEV 1	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
108	2LEV 2	Input 2_Level PID setting 2 ★	Same as Input 2_Level PID setting 1	
109	2LEV 3	Input 2_Level PID setting 3 ★	Same as Input 2_Level PID setting 1	
110	2LEV 4	Input 2_Level PID setting 4 ★	Same as Input 2_Level PID setting 1	
111	2LEV 5	Input 2_Level PID setting 5 ★	Same as Input 2_Level PID setting 1	
112	2LEV 6	Input 2_Level PID setting 6 ★	Same as Input 2_Level PID setting 1	
113	2LEV 7	Input 2_Level PID setting 7 ★	Same as Input 2_Level PID setting 1	

—	Sn 53	Setting group No. 53	This is the first parameter symbol of Setting group No. 53.	—
114	1. ATb	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
115	1ATFM	Input 1_AT remaining time monitor	0 hours 00 minutes to 48 hours 00 minutes	—
116	1ATUNE	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.	—

—	Sn 54	Setting group No. 54 ★	This is the first parameter symbol of Setting group No. 54.	—
117	2. ATb	Input 2_AT bias ★	-(Input 2_Input span) to +(Input 2_Input span) [Varies with the setting of the Decimal point position.]	0
118	2ATFM	Input 2_AT remaining time monitor ★	0 hours 00 minutes to 48 hours 00 minutes	—
119	2ATUNE	Input 2_AT/ST status monitor ★	Same as Input 1_AT/ST status monitor	—

—	Sn 55	Setting group No. 55 ★	This is the first parameter symbol of Setting group No. 55.	—
120	Ydb	Open/Close output neutral zone ★	0.1 to 10.0 % of output	2.0
121	YHS	Open/Close output differential gap ★	0.1 to 5.0 % of output	1.0

—	Sn 57	Setting group No. 57	This is the first parameter symbol of Setting group No. 57.	—
122	FFSF	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
123	1Exdu	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
124	2Exdu	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

—	Sn 58	Setting group No. 58 ★	This is the first parameter symbol of Setting group No. 58.	—
125	MRS P	Cascade_Proportional band (master-side) ★	TC/RTD inputs: 1 (0.1, 0.01) to Input 1_Input span (Unit: °C [°F]) [Varies with the setting of the Decimal point position.] Voltage (V)/Current (I) inputs: 0.1 to 1000.0 % of Input 1_Input span	TC/RTD inputs: 30 V/I inputs: 3.0
126	MRS I	Cascade_Integral time (master-side) ★	1 to 3600 seconds, 0.1 to 3600.0 seconds or 0.01 to 360.00 seconds [Varies with the setting of the Integral/Derivative time decimal point position.]	240
127	MRS d	Cascade_Derivative time (master-side) ★	0 to 3600 seconds, 0.0 to 3600.0 seconds or 0.00 to 360.00 seconds 0 (0.0, 0.00): PI action [Varies with the setting of the Integral/Derivative time decimal point position.]	60

128	SLV P	Cascade_Proportional band (slave-side) ★	TC/RTD inputs: 1 (0.1, 0.01) to Input 2_Input span (Unit: °C [°F]) [Varies with the setting of the Decimal point position.] Voltage (V)/Current (I) inputs: 0.1 to 1000.0 % of Input 2_Input span	TC/RTD inputs: 30 V/I inputs: 3.0
129	SLV I	Cascade_Integral time (slave-side) ★	Same as Cascade_Integral time (master-side)	
130	SLV d	Cascade_Derivative time (slave-side) ★	Same as Cascade_Derivative time (master-side)	

131	CdF	Cascade_Digital filter ★	0.0 to 100.0 seconds	10.0
132	C.SCH	Cascade_Scale high ★	Cascade_Scale low to Input 2_Setting limiter high [Varies with the setting of the Decimal point position.]	Input 2_Setting limiter high
133	C.SCL	Cascade_Scale low ★	Input 2_Setting limiter low to Cascade_Scale high [Varies with the setting of the Decimal point position.]	Input 2_Setting limiter low
134	2PV LV	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
135	2PV FM	PV select transfer time ★	0.0 to 100.0 seconds	0.0

—	Sn 91	Setting group No. 91	This is the first parameter symbol of Setting group No. 91.	—
136	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.]	—
137	1bHLD	Input 1_Bottom hold monitor	Same as Input 1_Peak hold monitor	
138	1HLD R	Input 1_Hold reset	HoLd: Hold r-ESF: Reset Returns to Hold state automatically after reset.	HoLd
139	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.]	—
140	2bHLD	Input 2_Bottom hold monitor ★	Same as Input 2_Peak hold monitor	
141	2HLD R	Input 2_Hold reset ★	Same as Input 1_Hold reset	

H. Engineering Mode



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.	—

No.	Symbol	Name	Data range	Factory set value
142	SPCH	STOP display selection	0: Stop on PV display 1: Stop on SV display 2: Stop on MV display * * Selectable only for FZ400/900.	1
143	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
144	dSoP	PV flashing display at input error	0: Flashing display 1: Non-flashing display	0
145	1dSV	Show/Hide Input 1_SV	0: Hide Input 1_SV 1: Show Input 1_SV	1
146	2dSV	Show/Hide Input 2_SV ★	0: Hide Input 2_SV 1: Show Input 2_SV	1
147	1dMV	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

148	2dMV	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
149	dSMoN	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

150	dSMoD	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 (Cascade mode 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
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—	Fn 11	Function block No. 11	This is the first parameter symbol of Function block No. 11.	—
151	SEF ky	Data registration	0: SET key method 1: Direct registration	0
152	Fnk ky	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 (Cascade mode 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
153	Fn ky P	FUNC key operation selection	0: Press once 1: Press and hold	0

—	Fn 21	Function block No. 21	This is the first parameter symbol of Function block No. 21.	—
154	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 PLI 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

155	1UNI F	Input 1_Display unit ★	0: °C 1: °F	Based on Model code
156	1PcdP	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: 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

157	1PGSH	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
158	1PGSL	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
159	1. PaV	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)
160	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 [-395.7 °F], JPt100: -237.6 °C [-395.7 °F])	Input 1_Input range low - (Input 1_5 % of input span)

No.	Symbol	Name	Data range	Factory set value
161	1FCUC	Input 1_Temperature compensation calculation ★	0: No temperature compensation calculation 1: With temperature compensation calculation	1
162	1. boS	Input 1_Burnout direction ★	0: Upscale 1: Downscale	0
163	1. SQR	Input 1_Square root extraction ★	0: Unused 1: Used	0
164	1. INV	Input 1_Inverting input ★	0: Unused 1: Used	0
165	1INDT	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: FZ400/900: hour/minute/second, hour/minute, minute/second FZ110: hour/minute, minute/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 * Set "2" to handle the data of REX-D and its equivalent models in RKC communication. ** The data of the FB series and its equivalent are included.	Based on Model code

—	Fn 22	Function block No. 22 ★	This is the first parameter symbol of Function block No. 22.	—
166	2. INP	Input 2_Input type ★	Same as Input 1_Input type Setting range varies with the models. · When Measured Input 2 is selected for FZ400/900: 0 to 24 · When Remote setting input is selected for FZ400/900: 15 to 24 · When Remote setting input is selected for FZ110: 15 to 22	

167	2UNI F	Input 2_Display unit ★	Same as Input 1_Display unit	
168	2PGdP	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: 0 to 4 In case of Input data type 1: 0 to 3	Based on Model code
169	2PGSH	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

No.	Symbol	Name	Data range	Factory set value
—	<i>F_n30</i>	Function block No. 30	This is the first parameter symbol of Function block No. 30	—
185	<i>oSL1</i>	OUT1 function selection	0: No assignment 1: Input 1_Control output [heat-side] or [open-side] 2: Input 1_Control output [cool-side] or [close-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 (Cascade control 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
186	<i>oSL2</i>	OUT2 function selection	Same as OUT1 function selection	Based on Model code
187	<i>oSL3</i>	OUT3 function selection	Same as OUT1 function selection	4
188	<i>oLG1</i>	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
189	<i>oLG2</i>	OUT2 logic calculation selection	Same as OUT1 logic calculation selection	Based on Model code
190	<i>oLG3</i>	OUT3 logic calculation selection	Same as OUT1 logic calculation selection	0
191	<i>ExC</i>	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
192	<i>ILS</i>	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
193	<i>SS</i>	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
194	<i>UNI o</i>	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
—	<i>F_n31</i>	Function block No. 31	This is the first parameter symbol of Function block No. 31	—
195	<i>Ro1</i>	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
196	<i>RHS1</i>	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 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 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.] Manipulated output value, and Current transformer (CT) input value: 100.0 Measured value (PV) of differential temperature input: 100	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 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 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, and Current transformer (CT) input value: 100.0 Measured value (PV) of differential temperature input: 100

No.	Symbol	Name	Data range	Factory set value
197	<i>RLS1</i>	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	
—	<i>F_n32</i>	Function block No. 32	This is the first parameter symbol of Function block No. 32	—
198	<i>Ro2</i>	Retransmission output 2 type	Same as Retransmission output 1 type	0
199	<i>RHS2</i>	Retransmission output 2 scale high	Same as Retransmission output 1 scale high	
200	<i>RLS2</i>	Retransmission output 2 scale low	Same as Retransmission output 1 scale low	
—	<i>F_n33</i>	Function block No. 33	This is the first parameter symbol of Function block No. 33	—
201	<i>Ro3</i>	Retransmission output 3 type	Same as Retransmission output 1 type	1
202	<i>RHS3</i>	Retransmission output 3 scale high	Same as Retransmission output 1 scale high	
203	<i>RLS3</i>	Retransmission output 3 scale low	Same as Retransmission output 1 scale low	
—	<i>F_n34</i>	Function block No. 34	This is the first parameter symbol of Function block No. 34	—
204	<i>doSL1</i>	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 (Cascade control 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
205	<i>doSL2</i>	DO2 function selection	Same as DO1 function selection	
206	<i>doSL3</i>	DO3 function selection	Same as DO1 function selection	
207	<i>doSL4</i>	DO4 function selection	Same as DO1 function selection	
208	<i>doLG1</i>	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
209	<i>doLG2</i>	DO2 logic calculation selection	Same as DO1 logic calculation selection	
210	<i>doLG3</i>	DO3 logic calculation selection	Same as DO1 logic calculation selection	
211	<i>doLG4</i>	DO4 logic calculation selection	Same as DO1 logic calculation selection	
—	<i>F_n41</i>	Function block No. 41	This is the first parameter symbol of Function block No. 41	—
212	<i>EvR1</i>	Event 1 assignment	1: Input 1 2: Input 2 3: Differential temperature input	1
213	<i>ES1</i>	Event 1 type	0: None 1: Deviation high (Using SV monitor value) * 2: Deviation low (Using SV monitor value) * 3: Deviation high/low (Using SV monitor value) * 4: Band (Using SV monitor value) * 5: Deviation high/low (Using SV monitor value) [High/Low individual setting] * 6: Band (Using SV monitor value) [High/Low individual setting] * 7: SV high (Using SV monitor value) 8: SV low (Using SV monitor value) 9: Process high * 10: Process low * 11: Deviation high (Using local SV) * 12: Deviation low (Using local SV) * 13: Deviation high/low (Using local SV) * 14: Band (Using local SV) * 15: Deviation high/low (Using local SV) [High/Low individual setting] * 16: Band (Using local SV) [High/Low individual setting] * 17: SV high (Using local SV) 18: SV low (Using local SV) 19: MV high [heat-side] * 20: MV low [heat-side] * 21: MV high [cool-side] * 22: MV low [cool-side] * 23: Process high/low [High/Low individual setting] * 24: Process band [High/Low individual setting] * * Event hold and re-hold action is available. * Event hold action is available. * When the instrument is specified as position proportioning PID control with feedback resistance, this item becomes Feedback resistance (FBR) input.	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
214	<i>EHo1</i>	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
215	<i>EH1</i>	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: 0.2 % V/I inputs: 0.2 % of input span MV: 0.2
216	<i>EvT1</i>	Event 1 timer	0.0 to 600.0 seconds	0.0
—	<i>F_n42</i>	Function block No. 42	This is the first parameter symbol of Function block No. 42	—
217	<i>EvR2</i>	Event 2 assignment	Same as Event 1 assignment	
218	<i>ES2</i>	Event 2 type	Same as Event 1 type	
219	<i>EHo2</i>	Event 2 hold action	Same as Event 1 hold action	
220	<i>EH2</i>	Event 2 differential gap	Same as Event 1 differential gap	
221	<i>EvT2</i>	Event 2 timer	Same as Event 1 timer	

No.	Symbol	Name	Data range	Factory set value
—	<i>F_n43</i>	Function block No. 43	This is the first parameter symbol of Function block No. 43	—
222	<i>EvR3</i>	Event 3 assignment	Same as Event 1 assignment	
223	<i>ES3</i>	Event 3 type	Same as Event 1 type	
224	<i>EHo3</i>	Event 3 hold action	Same as Event 1 hold action	
225	<i>EH3</i>	Event 3 differential gap	Same as Event 1 differential gap	
226	<i>EvT3</i>	Event 3 timer	Same as Event 1 timer	
—	<i>F_n44</i>	Function block No. 44	This is the first parameter symbol of Function block No. 44	—
227	<i>EvR4</i>	Event 4 assignment	Same as Event 1 assignment	
228	<i>ES4</i>	Event 4 type	Same as Event 1 type	
229	<i>EHo4</i>	Event 4 hold action	Same as Event 1 hold action	
230	<i>EH4</i>	Event 4 differential gap	Same as Event 1 differential gap	
231	<i>EvT4</i>	Event 4 timer	Same as Event 1 timer	
—	<i>F_n45</i>	Function block No. 45	This is the first parameter symbol of Function block No. 45	—
232	<i>CTR1</i>	CT1 assignment	0: None 1: OUT1 2: OUT2 3: OUT3	0 1
233	<i>CTE1</i>	CT1 type	0: CTL-6-P-N 1: CTL-12-S56-10L-N 2: CTL-6-P-Z	Based on Model code
234	<i>CTR1</i>	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
235	<i>CLC1</i>	CT1 low input cut-off	0.0 to 1.0 A	0.0
—	<i>F_n46</i>	Function block No. 46	This is the first parameter symbol of Function block No. 46	—
236	<i>CTR2</i>	CT2 assignment	Same as CT1 assignment	
237	<i>CTE2</i>	CT2 type	Same as CT1 type	
238	<i>CTR2</i>	CT2 ratio	Same as CT1 ratio	
239	<i>CLC2</i>	CT2 low input cut-off	Same as CT1 low input cut-off	
—	<i>F_n50</i>	Function block No. 50	This is the first parameter symbol of Function block No. 50	—
240	<i>Pd</i>	Hot/Cold start	0: Hot start 1 1: Hot start 2 2: Cold start 3: STOP start	0
241	<i>MVFS</i>	Manual manipulated output value selection	0: The last manipulated output value (Balanceless-bumpless function) 1: Manual manipulated output value	0
242	<i>FRK</i>	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 Cascade mode transfer, 2-loop control/Differential temperature control transfer To select two or more functions, sum each value.	1
243	<i>IdDP</i>	Integral/Derivative time decimal point position	0: No decimal place 1: One decimal place 2: Two decimal places	0
244	<i>STFS</i>	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
—	<i>F_n51</i>	Function block No. 51	This is the first parameter symbol of Function block No. 51	—
245	<i>LoS</i>	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] 5: Brilliant II Position proportioning PID control (reverse action) 6: Brilliant II Position proportioning PID control (direct action) For cascade control, only 0 or 1 is selectable.	Based on Model code
246	<i>LoRU</i>	Input 1_Output change rate limiter (up) [heat-side]	0.0 to 1000.0 %/seconds of manipulated output 0.0: OFF	0.0
247	<i>LoRD</i>	Input 1_Output change rate limiter (down) [heat-side]	0.0 to 1000.0 %/seconds of manipulated output 0.0: OFF	0.0
248	<i>LoRVE</i>	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
249	<i>LoRUNE</i>	Input 1_Action (low) input error	Same as Input 1_Action (high) input error	2
250	<i>LoPSM</i>	Input 1_Manipulated output value at input error	PID control, Position proportioning PID control: –5.0 to +105.0 % Heat/Cool PID control: –105.0 to +105.0 %	PID control, Position proportioning PID control: –5.0 Heat/Cool PID control: 0.0
251	<i>LoRMV</i>	Input 1_Manipulated output value at STOP [heat-side]	–5.0 to +105.0 %	–5.0
252	<i>LoPdR</i>	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)
253	<i>LoLPId</i>	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
254	<i>LoLHS</i>	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)
—	<i>F_n52</i>	Function block No. 52	This is the first parameter symbol of Function block No. 52	—
255	<i>LooS</i>	Input 2_Control action	0: Brilliant II PID control (direct action) 1: Brilliant II PID control (reverse action)	Based on Model code
256	<i>LooRU</i>	Input 2_Output change rate limiter (up)	0.0 to 1000.0 %/seconds of manipulated output 0.0: OFF	0.0
257	<i>LooRD</i>	Input 2_Output change rate limiter (down)	0.0 to 1000.0 %/seconds of manipulated output 0.0: OFF	0.0

No.	Symbol	Name	Data range	Factory set value
258	<i>LoRVE</i>	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
259	<i>LoRUNE</i>	Input 2_Action (low) input error	Same as Input 2_Action (high) input error	2
260	<i>LoPSM</i>	Input 2_Manipulated output value at input error	–5.0 to +105.0 %	–5.0
261	<i>LoRMV</i>	Input 2_Manipulated output value at STOP	–5.0 to +105.0 %	–5.0
262	<i>LoPdR</i>	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
263	<i>LoLPId</i>	Input 2_Level PID action selection	Same as Input 1_Level PID action selection	0
264	<i>LoLHS</i>	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
—	<i>F_n55</i>	Function block No. 55	This is the first parameter symbol of Function block No. 55	—
265	<i>YbR</i>	Action at feedback resistance (FBR) input error	0: Action depending on the value action at STOP 1: Control action continued	0
266	<i>Pos</i>	Feedback adjustment	When the <MODE key is pressed and held for 5 seconds, Feedback adjustment is automatically started. Adj.: Adjustment end oPEn: During adjustment on the open-side LoSE: During adjustment on the close-side Err: Adjustment error	Adj
267	<i>MoT</i>	Control motor time	5 to 1000 seconds	10
268	<i>oLR</i>	Integrated output limiter	0.0 to 200.0 % of control motor time 0.0: OFF	150.0
269	<i>VAL</i>	Valve action at STOP	0: Close-side output OFF, Open-side output OFF 1: Close-side output ON, Open-side output OFF 2: Close-side output OFF, Open-side output ON	0
270	<i>YASo</i>	Action at saturated output	0: Invalid 1: Valid	0
—	<i>F_n56</i>	Function block No. 56	This is the first parameter symbol of Function block No. 56	—
271	<i>LoRUC</i>	Input 1_Output change rate limiter (up) [cool-side]	0.0 to 1000.0 %/seconds of manipulated output 0.0: OFF	0.0
272	<i>LoRdC</i>	Input 1_Output change rate limiter (down) [cool-side]	0.0 to 1000.0 %/seconds of manipulated output 0.0: OFF	0.0
273	<i>LoRMVc</i>	Input 1_Manipulated output value at STOP [cool-side]	–5.0 to +105.0 %	–5.0
274	<i>US</i>	Undershoot suppression factor	0.000 to 1.000	Water cooling: 0.100 Air cooling: 0.250 Cooling linear: 1.000
275	<i>dbPR</i>	Overlap/Deadband reference point	0.0 to 1.0	0.0
—	<i>F_n57</i>	Function block No. 57	This is the first parameter symbol of Function block No. 57	—
276	<i>bFMSP</i>	Bottom suppression function	0: No function 1: FF amount is added by level 2: FF amount is forcibly added	0
—	<i>F_n58</i>	Function block No. 58	This is the first parameter symbol of Function block No. 58	—
277	<i>2PV</i>	Select function for input 2	0: No function 1: Remote setting input 2: 2-loop control/Differential temperature control 3: Control with PV select 4: Cascade control (Slave single ↔ Cascade) * 5: Cascade control (Master single ↔ Cascade) * 6: Input circuit error alarm * This parameter cannot be specified if the instrument is a Heat/Cool PID or a Position proportioning PID type. FZ400/900: 0 to 6, FZ110: 0 to 1	Based on Model code
278	<i>MASAR</i>	Cascade _AT mode (master-side)	0: Easy adjustment (AT: one cycle) 1: Load factor adjustment (AT: 2 cycles)	TC/RTD inputs: 0 V/I inputs: 1
279	<i>SLVAR</i>	Cascade _AT mode (slave-side)	0: Easy adjustment (AT: one cycle) 1: Load factor adjustment (AT: 2 cycles)	TC/RTD inputs: 0 V/I inputs: 1
280	<i>2PVFG</i>	Selection of PV select trigger	0: Switching by level 1: Switching by signal (Key, DI and Communication)	0
281	<i>LoCR</i>	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
—	<i>F_n60</i>	Function block No. 60	This is the first parameter symbol of Function block No. 60	—
282	<i>CMPS</i>	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
283	<i>Rdd</i>	Device address	RKC communication: 0 to 99 Modbus: 1 to 99 PLC communication: 0 to 30	RKC communication: 0 Modbus: 1 PLC communication: 0
284	<i>bPS</i>	Communication speed	0: 2400 bps 1: 4800 bps 2: 9600 bps 3: 19200 bps 4: 38400 bps 5: 57600 bps	3
285	<i>blf</i>	Data bit configuration	0 to 11 Refer to Data bit configuration table	0
286	<i>INT</i>	Interval time	0 to 250 ms	10
287	<i>CMRM</i>	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	—

No.	Symbol	Name	Data range	Factory set value
—	<i>F_n62</i>	Function block No. 62	This is the first parameter symbol of Function block No. 62	—
288	<i>MP_{REG}</i>	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
289	<i>MP_{SRH}</i>	Register start number (High-order 4-bit)	0 to 15	0
290	<i>MP_{SRL}</i>	Register start number (Low-order 16-bit)	0 to 65535	1000
291	<i>MP_{Mod}</i>	Monitor item register bias	12 to 65535	12
292	<i>MP_{SLB}</i>	Setting item register bias	0 to 65535	0
293	<i>MP_{LGM}</i>	Instrument link recognition time	0 to 255 seconds	5
294	<i>MP_{FMo}</i>	PLC response waiting time	0 to 3000 ms	255
295	<i>MP_{SFM}</i>	PLC communication start time	1 to 255 seconds	5
296	<i>MP_{SLb}</i>	Slave register bias	0 to 65535	80
297	<i>MP_{MdD}</i>	Number of recognizable devices	0 to 30	8

—	<i>F_n70</i>	Function block No. 70	This is the first parameter symbol of Function block No. 70	—
298	<i>SV_{RT}</i>	Setting change rate limiter unit time	1 to 3600 seconds	60
299	<i>SL_{DP}</i>	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 In case of Input data type 0: 0 to 2 In case of Input data type 1: 0 or 1	1

—	<i>F_n71</i>	Function block No. 71	This is the first parameter symbol of Function block No. 71	—
300	<i>1. SL_H</i>	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.] (Control with PV select: PV select input range high)	Input 1_Input range high
301	<i>1. SL_L</i>	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.] (Control with PV select: PV select input range low)	Input 1_Input range low

—	<i>F_n72</i>	Function block No. 72	This is the first parameter symbol of Function block No. 72	—
302	<i>2. SL_H</i>	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
303	<i>2. SL_L</i>	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

—	<i>F_n91</i>	Function block No. 91	This is the first parameter symbol of Function block No. 91	—
—	<i>dEF</i>	Initialization	1225: Start initialization Other values: Set values are maintained After the initialization, the value automatically returns to zero.	0
—	<i>W_T</i>	Integrated operating time	0 to 65535 hours	—
—	<i>TC_U</i>	Peak hold monitor of ambient temperature	~120 to +120 °C	—
—	<i>R_{oM}</i>	ROM version	The installed ROM version is displayed	—
—	<i>FZ900</i>	Model code monitor	Model code is displayed. Use the UP or DOWN key to scroll the display horizontally (left or right).	—
—	<i>00000</i>	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

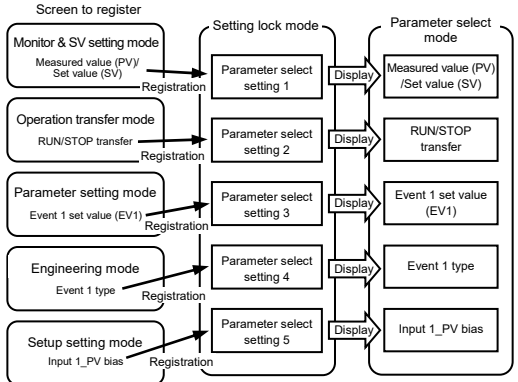
This instrument has a function that allows a user to specify desired screens to be displayed. This function is called *Parameter select function*. Up to 16 screens can be grouped together.

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?]



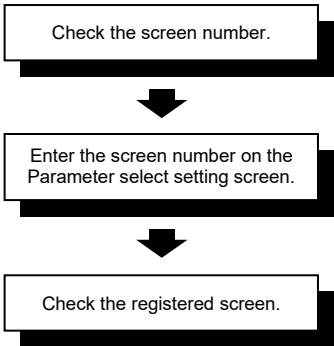
How to register screens

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]



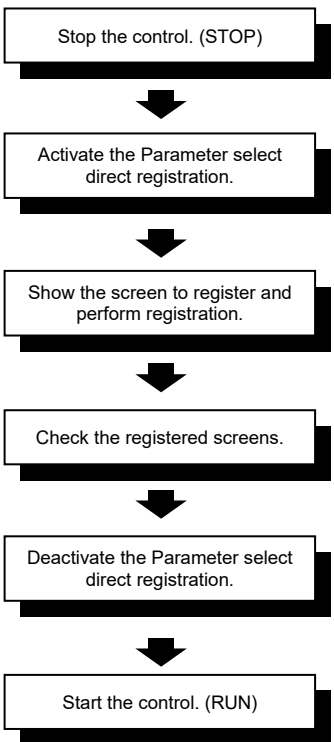
Direct registration

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 **FZ110/FZ400/FZ900 Instruction Manual [Part 2: Parameters/Functions] (IMR03A05-ED)** 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_Measured 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).

No.	Symbol	Name	Data range	Factory set value
15	<i>R/S</i>	RUN/STOP transfer	<i>rUn</i> : RUN (Control start) <i>St oP</i> : STOP (Control stop)	<i>rUn</i>

Screen number of examples

- Input 1_Measured 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)

(4 seconds or more) *

D. Setting lock mode

Set data unlock/lock transfer

4 or 5 times

Parameter select setting 1

Set the screen number "1" for Input 1_Measured value (PV)/Set value (SV).

Once

Parameter select setting 2

Set the screen number "15" for the RUN/STOP transfer.

5 times, Once, and Once

Parameter select setting 3

Set the screen number "27" for the Event 1 set value (EV1).

7 times, Once, and Twice

Parameter select setting 4

Registration is completed.

+

A. Monitor & SV setting mode

Input 1_Measured value (PV)/Set value (SV)

3. Check the registered screens.

A. Monitor & SV setting mode

Input 1_Measured value (PV)/Set value (SV)

+

B. Parameter select mode

Input 1_Measured value (PV)/Set value (SV)

Input 1_Measured value (PV)/Set value (SV) set in the Parameter select setting 1 are displayed.

RUN/STOP transfer

RUN/STOP transfer set in Parameter select setting 2 is displayed.

Event 1 set value (EV1)

Event 1 set value (EV1) set in Parameter select setting 3 is displayed.

Input 1_Measured value (PV)/Set value (SV)

End of checking registered screens
Returns to the top screen in the Parameter select mode.

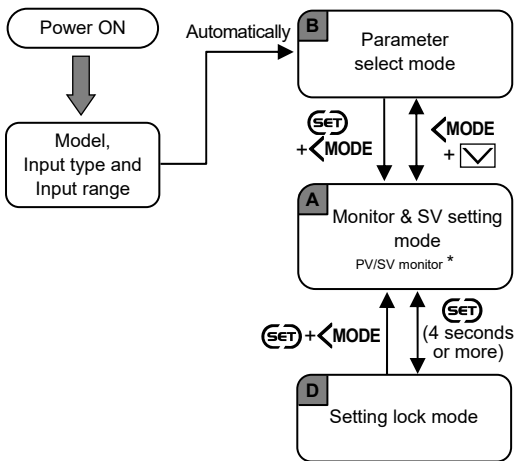
Blind Function

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

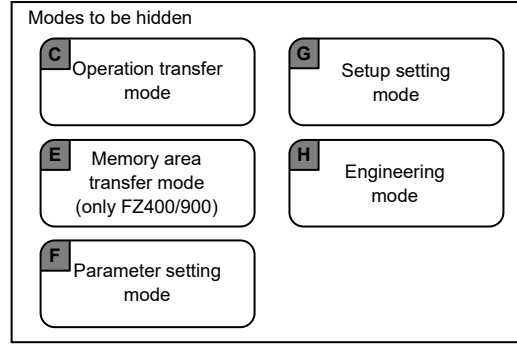
The Blind function can be set in the Setting lock mode.

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.

[Operation flow when the Blind function is activated]



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



Setting of blind function

A. Monitor & SV setting mode

Input 1_Measured value (PV)/Set value (SV)

(4 seconds or more) *

D. Setting lock mode

Set data unlock/lock transfer

2 or 3 times

Select Blind function

Activate the blind function.

Once

Setting is complete.

+

A. Monitor & SV setting mode

Input 1_Measured value (PV)/Set value (SV)

+

B. Parameter select mode

The top screen in Parameter select mode

The screen set in Parameter select setting 1 will be displayed.

Example: Event 1 set value (EV1)

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