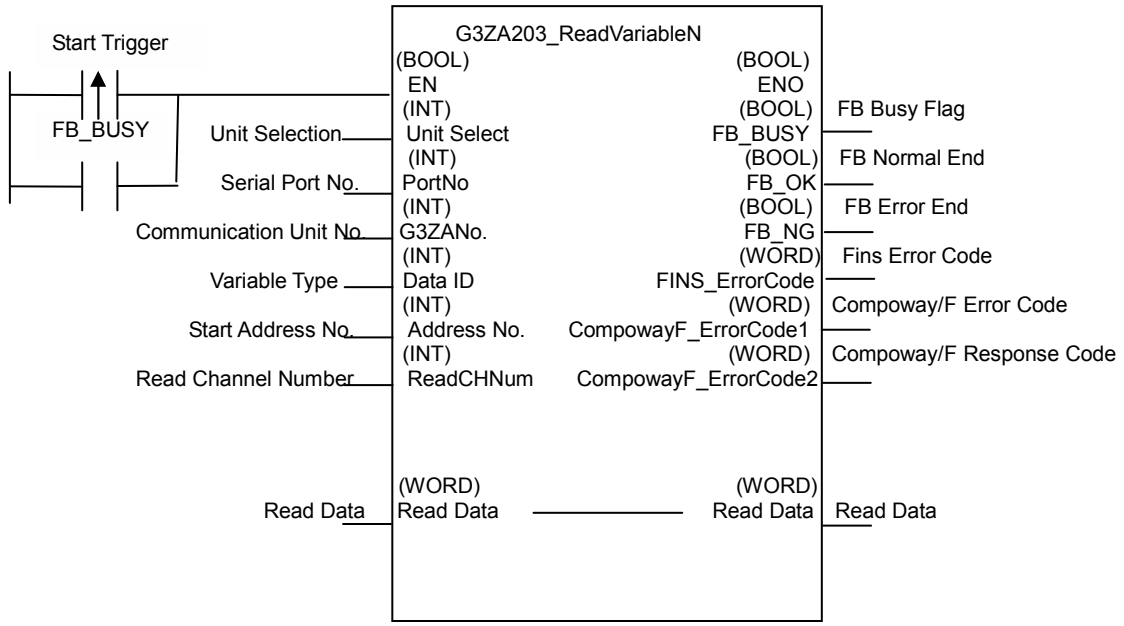
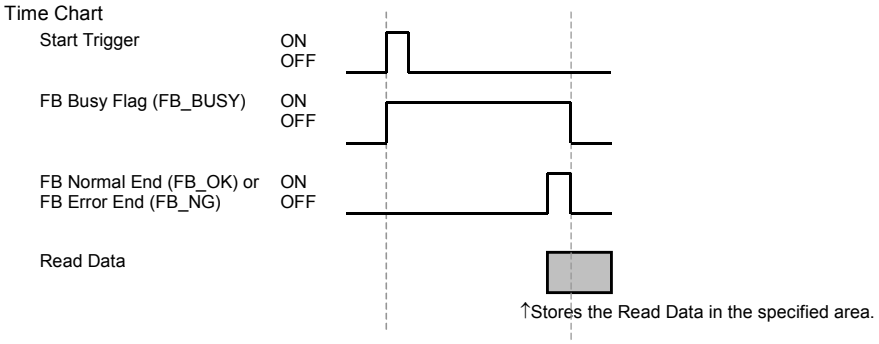
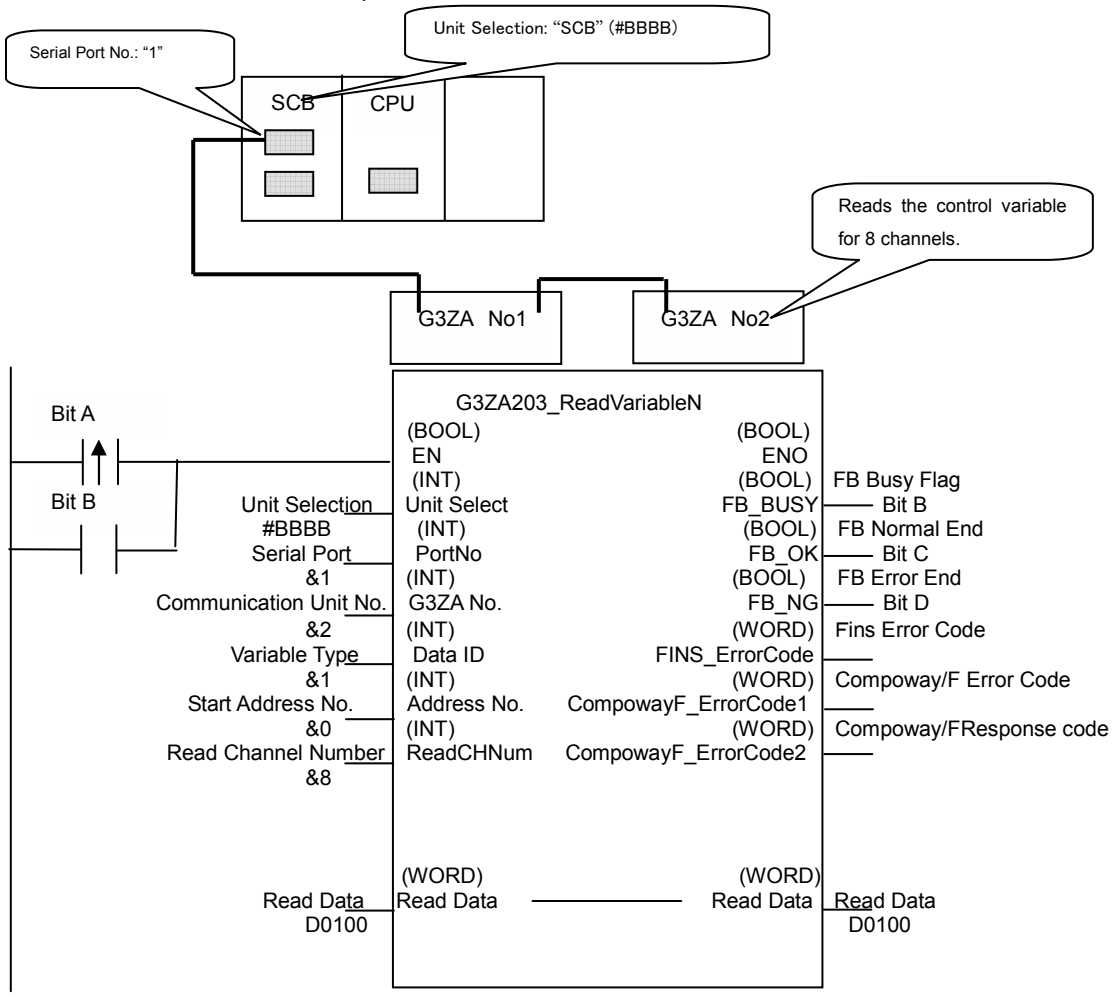
G3ZA 203	Read Data _G3ZA203_ReadVariableN

Basic Function	Reads specified number of channel data from the start address.	
Symbol		
File name	Lib¥FBL¥omronlib¥PowerController¥G3ZA¥Serial¥_G3ZA203_ReadVariableN10.cxf	
Applicable models	Power Controller	G3ZA
	SCU/SCB Unit	Unit version 1.2 or higher SCU/SCB Unit RS232C port can be utilized, too after it is changed to RS485.
	CPU Unit	Unit version 4.0 or higher
	CX-Programmer	Version 7.0 or higher
Usage condition	□ External Connection ▪ 1:N connection is possible. □ Communications Setting The communications setting of a serial port (Serial Gateway) must be identical to that of the Power Controller. ▪ The communications setting of the specified serial port can be matched to the default Power Controller setting (the factory shipment value) by using the Set Communication Port (_G3ZA600_SetComm) FB, and also to the settings other than the default setting by using the Set Serial Gateway Mode (_SCx604_SetPortGATEWAY)) FB. □ CPU Unit Setting PLC Setup: *Shared Settings for Communications Instructions in FBs* ▪ Communications Instruction Response Timeout (default: 2 s): 5 s or more is recommended. ▪ The number of retries (default: 0). □ Shared Resource ▪ A communication port (an internal logical port)	
Descriptions	When a Start Trigger is turned ON, the data of specified read channel number starting from Start Address No. is read to the channels set in the Read Data. When an error occurs, refer to 1) FINS Error Code, 2) Compoway/F Error Code and 3) Compoway/F Response Code in this order. When ended normally, both the error code output and response code output become #0000.	

Precautions	・This FB is processed over multiple cycles. The FB_BUSY output variable can be used to check whether the FB is in process. ・FB_OK or FB_NG will be turned ON only for one cycle upon a completion of processing. Use these flags to detect a completion of FB processing. Time Chart 
EN input condition	Connect EN to the OR between the Start Trigger's DIFU (differentiate up) and the FB_ BUSY output from the FB. See the diagram above.
Restrictions Input variable	Always use DIFU (differentiate up) (↑) for EN inputs.
Output variable	・This FB is processed over multiple cycles. Always connect the OR including the FB_BUSY output variable to the EN input variable so that the processing can be completed. (See Symbol). ・Do not turn the FB_BUSY output variable ON or OFF except for FBs.
Usages	The Power Controller is connected to Serial Port 1 on a Serial Communications Board (SCB) by 1:N connection. When Bit A is turned ON, the control variable and etc, of the G3ZA (Communication unit No.2) Power Controller is read and stored in the specified DM. 
Related manuals	**G3ZA** *G3ZA Multi-channel Power Controller User's Manual* (Z200-E1) Section 3. Communications(CompoWay/F) 3-1.Communication Settings 3-5.Variable Area Read **FINS Error code** *CS/CJ Series Communications Commands Reference Manual (W342-E1)* 5-1-3 End Codes

■Variable Tables
Input Variables

Name	Variable Name	Data Type	Default	Scope	Descriptions
EN	EN	BOOL			1(ON): A FB is started. 0(OFF): A FB is not started.
Unit selection	UnitSelect	INT	&0	At right.	Specify the Unit and the serial port. ▪ Connected to CPU Unit Unit selection #FFFF Serial Port &2: Fixed to port 2. ▪ Connected to Serial Communication Board (SCB) Unit Selection #BBBB Serial Port No. &1: Port 1 &2: Port 2 ▪ Connected to Serial Communication Unit (SCU) Unit Selection SCU Unit No. (&0 to &15) Serial Port No. &1: Port 1 &2: Port 2
Serial Port No.	PortNo	INT	&1	&1 to &2	
Communication Unit No.	G3ZANo	INT	&1	&0 to &31	Specify the communication unit No. of G3ZA. &0 to &31
Variable Type	DataID	INT	&0	&0 to &4	Specify the variable type to be read. &0:Type80→Control variable, status, Heater ON/OFF current &1:Type81→Manipulated variable, Slope, Offse, Source channel, heater burnout detection value, SSR short-circuit detection value, heater overcurrent detection value, Offset control &2: Type83→ Data length &3: Type85(can be changed always).→Soft Increase Time, Soft Decrease Time, Control Switchover MV Threshold, MV at Communications Error, Current Error Detection Delay (G3ZA_V2.0 or higher) &4:Type8E→Control variable, status, Heater ON/OFF current value (G3ZA_V2.0 or higher)
Start Address No.	AddressNo	INT	&0	&0 to &44	Specify start address of G3ZA to read. (0000-002C)
Read Channel Number	ReadCHNum	INT	&1	&1 to &24	Specify Channel number of G3ZA to read

Output Variables

Name	Variable Name	Data Type	Scope	Descriptions
ENO (Omissionable)	ENO	BOOL		1(ON): A FB has operated normally. 0(OFF): A FB has not started. / A FB ended in error.
FB Busy Flag	FB_BUSY	BOOL		Turned off automatically after a completion of processing.
FB Normal End	FB_OK	BOOL		Turned ON only for 1 cycle when processing ends normally.
FB Error End	FB_NG	BOOL		Turned ON only for 1 cycle when processing ends in error.
FINS Error Code	FINS_ErrorCode	WORD		Outputs the Fins Error Code when a FB_NG flag is ON. It is #0000 when ended normally. For details of the codes, refer to the *CS/CJ Series Communications Commands Reference Manual (W342-E1)*.
Compoway/F Error Code	CompowayF_ErrorCode1	WORD		Outputs the Compoway/F Error Code when a FB_NG flag is ON. Mainly the error statuses on physical communication lines are output as the Compoway/F Error Code. It is #0000 when ended normally. For details of the codes, refer to the descriptions below.
Compoway/F Response Code	CompowayF_ErrorCode2	WORD		Outputs the Compoway/F Response Code when a FB_NG flag is ON. Mainly the operation error status of the Power Controller is output as the Compoway/F Response Code. It is #0000 when ended normally. For details of the codes, refer to the descriptions below.

Input/Output Variables

Name	Variable Name	Data Type	Scope	Descriptions
Read Data	ReadData	WORD	D0 to D**** E0 to E*_**** Work Bit, etc	Specify first word to read. Refer to the Users Manual of the CPU, I/O Memory Area. Do not specify CPU Bus Unit, Auxiliary Area, Timer, Counter, Task Flag, and Index Registers.

■ Compoway/F Error Code

Code	Contents	Descriptions
#0000	Normal End	The command processing ended normally.
#000F	FINS Command Error	Specifying a FINS command cannot be executed.
#0010	Parity Error	The sum of bits whose received data is “1” does not accord with the setting of a “Communication Parity”.
#0011	Flaming Error	The stop bit is “0”.
#0012	Overrun Error	The next data was received when it was full with the already received data.
#0013	BCC Error	The received BCC and the calculated BCC are different.
#0018	Frame Length Error	The length of the received flame exceeds the specified number of bytes.

■ Compoway/F Response Code

Code	Contents	Descriptions
#0000	Normal End	The processing ended normally.
#2203	Operation Error	An error occurred in the G3ZA nonvolatile memory.

■ Version History

Version	Date	Contents
1.00	2006.11.	Original Production

■ Attention

This document describes the functions of Function Blocks.
The usage restrictions for units or components and its combinations are not described here. We would like you to make sure of reading the User’s Manual before actually using the products.

Parameter List

If variables without parentheses are used in communications, the set values will be eight-digit (double-word) data. If variables with parentheses are used in communications, the set values will be four-digit (word) data.

Example: Variable type C4: Double word (8 digits)
Variable type 84: Word (4 digits)

■ Parameter List (G3ZA_V1.0)

Level	Variable type	Address	Parameter	Setting/monitor range	Default	Unit
Operation	C0 （80）	0000	Version	-	-	-
		0001	CH1 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0002	CH2 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0003	CH3 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0004	CH4 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0005	CH5 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0006	CH6 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0007	CH7 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0008	CH8 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0009	CH1 status	-		-
		000A	CH2 status	-		-
		000B	CH3 status	-		-
		000C	CH4 status	-		-
		000D	CH5 status	-		-
		000E	CH6 status	-		-
		000F	CH7 status	-		-
		0010	CH8 status	-		-
		0011	CH1 heater ON current	H'00000000 to H'00000037（0 to 55）	0	A
		0012	CH2 heater ON current	H'00000000 to H'00000037（0 to 55）	0	A
		0013	CH3 heater ON current	H'00000000 to H'00000037（0 to 55）	0	A
		0014	CH4 heater ON current	H'00000000 to H'00000037（0 to 55）	0	A
		0015	CH1 heater OFF current	H'00000000 to H'00000037（0 to 55）	0	A
		0016	CH2 heater OFF current	H'00000000 to H'00000037（0 to 55）	0	A
		0017	CH3 heater OFF current	H'00000000 to H'00000037（0 to 55）	0	A
		0018	CH4 heater OFF current	H'00000000 to H'00000037（0 to 55）	0	A
	C1 （81）	0000	CH1 manipulated variabl	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0001	CH2 manipulated variabl	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0002	CH3 manipulated variabl	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0003	CH4 manipulated variabl	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0004	CH5 manipulated variabl	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0005	CH6 manipulated variabl	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0006	CH7 manipulated variabl	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0007	CH8 manipulated variabl	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0008	CH1 slope	H'00000000 to H'00000FA0（0.0 to 400.0）	100.0	%
		0009	CH2 slope	H'00000000 to H'00000FA0（0.0 to 400.0）	100.0	%
		000A	CH3 slope	H'00000000 to H'00000FA0（0.0 to 400.0）	100.0	%
		000B	CH4 slope	H'00000000 to H'00000FA0（0.0 to 400.0）	100.0	%
		000C	CH5 slope	H'00000000 to H'00000FA0（0.0 to 400.0）	100.0	%
		000D	CH6 slope	H'00000000 to H'00000FA0（0.0 to 400.0）	100.0	%
		000E	CH7 slope	H'00000000 to H'00000FA0（0.0 to 400.0）	100.0	%
		000F	CH8 slope	H'00000000 to H'00000FA0（0.0 to 400.0）	100.0	%
		0010	CH1 offset	H'FFFFF060 to H'00000FA0（-400.0 to 400.0）	0.0	%
		0011	CH2 offset	H'FFFFF060 to H'00000FA0（-400.0 to 400.0）	0.0	%
		0012	CH3 offset	H'FFFFF060 to H'00000FA0（-400.0 to 400.0）	0.0	%
		0013	CH4 offset	H'FFFFF060 to H'00000FA0（-400.0 to 400.0）	0.0	%
		0014	CH5 offset	H'FFFFF060 to H'00000FA0（-400.0 to 400.0）	0.0	%
		0015	CH6 offset	H'FFFFF060 to H'00000FA0（-400.0 to 400.0）	0.0	%
		0016	CH7 offset	H'FFFFF060 to H'00000FA0（-400.0 to 400.0）	0.0	%
		0017	CH8 offset	H'FFFFF060 to H'00000FA0（-400.0 to 400.0）	0.0	%

Level	Variable type	Address	Parameter	Setting/monitor range	Default	Unit
Operation	C1 （81）	0018	CH1 source channel	H'00000001 to H'00000008（1 to 8）	1	-
		0019	CH2 source channel	H'00000001 to H'00000008（1 to 8）	2	-
		001A	CH3 source channel	H'00000001 to H'00000008（1 to 8）	3	-
		001B	CH4 source channel	H'00000001 to H'00000008（1 to 8）	4	-
		001C	CH5 source channel	H'00000001 to H'00000008（1 to 8）	5	-
		001D	CH6 source channel	H'00000001 to H'00000008（1 to 8）	6	-
		001E	CH7 source channel	H'00000001 to H'00000008（1 to 8）	7	-
		001F	CH8 source channel	H'00000001 to H'00000008（1 to 8）	8	-
		0020	CH1 heater burnout detection value	H'00000000 to H'00000032（0 to 50）	0	A
		0021	CH2 heater burnout detection value	H'00000000 to H'00000032（0 to 50）	0	A
		0022	CH3 heater burnout detection value	H'00000000 to H'00000032（0 to 50）	0	A
		0023	CH4 heater burnout detection value	H'00000000 to H'00000032（0 to 50）	0	A
		0024	CH1 SSR short-circuit detection value	H'00000000 to H'00000032（0 to 50）	50	A
		0025	CH2 SSR short-circuit detection value	H'00000000 to H'00000032（0 to 50）	50	A
		0026	CH3 SSR short-circuit detection value	H'00000000 to H'00000032（0 to 50）	50	A
		0027	CH4 SSR short-circuit detection value	H'00000000 to H'00000032（0 to 50）	50	A
		0028	CH1 heater overcurrent detection value	H'00000000 to H'00000032（0 to 50）	50	A
		0029	CH2 heater overcurrent detection value	H'00000000 to H'00000032（0 to 50）	50	A
		002A	CH3 heater overcurrent detection value	H'00000000 to H'00000032（0 to 50）	50	A
		002B	CH4 heater overcurrent detection value	H'00000000 to H'00000032（0 to 50）	50	A
		002C	Offset control	H'00000000（Disabled） H'00000001（Enabled）	Enabled	-
	C3 （83）	0000	Data length *1	H'00000000（7） H'00000001（8）	7	bit
		0001	Stop bits*1	H'00000000（1） H'00000001（2）	2	bit
		0002	Parity *1	H'00000000（None） H'00000001（Even） H'00000002（Odd）	Even	-
		0003	Send standby time *1	H'00000000 to H'00000063（0 to 99）	20	ms
		0004	Communications timeout time *1	H'00000000（Disabled） H'00000001 to H'0000003C（1 to 60）	0	min
		0005	Operation at error	H'00000000（Continue with error clear） H'00000001（Continue with no error clear） H'00000002（Stop） *2	0	-
		0006	Offset value	H'00000000 to H'000003E8（0.0 to 100.0）	20.0	%
		0007	Hysteresis	H'00000001 to H'0000000A（1 to 10）	1	A

* 1：Valid after Software Reset operation command or after power is turned ON.
* 2：Only the channel with the error will stop.

■ Parameter List　(G3ZA_V2.0 or higher)

Level	Variable type	Address	Parameter	Setting/monitor range	Default	Unit
Operation	C0　(80)	0000	Version	-	-	-
		0001	CH1 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0002	CH2 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0003	CH3 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0004	CH4 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0005	CH5 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0006	CH6 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0007	CH7 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0008	CH8 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0009	CH1 status	-	-	-
		000A	CH2 status	-	-	-
		000B	CH3 status	-	-	-
		000C	CH4 status	-	-	-
		000D	CH5 status	-	-	-
		000E	CH6 status	-	-	-
		000F	CH7 status	-	-	-
		0010	CH8 status	-	-	-
		0011	CT1 heater ON current	H'00000000 to H'000000A5（0 to 165）	0	A or %
		0012	CT2 heater ON current	H'00000000 to H'000000A5（0 to 165）	0	A or %
		0013	CT3 heater ON current	H'00000000 to H'000000A5（0 to 165）	0	A or %
		0014	CT4 heater ON current	H'00000000 to H'000000A5（0 to 165）	0	A or %
		0015	CT1 heater OFF current	H'00000000 to H'000000A5（0 to 165）	0	A or %
		0016	CT2 heater OFF current	H'00000000 to H'000000A5（0 to 165）	0	A or %
		0017	CT3 heater OFF current	H'00000000 to H'000000A5（0 to 165）	0	A or %
		0018	CT4 heater OFF current	H'00000000 to H'000000A5（0 to 165）	0	A or %
	CE　(8E)	0000	CH1 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0001	CH2 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0002	CH3 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0003	CH4 control variable	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0004	CH1 status	-	-	-
		0005	CH2 status	-	-	-
		0006	CH3 status	-	-	-
		0007	CH4 status	-	-	-
		0008	CT1 Effective Current	H'00000000 to H'00000672（0.0 to 165.0）	0.0	A or %
		0009	CT2 Effective Current	H'00000000 to H'00000672（0.0 to 165.0）	0.0	A or %
		000A	CT3 Effective Current	H'00000000 to H'00000672（0.0 to 165.0）	0.0	A or %
		000B	CT4 Effective Current	H'00000000 to H'00000672（0.0 to 165.0）	0.0	A or %
		000C	CT1 heater ON current	H'00000000 to H'000000A5（0 to 165）	0	A or %
		000D	CT2 heater ON current	H'00000000 to H'000000A5（0 to 165）	0	A or %
		000E	CT3 heater ON current	H'00000000 to H'000000A5（0 to 165）	0	A or %
		000F	CT4 heater ON current	H'00000000 to H'000000A5（0 to 165）	0	A or %
		0010	CT1 heater OFF current	H'00000000 to H'000000A5（0 to 165）	0	A or %
		0011	CT2 heater OFF current	H'00000000 to H'000000A5（0 to 165）	0	A or %
		0012	CT3 heater OFF current	H'00000000 to H'000000A5（0 to 165）	0	A or %
		0013	CT4 heater OFF current	H'00000000 to H'000000A5（0 to 165）	0	A or %
		0014	Version	-	-	-
	C1　(81)	0000	CH1 manipulated variabl	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0001	CH2 manipulated variabl	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0002	CH3 manipulated variabl	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0003	CH4 manipulated variabl	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0004	CH5 manipulated variabl	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0005	CH6 manipulated variabl	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0006	CH7 manipulated variabl	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0007	CH8 manipulated variabl	H'00000000 to H'000003E8（0.0 to 100.0）	0.0	%
		0008	CH1 slope	H'00000000 to H'00000FA0（0.0 to 400.0）	100.0	%
		0009	CH2 slope	H'00000000 to H'00000FA0（0.0 to 400.0）	100.0	%
		000A	CH3 slope	H'00000000 to H'00000FA0（0.0 to 400.0）	100.0	%
		000B	CH4 slope	H'00000000 to H'00000FA0（0.0 to 400.0）	100.0	%
		000C	CH5 slope	H'00000000 to H'00000FA0（0.0 to 400.0）	100.0	%
		000D	CH6 slope	H'00000000 to H'00000FA0（0.0 to 400.0）	100.0	%
		000E	CH7 slope	H'00000000 to H'00000FA0（0.0 to 400.0）	100.0	%
		000F	CH8 slope	H'00000000 to H'00000FA0（0.0 to 400.0）	100.0	%

Level	Variable type	Address	Parameter	Setting/monitor range	Default	Unit
Operation	C1 （81）	0010	CH1 offset	H’FFFFF060 to H’00000FA0（-400.0 to 400.0）	0.0	%
		0011	CH2 offset	H’FFFFF060 to H’00000FA0（-400.0 to 400.0）	0.0	%
		0012	CH3 offset	H’FFFFF060 to H’00000FA0（-400.0 to 400.0）	0.0	%
		0013	CH4 offset	H’FFFFF060 to H’00000FA0（-400.0 to 400.0）	0.0	%
		0014	CH5 offset	H’FFFFF060 to H’00000FA0（-400.0 to 400.0）	0.0	%
		0015	CH6 offset	H’FFFFF060 to H’00000FA0（-400.0 to 400.0）	0.0	%
		0016	CH7 offset	H’FFFFF060 to H’00000FA0（-400.0 to 400.0）	0.0	%
		0017	CH8 offset	H’FFFFF060 to H’00000FA0（-400.0 to 400.0）	0.0	%
		0018	CH1 source channel	H’00000001 to H’00000008（1 to 8）	1	-
		0019	CH2 source channel	H’00000001 to H’00000008（1 to 8）	2	-
		001A	CH3 source channel	H’00000001 to H’00000008（1 to 8）	3	-
		001B	CH4 source channel	H’00000001 to H’00000008（1 to 8）	4	-
		001C	CH5 source channel	H’00000001 to H’00000008（1 to 8）	5	-
		001D	CH6 source channel	H’00000001 to H’00000008（1 to 8）	6	-
		001E	CH7 source channel	H’00000001 to H’00000008（1 to 8）	7	-
		001F	CH8 source channel	H’00000001 to H’00000008（1 to 8）	8	-
		0020	CT1 heater burnout detection value	H’00000000 to H’000000A5（0 to 165）	0	A or %
		0021	CT2 heater burnout detection value	H’00000000 to H’000000A5（0 to 165）	0	A or %
		0022	CT3 heater burnout detection value	H’00000000 to H’000000A5（0 to 165）	0	A or %
		0023	CT4 heater burnout detection value	H’00000000 to H’000000A5（0 to 165）	0	A or %
		0024	CT1 SSR short-circuit detection value	H’00000000 to H’000000A5（0 to 165）	165	A or %
		0025	CT2 SSR short-circuit detection value	H’00000000 to H’000000A5（0 to 165）	165	A or %
		0026	CT3 SSR short-circuit detection value	H’00000000 to H’000000A5（0 to 165）	165	A or %
		0027	CT4 SSR short-circuit detection value	H’00000000 to H’000000A5（0 to 165）	165	A or %
		0028	CT1 heater overcurrent detection value	H’00000000 to H’000000A5（0 to 165）	165	A or %
		0029	CT2 heater overcurrent detection value	H’00000000 to H’000000A5（0 to 165）	165	A or %
		002A	CT3 heater overcurrent detection value	H’00000000 to H’000000A5（0 to 165）	165	A or %
		002B	CT4 heater overcurrent detection value	H’00000000 to H’000000A5（0 to 165）	165	A or %
		002C	Offset control	H’00000000（Disabled） H’00000001（Enabled）	1	-
	C3 （83）	0000	Data length *1	H’00000000（7） H’00000001（8）	7	bit
		0001	Stop bits *1	H’00000000（1） H’00000001（2）	2	bit
		0002	Parity *1	H’00000000（None） H’00000001（Even） H’00000002（Odd）	1	-
		0003	Send standby time *1	H’00000000 to H’00000063（0 to 99）	1	ms
		0004	Communications timeout time *1	H’00000000（Disabled） H’00000001 to H’0000003C（1 to 60）	0	min
		0005	Operation at error	H’00000000（Continue with error clear） H’00000001（Continue with no error clear） H’00000002（Stop） *2	0	-
		0006	Offset value	H’00000000 to H’000003E8（0.0 to 100.0）	20.0	%
		0007	Hysteresis	H’00000001 to H’0000000A（1 to 10）	1	A or %
		0008	SSR Drive Selection *1	H’00000000： SSR for single-phase heater with zero cross function: Optimum cycle control H’00000001： SSR for single-phase heater without zero cross function: Soft start optimum cycle control H’00000002： SSR for 3-phase heater (with zero cross function): 3-phase optimum cycle control	0	—
		0009	Current Monitor Display Selection *1	H’00000000（0-50A） H’00000001（0-150A） H’00000002（0-100%）	0	—
		000A	Control Switchover Hysteresis *1	H'00000000 to H'0000012C（0.0 to 30.0）	1.0	%
		000B	Communications timeout time 2 *1	H’00000000（Disabled） H’00000001 to H’00000E10（1 to 3600）	0	s
		000C	CT1 assignment *1	H’00000000（Disabled）	1	-
		000D	CT2 assignment *1	H’00000001（ch1）	2	-
		000E	CT3 assignment *1	H’00000002（ch2）	3	-
		000F	CT4 assignment *1	H’00000003（ch3） H’00000004（ch4）	4	-

* 1：Valid after Software Reset operation command or after power is turned ON.

* 2：Only the channel with the error will stop.

Level	Variable type	Address	Parameter	Setting/monitor range	Default	Unit
	C5 （85）	0000	CH1 Soft Increase Time	H’00000000 to H’000003E7（0.0 to 99.9）	20.0	s
		0001	CH2 Soft Increase Time	H’00000000 to H’000003E7（0.0 to 99.9）	20.0	s
		0002	CH3 Soft Increase Time	H’00000000 to H’000003E7（0.0 to 99.9）	20.0	s
		0003	CH4 Soft Increase Time	H’00000000 to H’000003E7（0.0 to 99.9）	20.0	s
		0004	CH5 Soft Increase Time	H’00000000 to H’000003E7（0.0 to 99.9）	20.0	s
		0005	CH6 Soft Increase Time	H’00000000 to H’000003E7（0.0 to 99.9）	20.0	s
		0006	CH7 Soft Increase Time	H’00000000 to H’000003E7（0.0 to 99.9）	20.0	s
		0007	CH8 Soft Increase Time	H’00000000 to H’000003E7（0.0 to 99.9）	20.0	s
		0008	CH1 Soft Decrease Time	H’00000000 to H’000003E7（0.0 to 99.9）	0.0	s
		0009	CH2 Soft Decrease Time	H’00000000 to H’000003E7（0.0 to 99.9）	0.0	s
		000A	CH3 Soft Decrease Time	H’00000000 to H’000003E7（0.0 to 99.9）	0.0	s
		000B	CH4 Soft Decrease Time	H’00000000 to H’000003E7（0.0 to 99.9）	0.0	s
		000C	CH5 Soft Decrease Time	H’00000000 to H’000003E7（0.0 to 99.9）	0.0	s
		000D	CH6 Soft Decrease Time	H’00000000 to H’000003E7（0.0 to 99.9）	0.0	s
		000E	CH7 Soft Decrease Time	H’00000000 to H’000003E7（0.0 to 99.9）	0.0	s
		000F	CH8 Soft Decrease Time	H’00000000 to H’000003E7（0.0 to 99.9）	0.0	s
		0010	CH1 Control Switchover MV Threshold	H’00000000 to H’000003E8（0.0 to 100.0）	20.0	%
		0011	CH2 Control Switchover MV Threshold	H’00000000 to H’000003E8（0.0 to 100.0）	20.0	%
		0012	CH3 Control Switchover MV Threshold	H’00000000 to H’000003E8（0.0 to 100.0）	20.0	%
		0013	CH4 Control Switchover MV Threshold	H’00000000 to H’000003E8（0.0 to 100.0）	20.0	%
		0014	CH5 Control Switchover MV Threshold	H’00000000 to H’000003E8（0.0 to 100.0）	20.0	%
		0015	CH6 Control Switchover MV Threshold	H’00000000 to H’000003E8（0.0 to 100.0）	20.0	%
		0016	CH7 Control Switchover MV Threshold	H’00000000 to H’000003E8（0.0 to 100.0）	20.0	%
		0017	CH8 Control Switchover MV Threshold	H’00000000 to H’000003E8（0.0 to 100.0）	20.0	%
		0018	CH1 MV at Communications Error	H’00000000 to H’000003E8（0.0 to 100.0）	0.0	%
		0019	CH2 MV at Communications Error	H’00000000 to H’000003E8（0.0 to 100.0）	0.0	%
		001A	CH3 MV at Communications Error	H’00000000 to H’000003E8（0.0 to 100.0）	0.0	%
		001B	CH4 MV at Communications Error	H’00000000 to H’000003E8（0.0 to 100.0）	0.0	%
		001C	CH5 MV at Communications Error	H’00000000 to H’000003E8（0.0 to 100.0）	0.0	%
		001D	CH6 MV at Communications Error	H’00000000 to H’000003E8（0.0 to 100.0）	0.0	%
		001E	CH7 MV at Communications Error	H’00000000 to H’000003E8（0.0 to 100.0）	0.0	%
		001F	CH8 MV at Communications Error	H’00000000 to H’000003E8（0.0 to 100.0）	0.0	%
		0020	Current Error Detection Delay	H’00000000 to H’000000C8（0 to 200）	3	times