

G3ZA 200	Read Data _G3ZA200_ReadVariable1
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Basic Function	Reads data for the specified channel.																												
Symbol		<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; border-right: 1px solid black; padding: 2px;">_G3ZA200_ReadVariable1</td> <td style="width: 33%; padding: 2px;">(BOOL)</td> <td style="width: 33%; padding: 2px;">(BOOL)</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 2px;">EN</td> <td style="padding: 2px;">(INT)</td> <td style="padding: 2px;">ENO</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 2px;">UnitSelect</td> <td style="padding: 2px;">(BOOL)</td> <td style="padding: 2px;">FB_BUSY</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 2px;">PortNo</td> <td style="padding: 2px;">(INT)</td> <td style="padding: 2px;">FB_OK</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 2px;">G3ZANo</td> <td style="padding: 2px;">(BOOL)</td> <td style="padding: 2px;">FB_NG</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 2px;">DataID</td> <td style="padding: 2px;">(INT)</td> <td style="padding: 2px;">Data</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 2px;">ChannelNo</td> <td style="padding: 2px;">(WORD)</td> <td style="padding: 2px;">FinsError</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 2px;"></td> <td style="padding: 2px;">(WORD)</td> <td style="padding: 2px;">Compway/FError1</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 2px;"></td> <td style="padding: 2px;">(WORD)</td> <td style="padding: 2px;">Compway/FError2</td> </tr> </table>	_G3ZA200_ReadVariable1	(BOOL)	(BOOL)	EN	(INT)	ENO	UnitSelect	(BOOL)	FB_BUSY	PortNo	(INT)	FB_OK	G3ZANo	(BOOL)	FB_NG	DataID	(INT)	Data	ChannelNo	(WORD)	FinsError		(WORD)	Compway/FError1		(WORD)	Compway/FError2
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	(WORD)	Compway/FError2																											
File name	Lib\FBL\omronlib\PowerController\G3ZA\Serial_G3ZA200_ReadVariable110.cxf																												
Applicable models	Power Controller	G3ZA																											
	CPU Unit	CS1*-CPU**H Unit version 3.0 or higher CJ1*-CPU**H Unit version 3.0 or higher CJ1M-CPU** Unit version 3.0 or higher CP1H CP1L (except 10 points CPU)																											
	Serial Communications Units/Boards	CS1W-SCU21-V1, CJ1W-SCU21-V1, CJ1W-SCU41-V1 Unit Version 1.2 or higher CS1W-SCB21-V1 and CS1W-SCB41-V1 Unit Version 1.2 or higher																											
	CX-Programmer	Version 5.0 or higher																											
Usage condition	<p>External Connection</p> <ul style="list-style-type: none"> • 1:N connection is possible. <p>Communications Setting</p> <p>The communications setting of a serial port (Serial Gateway) must be identical to that of the Power Controller.</p> <ul style="list-style-type: none"> • The communications setting of the specified serial port can be matched to the default Power Controller setting (the factory shipment value) by using the <i>Set Communication Port</i> (<code>_G3ZA600_SetComm</code>) FB, and also to the settings other than the default setting by using the <i>Set Serial Gateway Mode</i> (<code>_SCx604_SetPortGATEWAY</code>) FB. <p>CPU Unit Setting</p> <p>PLC Setup: <i>Shared Settings for Communications Instructions in FBs</i></p> <ul style="list-style-type: none"> • Communications Instruction Response Timeout (default: 2 s): 5 s or more is recommended. • The number of retries (default: 0). <p>Shared Resource</p> <ul style="list-style-type: none"> • A communication port (an internal logical port) 																												
Descriptions	When a Start Trigger is turned ON, the data specified by Data Type and Channel No. is read. When an error occurs, refer to 1) <i>FINS Error Code</i> , 2) <i>Compway/F Error Code</i> and 3) <i>Compway/F Response Code</i> in this order. When ended normally, both the error code output and response code output become #0000.																												
Precautions	<ul style="list-style-type: none"> • This FB is processed over multiple cycles. The <code>FB_BUSY</code> output variable can be used to check whether the FB is in process. • <code>FB_OK</code> or <code>FB_NG</code> will be turned ON only for one cycle upon a completion of processing. Use these flags to detect a completion of FB processing. <p>Time Chart</p> <p style="text-align: center;">↑ Stores the Read Data in the specified area.</p>																												
EN input condition	Connect EN to the OR between the <i>Start Trigger</i> 's DIFU (differentiate up) and the <code>FB_BUSY</code> output from the FB. See the diagram above.																												
Restrictions Input variable	Always use DIFU (differentiate up) (↑) for EN inputs.																												

<p>Output variable</p>	<ul style="list-style-type: none"> •This FB is processed over multiple cycles. Always connect the OR including the <i>FB_BUSY</i> output variable to the EN input variable so that the processing can be completed. (See <i>Symbol</i>). •Do not turn the <i>FB_BUSY</i> output variable ON or OFF except for FBs. 																																																																																																		
<p>Usages</p>	<p>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 CH3 control variable in the G3ZA (Communication unit No.2) Power Controller is read and stored in D0.</p> <p>Serial Port No.: "1" Unit Selection: "SCB" (#BBBB)</p> <p>SCB CPU SCU</p> <p>G3ZA No 1 G3ZA No 2</p> <p>Reads the CH3 control variable.</p> <table border="1" data-bbox="367 638 1125 1025"> <tr> <td>Bit A</td> <td>↑</td> <td>Unit Selection #BBBB</td> <td>(BOOL)</td> <td>EN</td> <td>(BOOL)</td> <td>FB Busy Flag</td> </tr> <tr> <td>Bit B</td> <td>↑</td> <td>Serial Port No. &1</td> <td>(INT)</td> <td>UnitSelect</td> <td>(BOOL)</td> <td>Bit B</td> </tr> <tr> <td>Bit C</td> <td>↑</td> <td>Communication Unit No. &2</td> <td>(INT)</td> <td>PortNo</td> <td>(BOOL)</td> <td>FB Normal End</td> </tr> <tr> <td></td> <td></td> <td>Data Type &0</td> <td>(INT)</td> <td>G3ZANo</td> <td>(BOOL)</td> <td>Bit C</td> </tr> <tr> <td></td> <td></td> <td>Channel No. &3</td> <td>(INT)</td> <td>DataID</td> <td>(BOOL)</td> <td>FB Error End</td> </tr> <tr> <td></td> <td></td> <td></td> <td>(INT)</td> <td>ChannelNo</td> <td>(INT)</td> <td>Bit D</td> </tr> <tr> <td></td> <td></td> <td></td> <td>(WORD)</td> <td>FINSError</td> <td>(WORD)</td> <td>Read Data</td> </tr> <tr> <td></td> <td></td> <td></td> <td>(WORD)</td> <td>Compway/FError1</td> <td>(WORD)</td> <td>D0</td> </tr> <tr> <td></td> <td></td> <td></td> <td>(WORD)</td> <td>Compway/FError2</td> <td>(WORD)</td> <td>Fins Error End</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>D100</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Compway/F Error Code</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>D101</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Compway/F Response Code</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>D102</td> </tr> </table> <p>Processing after reading data.</p>	Bit A	↑	Unit Selection #BBBB	(BOOL)	EN	(BOOL)	FB Busy Flag	Bit B	↑	Serial Port No. &1	(INT)	UnitSelect	(BOOL)	Bit B	Bit C	↑	Communication Unit No. &2	(INT)	PortNo	(BOOL)	FB Normal End			Data Type &0	(INT)	G3ZANo	(BOOL)	Bit C			Channel No. &3	(INT)	DataID	(BOOL)	FB Error End				(INT)	ChannelNo	(INT)	Bit D				(WORD)	FINSError	(WORD)	Read Data				(WORD)	Compway/FError1	(WORD)	D0				(WORD)	Compway/FError2	(WORD)	Fins Error End							D100							Compway/F Error Code							D101							Compway/F Response Code							D102
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<p>Related manuals</p>	<p>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</p> <p>FINS Error code CS/CJ Series Communications Commands Reference Manual (W342-E1) 5-1-3 End Codes</p>																																																																																																		

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. Only serial port 2 of CP1H/CP1L M-type CPU unit is possible to use this FB. <ul style="list-style-type: none"> ■ Connected to CPU Unit <ul style="list-style-type: none"> Unit selection #FFFF Serial port No. Not accessed. (CP1H/CP1L-M: Serial Port2 CP1L-L14/20: Serial Port1) ■ Connected to Serial Communication Board(SCB) <ul style="list-style-type: none"> Unit selection #BBBB Serial port No. &1: Serial Port 1 &2: Serial Port 2 ■ Connected to Serial Communication Unit(SCU) <ul style="list-style-type: none"> Unit selection SCU Unit No. (&0 to &15) Serial port No. &1: Serial Port 1 &2: Serial Port 2
Serial Port No.	PortNo	INT	&1	&1 to &2	
Communication Unit No.	G3ZANo	INT	&0	&0 to &31	Specifies the communication unit No. of G3ZA.
Data Type	DataID	INT	&0	&0 to &10	Specifies the data type to be read. &0: Control variable &1: Status &2: Manipulated variable &3: Slope &4: Offset &5: Source channel &6: Heater burnout detection value &7: Heater ON current &8: Heater OFF current &9: SSR short-circuit detection value &10: Heater overcurrent detection value
Channel No.	ChannelNo	INT	&1	&1 to &8	Specifies the channel No.

Output Variable

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.
Read Data	Data	INT		Outputs the read data.
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 <i>CS/CJ Series Communications Commands Reference Manual (W342-E1)</i> .
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.

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 frame 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	2006.08	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.