

Programmable Controller

MELSEC iQ-R

MELSEC iQ-R DeviceNet Master/Slave Module Function Block Reference

SAFETY PRECAUTIONS

(Read these precautions before using Mitsubishi Electric programmable controllers.)

Before using the products described under "Relevant products", please read this manual and the relevant manuals carefully and pay full attention to safety to handle the products correctly.

The precautions given in this manual are concerned with the products only. For the safety precautions of the programmable controller system, refer to the MELSEC iQ-R Module Configuration Manual.

In this manual, the safety precautions are classified into two levels: " MARNING" and " CAUTION".

Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.
Indicates that incorrect handling may cause hazardous conditions, resulting in minor or moderate injury or property damage.

Under some circumstances, failure to observe the precautions given under "A CAUTION" may lead to serious consequences.

Observe the precautions of both levels because they are important for personal and system safety.

Make sure that the end users read this manual and then keep the manual in a safe place for future reference.

CONDITIONS OF USE FOR THE PRODUCT

(1) MELSEC programmable controller ("the PRODUCT") shall be used in conditions;

i) where any problem, fault or failure occurring in the PRODUCT, if any, shall not lead to any major or serious accident; and

ii) where the backup and fail-safe function are systematically or automatically provided outside of the PRODUCT for the case of any problem, fault or failure occurring in the PRODUCT.

(2) The PRODUCT has been designed and manufactured for the purpose of being used in general industries. MITSUBISHI ELECTRIC SHALL HAVE NO RESPONSIBILITY OR LIABILITY (INCLUDING, BUT NOT LIMITED TO ANY AND ALL RESPONSIBILITY OR LIABILITY BASED ON CONTRACT, WARRANTY, TORT, PRODUCT LIABILITY) FOR ANY INJURY OR DEATH TO PERSONS OR LOSS OR DAMAGE TO PROPERTY CAUSED BY the PRODUCT THAT ARE OPERATED OR USED IN APPLICATION NOT INTENDED OR EXCLUDED BY INSTRUCTIONS, PRECAUTIONS, OR WARNING CONTAINED IN MITSUBISHI ELECTRIC USER'S, INSTRUCTION AND/OR SAFETY MANUALS, TECHNICAL BULLETINS AND GUIDELINES FOR the PRODUCT. ("Prohibited Application")

Prohibited Applications include, but not limited to, the use of the PRODUCT in;

- Nuclear Power Plants and any other power plants operated by Power companies, and/or any other cases in which the public could be affected if any problem or fault occurs in the PRODUCT.
- Railway companies or Public service purposes, and/or any other cases in which establishment of a special quality assurance system is required by the Purchaser or End User.
- Aircraft or Aerospace, Medical applications, Train equipment, transport equipment such as Elevator and Escalator, Incineration and Fuel devices, Vehicles, Manned transportation, Equipment for Recreation and Amusement, and Safety devices, handling of Nuclear or Hazardous Materials or Chemicals, Mining and Drilling, and/or other applications where there is a significant risk of injury to the public or property.

Notwithstanding the above restrictions, Mitsubishi Electric may in its sole discretion, authorize use of the PRODUCT in one or more of the Prohibited Applications, provided that the usage of the PRODUCT is limited only for the specific applications agreed to by Mitsubishi Electric and provided further that no special quality assurance or fail-safe, redundant or other safety features which exceed the general specifications of the PRODUCTs are required. For details, please contact the Mitsubishi Electric representative in your region.

(3) Mitsubishi Electric shall have no responsibility or liability for any problems involving programmable controller trouble and system trouble caused by DoS attacks, unauthorized access, computer viruses, and other cyberattacks.

INTRODUCTION

Thank you for purchasing the Mitsubishi Electric MELSEC iQ-R series programmable controllers.

This manual describes the module function blocks for the relevant products listed below.

Before using the products, please read this manual and the relevant manuals carefully and develop familiarity with the functions and performance of the MELSEC iQ-R series programmable controller to handle the products correctly.

When applying the program examples provided in this manual to an actual system, ensure the applicability and confirm that it will not cause system control problems.

Please make sure that the end users read this manual.

Relevant product

RJ71DN91

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 $\mathsf{DeviceNet}^{^{(\!\!R\!)}}$ is described as $\mathsf{DeviceNet}$ in this reference.

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RELEVANT MANUALS

Manual name [manual number]	Description	Available form
MELSEC iQ-R DeviceNet Master/Slave Module Function Block Reference [BCN-P5999-0842] (this manual)	Function blocks used for modules of DeviceNet master/slave module	e-Manual PDF
MELSEC iQ-R DeviceNet Master/Slave Module	Specifications, procedures before operation, system configuration, wiring, and	Print book
User's Manual (Startup) [SH-081765ENG]	communication examples of the DeviceNet master/slave module	e-Manual PDF
MELSEC iQ-R DeviceNet Master/Slave Module	Functions, parameter settings, programming, troubleshooting, I/O signals, and	Print book
User's Manual (Application) [SH-081767ENG]	buffer memory of the DeviceNet master/slave module	e-Manual PDF

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e-Manual refers to the Mitsubishi Electric FA electronic book manuals that can be browsed using a dedicated tool.

e-Manual has the following features:

- Required information can be cross-searched in multiple manuals.
- Other manuals can be accessed from the links in the manual.
- The hardware specifications of each part can be found from the product figures.
- Pages that users often browse can be bookmarked.
- Sample programs can be copied to an engineering tool.

······································	Unless otherwise s	pecified,	this manual	uses the	following	terms.
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Term	Description
Buffer memory	Memory in an intelligent function module to store data such as setting values and monitor values. For CPU modules, it refers to memory to store data such as setting values and monitor values of the Ethernet function, or data used for data communication of the multiple CPU system function.
Device	A memory of a CPU module to store data. Devices such as X, Y, M, D, and others are provided depending on the intended use.
Engineering tool	A tool used for setting up programmable controllers, programming, debugging, and maintenance.
Global label	A label that is valid for all the program data when multiple program data are created in the project. There are two types of global label: a module specific label (module label), which is generated automatically by GX Works3, and an optional label, which can be created for any specified device.
Master station	A station that controls the entire network. This station can perform cyclic transmission and transient transmission with all stations. Only one master station can be used in a network.
Module label	A label that represents one of memory areas (I/O signals and buffer memory areas) specific to each module in a given character string. For the module used, GX Works3 automatically generates this label, which can be used as a global label.

GENERIC TERMS AND ABBREVIATIONS

Unless otherwise specified, this manual uses the following generic terms and abbreviations.

Generic term/abbreviation	Description
CPU module	A generic term for the MELSEC iQ-R series CPU modules

1 OVERVIEW

The FBs listed in this reference are module FBs (for GX Works3) to use the MELSEC iQ-R DeviceNet master/slave module.

1.1 Function Block (FB) List

This section lists the module FBs described in this reference. An FB name ends in the FB version information such as "_00A"; however, this reference manual leaves out it.

Name	Description
M+RJ71DN91_MasterRead	Reads data from master function receive data areas of a specified module while maintaining data consistency.
M+RJ71DN91_MasterWrite	Writes data to master function transmit data areas of a specified module while maintaining data consistency.
M+RJ71DN91_SlaveRead	Reads data from slave function receive data areas of a specified module while maintaining data consistency.
M+RJ71DN91_SlaveWrite	Writes data to slave function transmit data areas of a specified module while maintaining data consistency.
M+RJ71DN91_ReadParam	Reads parameters from buffer memory areas of a specified module.
M+RJ71DN91_WriteParam	Writes parameters to buffer memory areas of a specified module.

1.2 How to Obtain

Module FBs are installed at the same time as installing GX Works3; however, the module FBs in this reference may not be installed with some versions of GX Works3. It is recommended to install the latest version of GX Works3.

1.3 System Configuration

The following shows the system configuration for using the module FBs in this reference.



(1) Power supply module

(2) CPU module

- (3) RJ71DN91 (master station)
- (4) RJ71DN91 (slave station)

For the specifications of modules to be used, refer to the user's manual for each module.

2 DEVICENET MASTER/SLAVE MODULE FB

2.1 M+RJ71DN91_MasterRead

Name

M+RJ71DN91_MasterRead

Overview

Item	Description				
Functional overview	Reads data from master function receive data areas of a specified module while maintaining data consistency.				
Symbol	$ \begin{array}{c} M+RJ71DN91_MasterRead \\ (1) & H=1 \\ B: i_bEN & o_bENO: B \\ (2) & DUT: i_stModule & o_bOK: B \\ (3) & UW: i_uTargetAddress & o_bErr: B \\ (4) & UW: i_uDataLength & o_uReadData: UW \\ \end{array} $				

Labels

■Input arguments

No.	Variable name	Name	Data type	Scope	Description
(1)	i_bEN	Execution command	Bit	OFF, ON	On: The module FB is activated. Off: The module FB is not activated.
(2)	i_stModule	Module label	Structure	—	Specify a module for which the FB is to be executed. Specify the module label of the module.
(3)	i_uTargetAddress	Read data start address	Word [unsigned]/bit string [16 bits]	0700H to 07FFH	Specify the start address of data to be read.
(4)	i_uDataLength	Read data length	Word [unsigned]/bit string [16 bits]	001H to 100H	Specify the number of words to be read.

■Output arguments

No.	Variable name	Name	Data type	Default value	Description
(5)	o_bENO	Execution status	Bit	OFF	On: In execution Off: Not in execution
(6)	o_bOK	Normal completion	Bit	OFF	The on state indicates that the module FB processing has been completed successfully.
(7)	o_bErr	Error completion	Bit	OFF	The on state indicates that the module FB processing has been completed with an error.
(8)	o_uReadData	Read data storage device	Word [unsigned]/bit string [16 bits]	_	Specify the start number of the device for storing the read data. The following cannot be specified as an argument. Specifying any of the following may cause a CPU error (2820H: Device/ label/buffer memory specification incorrect). • Dynamically specified array elements (Example: wLabel[D0]) • Digit-specified labels (Example: K4bLabel) • Indirectly specified devices (Example: @W0) • Local devices (Example: #D0)

FB details						
Item	Description					
Available device	Target module		RJ71DN91			
	CPU module		RCPU			
	Engineering tool		GX Works3			
Language	Ladder diagram					
Number of basic steps	The number of steps of the FB embedded in a program depends on the CPU module used, the input/output definitions, and the options setting of GX Works3. For the options setting of GX Works3, refer to the GX Works3 Operating Manual.					
Processing	When i_bEN (Execution command) is turned on, this FB reads data from master function receive data areas of a specified module while maintaining data consistency.					
FB compilation method	Macro type					
FB operation	Any-time execution type					
Input condition for FB_EN	None					
Timing chart of I/O signals	When the operation is completed succ	cessfully				
	i_bEN	OFF ON				
	o_bENO	OFF ON				
	Processing of data acquisition	rocessing of data acquisition				
	o_bOK	OFF				
	o_uReadData					
	o_bErr	OFF				
	When the operation is completed with an error (same as for the case of a module error)					
	o_bENO					
	Processing of data acquisition	(1) (2) (1)				
	o_bOK	OFF				
	o_bErr					
	 (1) Processing not performed (2) Processing being performed (3) Obtained value 1 (4) Obtained value 2 					
Precautions	 This FB does not include the error recorrequired system operation. This FB uses the G.DNTMRD instruct Turn off i_bEN (Execution command), (Execution command), o_bOK (Normation of the FB cannot be used in an interrupt If more than one of this FB is used, since the term of term of term of term of term of term of the term of term of term of term of term of the term of term o	overy processing. Program f ion. after o_bOK (Normal comple al completion) and o_bErr (E program. nultaneous execution is not	the error recovery processing separately in accordance with the etion) or o_bErr (Error completion) turns on. By turning off i_bEN irror completion) are turned off. possible.			

There is no operation parameter applicable to $M+RJ71DN91_MasterRead$.

M+RJ71DN91_MasterWrite

Overview

Item	Description				
Functional overview	Writes data to master function transmit data areas of a specified module while maintaining data consistency.				
Symbol	$\begin{array}{c cccc} & & & & & & & & \\ \hline M+RJ71DN91_MasterWrite & & & & & \\ \hline (1) & & & & & & \\ B: i_bEN & & & & & & \\ \hline (2) & & & & & & \\ DUT: i_stModule & & & & & \\ \hline DUT: i_stModule & & & & \\ \hline (3) & & & & & & \\ UW: i_uTargetAddress & & & & & \\ \hline (4) & & & & & & \\ \hline (4) & & & & & & \\ \hline (4) & & & & & & \\ \hline (4) & & & & & & \\ \hline (5) & & & & & & \\ UW: i_uDataLength & & & & \\ \hline \end{array}$				

Labels

■Input arguments

No.	Variable name	Name	Data type	Scope	Description
(1)	i_bEN	Execution command	Bit	OFF, ON	On: The module FB is activated. Off: The module FB is not activated.
(2)	i_stModule	Module label	Structure	—	Specify a module for which the FB is to be executed. Specify the module label of the module.
(3)	i_uTargetAddress	Write destination start address	Word [unsigned]/bit string [16 bits]	0900H to 09FFH	Specify the start address where data is to be written.
(4)	i_uWriteData	Write data storage device	Word [unsigned]/bit string [16 bits]	_	 Specify the start number of the device where write data is stored. The following cannot be specified as an argument. Specifying any of the following may cause a CPU error (2820H: Device/label/buffer memory specification incorrect). Dynamically specified array elements (Example: wLabel[D0]) Digit-specified labels (Example: K4bLabel) Indirectly specified devices (Example: @W0) Local devices (Example: #D0)
(5)	i_uDataLength	Write data length	Word [unsigned]/bit string [16 bits]	001H to 100H	Specify the number of words to be written.

No.	Variable name	Name	Data type	Default value	Description
(6)	o_bENO	Execution status	Bit	OFF	On: In execution Off: Not in execution
(7)	o_bOK	Normal completion	Bit	OFF	The on state indicates that the module FB processing has been completed successfully.
(8)	o_bErr	Error completion	Bit	OFF	The on state indicates that the module FB processing has been completed with an error.

Item	Description		
Available device	Target module		RJ71DN91
	CPU module		RCPU
	Engineering tool		GX Works3
anguage	Ladder diagram		
Number of basic steps	The number of steps of the FB embedde setting of GX Works3. For the options setting of GX Works3, re	ed in a program depends on efer to the GX Works3 Opera	the CPU module used, the input/output definitions, and the options
Processing	When i_bEN (Execution command) is tu maintaining data consistency.	rned on, this FB writes data	to master function transmit data areas of a specified module while
B compilation nethod	Macro type		
B operation	Any-time execution type		
nput condition for ⁻ B_EN	None		
Fiming chart of I/O	When the operation is completed succ	cessfully	
Janua	i_bEN	OFF ON	
	o_bENO	OFF	ON
	Processing of data writing	(1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (2) (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2	1) (2) (1)
	o_bOK	OFF	
	i_uWriteData	(3)	(4)
	o_bErr	OFF	
	When the operation is completed with	an error (same as for the ca	ase of a module error)
	i_bEN		<u>}</u>
	o_bENO		
	Processing of data writing	(1) OFF (2) (1	1)
	o_bOK	OFF	
	i_uWriteData		
	o_bErr	OFF	
	 (1) Processing not performed (2) Processing being performed (3) Write value 1 (4) Write value 2 		
Precautions	 This FB does not include the error required system operation. This FB uses the G.DNTMWR instruct Turn off i_bEN (Execution command) (Execution command), o_bOK (Normational) The FB cannot be used in an interrup If more than one of this FB is used, si 	covery processing. Program f tion. after o_bOK (Normal comple al completion) and o_bErr (E t program. multaneous execution is not	the error recovery processing separately in accordance with the etion) or o_bErr (Error completion) turns on. By turning off i_bEN irror completion) are turned off. possible.

There is no operation parameter applicable to M+RJ71DN91_MasterWrite.

M+RJ71DN91_SlaveRead

Overview

Item	Description
Functional overview	Reads data from slave function receive data areas of a specified module while maintaining data consistency.
Symbol	$\begin{array}{c} M+RJ71DN91_SlaveRead \\ (1) & H=1 \\ B: i_bEN & o_bENO: B \\ (2) & DUT: i_stModule & o_bOK: B \\ (3) & UW: i_uTargetAddress & o_bErr: B \\ (4) & UW: i_uDataLength & o_uReadData: UW \\ \end{array}$

Labels

■Input arguments

No.	Variable name	Name	Data type	Scope	Description
(1)	i_bEN	Execution command	Bit	OFF, ON	On: The module FB is activated. Off: The module FB is not activated.
(2)	i_stModule	Module label	Structure	—	Specify a module for which the FB is to be executed. Specify the module label of the module.
(3)	i_uTargetAddress	Read data start address	Word [unsigned]/bit string [16 bits]	0B00H to 0B3FH	Specify the start address of data to be read.
(4)	i_uDataLength	Read data length	Word [unsigned]/bit string [16 bits]	001H to 40H	Specify the number of words to be read.

No.	Variable name	Name	Data type	Default value	Description
(5)	o_bENO	Execution status	Bit	OFF	On: In execution Off: Not in execution
(6)	o_bOK	Normal completion	Bit	OFF	The on state indicates that the module FB processing has been completed successfully.
(7)	o_bErr	Error completion	Bit	OFF	The on state indicates that the module FB processing has been completed with an error.
(8)	o_uReadData	Read data storage device	Word [unsigned]/bit string [16 bits]	_	 Specify the start number of the device for storing the read data. The following cannot be specified as an argument. Specifying any of the following may cause a CPU error (2820H: Device/label/buffer memory specification incorrect). Dynamically specified array elements (Example: wLabel[D0]) Digit-specified labels (Example: K4bLabel) Indirectly specified devices (Example: @W0) Local devices (Example: #D0)

FB details		
Item	Description	
Available device	Target module	RJ71DN91
	CPU module	RCPU
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	The number of steps of the FB embedded in a program depends on setting of GX Works3. For the options setting of GX Works3, refer to the GX Works3 Opera	the CPU module used, the input/output definitions, and the options ting Manual.
Processing	When i_bEN (Execution command) is turned on, this FB reads data t maintaining data consistency.	from slave function receive data areas of a specified module while
FB compilation method	Macro type	
FB operation	Any-time execution type	
Input condition for FB_EN	None	
Timing chart of I/O signals	For details, refer to the following.	
Precautions	 This FB does not include the error recovery processing. Program t required system operation. This FB uses the G.DNTSRD instruction. Turn off i_bEN (Execution command) after o_bOK (Normal complet (Execution command), o_bOK (Normal completion) and o_bErr (E The FB cannot be used in an interrupt program. If more than one of this FB is used, simultaneous execution is not 	he error recovery processing separately in accordance with the etion) or o_bErr (Error completion) turns on. By turning off i_bEN rror completion) are turned off. possible.

There is no operation parameter applicable to M+RJ71DN91_SlaveRead.

M+RJ71DN91_SlaveWrite

Overview

Item	Description
Functional overview	Writes data to slave function transmit data areas of a specified module while maintaining data consistency.
Symbol	$\begin{array}{c} M+RJ71DN91_SlaveWrite\\ (1) & H=1\\ B: i_bEN & o_bENO: B\\ (2) & DUT: i_stModule & o_bOK: B\\ (3) & UW: i_uTargetAddress & o_bErr: B\\ (4) & UW: i_uWriteData\\ (5) & UW: i_uDataLength \end{array}$

Labels

■Input arguments

No.	Variable name	Name	Data type	Scope	Description
(1)	i_bEN	Execution command	Bit	OFF, ON	On: The module FB is activated. Off: The module FB is not activated.
(2)	i_stModule	Module label	Structure	—	Specify a module for which the FB is to be executed. Specify the module label of the module.
(3)	i_uTargetAddress	Write destination start address	Word [unsigned]/bit string [16 bits]	0C00H to 0C3FH	Specify the start address where data is to be written.
(4)	i_uWriteData	Write data storage device	Word [unsigned]/bit string [16 bits]	_	 Specify the start number of the device where write data is stored. The following cannot be specified as an argument. Specifying any of the following may cause a CPU error (2820H: Device/label/buffer memory specification incorrect). Dynamically specified array elements (Example: wLabel[D0]) Digit-specified labels (Example: K4bLabel) Indirectly specified devices (Example: @W0) Local devices (Example: #D0)
(5)	i_uDataLength	Write data length	Word [unsigned]/bit string [16 bits]	001H to 40H	Specify the number of words to be written.

No.	Variable name	Name	Data type	Default value	Description
(6)	o_bENO	Execution status	Bit	OFF	On: In execution Off: Not in execution
(7)	o_bOK	Normal completion	Bit	OFF	The on state indicates that the module FB processing has been completed successfully.
(8)	o_bErr	Error completion	Bit	OFF	The on state indicates that the module FB processing has been completed with an error.

FB details		
Item	Description	
Available device	Target module	RJ71DN91
	CPU module	RCPU
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	The number of steps of the FB embedded in a program depends on setting of GX Works3. For the options setting of GX Works3, refer to the GX Works3 Opera	the CPU module used, the input/output definitions, and the options ting Manual.
Processing	When i_bEN (Execution command) is turned on, this FB writes data maintaining data consistency.	to slave function transmit data areas of a specified module while
FB compilation method	Macro type	
FB operation	Any-time execution type	
Input condition for FB_EN	None	
Timing chart of I/O signals	For details, refer to the following.	
Precautions	 This FB does not include the error recovery processing. Program t required system operation. This FB uses the G.DNTSWR instruction. Turn off i_bEN (Execution command) after o_bOK (Normal complet (Execution command), o_bOK (Normal completion) and o_bErr (E The FB cannot be used in an interrupt program. If more than one of this FB is used, simultaneous execution is not 	he error recovery processing separately in accordance with the etion) or o_bErr (Error completion) turns on. By turning off i_bEN rror completion) are turned off.

There is no operation parameter applicable to M+RJ71DN91_SlaveWrite.

M+RJ71DN91_ReadParam

Overview

•••••		
Item	Description	
Functional overview	Reads parameters from buffer memo	ry areas of a specified module.
Symbol	M+RJ71DN91_ (1) — B : i_bEN (2) — DUT : i_stModule	_ReadParam o_bENO : B (3) o_bOK : B (4) o_bErr : B (5) o_uReadDataLength : UW (6) o_uReadData : UW (7)

Labels

■Input arguments

No.	Variable name	Name	Data type	Scope	Description
(1)	i_bEN	Execution command	Bit	OFF, ON	On: The module FB is activated. Off: The module FB is not activated.
(2)	i_stModule	Module label	Structure	—	Specify a module for which the FB is to be executed. Specify the module label of the module.

No.	Variable name	Name	Data type	Default value	Description
(3)	o_bENO	Execution status	Bit	OFF	On: In execution Off: Not in execution
(4)	o_bOK	Normal completion	Bit	OFF	The on state indicates that the module FB processing has been completed successfully.
(5)	o_bErr	Error completion	Bit	OFF	The on state indicates that the module FB processing has been completed with an error.
(6)	o_uReadDataLength	Read data length	Word [unsigned]/bit string [16 bits]	0	The data length of the read data is stored.
(7)	o_uReadData	Read data storage device	Word [unsigned]/bit string [16 bits]	—	 Specify the start number of the device for storing the read data. The following cannot be specified as an argument. Specifying any of the following may cause a CPU error (2820H: Device/label/buffer memory specification incorrect). Dynamically specified array elements (Example: wLabel[D0]) Digit-specified labels (Example: K4bLabel) Indirectly specified devices (Example: @W0) Local devices (Example: #D0)

FB details						
Item	Description					
Available device	Target module	RJ71DN91				
	CPU module	RCPU				
	Engineering tool	GX Works3				
Language	Ladder diagram					
Number of basic steps	The number of steps of the FB embedded in a program depends on the CPU module used, the input/output definitions, and the options setting of GX Works3. For the options setting of GX Works3, refer to the GX Works3 Operating Manual.					
Processing	 When i_bEN (Execution command) is turned on, this FB reads parameters from buffer memory areas of a specified module. The following shows the read-target areas of parameters, which are to be stored in the flash ROM. Parameter for master function Setting for the number of slave function receive bytes Setting for the number of slave function transmit bytes Auto communication start setting Operation setting for bus off error Setting for data consistency 					
FB compilation method	Macro type					
FB operation	Pulse type (single-scan execution type)					
Input condition for FB_EN	None					
Timing chart of I/O signals	When the operation is completed successfully					
	i_bEN OFF ON					
	o_bENO	ON				
	o_bOK					
	o_bErr					
	When the operation is completed with an error (same as for the case of a module error)					
	i_bEN					
	o_bENO					
	o_bOK	ON				
	o_bErr					
Precautions	 This FB does not include the error recovery processir required system operation. Turn off i_bEN (Execution command) after o_bOK (N (Execution command), o_bOK (Normal completion) a Parameters cannot be read partially. The read-target 	g. Program the error recovery processing separately in accordance with the ormal completion) or o_bErr (Error completion) turns on. By turning off i_bEN and o_bErr (Error completion) are turned off. oarameters of the total size are always read.				

There is no operation parameter applicable to M+RJ71DN91_ReadParam.

M+RJ71DN91_WriteParam

Overview

Item	Description			
Functional overview	Writes parameters to buffer memory areas of a specified module.			
Symbol	M+RJ71DN91_W (1) — B : i_bEN (2) — DUT : i_stModule (3) — UW : i_uWriteData (4) — UW : i_uDataLength	VriteParam o_bENO : B (5) o_bOK : B (6) o_bErr : B (7)		

Labels

■Input arguments

No.	Variable name	Name	Data type	Scope	Description
(1)	i_bEN	Execution command	Bit	OFF, ON	On: The module FB is activated. Off: The module FB is not activated.
(2)	i_stModule	Module label	Structure	—	Specify a module for which the FB is to be executed. Specify the module label of the module.
(3)	i_uWriteData	Write data storage device	Word [unsigned]/bit string [16 bits]	_	 Specify the start number of the device where write data is stored. The following cannot be specified as an argument. Specifying any of the following may cause a CPU error (2820H: Device/label/buffer memory specification incorrect). Dynamically specified array elements (Example: wLabel[D0]) Digit-specified labels (Example: K4bLabel) Indirectly specified devices (Example: @W0) Local devices (Example: #D0)
(4)	i_uDataLength	Write data length	Word [unsigned]/bit string [16 bits]	_	Specify the size (the number of words) of the write data. Specify the value obtained by using the output argument o_uReadDataLength of M+RJ71DN91_ReadParam. When the specified value does not match the total size of write-target parameters, the processing is completed with an error.

No.	Variable name	Name	Data type	Default value	Description
(5)	o_bENO	Execution status	Bit	OFF	On: In execution Off: Not in execution
(6)	o_bOK	Normal completion	Bit	OFF	The on state indicates that the module FB processing has been completed successfully.
(7)	o_bErr	Error completion	Bit	OFF	The on state indicates that the module FB processing has been completed with an error.

FB details						
Item	Description					
Available device	Target module	RJ71DN91				
	CPU module	RCPU				
	Engineering tool	GX Works3				
Language	Ladder diagram					
Number of basic steps	The number of steps of the FB embedded in a program depends on the CPU module used, the input/output definitions, and the options setting of GX Works3. For the options setting of GX Works3, refer to the GX Works3 Operating Manual.					
Processing	 When i_bEN (Execution command) is turned on, this FB writes parameters to buffer memory areas of a specified module. The following shows the write-target areas of parameters, which are to be stored in the flash ROM. Parameter for master function Setting for the number of slave function receive bytes Setting for the number of slave function transmit bytes Auto communication start setting Operation setting for bus off error Setting for data consistency 					
FB compilation method	Macro type					
FB operation	Pulse type (single-scan execution type)					
Input condition for FB_EN	r None					
Timing chart of I/O signals	When the operation is completed successfully					
	i_bEN					
	o_bENO					
	o_bOK					
	o_bErr					
	When the operation is completed with an error (same as for the case of a module error)					
	i_bEN					
	o_bENO					
	o_bOK	<u>ON</u>				
	o_bErr					
Precautions	 This FB does not include the error recovery processing. Progrequired system operation. Turn off i_bEN (Execution command) after o_bOK (Normal c (Execution command), o_bOK (Normal completion) and o_b Parameters cannot be written partially. The write-target parameters cannot be written partially. 	gram the error recovery processing separately in accordance with the ompletion) or o_bErr (Error completion) turns on. By turning off i_bEN Err (Error completion) are turned off. meters of the total size are always written.				

There is no operation parameter applicable to M+RJ71DN91_WriteParam.

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