



Programmable Controller

MELSEC iQ-R
series

MELSEC iQ-R High-Speed Counter Module
Function Block Reference

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1 FUNCTION BLOCK (FB) LIST

This chapter lists the FBs for the MELSEC iQ-R series high-speed counter module.

Name*1	Description
M+RD62_SetRingCounter	Sets the ring counter upper/lower limit values for a specified channel.
M+RD62_CountEnable	Executes the count operation (Count start/stop) on a specified channel or all channels.
M+RD62_SetCoincidenceOutput	Sets coincidence output points of a specified channel and resets the counter value coincident.
M+RD62_CoincidenceOutputEnable	Enables the external coincidence output of a specified channel or all channels.
M+RD62_PresetOperation	Presets the current value.
M+RD62_CountDisableOperation	Executes the count disable function on a specified channel or all channels.
M+RD62_LatchCounterOperation	Executes the latch counter function.
M+RD62_SamplingOperation	Executes the sampling counter function.
M+RD62_PeriodicPulseCounter	Executes the cycle pulse counter function.
M+RD62_PulseMeasure	Starts the pulse measurement function and reads the measured pulse value.
M+RD62_PWMOutput	Executes the PWM output function.
M+RD62_DegreeToCountVal	Calculates count values from angles.

*1 Note that this reference does not describe the FB version information which is displayed such as "_00A" at the end of FB name

2 HIGH-SPEED COUNTER MODULE FB

2.1 M+RD62_SetRingCounter

Name

M+RD62_SetRingCounter

Overview

Item	Description																				
Overview	Sets the ring counter upper/lower limit values for a specified channel.																				
Symbol	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <p style="text-align: center;">M+RD62_SetRingCounter</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: right;">(1)</td> <td style="width: 45%;">B : i_bEN</td> <td style="width: 45%; text-align: left;">o_bENO : B</td> <td style="width: 5%; text-align: right;">(6)</td> </tr> <tr> <td>(2)</td> <td>DUT : i_stModule</td> <td>o_bOK : B</td> <td>(7)</td> </tr> <tr> <td>(3)</td> <td>UW : i_uCH</td> <td>o_bErr : B</td> <td>(8)</td> </tr> <tr> <td>(4)</td> <td>D : i_dRingUpperLimit</td> <td>o_uErrId : UW</td> <td>(9)</td> </tr> <tr> <td>(5)</td> <td>D : i_dRingLowerLimit</td> <td></td> <td></td> </tr> </table> </div>	(1)	B : i_bEN	o_bENO : B	(6)	(2)	DUT : i_stModule	o_bOK : B	(7)	(3)	UW : i_uCH	o_bErr : B	(8)	(4)	D : i_dRingUpperLimit	o_uErrId : UW	(9)	(5)	D : i_dRingLowerLimit		
(1)	B : i_bEN	o_bENO : B	(6)																		
(2)	DUT : i_stModule	o_bOK : B	(7)																		
(3)	UW : i_uCH	o_bErr : B	(8)																		
(4)	D : i_dRingUpperLimit	o_uErrId : UW	(9)																		
(5)	D : i_dRingLowerLimit																				

Labels

Input label

No.	Variable name	Name	Data type	Range	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_stModule	Module label	Structure	The setting range differs depending on the module label.	Specify the module label of the MELSEC iQ-R high-speed counter module.
(3)	i_uCH	Target channel	Word [Unsigned]	1 to 2	Specify the channel number.
(4)	i_dRingUpperLimit	Ring counter upper limit value	Double word [signed]	-2,147,483,648 to 2,147,483,647	Specify the ring counter upper limit value.
(5)	i_dRingLowerLimit	Ring counter lower limit value	Double word [signed]	-2,147,483,648 to 2,147,483,647	Specify the ring counter lower limit value.

Output label

No.	Variable name	Name	Data type	Default value	Description
(6)	o_bENO	Execution status	Bit	Off	On: The execution command is on. Off: The execution command is off.
(7)	o_bOK	Normal completion	Bit	Off	When this label is on, it indicates that setting the ring counter upper/lower limit values has been completed.
(8)	o_bErr	Error completion	Bit	Off	When this label is on, it indicates that an error has occurred in the FB.
(9)	o_uErrId	Error code	Word [Unsigned]	0	Stores the abnormal code generated in the FB.

FB details

Item	Description	
Available device	Target module	RD62P2, RD62D2, RD62P2E
	CPU module	MELSEC iQ-R series CPU modules
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	159 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.	

Item	Description
Processing	<ul style="list-style-type: none"> By turning on i_bEN (Execution command), the set ring counter upper/lower limit values are written to the buffer memory. The operation of this FB is one-shot, triggered by i_bEN (Execution command). If the setting value of the target channel is out of the setting range, o_bErr (Error completion) turns on and the processing of this FB is interrupted. In addition, the error code is stored in o_uErrId (Error code). For the error code, refer to the list of error codes.
FB compilation method	Macro type
FB operation	Pulsed execution (single scan execution type)
Timing chart of I/O signals	<p>■When the operation is completed successfully</p> <p>■When the operation is completed with an error</p>
Restrictions or precautions	<ul style="list-style-type: none"> This FB does not include the error recovery processing. Program the error recovery processing separately in accordance with the required system operation. This FB cannot be used in an interrupt program. Do not use this FB in programs that are executed only once, such as a subroutine program or FOR-NEXT loop, because i_bEN (Execution command) cannot be turned off and the normal operation cannot be acquired. Always use this FB in programs that can turn off i_bEN (Execution command). When this FB is used twice or more, precaution must be taken to avoid duplication of the target channel. Every input must be provided with a value for proper FB operation. While Count enable command (Y signal) is on, the execution of this FB is not completed. (Turn off Count enable command (Y signal).) If the parameter is set using the module parameter of GX Works3, this FB is not required. To operate the RD62P2, RD62D2, or RD62P2E, the setting is required to be configured according to each device and system connected. Set the module parameter of GX Works3 according to the application. For the setting method of the module parameter, refer to MELSEC iQ-R High-Speed Counter Module User's Manual (Application).

Error code

Error code	Description	Action
100H	The specified channel is not valid. The target channel is not within the range of 1 to 2.	Try again after checking the setting.

2.2 M+RD62_CountEnable

Name

M+RD62_CountEnable

Overview

Item	Description
Overview	Executes the count operation (Count start/stop) on a specified channel or all channels.
Symbol	<pre> graph LR subgraph M+RD62_CountEnable direction LR B["(1) B : i_bEN"] DUT["(2) DUT : i_stModule"] UW["(3) UW : i_uCH"] o_bENO["o_bENO : B"] o_bCountStart["o_bCountStart : B"] o_bErr["o_bErr : B"] o_uErrld["o_uErrld : UW"] end B --- o_bENO DUT --- o_bCountStart UW --- o_bErr UW --- o_uErrld </pre>

Labels

Input label

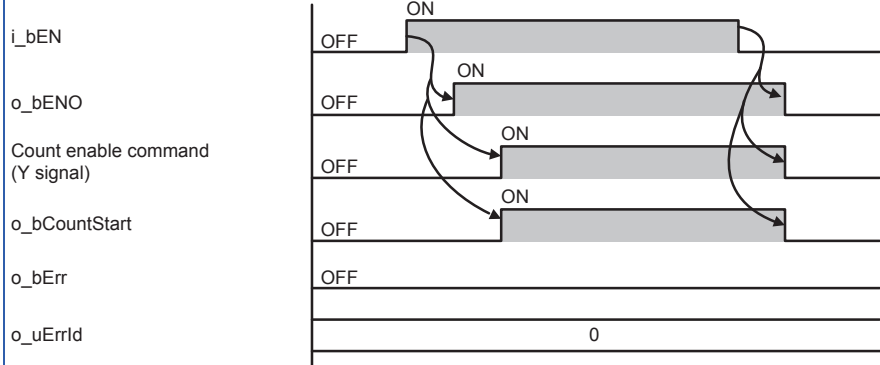
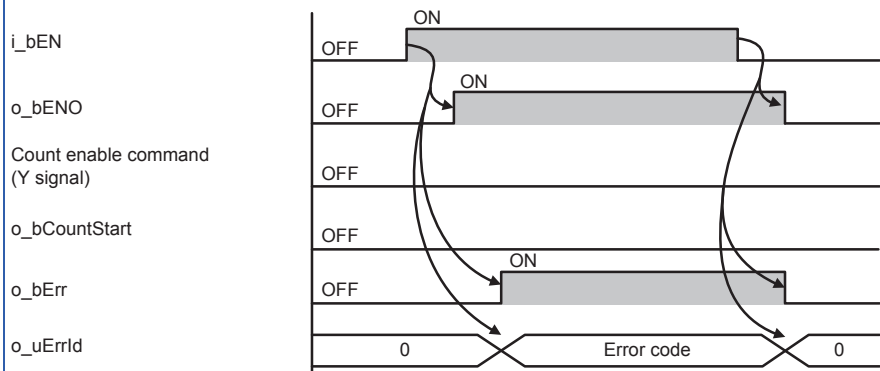
No.	Variable name	Name	Data type	Range	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_stModule	Module label	Structure	The setting range differs depending on the module label.	Specify the module label of the MELSEC iQ-R high-speed counter module.
(3)	i_uCH	Target channel	Word [Unsigned]	1, 2, or 15	1 or 2: Specify the channel number. 15: Specify all the channels.

Output label

No.	Variable name	Name	Data type	Default value	Description
(4)	o_bENO	Execution status	Bit	Off	On: The execution command is on. Off: The execution command is off.
(5)	o_bCountStart	Count in operation flag	Bit	Off	On: Count enable command (X signal) is on. Off: Count enable command (X signal) is off.
(6)	o_bErr	Error completion	Bit	Off	When this label is on, it indicates that an error has occurred in the FB.
(7)	o_uErrld	Error code	Word [Unsigned]	0	Stores the abnormal code generated in the FB.

FB details

Item	Description	
Available device	Target module	RD62P2, RD62D2, RD62P2E
	CPU module	MELSEC iQ-R series CPU modules
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	142 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	<ul style="list-style-type: none"> By turning on or off i_bEN (Execution command), the count operation starts or stops. The operation of this FB is one-shot, triggered by i_bEN (Execution command). If the setting value of the target channel is out of the setting range, o_bErr (Error completion) turns on and the processing of this FB is interrupted. In addition, the error code is stored in o_uErrld (Error code). For the error code, refer to the list of error codes. 	
FB compilation method	Macro type	
FB operation	Always executed	

Item	Description
Timing chart of I/O signals	<p>■When the operation is completed successfully</p>  <p>■When the operation is completed with an error</p> 
Restrictions or precautions	<ul style="list-style-type: none"> • This FB does not include the error recovery processing. Program the error recovery processing separately in accordance with the required system operation. • This FB cannot be used in an interrupt program. • Do not use this FB in programs that are executed only once, such as a subroutine program or FOR-NEXT loop, because i_bEN (Execution command) cannot be turned off and the normal operation cannot be acquired. Always use this FB in programs that can turn off i_bEN (Execution command). • When this FB is used twice or more, precaution must be taken to avoid duplication of the target channel. • Every input must be provided with a value for proper FB operation. • To operate the RD62P2, RD62D2, or RD62P2E, the setting is required to be configured according to each device and system connected. Set the module parameter of GX Works3 according to the application. For the setting method of the module parameter, refer to MELSEC iQ-R High-Speed Counter Module User's Manual (Application).

Error code

Error code	Description	Action
101H	The specified channel is not valid. The target channel is not within the range of 1, 2, or 15.	Try again after checking the setting.

2.3 M+RD62_SetCoincidenceOutput

Name

M+RD62_SetCoincidenceOutput

Overview

Item	Description
Overview	Sets coincidence output points of a specified channel and resets the counter value coincident.
Symbol	<p>The diagram shows a box labeled 'M+RD62_SetCoincidenceOutput'. On the left side, there are seven input lines labeled (1) through (7): (1) B : i_bEN, (2) DUT : i_stModule, (3) UW : i_uCH, (4) B : i_bOutEnableNo1, (5) B : i_bOutEnableNo2, (6) D : i_dSetPointNo1, and (7) D : i_dSetPointNo2. On the right side, there are four output lines labeled (8) through (11): (8) o_bENO : B, (9) o_bOK : B, (10) o_bErr : B, and (11) o_uErrId : UW.</p>

Labels

Input label

No.	Variable name	Name	Data type	Range	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_stModule	Module label	Structure	The setting range differs depending on the module label.	Specify the module label of the MELSEC iQ-R high-speed counter module.
(3)	i_uCH	Target channel	Word [Unsigned]	1 to 2	Specify the channel number.
(4)	i_bOutEnableNo1	Coincidence output No.1 enable	Bit	On or off	On: Coincidence output No.1 is used. Off: Coincidence output No.1 is not used. The operation when this label is on is enabled by turning on i_bEN (Execution command).
(5)	i_bOutEnableNo2	Coincidence output No.2 enable	Bit	On or off	On: Coincidence output No.2 is used. Off: Coincidence output No.2 is not used. The operation when this label is on is enabled by turning on i_bEN (Execution command).
(6)	i_dSetPointNo1	Coincidence output No.1 point	Double word [signed]	-2,147,483,648 to 2,147,483,647	Specify the coincidence output No.1 point value.
(7)	i_dSetPointNo2	Coincidence output No.2 point	Double word [signed]	-2,147,483,648 to 2,147,483,647	Specify the coincidence output No.2 point value.

Output label

No.	Variable name	Name	Data type	Default value	Description
(8)	o_bENO	Execution status	Bit	Off	On: The execution command is on. Off: The execution command is off.
(9)	o_bOK	Normal completion	Bit	Off	When this label is on, it indicates that Counter value coincident (X signal) has been reset.
(10)	o_bErr	Error completion	Bit	Off	When this label is on, it indicates that an error has occurred in the FB.
(11)	o_uErrId	Error code	Word [Unsigned]	0	Stores the abnormal code generated in the FB.

FB details

Item	Description
Available device	Target module RD62P2, RD62D2, RD62P2E
	CPU module MELSEC iQ-R series CPU modules
	Engineering tool GX Works3
Language	Ladder diagram
Number of basic steps	619 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	<ul style="list-style-type: none"> When i_dSetPointNo1 (Coincidence output No.1 point) is used, the function is enabled by turning on i_bOutEnableNo1 (Coincidence output No.1 enable) and i_bEN (Execution command). When i_bOutEnableNo1 (Coincidence output No.1 enable) is not turned on, i_dSetPointNo1 (Coincidence output No.1 point) is not written to the buffer memory and Coincidence signal No.1 reset command (Y signal) does not turn on. (This also applies to the signals for No.2.) To use both No.1 and No.2, turn on both i_bOutEnableNo1 (Coincidence output No.1 enable) and i_bOutEnableNo2 (Coincidence output No.2 enable). By turning on i_bEN (Execution command), this FB writes i_dSetPointNo1 (Coincidence output No.1 point) to the buffer memory and Coincidence signal No.1 reset command (Y signal) turns on. When Counter value coincident (X signal) turns off, Coincidence signal No.1 reset command (Y signal) is turned off. (This also applies to the signals for No.2.) Even though Counter value coincident (X signal) and the external coincidence output are reset using this FB while the current value is the coincidence output point, Counter value coincident (X signal) and the external coincidence output turn on again. The operation of this FB is one-shot, triggered by i_bEN (Execution command). If the setting value of the target channel is out of the setting range, o_bErr (Error completion) turns on and the processing of this FB is interrupted. In addition, the error code is stored in o_uErrId (Error code). For the error code, refer to the list of error codes.
FB compilation method	Macro type
FB operation	Pulse execution (multiple scan execution type)

Item	Description
Timing chart of I/O signals	<p>■When the operation is completed successfully</p> <p>■When the operation is completed with an error</p>
Restrictions or precautions	<ul style="list-style-type: none"> • This FB does not include the error recovery processing. Program the error recovery processing separately in accordance with the required system operation. • This FB cannot be used in an interrupt program. • Do not use this FB in programs that are executed only once, such as a subroutine program or FOR-NEXT loop, because i_bEN (Execution command) cannot be turned off and the normal operation cannot be acquired. Always use this FB in programs that can turn off i_bEN (Execution command). • When this FB is used twice or more, precaution must be taken to avoid duplication of the target channel. • Every input must be provided with a value for proper FB operation. • While Count enable command (Y signal) is on, the execution of this FB is not completed. (Turn off Count enable command (Y signal).) • To operate the RD62P2, RD62D2, or RD62P2E, the setting is required to be configured according to each device and system connected. Set the module parameter of GX Works3 according to the application. For the setting method of the module parameter, refer to MELSEC iQ-R High-Speed Counter Module User's Manual (Application).

Error code

Error code	Description	Action
100H	The specified channel is not valid. The target channel is not within the range of 1 to 2.	Try again after checking the setting.

2.4 M+RD62_CoincidenceOutputEnable

Name

M+RD62_CoincidenceOutputEnable

Overview

Item	Description
Overview	Enables the external coincidence output of a specified channel or all channels.
Symbol	

Labels

Input label

No.	Variable name	Name	Data type	Range	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_stModule	Module label	Structure	The setting range differs depending on the module label.	Specify the module label of the MELSEC iQ-R high-speed counter module.
(3)	i_uCH	Target channel	Word [Unsigned]	1, 2, or 15	1 or 2: Specify the channel number. 15: Specify all the channels.

Output label

No.	Variable name	Name	Data type	Default value	Description
(4)	o_bENO	Execution status	Bit	Off	On: The execution command is on. Off: The execution command is off.
(5)	o_bOK	Normal completion	Bit	Off	When this label is on, it indicates that Coincidence signal enable command (Y signal) is on.
(6)	o_bErr	Error completion	Bit	Off	When this label is on, it indicates that an error has occurred in the FB.
(7)	o_uErrId	Error code	Word [Unsigned]	0	Stores the abnormal code generated in the FB.

FB details

Item	Description	
Available device	Target module	RD62P2, RD62D2, RD62P2E
	CPU module	MELSEC iQ-R series CPU modules
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	143 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	<ul style="list-style-type: none"> By turning on or off i_bEN (Execution command), the coincidence output is enabled or disabled. The operation of this FB is one-shot, triggered by i_bEN (Execution command). If the setting value of the target channel is out of the setting range, o_bErr (Error completion) turns on and the processing of this FB is interrupted. In addition, the error code is stored in o_uErrId (Error code). For the error code, refer to the list of error codes. 	
FB compilation method	Macro type	
FB operation	Pulsed execution (single scan execution type)	

Item	Description
Timing chart of I/O signals	<p>■When the operation is completed successfully</p> <p>■When the operation is completed with an error</p>
Restrictions or precautions	<ul style="list-style-type: none"> • This FB does not include the error recovery processing. Program the error recovery processing separately in accordance with the required system operation. • This FB cannot be used in an interrupt program. • Do not use this FB in programs that are executed only once, such as a subroutine program or FOR-NEXT loop, because i_bEN (Execution command) cannot be turned off and the normal operation cannot be acquired. Always use this FB in programs that can turn off i_bEN (Execution command). • When this FB is used twice or more, precaution must be taken to avoid duplication of the target channel. • Every input must be provided with a value for proper FB operation. • To operate the RD62P2, RD62D2, or RD62P2E, the setting is required to be configured according to each device and system connected. Set the module parameter of GX Works3 according to the application. For the setting method of the module parameter, refer to MELSEC iQ-R High-Speed Counter Module User's Manual (Application).

Error code

Error code	Description	Action
101H	The specified channel is not valid. The target channel is not within the range of 1, 2, or 15.	Try again after checking the setting.

2.5 M+RD62_PresetOperation

Name

M+RD62_PresetOperation

Overview

Item	Description
Overview	Presets the current value.
Symbol	<pre> graph LR subgraph M+RD62_PresetOperation direction LR I1["(1) B : i_bEN"] I2["(2) DUT : i_stModule"] I3["(3) UW : i_uCH"] I4["(4) D : i_dPresetValue"] O5["(5) o_bENO : B"] O6["(6) o_bOK : B"] O7["(7) o_bErr : B"] O8["(8) o_uErrId : UW"] end </pre>

Labels

Input label

No.	Variable name	Name	Data type	Range	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_stModule	Module label	Structure	The setting range differs depending on the module label.	Specify the module label of the MELSEC iQ-R high-speed counter module.
(3)	i_uCH	Target channel	Word [Unsigned]	1 to 2	Specify the channel number.
(4)	i_dPresetValue	Preset value	Double word [signed]	-2,147,483,648 to 2,147,483,647	Specify the preset value.

Output label

No.	Variable name	Name	Data type	Default value	Description
(5)	o_bENO	Execution status	Bit	Off	On: The execution command is on. Off: The execution command is off.
(6)	o_bOK	Normal completion	Bit	Off	When this label is on, it indicates that Preset command (Y signal) is on.
(7)	o_bErr	Error completion	Bit	Off	When this label is on, it indicates that an error has occurred in the FB.
(8)	o_uErrId	Error code	Word [Unsigned]	0	Stores the abnormal code generated in the FB.

FB details

Item	Description	
Available device	Target module	RD62P2, RD62D2, RD62P2E
	CPU module	MELSEC iQ-R series CPU modules
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	165 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	<ul style="list-style-type: none"> By turning on i_bEN (Execution command), the current value is overwritten with i_dPresetValue (Preset value). The operation of this FB is one-shot, triggered by i_bEN (Execution command). If the setting value of the target channel is out of the setting range, o_bErr (Error completion) turns on and the processing of this FB is interrupted. In addition, the error code is stored in o_uErrId (Error code). For the error code, refer to the list of error codes. 	
FB compilation method	Macro type	
FB operation	Pulsed execution (single scan execution type)	

Item	Description
Timing chart of I/O signals	<p>■When the operation is completed successfully</p> <p>■When the operation is completed with an error</p>
Restrictions or precautions	<ul style="list-style-type: none"> • This FB does not include the error recovery processing. Program the error recovery processing separately in accordance with the required system operation. • This FB cannot be used in an interrupt program. • Do not use this FB in programs that are executed only once, such as a subroutine program or FOR-NEXT loop, because i_bEN (Execution command) cannot be turned off and the normal operation cannot be acquired. Always use this FB in programs that can turn off i_bEN (Execution command). • When this FB is used twice or more, precaution must be taken to avoid duplication of the target channel. • Every input must be provided with a value for proper FB operation. • To operate the RD62P2, RD62D2, or RD62P2E, the setting is required to be configured according to each device and system connected. Set the module parameter of GX Works3 according to the application. For the setting method of the module parameter, refer to MELSEC iQ-R High-Speed Counter Module User's Manual (Application).

Error code

Error code	Description	Action
100H	The specified channel is not valid. The target channel is not within the range of 1 to 2.	Try again after checking the setting.

2.6 M+RD62_CountDisableOperation

Name

M+RD62_CountDisableOperation

Overview

Item	Description
Overview	Executes the count disable function on a specified channel or all channels.
Symbol	

Labels

Input label

No.	Variable name	Name	Data type	Range	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_stModule	Module label	Structure	The setting range differs depending on the module label.	Specify the module label of the MELSEC iQ-R high-speed counter module.
(3)	i_uCH	Target channel	Word [Unsigned]	1, 2, or 15	1 or 2: Specify the channel number. 15: Specify all the channels.

Output label

No.	Variable name	Name	Data type	Default value	Description
(4)	o_bENO	Execution status	Bit	Off	On: The execution command is on. Off: The execution command is off.
(5)	o_bDisableStart	Count disable in operation flag	Bit	Off	When this label is on, it indicates that the count disable execution command is on.
(6)	o_bErr	Error completion	Bit	Off	When this label is on, it indicates that an error has occurred in the FB.
(7)	o_uErrId	Error code	Word [Unsigned]	0	Stores the abnormal code generated in the FB.

FB details

Item	Description	
Available device	Target module	RD62P2, RD62D2, RD62P2E
	CPU module	MELSEC iQ-R series CPU modules
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	232 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	<ul style="list-style-type: none"> By turning on i_bEN (Execution command), the count disable function is executed. The operation of this FB is one-shot, triggered by i_bEN (Execution command). If the setting value of the target channel is out of the setting range, o_bErr (Error completion) turns on and the processing of this FB is interrupted. In addition, the error code is stored in o_uErrId (Error code). For the error code, refer to the list of error codes. 	
FB compilation method	Macro type	
FB operation	Pulsed execution (single scan execution type)	

Item	Description
Timing chart of I/O signals	<p>■When the operation is completed successfully</p> <p>■When the operation is completed with an error</p>
Restrictions or precautions	<ul style="list-style-type: none"> • This FB does not include the error recovery processing. Program the error recovery processing separately in accordance with the required system operation. • This FB cannot be used in an interrupt program. • Do not use this FB in programs that are executed only once, such as a subroutine program or FOR-NEXT loop, because i_bEN (Execution command) cannot be turned off and the normal operation cannot be acquired. Always use this FB in programs that can turn off i_bEN (Execution command). • When this FB is used, turn off Counter function selection start command (Y signal). When the signal is on, the count disable function is not executed on the target channel. • When this FB is used twice or more, precaution must be taken to avoid duplication of the target channel. • Every input must be provided with a value for proper FB operation. • To operate the RD62P2, RD62D2, or RD62P2E, the setting is required to be configured according to each device and system connected. Set the module parameter of GX Works3 according to the application. For the setting method of the module parameter, refer to MELSEC iQ-R High-Speed Counter Module User's Manual (Application).

Error code

Error code	Description	Action
101H	The specified channel is not valid. The target channel is not within the range of 1, 2, or 15.	Try again after checking the setting.

2.7 M+RD62_LatchCounterOperation

Name

M+RD62_LatchCounterOperation

Overview

Item	Description
Overview	Executes the latch counter function.
Symbol	<pre> graph LR subgraph M+RD62_LatchCounterOperation direction LR B["(1) B : i_bEN"] DUT["(2) DUT : i_stModule"] UW["(3) UW : i_uCH"] o_bENO["(4) o_bENO : B"] o_bOK["(5) o_bOK : B"] o_dLatchCount["(6) o_dLatchCount : D"] o_bErr["(7) o_bErr : B"] o_uErrId["(8) o_uErrId : UW"] end </pre>

Labels

Input label

No.	Variable name	Name	Data type	Range	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_stModule	Module label	Structure	The setting range differs depending on the module label.	Specify the module label of the MELSEC iQ-R high-speed counter module.
(3)	i_uCH	Target channel	Word [Unsigned]	1 to 2	Specify the channel number.

Output label

No.	Variable name	Name	Data type	Default value	Description
(4)	o_bENO	Execution status	Bit	Off	On: The execution command is on. Off: The execution command is off.
(5)	o_bOK	Normal completion	Bit	Off	When this label is on, it indicates that the latch counter execution command is on.
(6)	o_dLatchCount	Latch count value	Double word [signed]	0	Stores the latch count value.
(7)	o_bErr	Error completion	Bit	Off	When this label is on, it indicates that an error has occurred in the FB.
(8)	o_uErrId	Error code	Word [Unsigned]	0	Stores the abnormal code generated in the FB.

FB details

Item	Description	
Available device	Target module	RD62P2, RD62D2, RD62P2E
	CPU module	MELSEC iQ-R series CPU modules
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	247 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	<ul style="list-style-type: none"> By turning on i_bEN (Execution command), the latch counter function is executed. The operation of this FB is one-shot, triggered by i_bEN (Execution command). If the setting value of the target channel is out of the setting range, o_bErr (Error completion) turns on and the processing of this FB is interrupted. In addition, the error code is stored in o_uErrId (Error code). For the error code, refer to the list of error codes. 	
FB compilation method	Macro type	

Item	Description
FB operation	Pulse execution (multiple scan execution type)
Timing chart of I/O signals	<p>■When the operation is completed successfully</p> <p>■When the operation is completed with an error</p>
Restrictions or precautions	<ul style="list-style-type: none"> • This FB does not include the error recovery processing. Program the error recovery processing separately in accordance with the required system operation. • This FB cannot be used in an interrupt program. • Do not use this FB in programs that are executed only once, such as a subroutine program or FOR-NEXT loop, because i_bEN (Execution command) cannot be turned off and the normal operation cannot be acquired. Always use this FB in programs that can turn off i_bEN (Execution command). • When this FB is used, turn off Counter function selection start command (Y signal). When the signal is on, the latch counter function is not executed on the target channel. • When this FB is used twice or more, precaution must be taken to avoid duplication of the target channel. • Every input must be provided with a value for proper FB operation. • To operate the RD62P2, RD62D2, or RD62P2E, the setting is required to be configured according to each device and system connected. Set the module parameter of GX Works3 according to the application. For the setting method of the module parameter, refer to MELSEC iQ-R High-Speed Counter Module User's Manual (Application).

Error code

Error code	Description	Action
100H	The specified channel is not valid. The target channel is not within the range of 1 to 2.	Try again after checking the setting.

2.8 M+RD62_SamplingOperation

Name

M+RD62_SamplingOperation

Overview

Item	Description
Overview	Executes the sampling counter function.
Symbol	

Labels

Input label

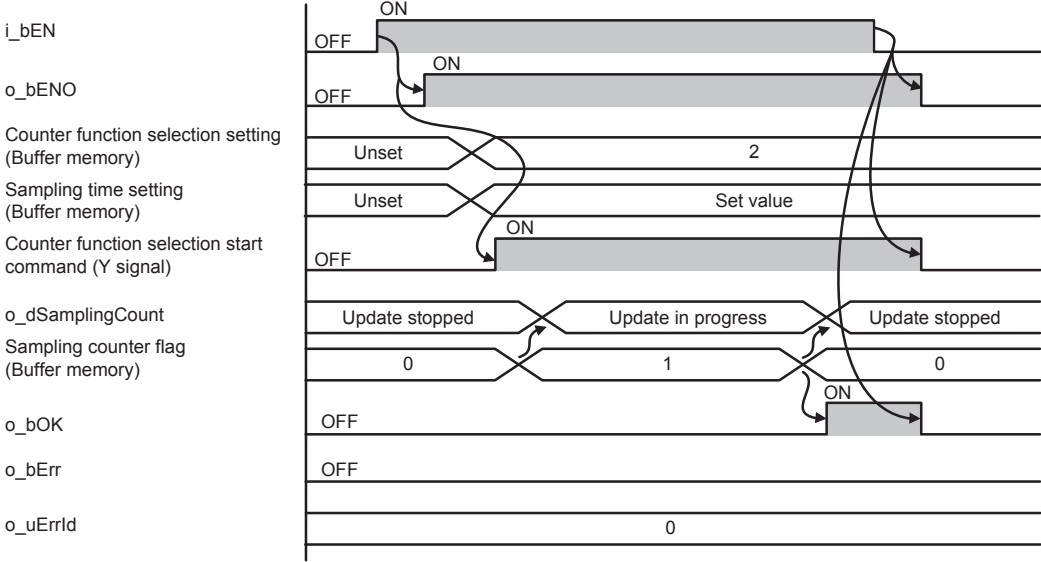
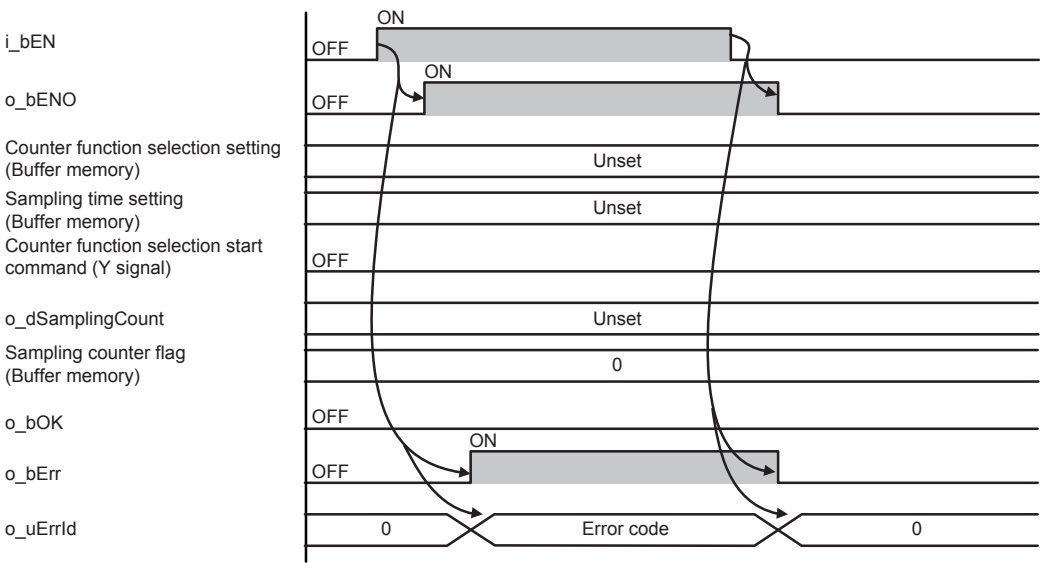
No.	Variable name	Name	Data type	Range	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_stModule	Module label	Structure	The setting range differs depending on the module label.	Specify the module label of the MELSEC iQ-R high-speed counter module.
(3)	i_uCH	Target channel	Word [Unsigned]	1 to 2	Specify the channel number.
(4)	i_uSamplingTime	Sampling time	Word [Unsigned]	1 to 65,535	Set the sampling time. (Unit: When the counting speed setting is 500kpps or lower: 10ms, when the counting speed setting is 1Mpps or greater: 1ms) • 1 to 32767: Set a value in decimal. • 32768 to 65535: Convert decimal to hexadecimal and set the value.

Output label

No.	Variable name	Name	Data type	Default value	Description
(5)	o_bENO	Execution status	Bit	Off	On: The execution command is on. Off: The execution command is off.
(6)	o_bOK	Normal completion	Bit	Off	When this label is on, it indicates that the sampling time has elapsed and the execution of the sampling counter function has been completed.
(7)	o_dSamplingCount	Sampling count value	Double word [signed]	0	Stores the sampling count value.
(8)	o_bErr	Error completion	Bit	Off	When this label is on, it indicates that an error has occurred in the FB.
(9)	o_uErrId	Error code	Word [Unsigned]	0	Stores the abnormal code generated in the FB.

FB details

Item	Description	
Available device	Target module	RD62P2, RD62D2, RD62P2E
	CPU module	MELSEC iQ-R series CPU modules
	Engineering tool	GX Works3
Language	Ladder diagram	

Item	Description
Number of basic steps	424 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	<ul style="list-style-type: none"> By turning on i_bEN (Execution command), the sampling count operation is performed for the preset i_uSamplingTime (Sampling time) and the sampling count value is read from the buffer memory. Once the sampling time elapses, o_bOK (Normal completion) is turned on and the processing is completed. If the setting value of the target channel is out of the setting range, o_bErr (Error completion) turns on and the processing of this FB is interrupted. In addition, the error code is stored in o_uErrId (Error code). For the error code, refer to the list of error codes.
FB compilation method	Macro type
FB operation	Pulse execution (multiple scan execution type)
Timing chart of I/O signals	<p>■When the operation is completed successfully</p>  <p>■When the operation is completed with an error</p> 
Restrictions or precautions	<ul style="list-style-type: none"> This FB does not include the error recovery processing. Program the error recovery processing separately in accordance with the required system operation. This FB cannot be used in an interrupt program. Do not use this FB in programs that are executed only once, such as a subroutine program or FOR-NEXT loop, because i_bEN (Execution command) cannot be turned off and the normal operation cannot be acquired. Always use this FB in programs that can turn off i_bEN (Execution command). When this FB is used, turn off Counter function selection start command (Y signal). When the signal is on, the sampling counter function is not executed on the target channel. When this FB is used twice or more, precaution must be taken to avoid duplication of the target channel. Every input must be provided with a value for proper FB operation. To operate the RD62P2, RD62D2, or RD62P2E, the setting is required to be configured according to each device and system connected. Set the module parameter of GX Works3 according to the application. For the setting method of the module parameter, refer to MELSEC iQ-R High-Speed Counter Module User's Manual (Application).

Error code

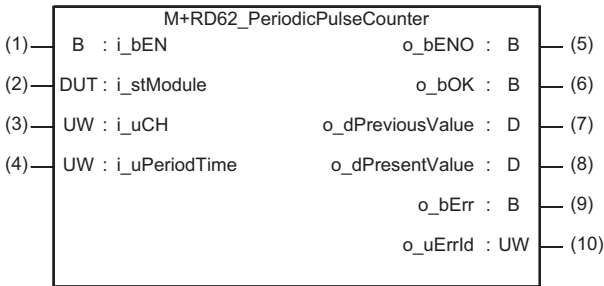
Error code	Description	Action
100H	The specified channel is not valid. The target channel is not within the range of 1 to 2.	Try again after checking the setting.

2.9 M+RD62_PeriodicPulseCounter

Name

M+RD62_PeriodicPulseCounter

Overview

Item	Description
Overview	Executes the cycle pulse counter function.
Symbol	 <p>The diagram shows a rectangular block labeled 'M+RD62_PeriodicPulseCounter'. On the left side, there are four input terminals: (1) B : i_bEN, (2) DUT : i_stModule, (3) UW : i_uCH, and (4) UW : i_uPeriodTime. On the right side, there are six output terminals: (5) o_bENO : B, (6) o_bOK : B, (7) o_dPreviousValue : D, (8) o_dPresentValue : D, (9) o_bErr : B, and (10) o_uErrId : UW.</p>

Labels

Input label

No.	Variable name	Name	Data type	Range	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_stModule	Module label	Structure	The setting range differs depending on the module label.	Specify the module label of the MELSEC iQ-R high-speed counter module.
(3)	i_uCH	Target channel	Word [Unsigned]	1 to 2	Specify the channel number.
(4)	i_uPeriodTime	Cycle time setting	Word [Unsigned]	1 to 65,535	Specify the cycle time setting. (Unit: When the counting speed setting is 500kpps or lower: 10ms, when the counting speed setting is 1Mpps or greater: 1ms) • 1 to 32767: Set a value in decimal. • 32768 to 65535: Convert decimal to hexadecimal and set the value.

Output label

No.	Variable name	Name	Data type	Default value	Description
(5)	o_bENO	Execution status	Bit	Off	On: The execution command is on. Off: The execution command is off.
(6)	o_bOK	Normal completion	Bit	Off	When this label is on, it indicates that the cycle pulse counter function has been started.
(7)	o_dPreviousValue	Cycle pulse count previous value	Double word [signed]	0	Stores the cycle pulse count previous value.
(8)	o_dPresentValue	Cycle pulse count current value	Double word [signed]	0	Stores the cycle pulse count current value.
(9)	o_bErr	Error completion	Bit	Off	When this label is on, it indicates that an error has occurred in the FB.
(10)	o_uErrId	Error code	Word [Unsigned]	0	Stores the abnormal code generated in the FB.

FB details

Item	Description	
Available device	Target module	RD62P2, RD62D2, RD62P2E
	CPU module	MELSEC iQ-R series CPU modules
	Engineering tool	GX Works3
Language	Ladder diagram	

Item	Description
Number of basic steps	423 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	<ul style="list-style-type: none"> By turning on i_bEN (Execution command), the cycle pulse count operation is performed for the preset i_uPeriodTime (Cycle time setting) and the cycle pulse count previous value and cycle pulse count current value are read from the buffer memory. If the setting value of the target channel is out of the setting range, o_bErr (Error completion) turns on and the processing of this FB is interrupted. In addition, the error code is stored in o_uErrId (Error code). For the error code, refer to the list of error codes.
FB compilation method	Macro type
FB operation	Pulse execution (multiple scan execution type)
Timing chart of I/O signals	<p>■When the operation is completed successfully</p> <p>■When the operation is completed with an error</p>
Restrictions or precautions	<ul style="list-style-type: none"> This FB does not include the error recovery processing. Program the error recovery processing separately in accordance with the required system operation. This FB cannot be used in an interrupt program. Do not use this FB in programs that are executed only once, such as a subroutine program or FOR-NEXT loop, because i_bEN (Execution command) cannot be turned off and the normal operation cannot be acquired. Always use this FB in programs that can turn off i_bEN (Execution command). When this FB is used, turn off Counter function selection start command (Y signal). When the signal is on, the cycle pulse counter function is not executed on the target channel. When this FB is used twice or more, precaution must be taken to avoid duplication of the target channel. Every input must be provided with a value for proper FB operation. To operate the RD62P2, RD62D2, or RD62P2E, the setting is required to be configured according to each device and system connected. Set the module parameter of GX Works3 according to the application. For the setting method of the module parameter, refer to MELSEC iQ-R High-Speed Counter Module User's Manual (Application).

Error code

Error code	Description	Action
100H	The specified channel is not valid. The target channel is not within the range of 1 to 2.	Try again after checking the setting.

2.10 M+RD62_PulseMeasure

Name

M+RD62_PulseMeasure

Overview

Item	Description
Overview	Starts the pulse measurement function and reads the measured pulse value.
Symbol	<pre> graph LR subgraph M+RD62_PulseMeasure direction LR subgraph Inputs I1["(1) B : i_bEN"] I2["(2) DUT : i_stModule"] I3["(3) UW : i_uCH"] end subgraph Outputs O4["(4) o_bENO : B"] O5["(5) o_bOK : B"] O6["(6) o_bUpdate : B"] O7["(7) o_dResult : D"] O8["(8) o_bErr : B"] O9["(9) o_uErrId : UW"] end end </pre>

Labels

Input label

No.	Variable name	Name	Data type	Range	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_stModule	Module label	Structure	The setting range differs depending on the module label.	Specify the module label of the MELSEC iQ-R high-speed counter module.
(3)	i_uCH	Target channel	Word [Unsigned]	1 to 2	Specify the channel number.

Output label

No.	Variable name	Name	Data type	Default value	Description
(4)	o_bENO	Execution status	Bit	Off	On: The execution command is on. Off: The execution command is off.
(5)	o_bOK	Normal completion	Bit	Off	When this label is on, it indicates that pulses are being measured.
(6)	o_bUpdate	Measured pulse value update flag	Bit	Off	When this label is on, it indicates that measured pulse value has been updated.
(7)	o_dResult	Measured pulse value	Double word [signed]	0	Stores the measured pulse value.
(8)	o_bErr	Error completion	Bit	Off	When this label is on, it indicates that an error has occurred in the FB.
(9)	o_uErrId	Error code	Word [Unsigned]	0	Stores the abnormal code generated in the FB.

FB details

Item	Description	
Available device	Target module	RD62P2, RD62D2, RD62P2E
	CPU module	MELSEC iQ-R series CPU modules
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	591 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.	

Item	Description
Processing	<ul style="list-style-type: none"> By turning on i_bEN (Execution command), Pulse measurement start command (Y signal) is turned on and the pulse measurement is started. If the setting value of the target channel is out of the setting range, o_bErr (Error completion) turns on and the processing of this FB is interrupted. In addition, the error code is stored in o_uErrId (Error code). For the error code, refer to the list of error codes.
FB compilation method	Macro type
FB operation	Always executed
Timing chart of I/O signals	<p>■When the operation is completed successfully</p> <p>■When the operation is completed with an error</p>

Item	Description
Restrictions or precautions	<ul style="list-style-type: none"> • This FB does not include the error recovery processing. Program the error recovery processing separately in accordance with the required system operation. • This FB cannot be used in an interrupt program. • Do not use this FB in programs that are executed only once, such as a subroutine program or FOR-NEXT loop, because i_bEN (Execution command) cannot be turned off and the normal operation cannot be acquired. Always use this FB in programs that can turn off i_bEN (Execution command). • When this FB is used twice or more, precaution must be taken to avoid duplication of the target channel. • Every input must be provided with a value for proper FB operation. • To execute the pulse measurement function, the counter operation mode of the module parameter is required to be set to the pulse measurement mode. For the setting method of the module parameter, refer to MELSEC iQ-R High-Speed Counter Module User's Manual (Application). • When the interval for measuring the target is shorter than the scan time, the measurement may not be performed properly. Adjust the measurement interval to twice the scan time or longer. • To operate the RD62P2, RD62D2, or RD62P2E, the setting is required to be configured according to each device and system connected. Set the module parameter of GX Works3 according to the application. For the setting method of the module parameter, refer to MELSEC iQ-R High-Speed Counter Module User's Manual (Application).

Error code

Error code	Description	Action
100H	<p>The specified channel is not valid. The target channel is not within the range of 1 to 2.</p>	Try again after checking the setting.

2.11 M+RD62_PWMOutput

Name

M+RD62_PWMOutput

FB details

Item	Description
Overview	Executes the PWM output function.
Symbol	<pre> graph LR subgraph M+RD62_PWMOutput direction TB B["(1) B : i_bEN"] DUT["(2) DUT : i_stModule"] UW["(3) UW : i_uCH"] UD1["(4) UD : i_udSetONTime1"] UD2["(5) UD : i_udSetONTime2"] UD3["(6) UD : i_udSetCycleTime"] o_bENO["(7) o_bENO : B"] o_bOK["(8) o_bOK : B"] o_bErr["(9) o_bErr : B"] o_uErrId["(10) o_uErrId : UW"] end B --- o_bENO DUT --- o_bOK UW --- o_bErr UD1 --- o_uErrId UD2 --- o_uErrId UD3 --- o_uErrId </pre>

Labels

Input label

No.	Variable name	Name	Data type	Range	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_stModule	Module label	Structure	The setting range differs depending on the module label.	Specify the module label of the MELSEC iQ-R high-speed counter module.
(3)	i_uCH	Target channel	Word [Unsigned]	1 to 2	Specify the channel number.
(4)	i_udSetONTime1	PWM output on width setting 1	Double Word [Unsigned]	0 to 2,147,483,647	Specify the ON time of the output pulse for Coincidence output No.1. (Unit: 0.1μs)
(5)	i_udSetONTime2	PWM output on width setting 2	Double Word [Unsigned]	0 to 2,147,483,647	Specify the ON time of the output pulse for Coincidence output No.2. (Unit: 0.1μs)
(6)	i_udSetCycleTime	PWM output cycle setting	Double Word [Unsigned]	0 to 2,147,483,647	Specify the time of one cycle for output pulses. (Unit: 0.1μs)

Output label

No.	Variable name	Name	Data type	Default value	Description
(7)	o_bENO	Execution status	Bit	Off	On: The execution command is on. Off: The execution command is off.
(8)	o_bOK	Normal completion	Bit	Off	When this label is on, it indicates that the PWM is being output.
(9)	o_bErr	Error completion	Bit	Off	When this label is on, it indicates that an error has occurred in the FB.
(10)	o_uErrId	Error code	Word [Unsigned]	0	Stores the abnormal code generated in the FB.

FB details

Item	Description	
Available device	Target module	RD62P2, RD62D2, RD62P2E
	CPU module	MELSEC iQ-R series CPU modules
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	330 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.	

Item	Description
Processing	<ul style="list-style-type: none"> By turning on i_bEN (Execution command), the PWM output function is executed with the set i_udSetONTime1 (PWM output ON time setting 1), i_udSetONTime2 (PWM output ON time setting 2), and i_udSetCycleTime (PWM output cycle time setting). If the setting value of the target channel is out of the setting range, o_bErr (Error completion) turns on and the processing of this FB is interrupted. In addition, the error code is stored in o_uErrId (Error code). For the error code, refer to the list of error codes.
FB compilation method	Macro type
FB operation	Always executed
Timing chart of I/O signals	<p>■When the operation is completed successfully</p> <p>■When the operation is completed with an error</p>
Restrictions or precautions	<ul style="list-style-type: none"> This FB does not include the error recovery processing. Program the error recovery processing separately in accordance with the required system operation. This FB cannot be used in an interrupt program. Do not use this FB in programs that are executed only once, such as a subroutine program or FOR-NEXT loop, because i_bEN (Execution command) cannot be turned off and the normal operation cannot be acquired. Always use this FB in programs that can turn off i_bEN (Execution command). When this FB is used twice or more, precaution must be taken to avoid duplication of the target channel. Every input must be provided with a value for proper FB operation. To execute the PWM output function, the counter operation mode of the module parameter is required to be set to the PWM output mode. For the setting method of the module parameter, refer to MELSEC iQ-R High-Speed Counter Module User's Manual (Application). To operate the RD62P2, RD62D2, or RD62P2E, the setting is required to be configured according to each device and system connected. Set the module parameter of GX Works3 according to the application. For the setting method of the module parameter, refer to MELSEC iQ-R High-Speed Counter Module User's Manual (Application).

Error code

Error code	Description	Action
100H	The specified channel is not valid. The target channel is not within the range of 1 to 2.	Try again after checking the setting.

2.12 M+RD62_DegreeToCountVal

Name

M+RD62_DegreeToCountVal

Overview

Item	Description
Overview	Calculates count values from angles.
Symbol	<pre> graph LR subgraph M+RD62_DegreeToCountVal direction LR I1["(1) B : i_bEN"] I2["(2) UW : i_uAngle"] I3["(3) UD : i_udResolution"] I4["(4) UW : i_uZeroValue"] O5["(5) o_bENO : B"] O6["(6) o_bOK : B"] O7["(7) o_dCountVal : D"] O8["(8) o_bErr : B"] O9["(9) o_uErrld : UW"] end I1 --- O5 I2 --- O6 I3 --- O7 I4 --- O8 I4 --- O9 </pre>

Labels

Input label

No.	Variable name	Name	Data type	Range	Description
(1)	i_bEN	Execution command	Bit	On or off	On: The FB is activated. Off: The FB is not activated.
(2)	i_uAngle	Angle	Word [Unsigned]	0 to 3,599	Specify the angle. (Unit: 0.1 degree)
(3)	i_udResolution	Resolution	Double Word [Unsigned]	10 to 32,768	Specify the resolution of the encoder.
(4)	i_uZeroValue	Zero degree setting value	Word [Unsigned]	0 to (i_udResolution-1)	Specify a value to set as 0 degree.

Output label

No.	Variable name	Name	Data type	Default value	Description
(5)	o_bENO	Execution status	Bit	Off	On: The execution command is on. Off: The execution command is off.
(6)	o_bOK	Normal completion	Bit	Off	When this label is on, it indicates that a count value is being calculated.
(7)	o_dCountVal	Count value	Double word [signed]	0	Stores the count value calculated from the angle.
(8)	o_bErr	Error completion	Bit	Off	When this label is on, it indicates that an error has occurred in the FB.
(9)	o_uErrld	Error code	Word [Unsigned]	0	Stores the abnormal code generated in the FB.

FB details

Item	Description	
Available device	Target module	RD62P2, RD62D2, RD62P2E
	CPU module	MELSEC iQ-R series CPU modules
	Engineering tool	GX Works3
Language	Ladder diagram	
Number of basic steps	96 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.	

Item	Description
Processing	<ul style="list-style-type: none"> By turning on i_bEN (Execution command), a count value is calculated using an angle (input in increments of 0.1 degrees). The value to be calculated is the one when the resolution is set as the ring counter upper limit value and 0 is set as the ring counter lower limit value. The calculation formula for a count value (o_dCountVal) is as follows: $i_uAngle \div (3600 \div i_udResolution) + i_uZeroValue$. When a calculation value is greater than the resolution (i_udResolution), the resolution (i_udResolution) value is subtracted from the calculation value and the result is stored in Count value (o_dCountVal). If the input value is an error, o_bErr turns on and the processing of this FB is interrupted. For the error code, refer to the list of error codes.
FB compilation method	Macro type
FB operation	Always executed
Timing chart of I/O signals	<p>■When the operation is completed successfully</p> <p>■When the operation is completed with an error</p>
Restrictions or precautions	<ul style="list-style-type: none"> This FB does not include the error recovery processing. Program the error recovery processing separately in accordance with the required system operation. This FB cannot be used in an interrupt program. Do not use this FB in programs that are executed only once, such as a subroutine program or FOR-NEXT loop, because i_bEN (Execution command) cannot be turned off and the normal operation cannot be acquired. Always use this FB in programs that can turn off i_bEN (Execution command). Every input must be provided with a value for proper FB operation. To operate the RD62P2, RD62D2, or RD62P2E, the setting is required to be configured according to each device and system connected. Set the module parameter of GX Works3 according to the application. For the setting method of the module parameter, refer to MELSEC iQ-R High-Speed Counter Module User's Manual (Application).

Error code

Error code	Description	Action
102H	The resolution is out of the setting range. The resolution is not within the range of 10 to 32768.	Try again after checking the setting.
103H	The zero degree setting value is out of the setting range. The zero degree setting value is not within the range of 0 to (i_udResolution - 1).	Try again after checking the setting.
104H	The angle is out of the setting range. The angle is not within the range of 0 to 3599.	Try again after checking the setting.

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MEMO

REVISIONS

*The manual number is given on the bottom left of the back cover.

Revision date	*Manual number	Description
June 2014	BCN-P5999-0378-A	First edition
April 2016	BCN-P5999-0378-B	Added or modified parts Section 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, 2.12
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