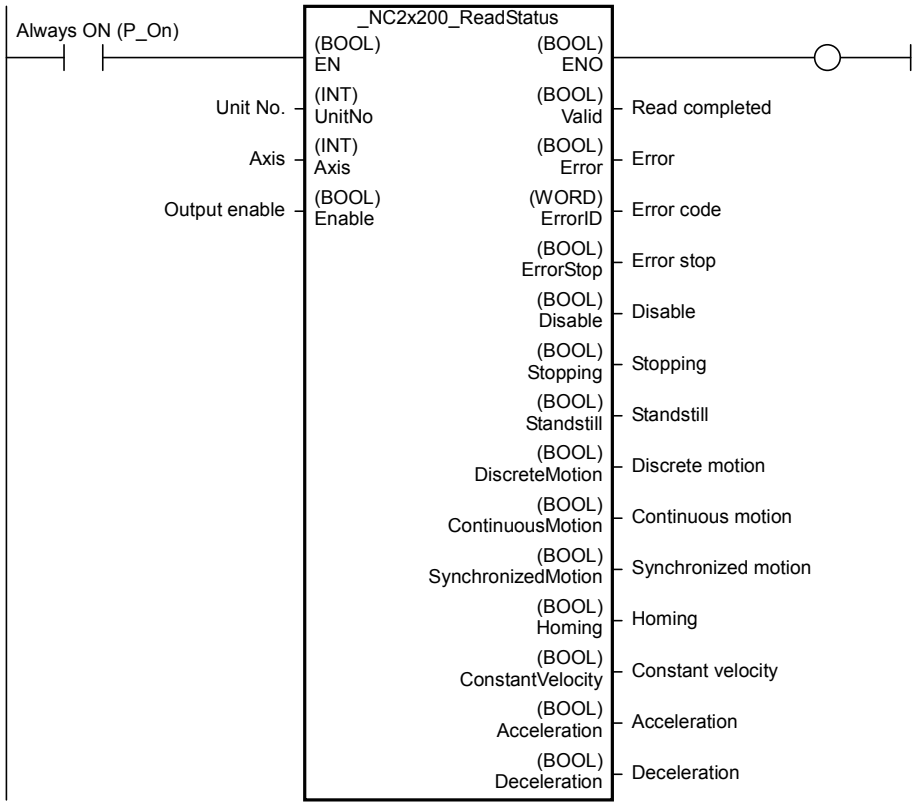
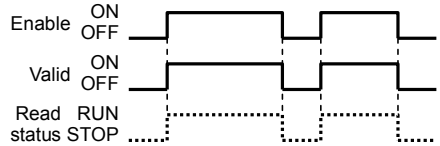
NC2x 200	Read Status _NC2x200_ReadStatus

Basic function	Reads the status of an axis.	
Symbol		
File name	Lib\FBL\omronlib\PositionController\NC2x_NC2x200_ReadStatus10.cxf	
Applicable models	Position Control Units	CJ1W-NC214/234/414/434
	CPU Unit	CJ1*-CPU**H Version 3.0 or later CJ1M-CPU** Version 3.0 or later CP1H CJ2H-CPU**(-EIP)
	CX-Programmer	Version 5.0 or later
Languages in function block definitions	Ladder programming	
Conditions for usage	None.	
Function description	・ For the axis specified in "Unit No. (UnitNo)" and "Axis No. (Axis)", the status will be continuously output while "Output enable (Enable)" turns ON. ・ "Read completed (Valid)" will turn ON when the valid status is output. ・ "Error (Error)" will be turned ON and "Error code (ErrorID)" will be output if an error occurs for the FB. This will not occur for error in other FBs or other instances of the FB. ・ These statuses (Error/ErrorID) will be reset when "Output enable (Enable)" turns OFF. 	

・ The following is the operation corresponding to the status output of this FB.

Output Variables	Name	Status
ErrorStop	Error stop	PCU error, Axis error (Memory operation error is not included.)
Disable	Disable	Servo unlock, PCU setup
Stopping	Stopping	Deceleration stop (Operation prohibition status due to deceleration stop is included.)
StandStill	Standstill	Operation start available
DiscreteMotion	Discrete motion	Absolute movement, Relative movement, Interrupt feeding in progress (waiting for interrupt input(Absolute movement/Relative movement)), Interrupt feeding in progress (positioning in progress), Origin return, Jogging / inching, MPG operation
ContinuousMotion	Continuous motion	Speed control, Interrupt feeding in progress (Speed control), Memory operation
SynchronizedMotion	Synchronized motion	Synchronized transmission
Homing	Homing	Origin search
ConstantVelocity	Constant velocity	Constant speed movement (Passing is not included.)
Acceleration	Acceleration	Accelerating (Passing is not included.)
Deceleration	Deceleration	Decelerating (Passing is not included.)

Kind of FB definition

Always execution type.
Connect the EN input to the Always ON Flag (P_On).
The same instance cannot be used in two or more places.

EN input condition

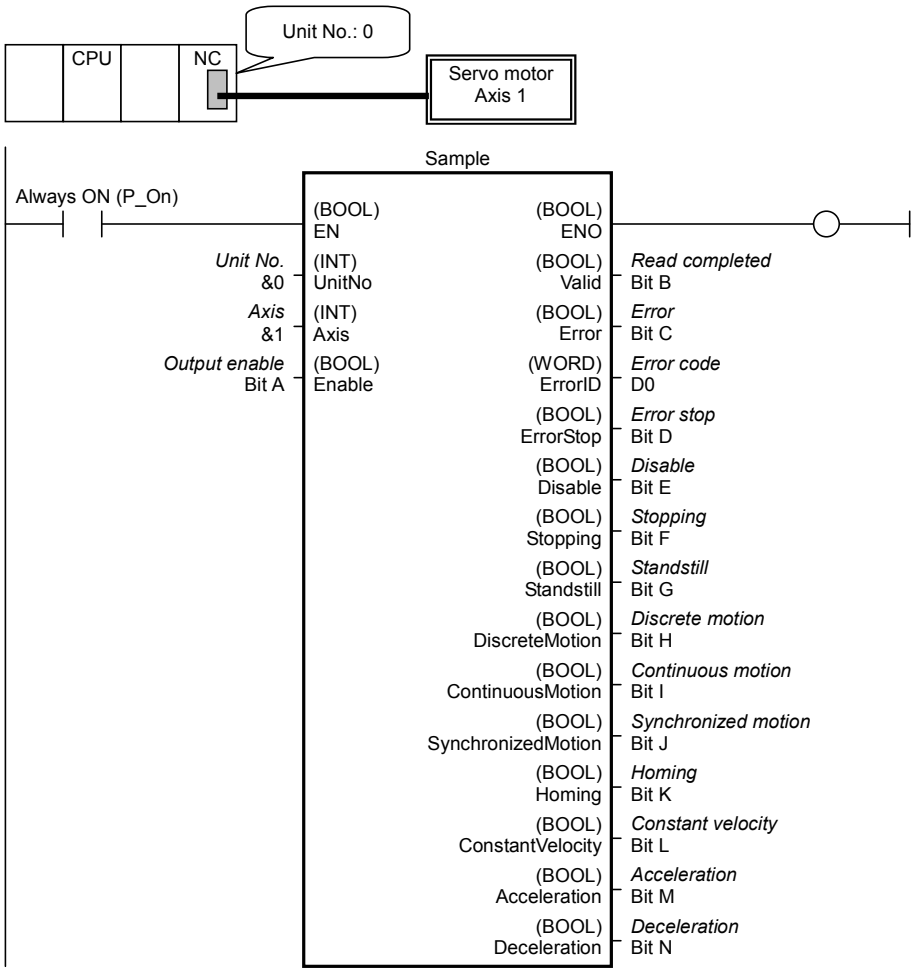
・ Connect the EN input to the Always ON Flag (P_On).
If another bit is connected to EN, the FB outputs will be held when the connected bit turns OFF.

Restrictions Other

・ This FB does not recognize the existence of the axis specified in "Unit No. (UnitNo)" and "Axis (Axis)". If these input variables have not been set correctly, the FB may not work normally.
・ This FB outputs the status by referring to the axis in appropriate memory area and "Read completed (Done)" is turned ON, even when the target axis is not connected.

Application example

When the Bit A is turned ON, status is read from the axis (Axis 1) connected to the Position Control Unit with unit number 0.



Related manuals	CJ-series Position Control Unit Operation Manual (W477) 5-3 Operating Memory area Axis Status Memory area

■Variable Tables

Input Variables

Name	Variable name	Data type	Default	Range	Description
EN	EN	BOOL			1(ON): FB started 0(OFF): FB not started
Unit No.	UnitNo	INT	&0	&0 to &94	Specify the unit number.
Axis	Axis	INT	&1	&1 to &4	Specify the axis number.
Output enable	Enable	BOOL	0(OFF)		↑: Status output enabled ↓: Status output disabled

Output Variables

Name	Variable name	Data type	Range	Description
ENO	ENO	BOOL		1(ON): FB operating normally 0(OFF): FB not started / FB ended with error
Read completed	Done	BOOL		Turns ON when the valid status is output.
Error	Error	BOOL		Turns ON when an error has occurred in the FB. Refer to "Error code (ErrorID)" for details.
Error code	ErrorID	WORD		Returns the error code when an error occurred in the FB. Refer to "■Error code list" for details.
Error stop	ErrorStop	BOOL		Turns ON when stopped by an error.
Disable	Disable	BOOL		Turns ON when being in initial status.
Stopping	Stopping	BOOL		Turns ON when being stopped.
Standstill	StandStill	BOOL		Turns ON when being in status in which startup is possible.
Discrete motion	DiscreteMotion	BOOL		Turns ON when the axis is in discrete motion.
Continuous motion	ContinuousMotion	BOOL		Turns ON when the axis is in continuous motion.
Synchronized motion	SynchronizedMotion	BOOL		Turns ON when the axis is in synchronized motion.
Homing	Homing	BOOL		Turns ON when homing.
Constant velocity	ConstantVelocity	BOOL		Turns ON when the axis is in constant velocity operation.
Acceleration	Acceleration	BOOL		Turns ON when the axis is in acceleration operation.
Deceleration	Deceleration	BOOL		Turns ON when the axis is in deceleration operation.

■Error code list

Error name	Error code	Probable cause	Clearing method
Input variable out of range	#0001	The value of input variable of this FB is out of valid range.	Set the value of input variable within the specified range.
Operating memory area allocation out of range	#0002	The allocation of Axis Operating Memory Area of Common Parameter is out of allowable setting range.	Correct the allocation of Axis Operating Memory Area of Common Parameter so that it falls within the allowable setting range of data.

■Version History

Version	Date	Contents
1.00	2009.06.	Original production.

■Note

This document explains the function of the function block.
It does not provide information of restrictions on the use of Units and Components or combination of them. For actual applications, make sure to read the operation manuals of the applicable products.