NCF Read Present Position (DINT) _NCF205_ReadActualPosition_DINT

Basic function	Reads the pre	sent positio	n of an axis.						
Symbol	_NCF205_ReadActualPosition_								
				T					
	Always ON (P_On)			OL)	(BOOL)				
			EN EN	02)	ENO				
			(INT	Γ)	(BOOL)				
			Unit No Uni		Done	 Normal end 			
			(INT	Г)	(BOOL)	Emer fler			
			Axis No Axis	3	Error	 Error flag 			
		Output or		OL)	(WORD)	– Error code			
		Output ei	Ena	ıble	ErrorID				
					(DINT)	 Present position 			
					Position				
File name	Lib\FBL\omror	nlib\Position		NCF205 Re	eadActualPosition	DINT12.cxf			
Applicable	Position Contr		CJ1W-NCF71, C						
models	CPU Unit		CS1*-CPU**H U						
			CP1H	** Unit Version 3.0 or later					
	CX-Programm		/ersion 5.0 or la	ter					
Languages in	Ladder progra								
function block									
definitions Conditions for	The following	oonditiona f		he the Desiti	ion Control Unit w	arcian 1.2 or aprilar			
usage			he Position Con			ersion 1.2 or earlier.			
uougo	■CX-Program								
					The function blocks related to the Position Control Units will not operate if the area H512 or higher (defau				
	setting) is specified as the Non Retain Area through the Function block memory allocation. Make sure to								
	change the	memory are	ea to unused are	ea (DM or ĔM	, for example) fror	n the CX-Programmer. To change this			
	change the value, click	memory are PLC/Funct	ea to unused are ion Block Mem	ea (DM or ĔM	, for example) from Block Memory	n the CX-Programmer. To change this Allocation from the Menu Bar.			
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	Done ON OFF
	Error OFF
	Read Present ON Position OFF
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	 The Error flag (Error) and Error code (ErrorID) for this FB reflect the status of the Memory Area in the Position Control Unit without alteration. This FB uses Unit Error Reset, Write Data, Read Data and Save Data Bits of the Position Control Unit (see
	Note). Therefore, do not turn these bits ON or OFF between the period from the rising edge of EN to the rising edge of ENO. For the same reason, do not use these bits for coil outputs (OUT commands).
	• The output variable of FB may not change even if EN is turned ON. In that case, check if any of Unit Error
	Reset, Write Data, Read Data and Save Data Bit is left ON.
	Note: For calculation of bit addresses, these bits are referenced in this FB in the first execution of each instance, and
	when changing "Unit No. (UnitNo)", "Axis No. (Axis)" of the input variable and set " Output Enable Bit
Application	(Enable)". When turning the Bit A ON from OFF, the present position of axis 1 of the Servomotor connected to the
example	Position Control Unit with unit number 0 is read and stored in D0.
	UnitNo.:0
	CPU NCF Servomotor
	Axis 1
	Sample
	_NCF205_ReadActualPosition_D
	Always ON (P_On) (BOOL) (BOOL)
	Unit No. (INT) (BOOL) Normal end
	Unit No. (INT) (BOOL) Normal end &0 UnitNo Done Bit B
	Axis No. (INT) (BOOL) Error flag &1 Axis Error Bit C
	Output enable bit (BOOL) (WORD) Error code
	Bit A Enable ErrorID D100 (DINT) Present position
	Position D0
Related	Position Control Units OPERATION MANUAL (W426-E1)
manuals	12-4 Error Codes

Variable Tables

Input Variables

Input fullabied					
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 &15	Specify the unit number.
Axis No.	Axis	INT	&1	&1 to &16	Specify the axis number.
Output enable bit	Enable	BOOL	0(OFF)		Turn ON to enable output.
					Turn OFF to reset the output.

Output Variables

Name	Variable name	Data type	Range	Description
ENO	ENO	BOOL		1 (ON): FB operating normally 0 (OFF): FB not operating normally •FB not started •Input variable out of the range •FB ended with error •Common Parameters could not be read
Normal end	Done	BOOL		Turns ON for a normal end.
Error flag	Error	BOOL		Turns ON for an error end.
Error code	ErrorID	WORD		 Returns the error code when an error has occurred in the FB. Refer to the <i>Related Manuals</i> for details on errors. A code of #0000 will be returned if any of the following conditions is satisfied. Input variable is out of range. The common parameters of the Position Control Units are out of range. Not established communications with a specified axis.
Present position	Position	DINT		The present position of the axis controlled by the Position Control Unit.

Version History

Version	Date	Contents			
1.00	2004.06.	Original production			
1.10	2005.01.	Limitation about the setting timing with "Unit No." and "Axis No." was removed.			
1.20	2007.11	Limitation on reading "Present position (Position)" was removed.			

Upgrade Details

Version	Detailed Contents
1.10	In version 1.0x, "Unit No. (UnitNo)" and "Axis No. (Axis)" must be set when EN was ON and "Output enable bit
	(Enable)" was OFF. This means not sometimes working normally when "Unit No. (UnitNo)" and "Axis No. (Axis)" are
	changed simultaneously with ON of "Output enable bit (Enable)".
	In version 1.10, this limitation was removed.
1.20	In the version 1.1x, "Present Position (Position)" was not updated when an axis error occurred. Therefore, the
	accurate actual position could not be obtained when an axis was operated while an axis error occurred.
	In the version 1.20, this limitation has been removed.

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.