

MCx205	Read Present Position(DINT): _MCx205_ReadActualPosition_DINT	
Basic function	Reads the present position of an axis.	
Symbol		
File name	Lib\FBL\omronlib\ PositionController \MCx\ _MCx205_ReadActualPosition_DINT11.cxf	
Applicable models	Motion Control Unit CPU Unit CX-Programmer	CS1W-MC221(-V1)/421(-V1) CS1*-CPU**H Unit version 3.0 or higher CJ1*-CPU**H Unit version 3.0 or higher CJ1M-CPU** Unit version 3.0 or higher CP1H Version 5.0 or higher
Conditions for usage	None	
Function description	<p>While Output enabled (Enable) is ON, the present position of the axis specified with Unit No. (UnitNo) and Axis No. (Axis) is cyclically read and output. Turning OFF Output enabled (Enable) will clear the present position to 0.</p> <p>Present Position Read completed (Done) turns ON while the enable present position is read and output.</p> <p>The Error Flag (Error) will be turned ON and the Error Code (Error code) will be output if an error occurs for this FB. Strictly speaking, they are respectively turned ON or output only when Unit No. (UnitNo) or Axis No. (Axis) is set out of range.</p> <p>Turning OFF Output enabled (Enable) will reset the status.</p>	
FB precautions		
EN input condition	<ul style="list-style-type: none"> • Connect the EN input to the Always On Flag (P_On). • If a different type of bit is connected to EN, the FB outputs will be maintained when the connected bit is turned OFF. 	
Restriction Other		

<p>Application example</p>	<p>When the Bit A turns ON, the present position of the Servomotor (X-axis) connected to the Motion Control Unit of the Unit No. 0 is read and stored in D0.</p> <p>Always ON (P_On)</p> <table border="1" data-bbox="746 443 1134 734"> <tr> <td>Unit No. &0</td> <td>UnitNo (INT)</td> <td>ENO (BOOL)</td> <td>Present Position Read completed Bit B</td> </tr> <tr> <td>Axis No. &1</td> <td>Axis (INT)</td> <td>Done (BOOL)</td> <td>Error flag Bit C</td> </tr> <tr> <td>Output enabled Bit A</td> <td>Enable (BOOL)</td> <td>Error (WORD)</td> <td>Error code</td> </tr> <tr> <td>Model selector &2</td> <td>Select (INT)</td> <td>ErrorID (DINT)</td> <td>Present position D0</td> </tr> <tr> <td></td> <td></td> <td>Position</td> <td></td> </tr> </table>	Unit No. &0	UnitNo (INT)	ENO (BOOL)	Present Position Read completed Bit B	Axis No. &1	Axis (INT)	Done (BOOL)	Error flag Bit C	Output enabled Bit A	Enable (BOOL)	Error (WORD)	Error code	Model selector &2	Select (INT)	ErrorID (DINT)	Present position D0			Position	
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<p>Related manuals</p>	<p>CS1W-MC221(-V1)/421(-V1) Motion Control Units Operation Manual (W359)</p>																				

■ Variable Tables

Input Variables

Name	Variable name	Data type	Default	Range	Description
EN	EN	BOOL			1 (ON): Starts FB 0 (OFF): Does not start FB
Unit No.	UnitNo	INT	&0	&0 to &93 &0 to &91	Depends on the model of Motion Control Units. &0 to &95 (MC221) &0 to &91 (MC421)
Axis No.	Axis	INT	&1	&1 to &4	&1: X-axis &2: Y-axis &3: Z-axis &4: U-axis
Output enabled	Enable	BOOL	0(OFF)		1 (ON): Output enabled 0 (OFF): Output reset
Model selection	Select	INT	&4	&2, &4	&2: 2-axis Unit (MC221) &4: 4-axis Unit (MC421)

Output Variables

Name	Variable name	Data type	Range	Description
ENO	ENO	BOOL		1 (ON): FB operating normally 0 (OFF): FB not operating normally/FB ended with error
Present Position Read completed	Done	BOOL		This turns ON when Axis Error Read is completed normally.
Error flag	Error	BOOL		This turns ON when Axis Error Read is ended with an error.
Error code	ErrorID	WORD		The error code of the error occurred in the FB will be output. For details of the errors, refer to the manual listed in the Related manuals above. When Unit No. or Axis No. is out of the range or when a bit to be used for this FB is already ON, #0000 will be output.
Present position	Position	DINT		Feedback present position of each axis controlled by the Motion Control Units is read and output.

Version History

Version	Date	Contents
1.00	2005.4	Original production

Note

This manual is a reference that explains the function block functions.

It does not explain the operational limitations of Units, components, or combinations of Units and components. Always read and understand the Operation Manuals for the system's Units and other components before using them.