

DX100

OPERATOR'S MANUAL

FOR SPOT and ARC WELDING USING MOTOR GUN

Upon receipt of the product and prior to initial operation, read these instructions thoroughly, and retain for future reference.

MOTOMAN INSTRUCTIONS

MOTOMAN-□□□ INSTRUCTIONS

DX100 INSTRUCTIONS

DX100 OPERATOR'S MANUAL

DX100 MAINTENANCE MANUAL

The DX100 operator's manuals above correspond to specific usage.
Be sure to use the appropriate manual.

Part Number: 163543-1CD

Revision: 3

6.13 Present Manipulator Position Output Function**6.13.1 Outline**

Output the present manipulator's cartesian position (base coordinate) to the specified register.

6.13.2 Parameters

The following parameters specify the function and output register number.

S1CxG	Meaning
208	Specify a function which outputs a specified value of the present cartesian position (base coordinate) to the register 0: invalid 1: Valid
209	Specify the output size to the register 0: 2 bytes output 1: 4 bytes output
210	Cartesian position (command value) X register number of output destination
211	Cartesian position (command value) Y register number of output destination
212	Cartesian position (command value) Z register number of output destination
213	Cartesian position (command value) Rx register number of output destination
214	Cartesian position (command value) Ry register number of output destination
215	Cartesian position (command value) Rz register number of output destination
216	Cartesian position (command value) Re register number of output destination
217	Specify a function which outputs a FB value of the present cartesian position (base coordinate) to the register 0: invalid 1: Valid
218	Specify the output size to the register 0: 2 bytes output 1: 4 bytes output
219	Cartesian position (FB value) X register number of output destination
220	Cartesian position (FB value) Y register number of output destination
221	Cartesian position (FB value) Z register number of output destination
222	Cartesian position (FB value) Rx register number of output destination
223	Cartesian position (FB value) Ry register number of output destination
224	Cartesian position (FB value) Rz register number of output destination
224	Cartesian position (FB value) Re register number of output destination

(Example 1)

S1C1G	Setting value
208	1
209	0
210	10
211	11
212	12
213	13
214	14
215	15
216	16

When setting the parameter as above, the manipulator's present cartesian position is output to the registers as follows.

M010 = Manipulator's present cartesian position (command value) X [unit: mm]
 M011 = Manipulator's present cartesian position (command value) Y [unit: mm]
 M012 = Manipulator's present cartesian position (command value) Z [unit: mm]
 M013 = Manipulator's present cartesian position (command value) Rx [unit: deg]
 M014 = Manipulator's present cartesian position (command value) Ry [unit: deg]
 M015 = Manipulator's present cartesian position (command value) Rz [unit: deg]
 M016 = Manipulator's present cartesian position (command value) Re [unit: deg]

(Example 2)

S1C1G	Setting value
217	1
218	1
219	10
220	12
221	14
222	16
223	18
224	20
225	22

When setting the parameter as above, the manipulator's present cartesian position is output to the registers as follows

M010=	Lower 2 bytes of the	manipulator's present cartesian position (FB value)	X	[unit: μmm]
M011=	Upper 2 bytes of the	manipulator's present cartesian position (FB value)	X	[unit: μmm]
M012=	Lower 2 bytes of the	manipulator's present cartesian position (FB value)	Y	[unit: μmm]
M013=	Upper 2 bytes of the	manipulator's present cartesian position (FB value)	Y	[unit: μmm]
M014=	Lower 2 bytes of the	manipulator's present cartesian position (FB value)	Z	[unit: μmm]
M015=	Upper 2 bytes of the	manipulator's present cartesian position (FB value)	Z	[unit: μmm]
M016=	Lower 2 bytes of the	manipulator's present cartesian position (FB value)	Rx	[unit: 0.001deg]
M017=	Upper 2 bytes of the	manipulator's present cartesian position (FB value)	Rx	[unit: 0.001deg]
M018=	Lower 2 bytes of the	manipulator's present cartesian position (FB value)	Ry	[unit: 0.001deg]
M019=	Upper 2 bytes of the	manipulator's present cartesian position (FB value)	Ry	[unit: 0.001deg]
M020=	Lower 2 bytes of the	manipulator's present cartesian position (FB value)	Rz	[unit: 0.001deg]
M021=	Upper 2 bytes of the	manipulator's present cartesian position (FB value)	Rz	[unit: 0.001deg]
M022=	Lower 2 bytes of the	manipulator's present cartesian position (FB value)	Re	[unit: 0.001deg]
M023=	Upper 2 bytes of the	manipulator's present cartesian position (FB value)	Re	[unit: 0.001deg]



- When validating the command value register output function (S1CxG208=1), never fail to set the output register number (S1CxG210 to 216) of each coordinate value.
- When validating the FB value register output function (S1CxG217=1), never fail to set the output register number (S1CxG219 to 225) of each coordinate value.
- In case 2 bytes is set as the register output size (S1CxG209=1 or S1CxG218=1), the unit of X,Y and Z-axes coordinate value becomes “mm” and that of Rx, Ry, Rz and Re coordinate value becomes “deg”. In both cases, only the lower 2 bytes are output.
- When setting 4 bytes to the register output size (S1CxG209=1 or S1CxG218=1), the unit of X,Y and Z-axes coordinate value becomes “ μ mm” and that of Rx, Ry, Rz and Re coordinate value becomes “0.0001deg”.
- When setting 4 bytes to the register output size (S1CxG209=1 or S1CxG218=1), upper byte of the coordinate value is output to the following register number to the specified output register number. In this consequence, confirm the register’s status of use before setting the output size to the register.