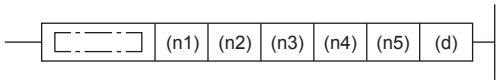
Multiple axes concurrent drive positioning

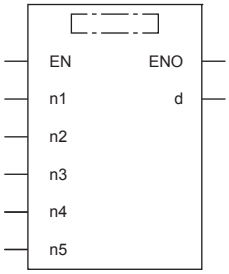
DRVMUL

FX5S FX5UJ FX5U FX5UC

This instruction executes tables of multiple axes of one module simultaneously.

Ladder diagram	Structured text
	ENO:=DRVMUL(EN,n1,n2,n3,n4,n5,d);

FBD/LD



Setting data

■Descriptions, ranges, and data types

Operand	Description	Range	Data type	Data type (label)
(n1)	Start axis number	K1, K5, K7, K9, K11	16-bit unsigned binary	ANY16_U
(n2)	Table number of the axis 1	K0 to 100*1	16-bit unsigned binary	ANY16_U
(n3)	Table number of the axis 2	K0 to 100*1	16-bit unsigned binary	ANY16_U
(n4)	Table number of the axis 3	K0 to 100*1	16-bit unsigned binary	ANY16_U
(n5)	Table number of the axis 4	K0 to 100*1	16-bit unsigned binary	ANY16_U
(d)	Bit device number of the positioning complete flag or abnormal end flag	—	Bit	ANYBIT_ARRAY (Number of elements: 8)
EN	Execution condition	—	Bit	BOOL
ENO	Execution result	—	Bit	BOOL

*1 If the table data is not stored to devices in the CPU module, the table number range is 1 to 32.

■Applicable devices

Operand	Bit	Word			Double word		Indirect specification	Constant			Others
	X, Y, M, L, SM, F, B, SB, S	T, ST, C, D, W, SD, SW, R	U□\G□	Z	LC	LZ		K, H	E	$	
(n1)	○	○	○	○	—	—	○	○	—	—	—
(n2)	○	○	○	○	—	—	○	○	—	—	—
(n3)	○	○	○	○	—	—	○	○	—	—	—
(n4)	○	○	○	○	—	—	○	○	—	—	—
(n5)	○	○	○	○	—	—	○	○	—	—	—
(d)	○	○*1	—	—	—	—	—	—	—	—	—

*1 T, ST, and C cannot be used.

Processing details

This instruction executes tables of multiple axes of one module simultaneously.

- For (n1), specify the head axis number for which pulses are output.

Designation number	Axis numbers to be used
K1	■FX5S/FX5U/FX5UC CPU module Execute axis 1 to axis 4 (CPU module) simultaneously. ■FX5UJ CPU module Execute axis 1 to axis 3 (CPU module) simultaneously.
K5	Execute axis 5, axis 6 (high-speed pulse input/output module first module) simultaneously.
K7	Execute axis 7, axis 8 (high-speed pulse input/output module second module) simultaneously.
K9	Execute axis 9, axis 10 (high-speed pulse input/output module third module) simultaneously.
K11	Execute axis 11, axis 12 (high-speed pulse input/output module fourth module) simultaneously.

- For (n2), specify the table number that is executed with the axis (n1). When not executing the axis (n1), specify K0.
- For (n3), specify the table number that is executed with the axis (n1)+1. When not executing the axis (n1)+1, specify K0.
- For (n4), specify the table number that is executed with the axis (n1)+2. If axis (n1) + 2 is not executed or the axis number of the high-speed pulse input/output module is specified to (n1), specify K0.
- For (n5), specify the table number that is executed with the axis (n1)+3. If axis (n1)+3 is not executed or the axis number of the FX5S/FX5UJ CPU module or high-speed pulse input/output module is specified to (n1), specify K0.
- For (d), specify the device*1 of the instruction execution complete flag for each axis. Each device functions as the following flag.

Device	Description
(d)	Instruction execution complete flag for the axis (n1)
(d)+1	Instruction execution abnormal end flag for the axis (n1)
(d)+2	Instruction execution complete flag for the axis (n1)+1
(d)+3	Instruction execution abnormal end flag for the axis (n1)+1
(d)+4	Instruction execution complete flag for the axis (n1)+2
(d)+5	Instruction execution abnormal end flag for the axis (n1)+2
(d)+6	Instruction execution complete flag for the axis (n1)+3*2
(d)+7	Instruction execution abnormal end flag for the axis (n1)+3*2

*1 The following number of device points are occupied starting with (d).
FX5S/FX5UJ CPU module: 6 points
FX5U/FX5UC CPU module: 8 points

*2 The complete flag is assigned only in FX5U/FX5UC CPU module.

For details on the function and error code, refer to MELSEC iQ-F FX5 User's Manual (Application).

Precautions

Make sure that the instruction execution complete flag and devices used with other controls are not duplicated.

For other precautions, refer to MELSEC iQ-F FX5 User's Manual (Application).