

19.2 Divided BFM Write

WBFM

~~FX5S~~ ~~FX5UJ~~

~~FX5U~~ ~~FX5UC~~

This instruction writes data to continuous buffer memory areas in an FX3 intelligent function module.

| Ladder diagram | Structured text |
|----------------|---------------------------------|
| | ENO:=WBFM(EN,UnHn,s1,s2,n1,n2); |

| FBD/LD | |
|--------|--|
| | |

Setting data

■ Descriptions, ranges, and data types

| Operand | Description | Range | Data type | Data type (label) |
|---------------------|--|------------|------------------------|-------------------|
| (U/H) ^{*1} | Module number | 1H to 10H | 16-bit unsigned binary | ANY16_U |
| (s1) | Head buffer memory number | 0 to 32767 | 16-bit unsigned binary | ANY16_U |
| (s2) | Head device number storing data to be written to buffer memory | — | 16-bit signed binary | ANY16 |
| (n1) | Number of all buffer memory areas to be written | 1 to 32768 | 16-bit unsigned binary | ANY16_U |
| (n2) | Not used | — | 16-bit unsigned binary | ANY16_U |
| EN | Execution condition | — | Bit | BOOL |
| ENO | Execution result | — | Bit | BOOL |

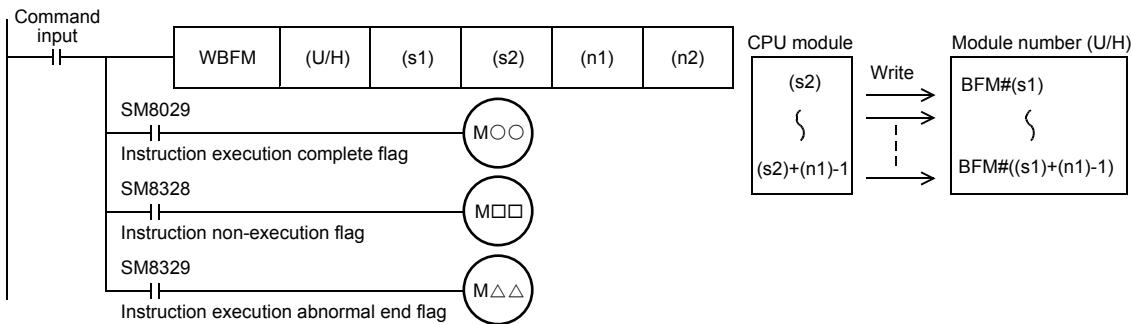
*1 In the case of the ST language and the FBD/LD language, U/H displays as UnHn.

■ 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 | | K, H | E | \$ | |
| (U/H) | ○ | ○ | ○ | ○ | — | — | ○ | ○ | — | — | — |
| (s1) | ○ | ○ | ○ | ○ | — | — | ○ | ○ | — | — | — |
| (s2) | — | ○ | — | ○ | — | — | ○ | — | — | — | — |
| (n1) | ○ | ○ | ○ | ○ | — | — | ○ | ○ | — | — | — |
| (n2) | ○ | ○ | ○ | ○ | — | — | ○ | ○ | — | — | — |

Processing details

- This instruction writes (n1) points of buffer memory starting from (s1) inside the intelligent function module number (U/H) to (s2) in the CPU module. When (n1) exceeds 64 points, it divides and writes by several scans. (64 points are read in one scan)



- When this instruction is finished normally, instruction execution complete flag (SM8029) turns on. When this instruction is finished abnormally, instruction execution abnormal end flag (SM8329) turns on.
- When this instruction or the RBFM instruction is executed in the same scan, instruction non-execution flag (SM8328) is set to on, and execution of such an instruction is paused. When execution of the other target instruction is complete, the paused instruction resumes.

Related devices

| Device | Name | Description |
|--------|------------------------------------|--|
| SM8029 | Instruction execution complete | Turns ON when an instruction is finished normally. |
| SM8328 | Instruction non-execution | Turns ON when the RBFM instruction or WBFM instruction in another step is executed for the same module number. |
| SM8329 | Instruction execution abnormal end | Turns ON when an instruction is finished abnormally. |

Precautions

- Do not stop the instruction while it is being executed. If driving is stopped, the buffer memory write processing is suspended, but the data that is already written is stored in (s1) onwards.
- When indexing is executed, the contents of index registers at the beginning of execution are used. Even if the contents of index registers are changed after the instruction, such changes do not affect the process of the instruction.
- Do not update (change) the contents of (n1) points starting from (s2) while this instruction is executed. If the contents are updated, the intended data may not be written to the buffer memory areas.
- This instruction cannot be used in FX5 intelligent function modules.
- This instruction cannot be used while a interrupt routine program is being executed.

Operation error

| Error code (SD0/SD8067) | Description |
|-------------------------|---|
| 2441H | Communication procedure with module is not completed correctly when this instruction is executed. |
| 2801H | Module with the module number specified by (U/H) does not exist, or the specified module is not supported. |
| 2823H | The number of transfer points specified by (n1) and the buffer memory number specified by (s1) is beyond the buffer memory range. |
| 2820H | The number of transfer points specified by (n1) and the device number specified by (s2) is beyond the specified device range. |
| 3580H | An instruction that cannot be used in an interrupt program is used. |

MEMO
