

17.3 MODBUS Communication Instruction

ADPRW

FX5S

FX5UJ

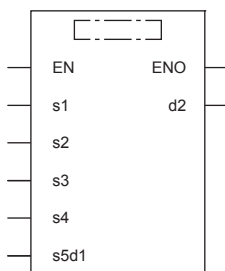
FX5U

FX5UC

This instruction allows the MODBUS Master to communicate (read/write data) with the Slaves.

| Ladder diagram | Structured text |
|----------------|-------------------------------------|
| | ENO:=ADPRW(EN,s1,s2,s3,s4,s5d1,d2); |

FBD/LD



Setting data

■Descriptions, ranges, and data types

| Operand | Description | Range | Data type | Data type (label) |
|-----------|---|------------------------|--------------------------|---|
| (s1) | Slave station No. | 0 to F7H ^{*1} | 16-bit signed binary | ANY16 |
| (s2) | Function code | 01H to 06H, 0FH, 10H | 16-bit signed binary | ANY16 |
| (s3) | Function parameters depending on the function code | 0 to FFFFH | 16-bit signed binary | ANY16 |
| (s4) | Function parameters depending on the function code | 1 to 2000 | 16-bit signed binary | ANY16 |
| (s5)/(d1) | Function parameters depending on the function code | — | Bit/16-bit signed binary | ANY_ELEMENTARY ^{*2} |
| (d2) | Head bit device number to which the execution status of the communication is output | — | Bit | ANYBIT_ARRAY (Number of elements: 3) |
| EN | Execution condition | — | Bit | BOOL |
| ENO | Execution result | — | Bit | BOOL |

*1 Slave station No. that can be used in FX5 master station differs depending on the version. (Page 1452 Added and Changed Functions)


*2 Digit specified bit type label cannot be used.

■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 | \$ | |
| (s1) | — | ○ ^{*1} | ○ | ○ | — | — | ○ | ○ | — | — | — |
| (s2) | — | ○ ^{*1} | ○ | ○ | — | — | ○ | ○ | — | — | — |
| (s3) | — | ○ ^{*1} | ○ | ○ | — | — | ○ | ○ | — | — | — |
| (s4) | — | ○ ^{*1} | ○ | ○ | — | — | ○ | ○ | — | — | — |
| (s5)/(d1) | ○ | ○ ^{*1} | ○ | ○ | — | — | ○ | ○ | — | — | — |
| (d2) | ○ | ○ ^{*1} | — | — | — | — | — | — | — | — | — |

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

Processing details

- Function code (s2) is operated on Slave station No. (s1) according to Parameters (s3), (s4), and (s5)/(d1). Use 0 as the Slave station No. for Broadcast commands. For details, refer to  MELSEC iQ-F FX5 User's Manual (Communication).
- The communication execution status (d2) is output according to the status of the ADPRW instruction such as communicating/completed normally/completed with an error.

Precautions

Three devices are occupied from the device specified in (d2). Make sure that these devices are not used in other controls.

Operation error

| Error code (SD0/SD8067) | Description |
|----------------------------|---|
| 1810H | Channel used by the instruction is used by other instruction. |
| 3600H | Invalid parameter setup. |
| 2822H | Device that cannot be used by this instruction is specified. |
| 3405H | Data outside the allowable range was input. |
| 2820H | The specified device exceeds the range of the corresponding device. |

For communication errors, refer to  MELSEC iQ-F FX5 User's Manual (Communication).