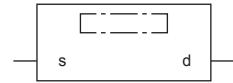


24.2 Logical Negation

NOT(_E)

FX5S FX5UJ FX5U FX5UC

These functions output the logical negation of input values.

| Ladder diagram, FBD/LD | Structured text |
|---|--|
| [Without EN/ENO]  [With EN/ENO]  | [Without EN/ENO] d:=NOT(s); [With EN/ENO] d:=NOT_E(EN,ENO,s); |

Setting data

■ Descriptions, types, and data types

| Argument | Description | Type | Data type |
|------------|--|-----------------|-----------|
| EN | Execution condition (TRUE: Execution, FALSE: Stop) | Input variable | BOOL |
| s(IN) | Input | Input variable | ANY_BIT |
| ENO | Output status (TRUE: Normal, FALSE: Abnormal) | Output variable | BOOL |
| d(NOT(_E)) | Output | Output variable | ANY_BIT |

Processing details

■ Operation processing

- These functions calculate the logical negation for each bit of the BOOL, WORD, or DWORD type data input in (s), and output the operation result from (d) in the same data type as (s).

Ex.

When the data type is WORD

| | | |
|-----|---|-----|
| (s) | 0 1 1 0 1 0 1 1 0 0 0 0 1 1 1 1 | NOT |
| (d) | 1 0 0 1 0 1 0 0 1 1 1 1 0 0 0 0 | |

- A value input to (s) is the BOOL, WORD, or DWORD type data value.

■ Operation result

1. Function without EN/ENO

The operation processing is executed. The operation output value is output from (d).

2. Function with EN/ENO

The following table lists the execution conditions and operation results.

| Execution condition | Operation result | |
|---------------------------|---------------------|------------------------|
| EN | ENO | (d) |
| TRUE (Executes operation) | TRUE | Operation output value |
| FALSE (Stops operation) | FALSE ^{*1} | Indefinite value |

*1 When FALSE is output from ENO, data output from (d) is undefined. In that case, modify a program so that the data output from (d) is not used.

Operation error

There is no operation error.