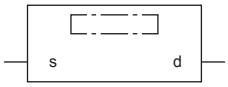
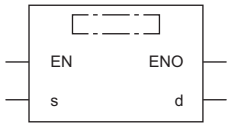
20.35 Converting REAL to INT

REAL_TO_INT(_E)

FX5S FX5UJ FX5U FX5UC

These functions convert REAL type data to INT type data.

Ladder diagram, FBD/LD		Structured text

[Without EN/ENO]
 
	[With EN/ENO]
	 
		[Without EN/ENO]
		d:=REAL_TO_INT(s);
		[With EN/ENO]
		d:=REAL_TO_INT_E(EN,ENO,s);

Setting data

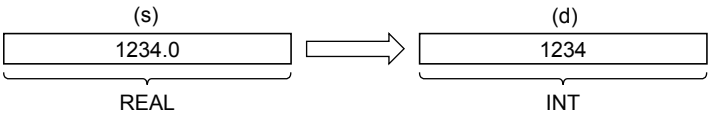
■Descriptions, types, and data types

Argument	Description	Type	Data type
EN	Execution condition (TRUE: Execution, FALSE: Stop)	Input variable	BOOL
s(IN)	Input	Input variable	REAL
ENO	Output status (TRUE: Normal, FALSE: Abnormal)	Output variable	BOOL
d(REAL_TO_INT(_E))	Output	Output variable	INT

Processing details

■Operation processing

- These functions convert the REAL type data input to (s) to INT type data and output from (d).



- A value input to (s) is the REAL type data value and within the range from -32768 to 32767.
- After conversion, the first digit after the decimal point of the REAL type data value is rounded down.

■Operation result

1. Function without EN/ENO

The following table lists the operation results.

Operation result	(d)
No operation error occurred	Operation output value
An operation error occurred	Indefinite value

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 error did not occur)	Operation output value
	FALSE (Operation error occurred)*1	Indefinite 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.

Precautions

If the single-precision real number set in (s) is out of the effective value range, the program will not operate correctly.

Operation error

Error code (SD0/SD8067)	Description
3402H	• A special number is set to (s). • The set single-precision real number is not located within the following range. $0, 2^{-126} \leq \lvert(s)\rvert < 2^{128}$ • The set device or label value is -0, denormalized number, NaN (not a number), or $\pm\infty$.