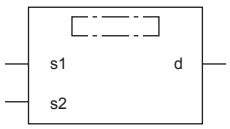
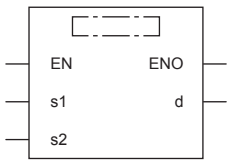
22.4 Division

DIV(_E)

FX5S FX5UJ FX5U FX5UC

These functions output the quotient of input values ((s1) ÷ (s2)).

Ladder diagram, FBD/LD		Structured text

[Without EN/ENO]
 
	[With EN/ENO]
	 
		[Without EN/ENO]
		d:=DIV(s1,s2);
		[With EN/ENO]
		d:=DIV_E(EN,ENO,s1,s2);

Setting data

■Descriptions, types, and data types

Argument	Description	Type	Data type
EN	Execution condition (TRUE: Execution, FALSE: Stop)	Input variable	BOOL
s1(IN1)	Dividend	Input variable	ANY_NUM
s2(IN2)	Divisor	Input variable	ANY_NUM
ENO	Output status (TRUE: Normal, FALSE: Abnormal)	Output variable	BOOL
d(DIV(_E))	Output	Output variable	ANY_NUM

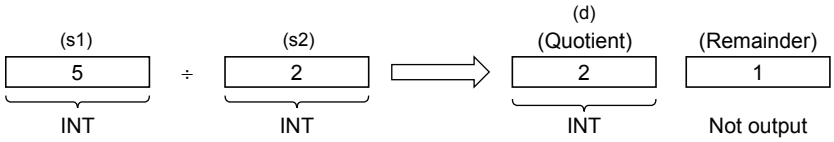
Processing details

■Operation processing

- These functions divide the INT, DINT, or REAL type data input to (s1) and (s2) ((s1) ÷ (s2)), and output the operation result from (d) in the same data type as (s).

Ex.

Data type is INT



- A value input to (s1) and (s2) is the INT, DINT, or REAL type data value. (However, input other than 0 to (s2).)

■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.

Operation error

• (s1) and (s2) are INT

Error code (SD0/SD8067)	Description
3400H	The value (divisor) specified by (s2) is 0.

• (s1) and (s2) are DINT

Error code (SD0/SD8067)	Description
3400H	The value (divisor) specified by (s2) is 0.

• (s1) and (s2) are REAL

Error code (SD0/SD8067)	Description
3400H	The value (divisor) specified by (s2) is 0.
3402H	The data specified by (s1) is -0, denormalized number, NaN (not a number), or ±∞.
	The data specified by (s2) is -0, denormalized number, NaN (not a number), or ±∞.
3403H	(d) exceeds the following range. (An overflow has occurred.) $\|(d)\|<2^{128}$