

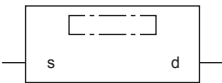
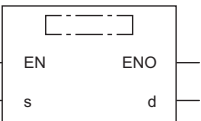
30 EDGE DETECTION FUNCTION BLOCKS

30.1 Rising Edge Detector

R_TRIG(_E)

FX5S **FX5UJ** **FX5U** **FX5UC**

These functions detect the rising edge of a signal, and output a pulse signal.

Ladder diagram, FBD/LD		Structured text
[Without EN/ENO]	[With EN/ENO]	[Without EN/ENO] R_TRIG_1(CLK:=s,Q:=d); [With EN/ENO] R_TRIG_E_1(EN:=EN, ENO:=ENO CLK:=s,Q:=d);
		

Setting data

■Descriptions, types, and data types

Argument	Description	Type	Data type
EN	Execution condition (TRUE: Execution, FALSE: Stop)	Input variable	BOOL
s(CLK)	Rising edge detector input	Input variable	BOOL
ENO	Output status (TRUE: Normal, FALSE: Abnormal)	Output variable	BOOL
d(Q)	Output	Output variable	BOOL

Processing details

■Operation processing

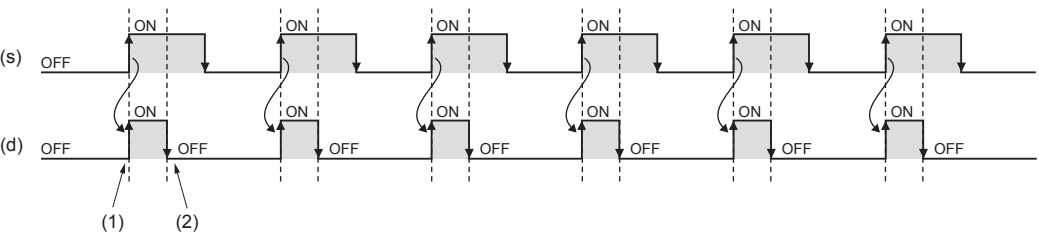
When (s) turns ON, (d) is turned ON only for one scan.

■Operation result

1. Function block without EN/ENO

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

- Timing chart



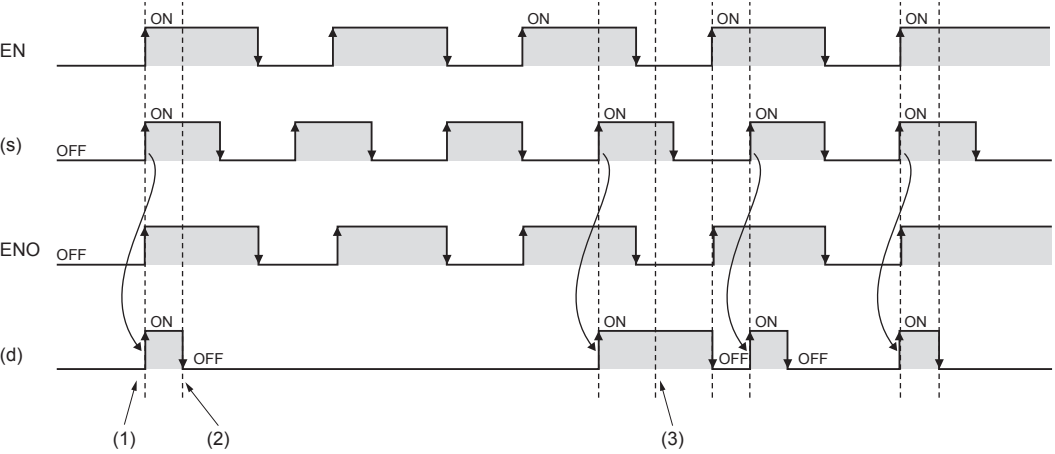
- (1): On the rising edge of (s), (d) turns on.
(2): At the next scan, (d) turns off.

2. Function block 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	Previous output value

• Timing chart



- (1): When EN is on and on the rising edge of (s), (d) turns on.
(2): At the next scan, (d) turns off.
(3): When EN is off, (d) holds the output of the previous scan.

Operation error

There is no operation error.