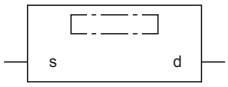
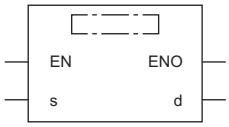
30.2 Falling Edge Detector

F_TRIG(_E)

FX5S FX5UJ FX5U FX5UC

These function blocks detect the falling edge of a signal, and output a pulse signal.

Ladder diagram, FBD/LD		Structured text
[Without EN/ENO] 	[With EN/ENO] 	[Without EN/ENO] F_TRIG_1(CLK:=s,Q:=d); [With EN/ENO] F_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)	Falling 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

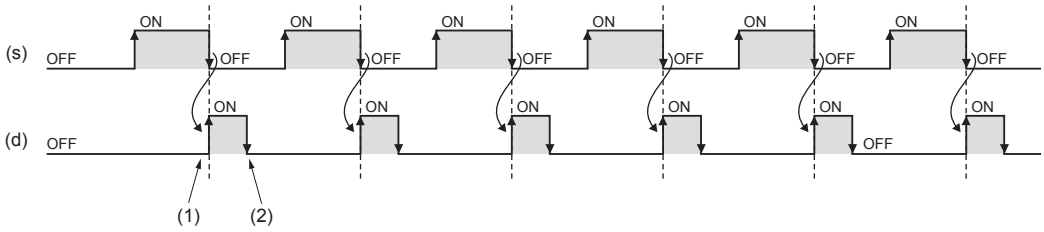
When (s) turns OFF, (d) is turned ON only for one scan.

■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 falling edge of (s), (d) turns on.

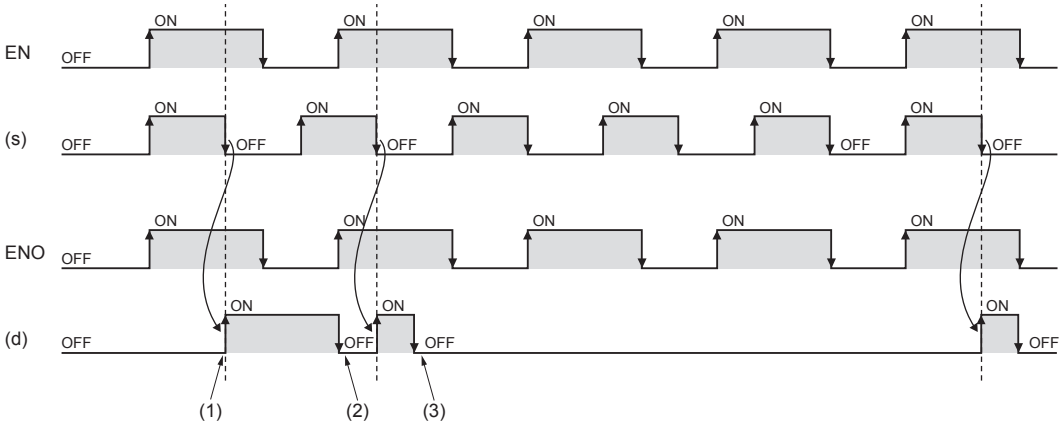
(2): At the next scan, (d) turns off.

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 falling 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.