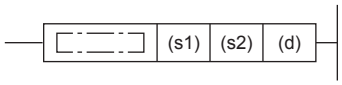
Special function timer

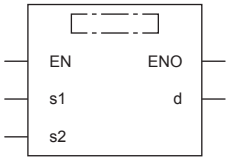
STMR

FX5S FX5UJ FX5U FX5UC

This instruction uses the four devices from the device specified by (d) to perform four types of timer output.

Ladder diagram	Structured text
	ENO:=STMR(EN,s1,s2,d);

FBD/LD



Setting data

■Descriptions, ranges, and data types

Operand	Description	Range	Data type	Data type (label)
(s1)	Used timer number (operates as a 100 ms timer)	—	Device name	ANY16
(s2)	Timer set value	1 to 32767	16-bit signed binary	ANY16
(d)	Start bit number to be output	—	Bit	ANYBIT_ARRAY (Number of elements: 4)
EN	Execution condition	—	Bit	BOOL
ENO	Execution result	—	Bit	BOOL

■Applicable devices

Operand	Bit	Word			Double word		Indirect specification	Constant			Others
	X, Y, M, L, SM, F, B, SB, S	T, ST, C, D, W, SD, SW, R	U□\G□	Z	LC	LZ		K, H	E	$	
(s1)	—	○*1	—	—	—	—	○	—	—	—	—
(s2)	○	○	○	○	—	—	○	○	—	—	—
(d)	○	○*2	—	—	—	—	—	—	—	—	—

*1 Only T can be used.

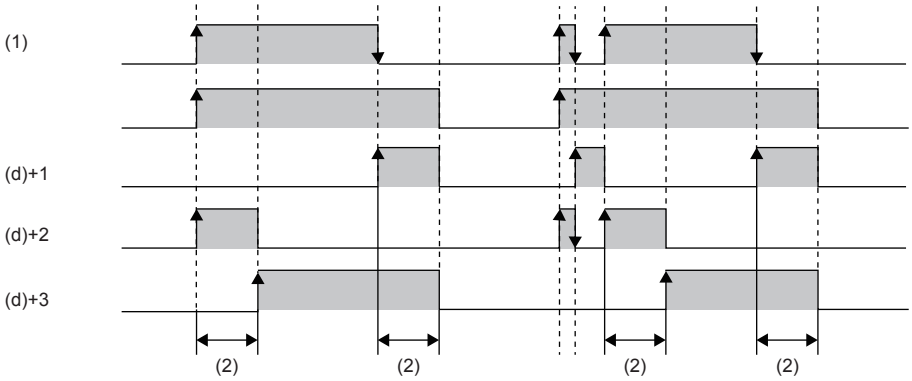
*2 T, ST, and C cannot be used.

■Control data

Operand: (d)			
Device	**Description**	**Setting range**	**Set by**
+0	Off delay timer output: Turns on at the rising edge of the command of the STMR instruction and turns off when the time specified by (s2) elapses after the falling edge.	—	System
+1	One-shot timer output after turning off: Turns on at the falling edge of the command of the STMR instruction and turns off when the time specified by (s2) elapses.	—	System
+2	One-shot timer output after turning on Turns on at the rising edge of the command of the STMR instruction and turns off when the command of the STMR instruction is turned off or when the time specified by (s2) elapses.	—	System
+3	On delay timer + Off delay timer output: Turns on at the falling edge of the timer coil and turns off when the time specified by (s2) elapsed after the falling edge of the command of the STMR instruction.	—	System

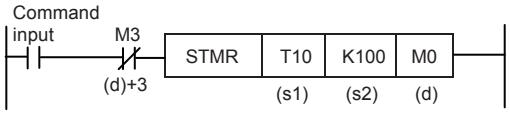
Processing details

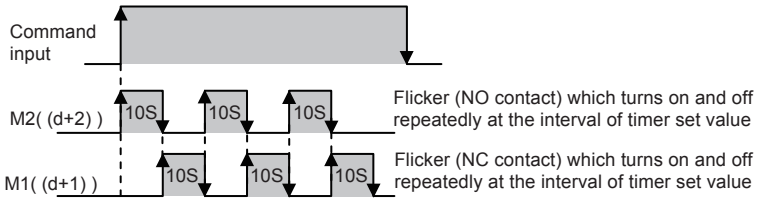
- This instruction uses the four devices from the device specified by (d) to perform four types of timer output.



(1): Command of the STMR instruction
(2): Setting value specified by (s2)

- The flickering effect is produced using (d)+1 and (d)+2 with the following program (T10 is assigned to (s1), K100 is assigned to (s2), and M0 is assigned to (d)), which turns on/off the STMR instruction at the normally closed contact of (d)+3.





- A value in the range of 0 to 32767 (0 to 3276.7 seconds) can be specified in (s2).

Precautions

- The timer number specified in this instruction cannot be used in other general circuits (such as OUT instruction). If the timer number is used in other general circuits, the timer malfunctions.
- The timer specified by (s1) starts counting as a 100 ms timer on the rising edge of the command contact.
- Four devices are occupied from a device specified in (d). Make sure that such devices are not used in other controls for the machine.
- If the command contact is turned off, (d), (d)+1, and (d)+3 turn off when the set time elapses. (d)+2 and the timer (s1) are immediately reset.

Operation error

Error code (SD0/SD8067)	Description
2820H	The device range specified by (d) exceeds the corresponding device range.
3405H	The value specified by (s2) is outside the following range. 1 to 32767