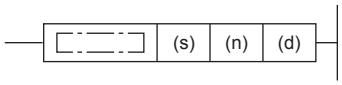
Setting annunciator (with check time)

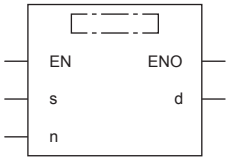
ANS

FX5S FX5UJ FX5U FX5UC

This instruction sets the annunciator (F device).

Ladder diagram	Structured text
	ENO:=ANS(EN,s,n,d);

FBD/LD



Setting data

■Descriptions, ranges, and data types

Operand	Description	Range	Data type	Data type (label)
(s)	Timer number for evaluation time	—	16-bit signed binary	ANY16
(n)	Evaluation time data	1 to 32767	16-bit unsigned binary	ANY16_U
(d)	Annunciator device to be set	—	Bit	ANY_BOOL
EN	Execution condition	—	Bit	BOOL
ENO	Execution result	—	Bit	BOOL

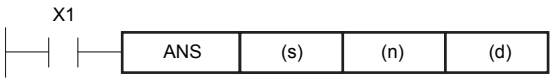
■Applicable devices

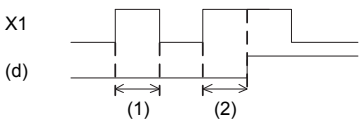
Operand	Bit	Word			Double word		Indirect specification	Constant			Others
	X, Y, M, L, SM, F, B, SB, S	T, ST, C, D, W, SD, SW, R	U□\G□	Z	LC	LZ		K, H	E	$	
(s)	—	○*1	—	—	—	—	○	—	—	—	—
(n)	○	○	○	○	—	—	○	○	—	—	—
(d)	○*2	—	—	—	—	—	—	—	—	—	—

*1 Only T can be used.
*2 Only F can be used.

Processing details

- This instruction sets (d) when the command input remains ON continuously for the evaluation time [(n)×100 ms, (s)] or more. This instruction resets the current value of (s) evaluation timer and does not set (d) when the command time is less than the evaluation time [(n)×100 ms]. Also, this instruction resets the evaluation timer when the command input turns OFF.





(1): Less than the evaluation time ((n) × less than 100 ms)
(2): Equivalent to or longer than the evaluation time ((n) × 100 ms or more)

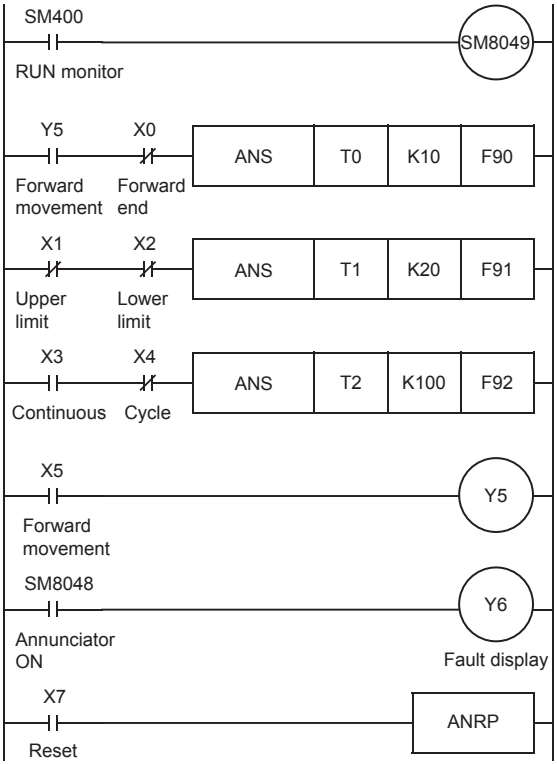
■Related devices

Device	Name	Description
SM8049	ON status annunciator smallest number enabled	When SM8049 is turned ON, SM8048 and SD8049 are enabled.
SM8048	Annunciator operation	When one of the F devices is operating, SM8048 turns ON.
SD8049	ON status annunciator smallest number	The smallest number of the F devices that are operating is stored.

Program example

• Displaying a fault number using an annunciator

When the program for external fault diagnosis shown below is created and the content of SD8049 (smallest state relay number in the ON status) is monitored, the smallest state relay number in the ON status from F90 to F92 is displayed.
If two or more faults are present at the same time, the next smallest fault number is displayed after the fault of the smallest fault number is cleared.



When SM8049 turns ON, monitoring becomes valid.

If the forward end detection input X0 does not turn ON within 1 second after the forward movement output Y5 is driven, F90 turns ON.

If both the upper limit input X1 and the lower limit input X2 are OFF for 2 seconds or more due to a dog error, F91 turns ON.

The switch X4 is set to ON in one operation cycle of the machine. If the switch X4 is not set to ON while the continuous operation mode input X3 is ON in the machine whose tact time is less than 10 seconds, F92 turns ON.

When one among F90 to F92 turns ON, SM8048 turns ON and the fault display output Y6 turns ON.

A state relay which was set to ON by the external fault diagnosis program is set to OFF by the reset button X7. Every time X7 is set to ON, an operation state relay in the ON status with the smallest device number is reset (set to OFF) in turn.

Operation error

There is no operation error.