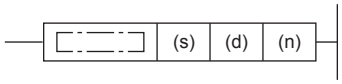
Bit judgment of 16-bit data

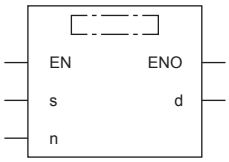
BON(P)

FX5S FX5UJ FX5U FX5UC

These instructions check whether (n) bit(s) of binary 16-bit data of the device specified by (s) are on or off, and output the result to the device specified by (d).

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

FBD/LD



Setting data

■Descriptions, ranges, and data types

Operand	Description	Range	Data type	Data type (label)
(s)	Word device number storing the data	—	16-bit signed binary	ANY16
(d)	Bit device number to be driven	—	Bit	ANY_BOOL
(n)	Bit position to be checked	0 to 15	16-bit unsigned binary	ANY16_U
EN	Execution condition	—	Bit	BOOL
ENO	Execution result	—	Bit	BOOL

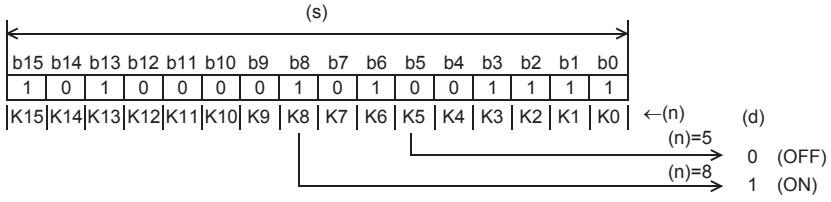
■Applicable devices

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)	○	○	○	○	—	—	○	○	—	—	—
(d)	○	○*1	○	—	—	—	—	—	—	—	—
(n)	○	○	○	○	—	—	○	○	—	—	—

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

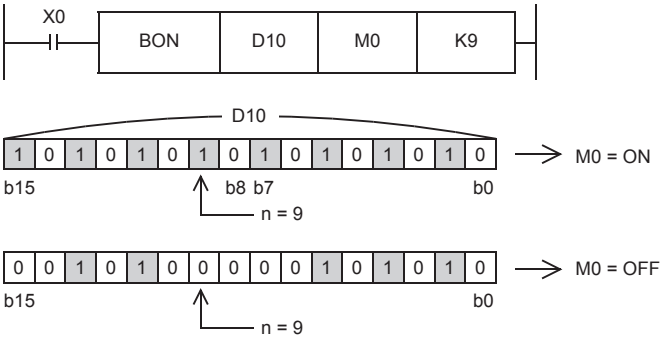
Processing details

- These instructions check whether (n) bit(s) of binary 16-bit data of the device specified by (s) are on or off, and output the result to the device specified by (d).
- When the result above is on, these instructions turn (d) on. When the result above is off, these instructions turn (d) off.
- When a constant (K) is specified in the device specified by (s), it is automatically converted into binary.



Program example

In the program example shown below, when the bit 9 (n = 9) in D10 is "1" (ON), M0 is set to "1" (ON).



Operation error

Error code (SD0/SD8067)	Description
3405H	The value specified by (n) is outside the following range. 0 to 15