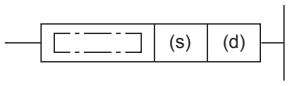
Seven-segment decoding

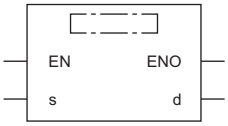
SEGD(P)

FX5S FX5UJ FX5U FX5UC

This instruction decodes data, and turns the seven-segment display unit (1 digit) ON.

Ladder diagram	Structured text
	ENO:=SEGD(EN,s,d); ENO:=SEGDP(EN,s,d);

FBD/LD



Setting data

■Descriptions, ranges, and data types

Operand	Description	Range	Data type	Data type (label)
(s)	Head device to be decoded	-32768 to +32767	16-bit signed binary	ANY16
(d)	Device number storing the data to be displayed in the seven-segment display unit	—	16-bit signed binary	ANY16
EN	Execution condition	—	Bit	BOOL
ENO	Execution result	—	Bit	BOOL

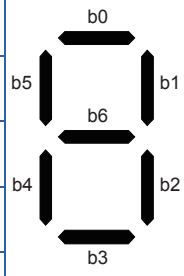
■Applicable devices

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	○	○	○	—	—	○	—	—	—	—

*1 X cannot be used.

Processing details

- "0" to "F" (hexadecimal numbers) in low-order 4 bits (1 digit) of (s) are decoded to data for the seven-segment display unit, and stored in the low-order 8 bits of (d). Low-order 8 bits of (d) are occupied, and high-order 8 bits do not change.
- Seven-segment decode table is as follows.

(s)					Seven-segment data components	(d)											Display data
Hexadecimal	b3	b2	b1	b0		b15	to	b8	b7	b6	b5	b4	b3	b2	b1	b0	
0	0	0	0	0		0	0	0	0	0	1	1	1	1	1	1	
1	0	0	0	1		0	0	0	0	0	0	0	0	1	1	0	
2	0	0	1	0		0	0	0	0	1	0	1	1	0	1	1	
3	0	0	1	1		0	0	0	0	1	0	0	1	1	1	1	
4	0	1	0	0		0	0	0	0	1	1	0	0	1	1	0	
5	0	1	0	1		0	0	0	0	1	1	0	1	1	0	1	
6	0	1	1	0		0	0	0	0	1	1	1	1	1	0	1	
7	0	1	1	1		0	0	0	0	0	1	0	0	1	1	1	
8	1	0	0	0		0	0	0	0	1	1	1	1	1	1	1	
9	1	0	0	1		0	0	0	0	1	1	0	1	1	1	1	
A	1	0	1	0		0	0	0	0	1	1	1	0	1	1	1	
B	1	0	1	1		0	0	0	0	1	1	1	1	1	0	0	
C	1	1	0	0		0	0	0	0	0	1	1	1	0	0	1	
D	1	1	0	1		0	0	0	0	1	0	1	1	1	1	0	
E	1	1	1	0		0	0	0	0	1	1	1	1	0	0	1	
F	1	1	1	1		0	0	0	0	1	1	1	0	0	0	1	

Operation error

There is no operation error.