

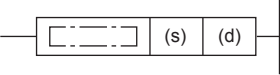
7.3 Logical Operation Instructions

Performing an AND operation on 16-bit data

WAND(P) [using two operands]

FX5S**FX5UJ****FX5U****FX5UC**

These instructions AND each bit of 16-bit binary data from the device specified by (d) and each bit of 16-bit binary data from device specified by (s), and store the results in the device specified by (d).

Ladder diagram	Structured text
	Not supported 📖 Page 281 WAND(P) [using three operands]

FBD/LD

Not supported.

📖 Page 281 WAND(P) [using three operands]

Setting data

■Descriptions, ranges, and data types

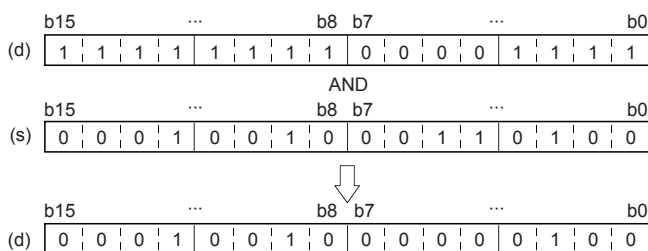
Operand	Description	Range	Data type	Data type (label)
(s)	Data for AND or device where the data is stored	-32768 to +32767	16-bit signed binary	ANY16
(d)	Device for storing AND results	-32768 to +32767	16-bit signed binary	ANY16

■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)	○	○	○	○	—	—	○	—	—	—	—

Processing details

- These instructions AND each bit of 16-bit binary data from the device specified by (d) and each bit of 16-bit binary data from device specified by (s), and store the results in the device specified by (d).



- Bit devices subsequent to number of points by digit specification are calculated as 0.

Operation error

There is no operation error.

WAND(P) [using three operands]

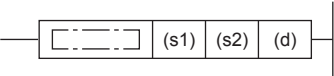

FX5S

FX5UJ

FX5U

FX5UC

These instructions AND each bit of 16-bit binary data from the device specified by (s1) and each bit of 16-bit binary data from device specified by (s2), and store the results in the device specified by (d).

Ladder diagram	Structured text
	<pre>ENO:=WAND(EN,s1,s2,d); ENO:=WANDP(EN,s1,s2,d);</pre>
FBD/LD	
	

Setting data

■Descriptions, ranges, and data types

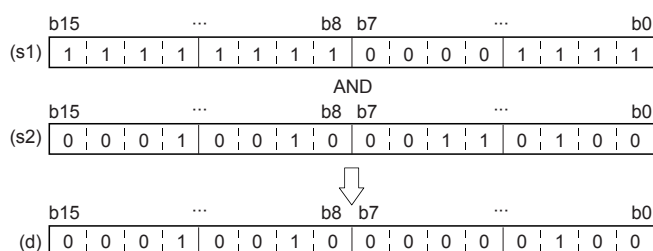
Operand	Description	Range	Data type	Data type (label)
(s1)	Data for AND or device where the data is stored	-32768 to +32767	16-bit signed binary	ANY16
(s2)	Data for AND or device where the data is stored	-32768 to +32767	16-bit signed binary	ANY16
(d)	Device for storing AND results	—	16-bit signed binary	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	\$	
(s1)	○	○	○	○	—	—	○	○	—	—	—
(s2)	○	○	○	○	—	—	○	○	—	—	—
(d)	○	○	○	○	—	—	○	—	—	—	—

Processing details

- These instructions AND each bit of 16-bit binary data from the device specified by (s1) and each bit of 16-bit binary data from device specified by (s2), and store the results in the device specified by (d).



- Bit devices subsequent to number of points by digit specification are calculated as 0.

Operation error

There is no operation error.