

13.2 Socket Communications Function Instruction

Reading receive data during the END processing

SP.SOCRCV

FX5S

FX5UJ

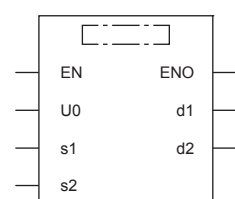
FX5U

FX5UC

This instruction reads the receive data. (Reading during END processing)

Ladder diagram	Structured text
	<pre>ENO:=SP_SOCRCV(EN,U0,s1,s2,d1,d2);</pre>

FBD/LD



("SP_SOCRCV" enters □.)

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Setting data

■Descriptions, ranges, and data types

Operand	Description	Range	Data type	Data type (label)
(U)*1	Dummy (Input the character string ["U0"].)	—	Character string	—*2 (ANYSTRING_SINGLE)
(s1)	Connection number	1 to 8	16-bit unsigned binary	ANY16
(s2)	Head device number for specifying the control data	Refer to Control data (Page 1036)	Word	ANY16_ARRAY (Number of elements: 2)
(d1)	Head device number for storing the receive data	—	Word	ANY16
(d2)	Head device number which turns ON when the execution of the instruction is completed and remains on for 1 scan. If the instruction is completed with an error, (d2)+1 is also turned on.	—	Bit	ANYBIT_ARRAY (Number of elements: 2)
EN	Execution condition	—	Bit	BOOL
ENO	Execution result	—	Bit	BOOL

*1 In the case of the ST language and the FBD/LD language, U displays as U0.

*2 Regardless of the program language to be used, the data type is specified by a device. Do not specify a label.

■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	\$	
(U)	—	—	—	—	—	—	—	—	—	○	—
(s1)	—	○	—	—	—	—	○	○	—	—	—
(s2)	—	○	—	—	—	—	○	—	—	—	—
(d1)	—	○	—	—	—	—	○	—	—	—	—
(d2)	○	○*1	—	—	—	—	—	—	—	—	—

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

■Control data

Device	Item	Description	Setting range	Set by ^{*1}
(s2)+0	System area	—	—	—
(s2)+1	Completion status	The status at the completion of the instruction is stored. 0000H: Completed successfully Other than 0000H: Completed with an error (error code) For error codes, refer to MELSEC iQ-F FX5 User's Manual (Communication).	—	System
(d1)+0	Receive data length	The data length of the data read from the socket communication receive data area is stored. (Number of bytes)	0 to 2046	System
(d1)+1 to (d1)+n	Receive data	The data read from the socket communication receive data area is sequentially stored.	—	System

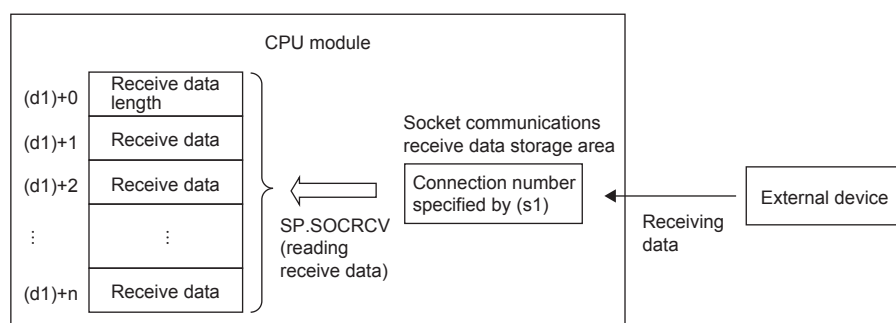
*1 System: The CPU module stores the execution result of the instruction.

Point

- When the SP.SOCRCV instruction is executed, reading data from the socket communication receive data area is executed with the END processing. Thus, executing the SP.SOCRCV instruction extends the scan time.
- When the data of odd-number of bytes is received, invalid data is stored in the higher byte of the device where the last receive data is stored.

Processing details

In the END processing after the execution of the SP.SOCRCV instruction, the receive data of the connection specified by (s1) is read from the socket communication receive data area.

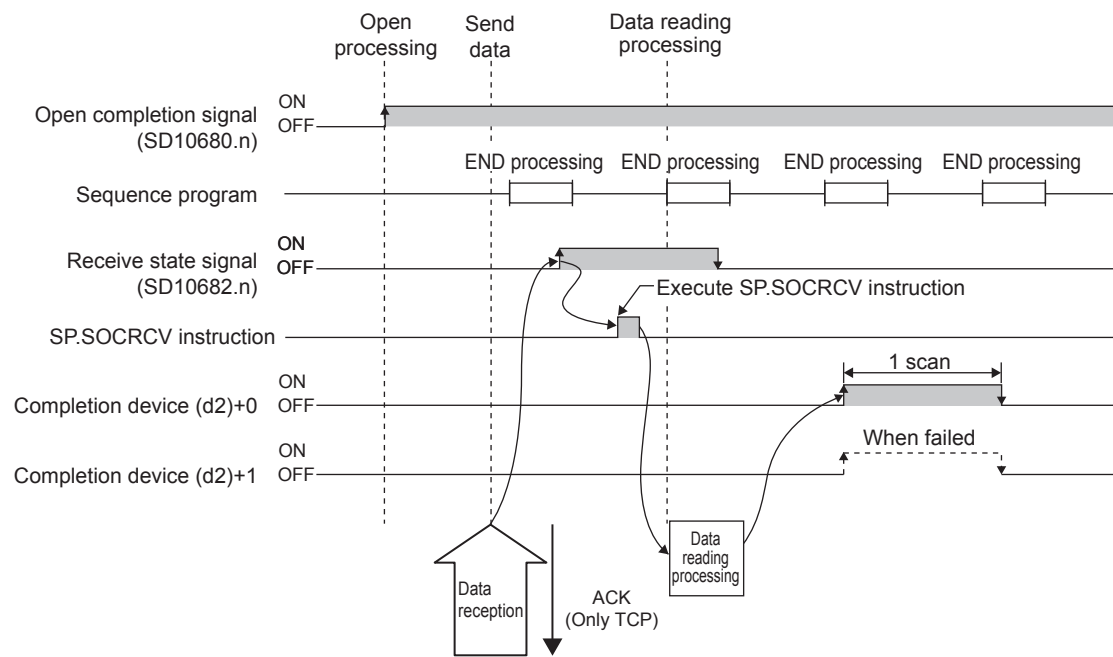


The completion of the SP.SOCRCV instruction can be checked using the completion devices (d2)+0 and (d2)+1.

- Completion device (d2)+0: Turns ON during the END processing for the scan in which the SP.SOCRCV instruction is completed, and turns OFF during the next END processing.
- Completion device (d2)+1: Turns ON or OFF depending on the status when the SP.SOCRCV instruction is completed.

Status	Description
When completed normally	The device does not change (remains OFF).
When completed with an error	The device turns ON during the END processing for the scan in which the SP.SOCRCV instruction is completed, and turns OFF during the next END processing.

The following figure shows the timing of the receive processing with the SP.SOCRCV instruction.



For details, refer to MELSEC iQ-F FX5 User's Manual (Communication).

Operation error

Error code (SD0/SD8067)	Description
3405H	The connection number specified by (s1) is other than 1 to 8.
2820H	The size of the receive data exceeds the size of the receive data storage device. The device number specified by (s2), (d1), or (d2) is outside the range of the number of device points.
2822H	Device that cannot be specified is specified.
3582H	When an instruction which cannot be used in interruption routine program is used.