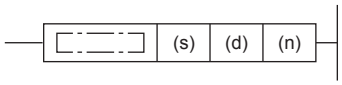
Searching the minimum value of single-precision real number

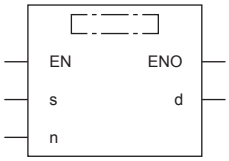
EMIN(P)

FX5S FX5UJ FX5U FX5UC

These instructions search for the minimum value in the (n) point(s) of single-precision real number block data in the device starting from the one specified by (s), and store the minimum value in the device areas specified by (d) and (d)+1.
These instructions also store the location of the first minimum value from (s) in the device specified by (d)+2 and the number of minimum values in the device specified by (d)+3.

Ladder diagram	Structured text*1
	ENO:=EMINP(EN,s,n,d);

FBD/LD*1



*1 The EMIN instruction is not supported by the ST language and the FBD/LD language. Use MIN of the standard function.
☞ Page 1327 MAX(_E), MIN(_E)

Setting data

■Descriptions, ranges, and data types

Operand	Description	Range	Data type	Data type (label)
(s)	Search target data	—	Single-precision real number	ANYREAL_32
(d)	Search result	—	Single-precision real number	—*1 (ANY_REAL_32_ARRAY)
(n)	Number of search target data points	—	16-bit unsigned binary	ANY16
EN	Execution condition	—	Bit	BOOL
ENO	Execution result	—	Bit	BOOL

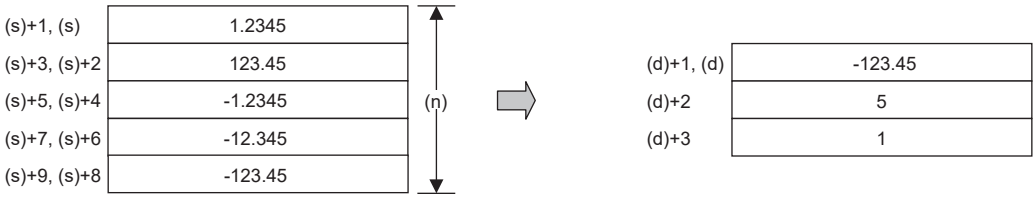
*1 Regardless of the program language to be used, the data type is specified by a device. Do not specify a label.

■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	$	
(s)	—	○	—	—	—	—	○	—	—	—	—
(d)	—	○	—	—	—	—	○	—	—	—	—
(n)	○	○	○	○	—	—	○	○	—	—	—

Processing details

- These instructions search for the minimum value in the (n) point(s) of single-precision real number block data in the device starting from the one specified by (s), and store the minimum value in the device areas specified by (d) and (d)+1. These instructions also store the location of the first minimum value from (s) in the device specified by (d)+2 and the number of minimum values in the device specified by (d)+3.
- The start of the block data in the device specified by (s) is counted as 1st point when the location is counted.



(d)+1, (d): Minimum value
(d)+2: Position
(d)+3: Number of data

- The following values are stored in (d).

	Data type	Description
(d)	Single-precision real number	Minimum value
(d)+1		
(d)+2	16-bit data	Minimum value position
(d)+3	16-bit data	Number of minimum values

- When (n) is 0, the processing is not performed.

Operation error

Error code (SD0/SD8067)	Description
2820H	The device areas specified by (s) exceed the corresponding device range.
	The device areas specified by (d) exceed the corresponding device range.
3402H	The block data in the device areas specified by (s) includes a value other than single-precision real number.