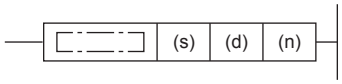
Searching the minimum value of 32-bit data

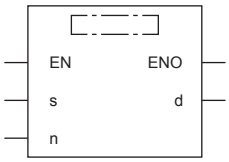
DMIN(P)(_U)

FX5S FX5UJ FX5U FX5UC

These instructions search the minimum value from the (n) point(s) of 32-bit binary data in the device starting from the one specified by (s), and store the minimum value in the device specified by (d).

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

FBD/LD*1



*1 The DMIN and DMIN_U instructions are 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)	DMIN(P)	Head device number where the minimum value is searched	—	32-bit signed binary	ANY32_S
	DMIN(P)_U			32-bit unsigned binary	ANY32_U
(d)	DMIN(P)	Head device number for storing the minimum value	—	32-bit signed binary	—*1 (ANY32_S_ARRAY)
	DMIN(P)_U			32-bit unsigned binary	—*1 (ANY32_S_ARRAY)
(n)		Number of data to be searched	0 to 65535	16-bit unsigned binary	ANY16
EN		Execution condition	—	Bit	BOOL
ENO		Execution result	—	Bit	BOOL

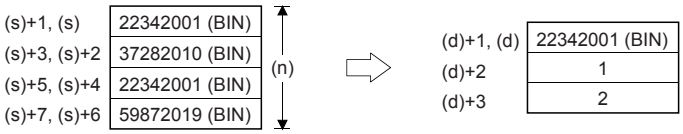
*1 Regardless of the program language to be used, the data type is specified by a device. Do not specify a label.

■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 the minimum value from the (n) point(s) of 32-bit binary data in the device starting from the one specified by (s), and store the minimum value in the device specified by (d) and (d)+1. These instructions start searching from the device specified by (s), and store the location from (s) of the first minimum value in (d)+2 and the number of minimum values in (d)+3.



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

Operation error

Error code (SD0/SD8067)	Description
2820H	The (n) point(s) of data in the device starting from the one specified by (s) exceed the corresponding device range.
	The device specified by (d) exceeds the setting area in the device/label memory.