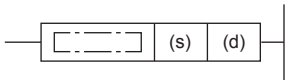
Converting binary floating point to decimal floating point

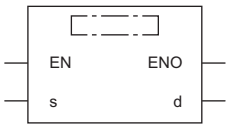
DEBCD(P)

FX5S FX5UJ FX5U FX5UC

These instructions convert the binary floating point specified by (s) to decimal floating point, and store the converted data in the device specified by (d).

Ladder diagram	Structured text
	ENO:=DEBCD(EN,s,d); ENO:=DEBCDP(EN,s,d);

FBD/LD



Setting data

■Descriptions, ranges, and data types

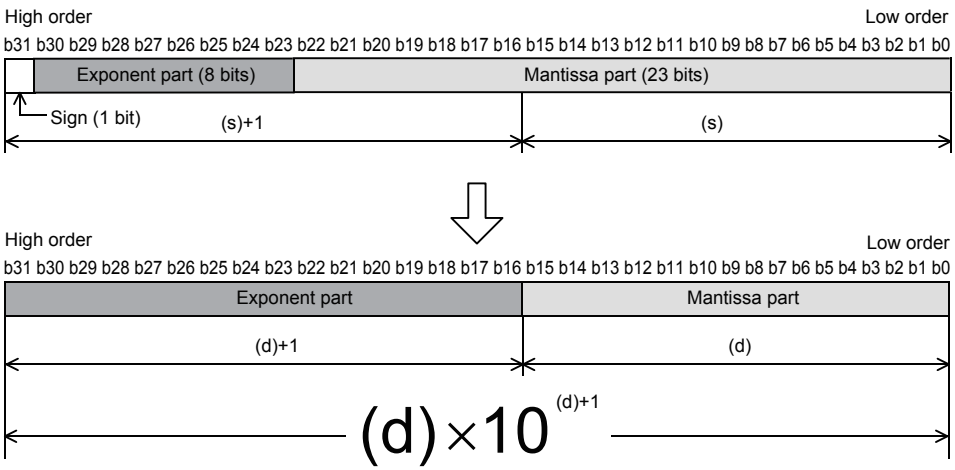
Operand	Description	Range	Data type	Data type (label)
(s)	Head device number storing binary floating point data	—	Single-precision real number	ANYREAL_32
(d)	Device number storing converted decimal floating point	—	Real number	ANY32
EN	Execution condition	—	Bit	BOOL
ENO	Execution result	—	Bit	BOOL

■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)	—	○	○	—	○	—	○	—	—	—	—

Processing details

- These instructions convert the binary floating point specified by (s) to decimal floating point, and store the converted data in the device specified by (d).



Precautions

In floating point operations, all data is handled in binary floating point. Because binary floating point is difficult to understand (requiring a dedicated monitoring method), it is converted into scientific notation (decimal floating point) so that monitoring can be easily executed by peripheral equipment.

Operation error

Error code (SD0/SD8067)	Description
3402H	The specified device value is denormalized number, NaN (not a number), or ±∞.