

Comparison output 32-bit binary data

DCMP(P)(_U)

FX5S FX5UJ FX5U FX5UC

These instructions perform a comparison operation between the 32-bit binary data in the devices specified by (s1) and (s2).

Ladder diagram	Structured text
	ENO:=DCMP(EN,s1,s2,d); ENO:=DCMPP(EN,s1,s2,d); ENO:=DCMPP_U(EN,s1,s2,d);
FBD/LD	

Setting data

■Descriptions, ranges, and data types

Operand	Description		Range		Data type		Data type (label)	
(s1)	DCMP(P)		Comparison value data or the head device where the comparison value data is stored -2147483648 to +2147483647 0 to 4294967295		32-bit signed binary		ANY32_S	
	DCMP(P)_U				32-bit unsigned binary		ANY32_U	
(s2)	DCMP(P)		Comparison source data or the head device where the comparison source data is stored -2147483648 to +2147483647 0 to 4294967295		32-bit signed binary		ANY32_S	
	DCMP(P)_U				32-bit unsigned binary		ANY32_U	
(d)	The starting bit device to which the comparison result is output		—		Bit		ANYBIT_ARRAY (Number of elements: 3)	
EN	Execution condition		—		Bit		BOOL	
ENO	Execution result		—		Bit		BOOL	

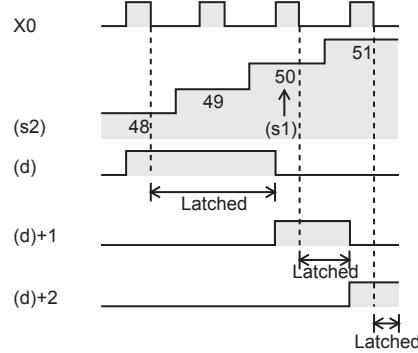
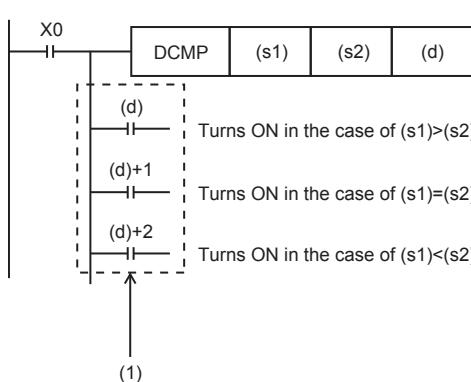
■Applicable devices

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		K, H	E	\$	
(s1)	○	○	○	○	○	○	○	○	—	—	—
(s2)	○	○	○	○	○	○	○	○	—	—	—
(d)	○	○*1	—	—	—	—	—	—	—	—	—

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

Processing details

- These instructions perform a comparison operation between the 32-bit binary data in the device specified by (s1) and the 32-bit binary data in the device specified by (s2) and according to the result (small, equal, large), (d), (d) + 1, or (d) + 2 is turned ON.
- (s1) and (s2) are handled as binary values within the range of above data setting.
- Large and small comparison is executed algebraically.
- With sign...-125400 (FFFE1628H) < 224566 (00036D36H)
- Without sign...16776690 (00FFFFDF2H) < 4294967176 (FFFFFFFFFFH)



(1): Even if the command input turns OFF and the DCMP instruction is not executed, (d) to (d)+2 latches the status just before the command input turns from ON to OFF.

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Precautions

Three devices are occupied from the device specified in (d). Make sure that these devices are not used in other controls.

Operation error

Error code (SD0/SD8067)	Description
2820H	The range of 3 points of data starting from the device specified by (d) exceeds said device.