

LECTURE - 8

Comparator

If the condition stated is true then the output to the block will become high.

LIM (Limit Test)

MEQ (Mask Equal To)

EQU (Equal To)

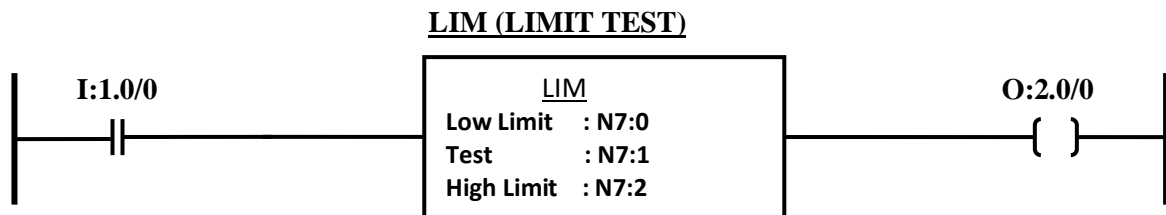
NEQ (Not Equal To)

LES (Less Than)

GRT (Greater Than)

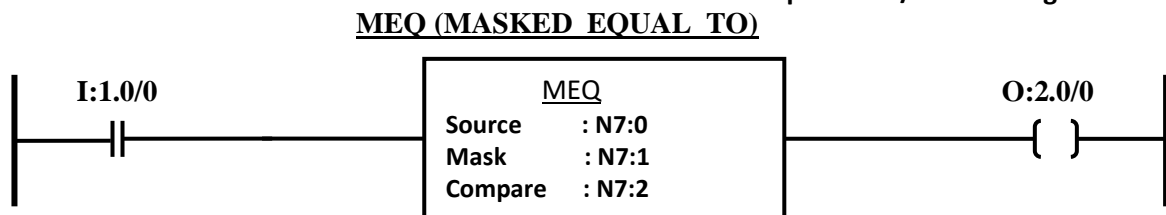
LEQ (Less Than Equal To)

GEQ (Greater Than Equal To)



If the test signal lies in between low value and high value, the output will remain high and if it drops below the low value or exceeds the high value then the output will become low.

Ex:: N7:0 = 2 & N7:2 = 10 and if N7:1 lies between 2 and 10 the output O:2.0/0 will be high.

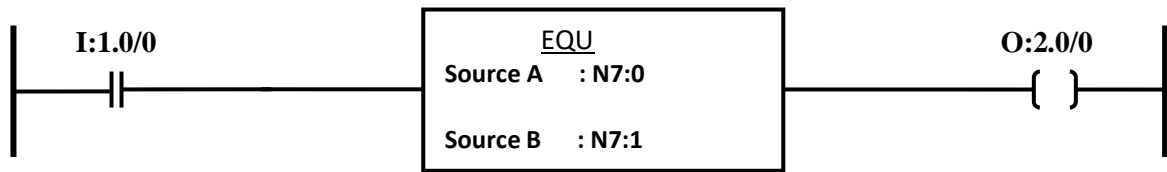


This is basically a bit wise comparison. If the bits of compare is equal to the bits of source the output will become high and the mask decides which bit of source and compare has to be checked/compared.

Ex :: N7:0 = 21 0000 0000 0001 0101
N7:1 = 000Fh (15) 0000 0000 0000 1111 (The mask will allow to compare the 4 bits from
LSB)
N7:2 = 5 0000 0000 0000 0101

The 4 bits from LSB are compared in between N7:0 & N7:2 which are equal so the output will become high.

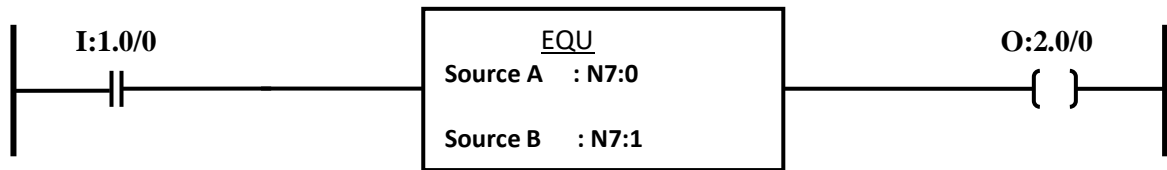
EQU (EQUAL TO)



If the value of N7:0 and the value of N7:1 are equal then the output will become high.

Ex:: N7:0 = 2 & N7:1 = 2 then the output O:2.0/0 will be high.

NEQ (NOT EQUAL TO)



If the value of N7:0 and the value of N7:1 are not equal then the output will become high.

Ex:: N7:0 = 2 & N7:1 = 5 then the output O:2.0/0 will be high.