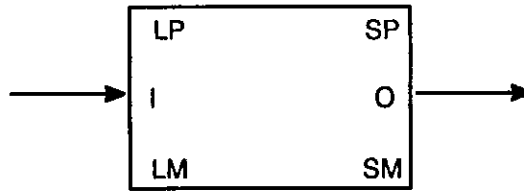


16.0 LIMIT

This function can be used in AutoMax Control Block tasks and UDC Control Block tasks.



Function

OUTPUT = INPUT within the range LIMIT(+) TO LIMIT(-). If INPUT exceeds either limit, OUTPUT is held at that limit and the proper SATURATED output will be set.

Program Statement

```
CALL LIMIT(INPUT = input%,                                &  
           LIMIT_PLUS = limit_plus%,                      &  
           LIMIT_MINUS = limit_minus%,                    &  
           SATURATED_PLUS = saturated_plus@,              &  
           SATURATED_MINUS = saturated_minus@,            &  
           OUTPUT = output%)
```

Inputs

LP (LIMIT_PLUS) =

INTEGER upper limit. The default for this parameter is +32767. This parameter will limit OUTPUT from becoming more positive. It will not prevent the output value from becoming more negative.

I (INPUT) =

INTEGER signal input. This parameter must be specified. It must be specified as a variable name only (literal value not accepted).

LM (LIMIT_MINUS) =

INTEGER lower limit. The default for this parameter is -32768. This parameter will limit OUTPUT from becoming more negative. It will not prevent the output value from becoming more positive.

Outputs

SP (SATURATED_PLUS) =

BOOLEAN SATURATED plus output. This parameter is optional. TRUE if OUTPUT reaches LIMIT_PLUS.

O (OUTPUT) =

INTEGER signal output. This parameter must be specified.

SM (SATURATED_MINUS) =

BOOLEAN saturated minus output. This parameter is optional. TRUE if OUTPUT reaches LIMIT_MINUS.