

Change Sign of a Numeric Value

NEGATE S5

DESCRIPTION

The NEGATE function is provided to simplify user programming and to improve execution time. It is entered as a Special Function, but does not involve the same overhead.

Execution time is similar to that of a simpler instruction, e.g. coil, contact, AND.

The NEGATE Special Function changes the sign of a numeric value.

On controllers that have floating point facilities, it works in a similar way for both integer and floating point inputs.

FEATURES

- Considerable improvement in execution time and complexity over other techniques that achieve the same result
- More readable than other techniques
- Simple to use
- No possibility of fault conditions

SPECIFICATION

Control language:-

```

      NEGATE
X-----SPEC-----Q
      S5
  
```

Equation:

$$Q = -X$$

with one exception that, in integer operation, if $X = -32768$ (or @8000), then $Q = 32767$ (not 32768 which falls outside the number range that can be represented by a 16 bit integer)

Note: Q and X are always of the same type. If X is an integer, so is Q; if X is floating point, then so is Q.



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Note: The Company's policy is one of continuous development. Products supplied may differ from those described herein

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