

# NAG Fortran Library Routine Document

## F06FLF

**Note:** before using this routine, please read the Users' Note for your implementation to check the interpretation of *bold italicised* terms and other implementation-dependent details.

### 1 Purpose

F06FLF returns the values  $x_{\max}$  and  $x_{\min}$  given by

$$x_{\max} = \max_i |x_i|, \quad x_{\min} = \min_i |x_i|,$$

where  $x$  is an  $n$  element real vector. If  $n < 1$ , then  $x_{\max}$  and  $x_{\min}$  are returned as zero.

### 2 Specification

```
SUBROUTINE F06FLF (N, X, INCX, XMAX, XMIN)
  INTEGER          N, INCX
  double precision X(*), XMAX, XMIN
```

### 3 Description

None.

### 4 References

None.

### 5 Parameters

- |    |  |               |
|----|--|---------------|
| 1: | N – INTEGER  | <i>Input</i>  |
|    | <i>On entry:</i> $n$ , the number of elements in $x$ .                                     |               |
| 2: | $X(*)$ – <i>double precision</i> array   | <i>Input</i>  |
|    | <i>On entry:</i> the vector $x$ .  |               |
| 3: | INCX – INTEGER   | <i>Input</i>  |
|    | <i>On entry:</i> the increment in the subscripts of X between successive elements of $x$ . |               |
|    | <i>Constraint:</i> INCX > 0.   |               |
| 4: | XMAX – <i>double precision</i>   | <i>Output</i> |
|    | <i>On exit:</i> the value $x_{\max} = \max_i  x_i $ .                                      |               |
| 5: | XMIN – <i>double precision</i>   | <i>Output</i> |
|    | <i>On exit:</i> the value $x_{\min} = \min_i  x_i $ .                                      |               |

### 6 Error Indicators and Warnings

None.