1 Purpose
nag_complex_safe_small_number (X02ANC) returns the safe range of complex floating-point arithmetic.

2 Specification
#include <nag.h>
#include <nagx02.h>
double nag_complex_safe_small_number

3 Description
nag_complex_safe_small_number (X02ANC) is a constant defined in the C Header file. 
nag_complex_safe_small_number (X02ANC) is defined to be the smallest positive model number $z$ such that for any $x$ in the range $[z, 1/z]$ the following can be computed without undue loss of accuracy, overflow, underflow or other error:

$$-w, \quad 1/w, \quad -1/w, \quad \sqrt{w}, \quad \log(w), \quad \exp(\log(w)), \quad y^{\log(w)/\log(y)} \quad \text{for any } y, \quad |w|$$

where $w$ is any of $x, ix, x + ix, 1/x, i/x, 1/x + i/x,$ and $i$ is the square root of $-1$.

4 References
None.

5 Arguments
None.

6 Error Indicators and Warnings
None.

7 Accuracy
None.
8 Parallelism and Performance
Not applicable.

9 Further Comments
None.

10 Example
None.