NAME

signbit − test sign of a real floating-point number

SYNOPSIS

#include <math.h>

int signbit(x**);**

Link with $-lm$.

Feature Test Macro Requirements for glibc (see **feature_test_macros**(7)):

signbit():
_ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L

DESCRIPTION

signbit() is a generic macro which can work on all real floating-point types. It returns a nonzero value if the value of x has its sign bit set.

This is not the same as $x < 0.0$, because IEEE 754 floating point allows zero to be signed. The comparison $-0.0 < 0.0$ is false, but *signbit(−0.0)* will return a nonzero value.

NaNs and infinities have a sign bit.

RETURN VALUE

The **signbit**() macro returns nonzero if the sign of x is negative; otherwise it returns zero.

ERRORS

No errors occur.

ATTRIBUTES

For an explanation of the terms used in this section, see **attributes**(7).

Interface	Attribute	Value
signbit()	Thread safety	MT-Safe

CONFORMING TO

POSIX.1-2001, POSIX.1-2008, C99. This function is defined in IEC 559 (and the appendix with recommended functions in IEEE 754/IEEE 854).

SEE ALSO

copysign(3)

COLOPHON

This page is part of release 5.02 of the Linux *man-pages* project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at https://www.kernel.org/doc/man−pages/.