



## 1 SUMMARY

This package provides kind values for 1- and 2-byte Fortran 90 LOGICAL variables. If a particular kind is not supported, a kind offering at least as much storage is substituted.

**ATTRIBUTES** — **Version:** 1.0.0. **Original date:** September 1995. **Origin:** N. I. M. Gould, Rutherford Appleton Laboratory. **Language:** Fortran 90.

## 2 HOW TO USE THE PACKAGE

Access to the package requires a USE statement such as

```
USE HSL_ZA03
```

### 2.1 Module constants

ZA03\_1BYTE is a scalar constant of type default INTEGER. If one-byte logicals are supported, ZA03\_1BYTE holds the kind value for a LOGICAL of this data type. Otherwise, ZA03\_1BYTE holds the kind value of a LOGICAL offering at least as much storage.

ZA03\_2BYTE is a scalar constant of type default INTEGER. If two-byte logicals are supported, ZA03\_2BYTE holds the kind value for a LOGICAL of this data type. Otherwise, ZA03\_2BYTE holds the kind value of a LOGICAL offering at least as much storage.

## 3 GENERAL INFORMATION

**Use of common:** None.

**Other modules used directly:** None.

**Input/output:** None.

**Restrictions:** None.

## 4 EXAMPLE

The following piece of code writes out the kind values for 1- and 2-byte logical variables.

```
PROGRAM HSL_ZA03_SPEC
USE HSL_ZA03
IMPLICIT NONE
WRITE( 6, "( ' kind(1 byte logical) = ', I2 )" ) ZA03_1BYTE
WRITE( 6, "( ' kind(2 byte logical) = ', I2 )" ) ZA03_2BYTE
END PROGRAM HSL_ZA03_SPEC
```

This produces the following output when compiled with the IBM xlf90 compiler. **N.B.** Other compilers may give different values.

```
kind(1 byte logical) = 1
kind(2 byte logical) = 2
```