

## Advantech AE Technical Share Document

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Category	■ FAQ □ SOP	Related OS	Win32
Abstract	The literals in IEC 61131-3 definition in KW Multiprog		
Keyword	Literals, IEC 61131-3, KW Multiprog		
Related Product	KW Multiprog		

### [Problem]

How to use literals for the representation of numeric, character strings and time data in KW Multiprog

# IEC 61131-3



### [Solution]

#### 1. Numeric literals

Type	Examples
Integer literals	-12 0 123_456 +986
Real literals	-12.0 0.0 0.4560 3.14159_26
Real literals with exponent	-1.34E-12 -1.34e-12 1.0E+6
Long Real literals	LREAL#-12.0
Long Real literals with exponent	LREAL#2.3E-89
Base 2 literals	INT#2#1111_1111
Base 8 literals	INT#8#377
Base 16 literals	INT#16#FF SINT#16#ff
Boolean FALSE and TRUE	FALSE TRUE
Boolean 0 and 1	0,1

#### 2. Character string literals

Type	Examples
Empty string	''
String with a blank	' '
Not empty string	'this is a text'

## 3. Duration literals

Type	Examples
Short prefix	T#14ms t#14ms t#12m18s3.5ms T#25h_15m t#25h_15m
Long prefix	TIME#14 ms time#14ms TIME#25h_15m time#25h_15m

## 4. Date and time of day literals

Type	Examples
Date	DATE#1996-01-24
	date#1996-01-24
	D#1996-01-24
	d#1996-01-24
Time of day	TIME_OF_DAY#15:36:55.36
	time_of_day#15:36:55.36
	TOD#15:36:55.36
	tod#15:36:55.36
Date and time	DATE_AND_TIME#1996-01-24-15:36:55.36
	date_and_time#1996-01-24-15:36:55.36
	DT#1996-01-24-15:36:55.36
	dt#1996-01-24-15:36:55.36