C. Tool offset amount and work coordinate-system shift amount ... #2001 through #2099, #2500 through #2806

D. Alarm message display ... #3000

E. Clock ... #3001, #3002

F. Single-block stop and auxiliary-function completion wait control ... #3003

G. Feed-hold, feedrate-override, and exact-stop control ... #3004

H. RS232C data output ... #3100 (print out feature).

I. Modal information ... #4001 through #4120

J. Position information ... #5001 through #5014

Note: The interface input and output signals of (A) and (B) may not be installed. Follow the specifications of the machine tool builder.

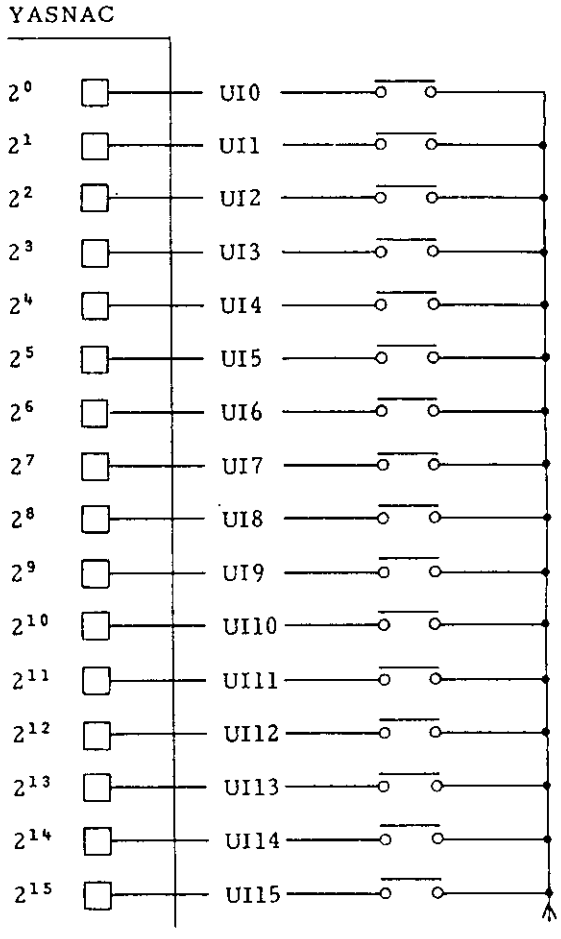
The following paragraphs describe the details of the variables mentioned above.

A. Interface Input Signals (#1000 Through #1015, #1032)†

a. When one of system variables #1000 through #1015 is specified to the right-hand of an operational expression, the on/off state of each of user-macro-dedicated 16-point input signals is read. The relationships between the input signals and the system variables are as shown below.

#1007	#1006	#1005	#1004	#1003	#1002	#1001	#1000
UI7 2^7	UI6 2^6	UI5 2^5	UI4 2^4	UI3 2^3	UI2 2^2	UI1 2^1	UI0 2^0
#1015	#1014	#1013	#1012	#1011	#1010	#1009	#1008
UI15 2^{15}	UI14 2^{14}	UI13 2^{13}	UI12 2^{12}	UI11 2^{11}	UI10 2^{10}	UI19 2^9	UI18 2^8

Variable Value	Input Signal
1	Contact Closed
0	Contact Open



Each read variable is 1. 0 or 0.0 when the associated contact is "closed" or "open" respectively, regardless of the unit system of the machine.

b. When system variable #1032 is designated, the input signals (UI0 through UI15) that consist of 16 points (16 bits) are collectively read as a decimal positive value.

$$\#1032 = \sum_{i=0}^{15} \#\left[1000 + i\right] * 2^i$$

Sample Program

IF [#1015 EQ 0] GO TO 100 ;

Bit 2^{15} (UI15) is read and, if it is "0," a branch is made to sequence number N100.

#130 = #1032 AND 255

Bits 2^0 through 2^7 (UI0 through UI7) are collectively read to be stored in common variable #130 as a decimal positive value.

Note: System variables #1000 through #1032 cannot be placed to the left-hand of operational expressions.