

**NEW22iT/M Dual Channel Numerical Control System and Robot System
Instructions:**

1) the number of axis:

1. The first channel X/Y/Z/A (J1/J2/J3/J4) axis corresponds to the drive station number 1/2/3/4;
2. The second channel X/Y/Z/A (J1/J2/J3/J4) axis corresponds to the drive station number 5/6/7/8;

2) system function:

1. All functions of the first and second channel are compatible with NEW18iT/M lathe and milling controller function;

2, I / O input and output distribution:

- 1) Input X00-X47 is shared by both channels, please reasonably allocate;
- 2) The first channel uses the output Y00-Y15;
- 3) The second channel uses output Y16-Y31;
- 4) The I/O input and output of the CNC system of the dual channel controller are assigned as follows:

X00-X07:1T01-1T07; X26:1TOK;
X16-X23:2T01-2T07; X27:2TOK;
X09:1-L; X10:1+L; X14:2-L; X15:2+L;
X08:1A0; X11:1Y0; X12:1X0; X13:1Z0;
X16:2A0; X17:2Z0; X25:2Y0 X26:2X0;
X32:1ALM; X33:1ALM1; X34:1ALM2;
X35:2ALM; X36:2ALM2; X37:2ALM2;
Y00:1+T; Y01:1-T; Y02:1M65; Y03:1M67;
Y04:1M69; Y05:1M71; Y06:1M73; Y07:1M59;
Y08:1M32; Y09:1M79; Y10:1M10; Y11:1M08;
Y12:1M05; Y13:1M04; Y14:1M03; Y15:1M75;
Y16:2+T; Y17:2-T; Y18:2M75; Y19:2M08;
Y20:2M63; Y21:2M65; Y22:2M67; Y23:2M69;
Y24:2M10; Y25:2M79; Y26:2M32; Y27:2M59;
Y28:2M03; Y29:2M04; Y30:2M73; Y31:2M71;
ALM:Driver alarm; ALM1:Converter Alarm; ALM2:Lubrication alarm;
X0/Y0/Z0/A0: X/Y/Z/A axis Zero signal;

5) Two-channel robot system I/O input and output are allocated as follows:

X00:1 starting arc; X03:1 welding; X08:2 starting arc; X09:2 welding;
Y00: 1M3330; Y01:1M3331; Y02: 1M3332; Y03: 1M3333;
Y04: 1M3334; Y05: Holding brake; Y06: 1M3336; Y07: 1M3337;
Y08: 1M32; Y09: 1 starting arc; Y10: 1M10; Y11:1M08;
Y12: 1M05; Y13: 1M03; Y14: 1M04; Y15: 1 deposition;
Y16:2 starting arc; Y17:2M08; Y18:2M03; Y19:2M04;
Y20: 2M59; Y21: 2 cladding; Y22: 2M10; Y23: 2M32;
Y24: 2M3354; Y25: 2M3355; Y26: 2M3356; Y27: 2M3357;
Y28: 2M3358; Y29: 2M3359; Y30: 2M3360; Y31: 2M3361;

3. Spindle function:

- 1) The first channel uses the first path analog volume +10V1, the second channel uses the second path analog volume +10V2;
- 2) The second channel miscellaneous parameter P900, custom processing parameters dialog box [1 table is invalid, 4 table part , 8 table all, +512 table Two channels M3/M4/M5 share one spindle;
4. Macro variable allocation: The common macro variables for the two channels are #900-#999. The remaining macro variables are used independently for each channel. At the same time, the macro variables #900-#999 can be called in the PLC for the CMP comparison operation to import macro variables. In the parameter file, only the first channel can import the macro variable #900-#999;
- 5, synchronous waiting for each other instructions: M701-M796, waiting for another channel to execute the same instruction will continue to execute the program down. The M instruction must occupy a single line;
6. Cancel the channel waiting instruction: M700. when the M700 instruction is executed in the program, the M701-M796 is skipped. The M instruction must occupy a single line;
7. M797 starts another channel operation program (another channel will automatically enter the automatic state if it is in the manual state); M798 suspends another channel program operation; M799 resets another channel program operation.
8. Second channel encoder feedback command: M111 second channel selects the first channel spindle encoder, and M112 second channel selects the second channel spindle encoder;

3) the channel selection:

1. Press "K1" to select the first channel;
2. Press "K2" to select the second channel;
- 3, robot dual channel system according to the "title" column to select the channel;

4) the panel function:

- 1, "handwheel" function: Handwheel is valid for all channels, please note when using;
- 2, "Start" key to start the current channel; "Start" button to start two channels;

5) the operation instructions:

1. The two channels have their own independent parameter packages, including the files related to the PLC and the IO configuration file, which are independently controlled by each channel;
2. Both channels have their own independent tool control and tool length radius compensation functions, and they have their own independent pitch error backlash compensation and other functions;
- 3, in the first and second channel state can import and export parameters and import software, two channels share user file storage area;
4. The difference between the display of the first and second channels is that the heading bar has different colors. The first channel is the original blue of the single channel, and the second channel is green;
5. The software version numbers of the first and second channels show differences: the first channel displays the D1 mark; the second channel displays the D2 mark;

6. The LAN file transfer and remote monitoring functions can only be used for the first channel. The second channel does not have this network function.