Parameter description:

Pulse frequency: 200K (maximum) / axis

Pulse width: adaptive

Axis number: 4 axis

Power supply: DC5V 5W power

Input / output terminal power supply: DC12V-36V

Output terminal drive capability: 100mA

Interface type: Ethernet interface

Limit switch: support

Reference point switch: support

Auto access test center: support

Tool: support

External control switch: support

Electronic hand wheel: support

Software: Mach3 version 3.XXX

System power

The control panel work requires a DC5V power supply. The power requirements are as follows:
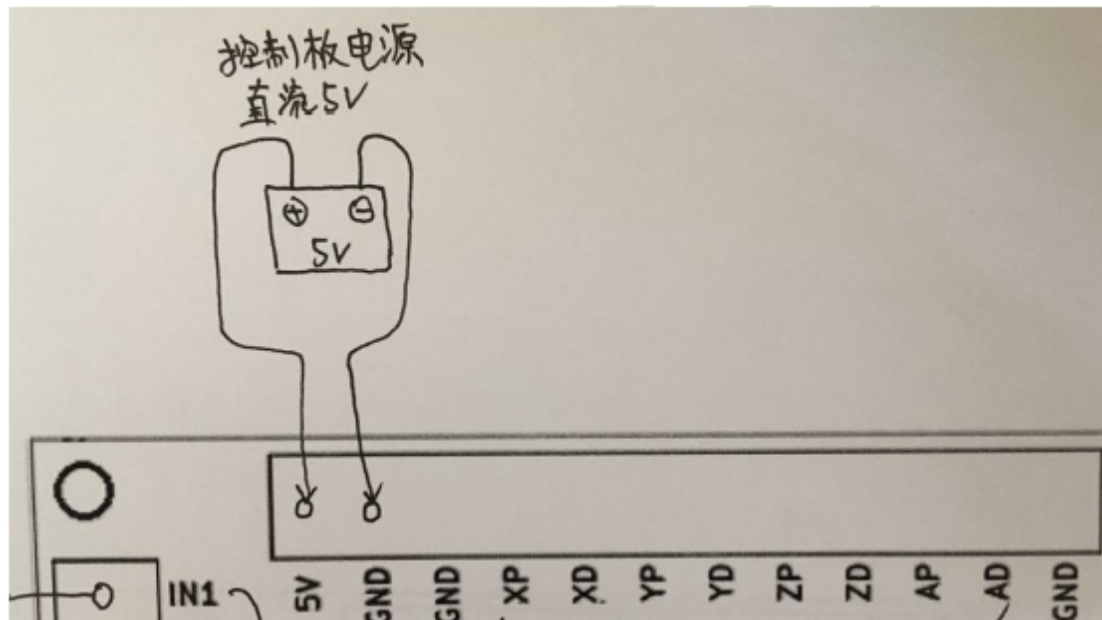
Voltage: DC5V

Operating current: 200MA

Peak current: 500MA

(you can use the USB port of your computer, or you can buy 5V power 5W.)

The connection of power supply and control board is as follows:

Motor drive module

The control board can connect all kinds of stepping motor driver modules and servo motor drive modules which support pulse / direction control mode.

Common cathode connection is usually used for wiring. Take the X shaft motor as an example. The wiring is as follows:
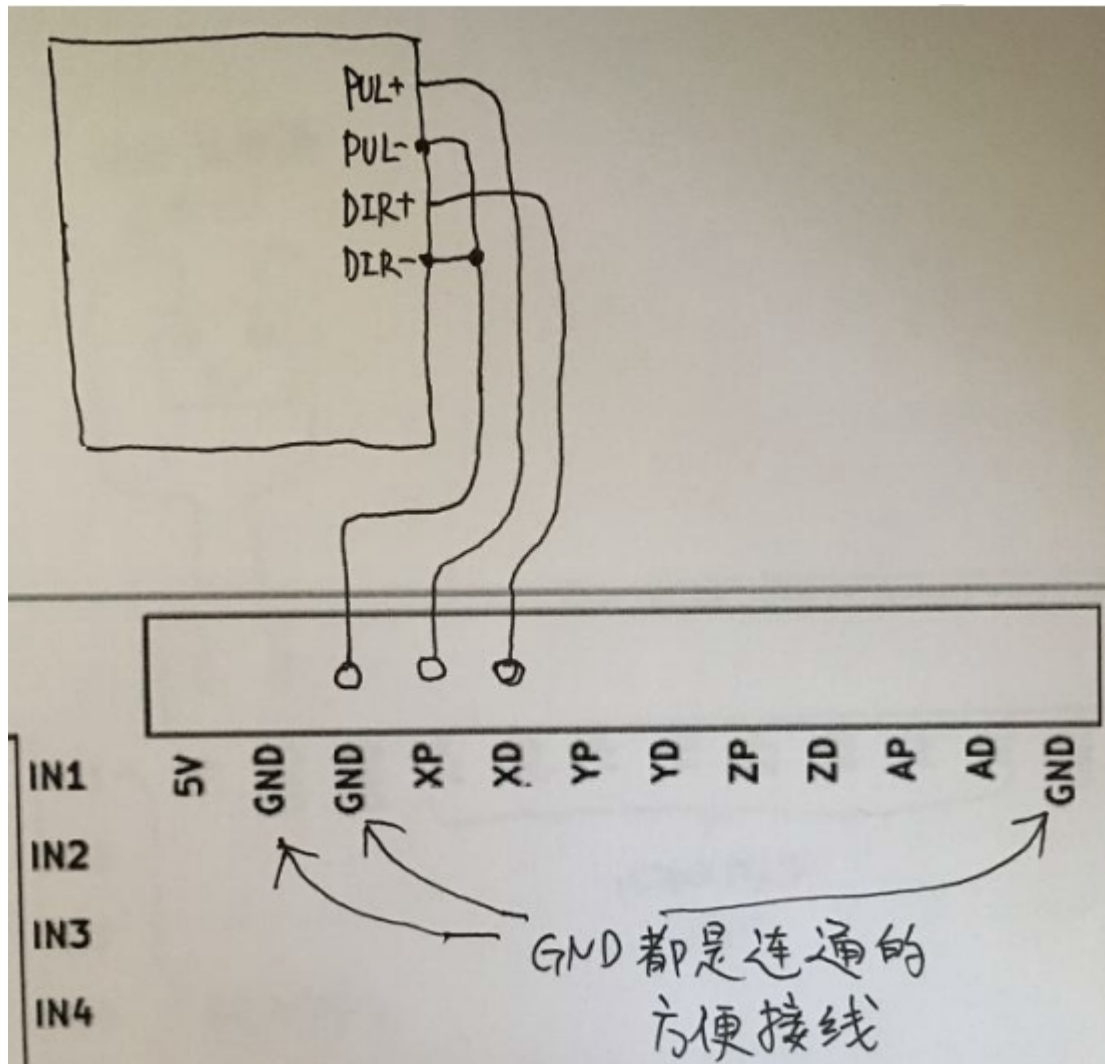
A plurality of GND terminals are connected on the control card, and they are all connected so that the motor of the plurality of shafts can be driven to be connected. Because the common cathode connection method is required, a plurality of wires are required to be connected at the GND terminal.

The control card also supports the anode wiring, but not recommended. Because there is only one 5V terminal, it is not easy to connect.

Input / output terminal power supply

Connect the limit switch, control switch or drive relay, signal lamp and other equipment, you need to prepare an input and output terminal power supply. The power requirements are as follows:

Voltage: DC12V-36V (recommended for 24V, best for general use)

Power: usually within 10W, depending on the power consumption of the external connection device
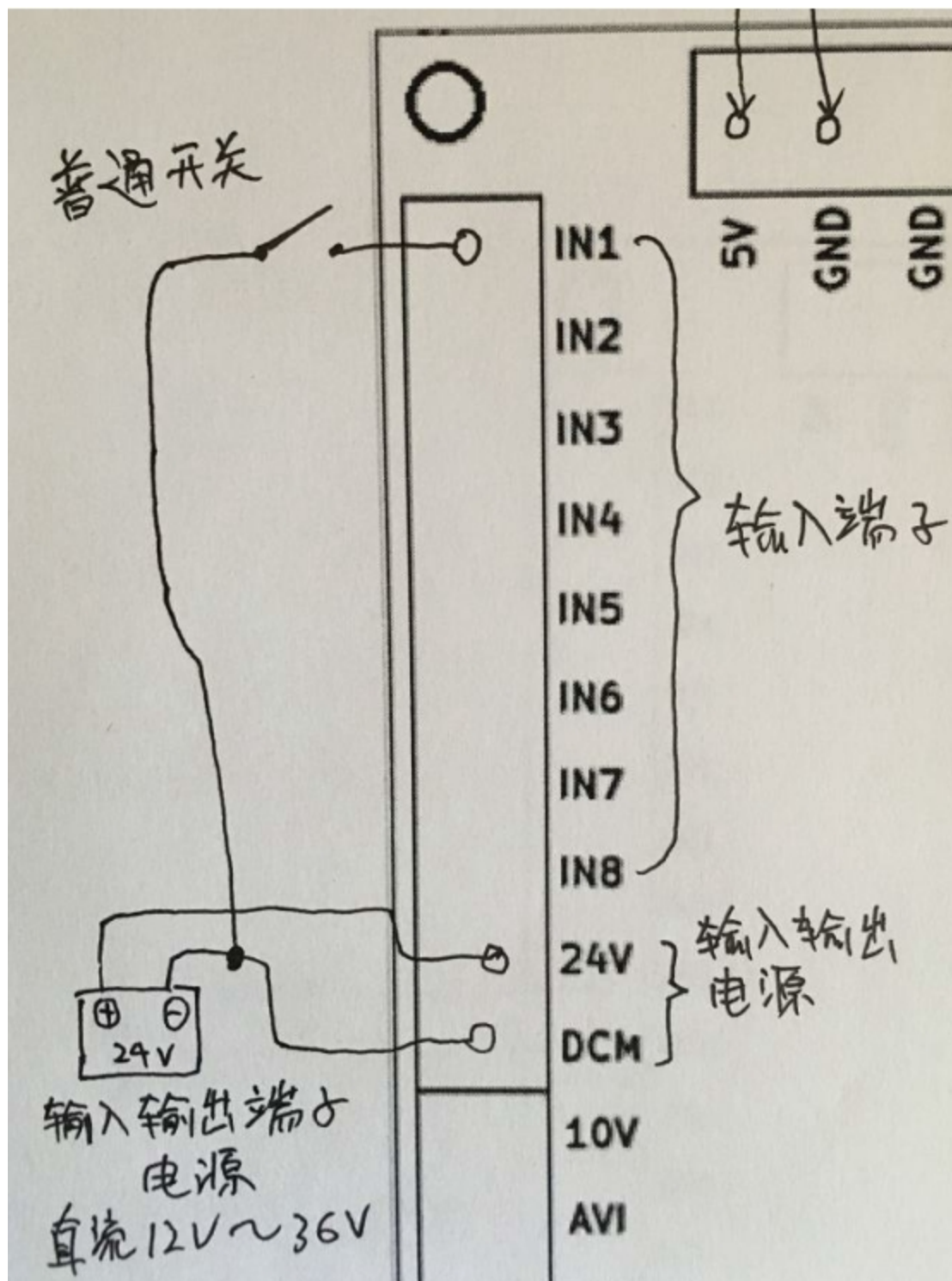
Input and output terminals power supply wiring as shown below:
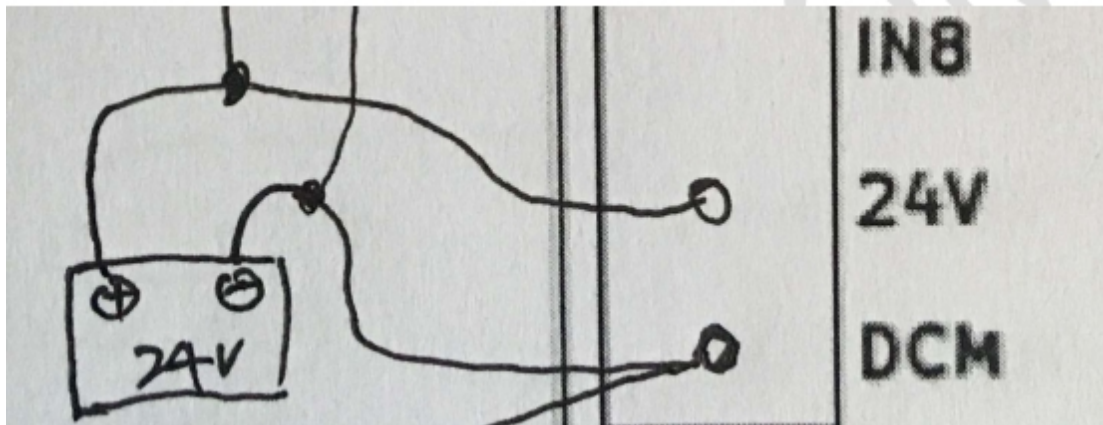
Mechanical limit switch

Mechanical limit switches use normally open contacts. The wiring diagram is as follows:

(remarks, other mechanical control switches, wiring methods are the same)

普通开关

5V
GND
GND

IN1
IN2
IN3
IN4
IN5
IN6
IN7
IN8

输入端子

24V
DCM

输入输出
电源

10V
AVI

⊕ ⊖
24V

输入输出端子
电源
直流12V～36V

Electronic limit switch

The limit switch can adopt all kinds of electronic limit switches. Such as photoelectric switches, electromagnetic induction switches, etc.. Type, please choose 3 wire type NPN normally open type. Because this switch can be connected in parallel, wiring is more convenient.
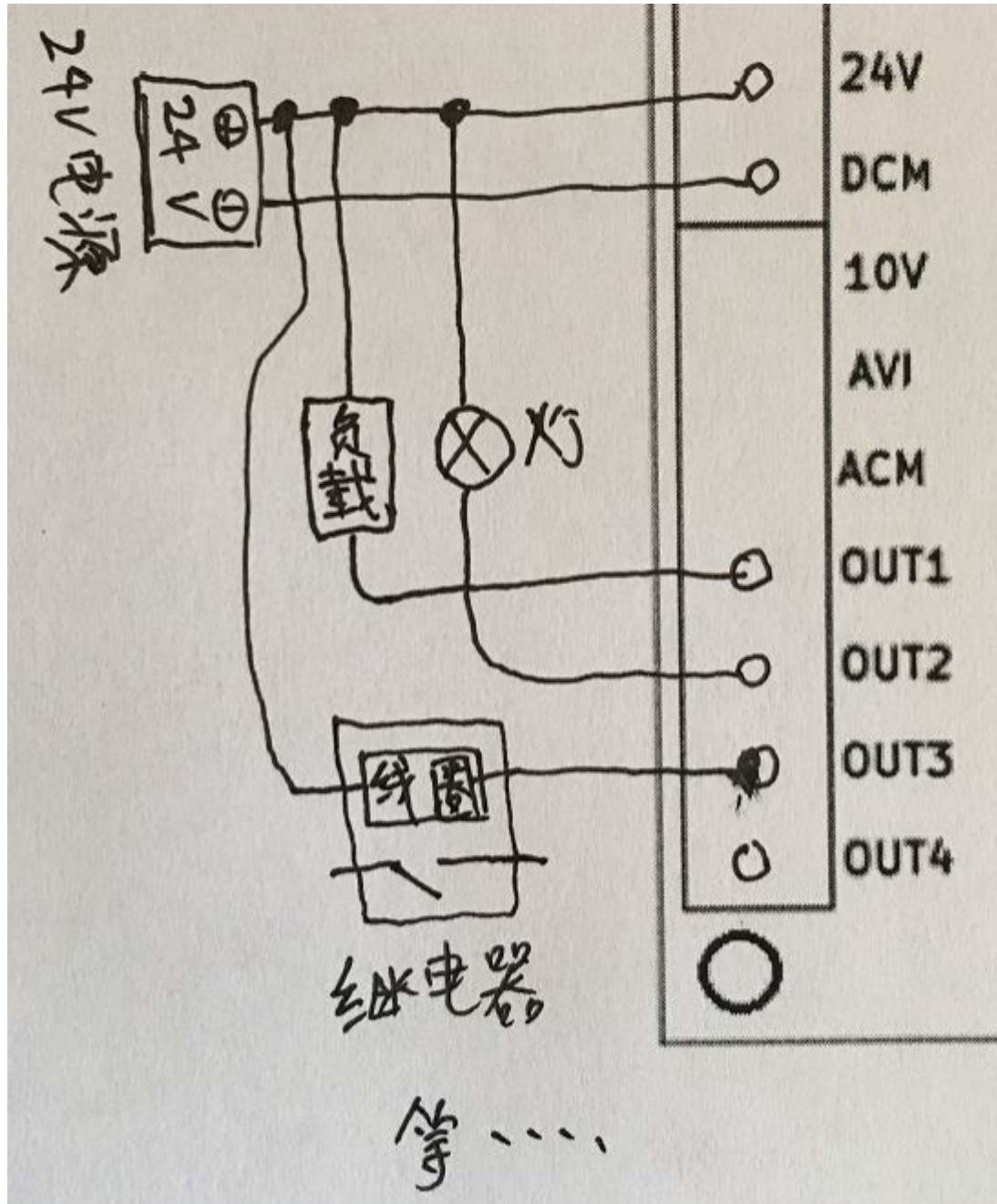
The wiring diagram is as follows:
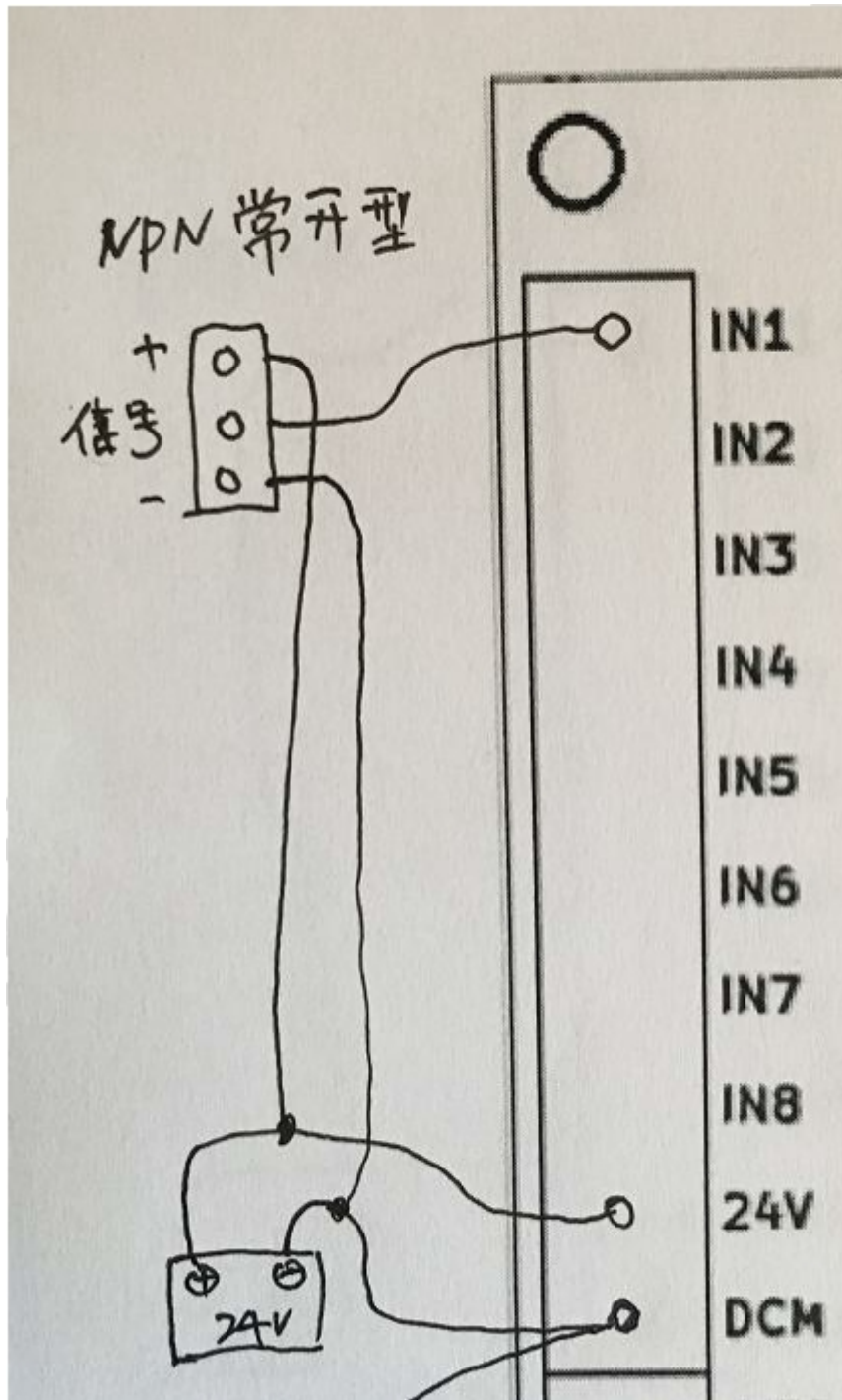
On-off output

The control panel has 4 switch output terminals, which can drive the 100MA load equipment. Usually used to drive relays, signal lights and other external equipment, relays and signal lights usually use the 24V DC model (with the input and output terminals to match the power supply) The wiring diagram is as follows:

Frequency converter

The control card has a frequency converter interface to control the spindle speed.
The wiring diagram of the frequency converter is as follows:
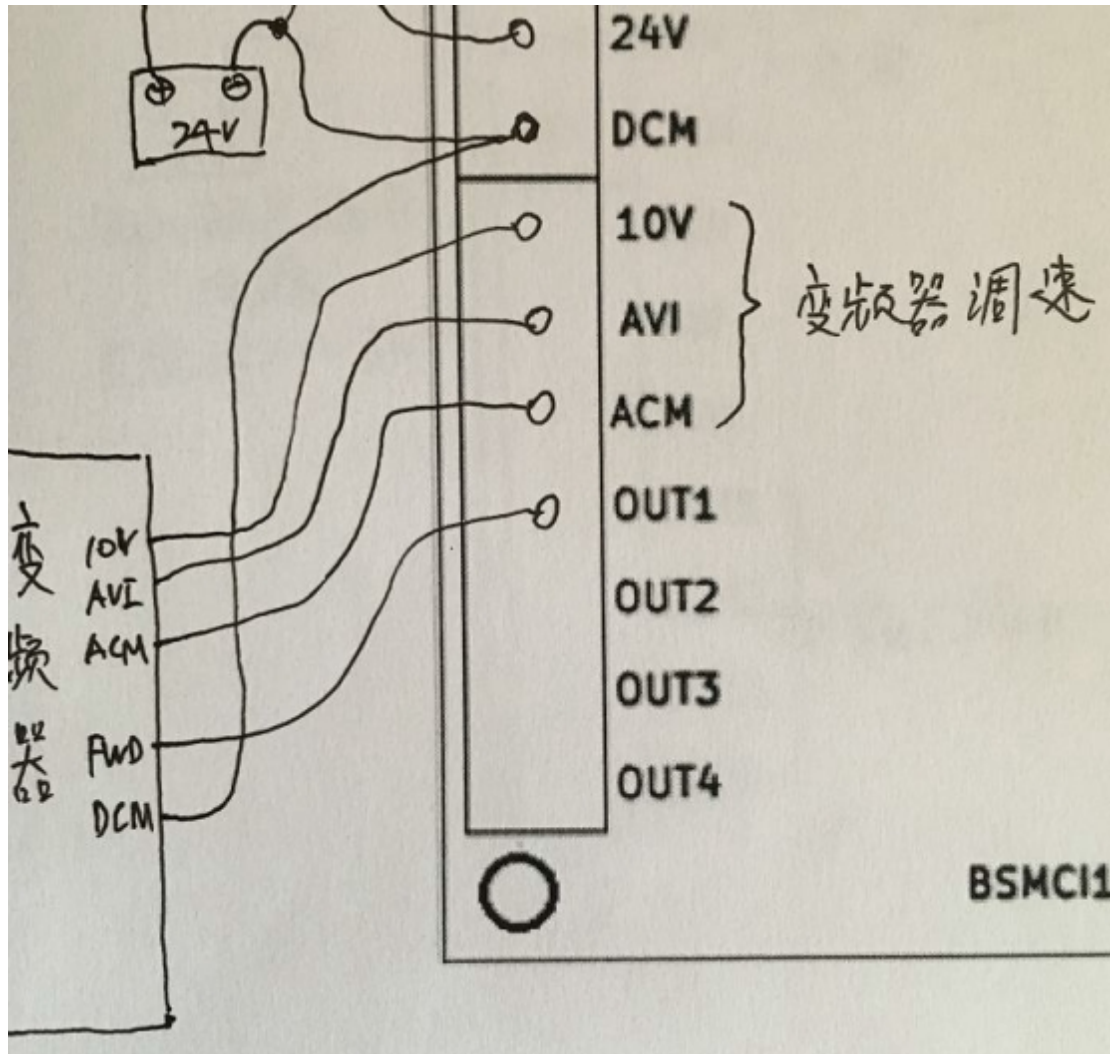
All types of brand models, inverter terminals are different, here to a common frequency converter terminal to be explained:

10V, frequency converter 10V standard signal output

AVI, frequency converter, analog signal input

ACM, frequency converter to speed analog signals to the ground (analog signal common end)

FWD, the inverter is turning / starting the signal input

DCM, frequency converter, FWD signal to the ground (analog signal common end)

Handwheel

The control card supports hand wheel control, hand wheel socket, DC2X5 male head socket, and each pin is defined as follows:
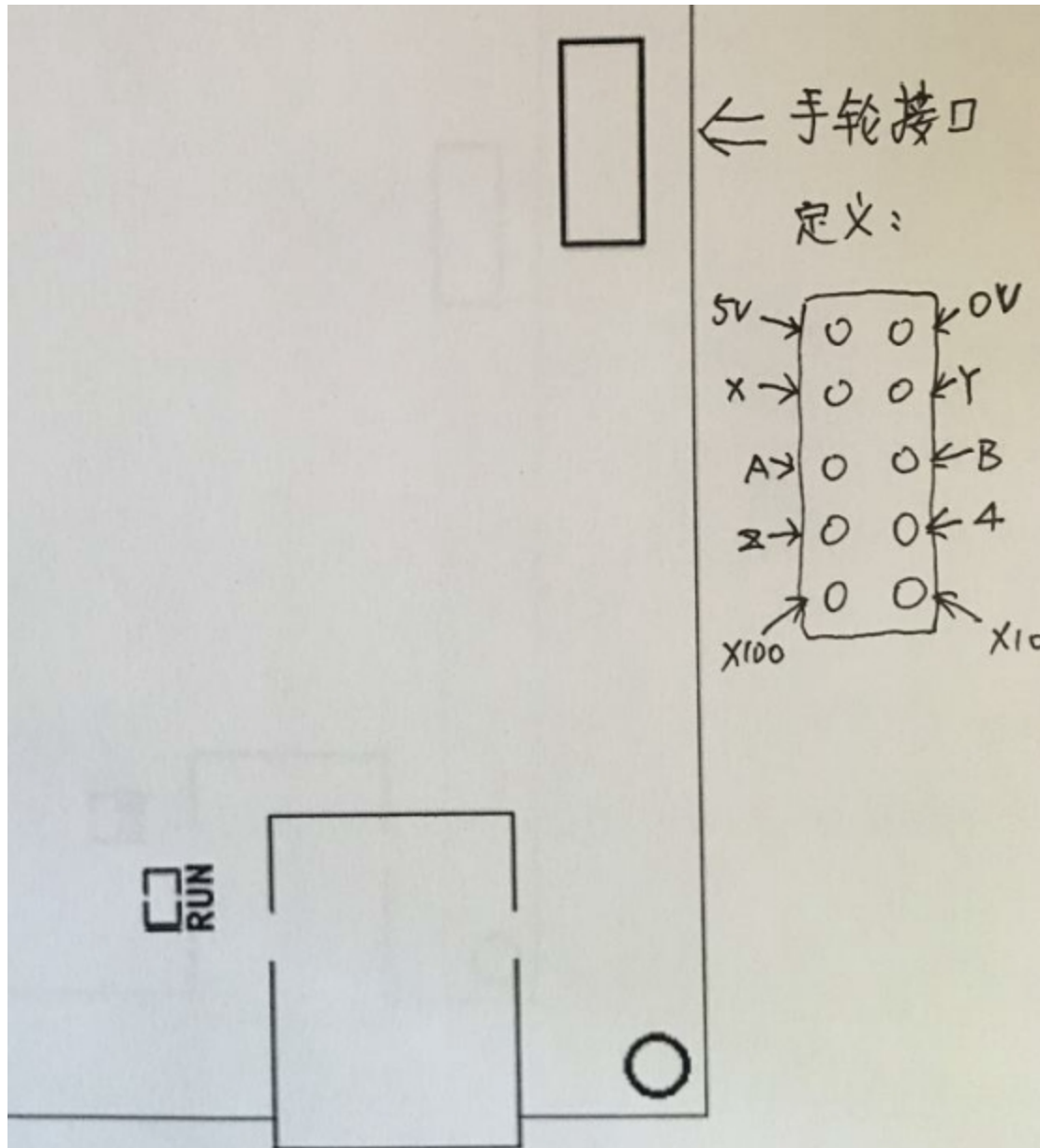
5V: hand wheel as power supply

0V: supplied to the handwheel as the power supply, as well as the signal

X, Y, Z, 4: axis switching signal (It is effective for signal short circuit)

X10 , X100: 10 times or 100 times the magnification (It is effective for signal short circuit)

A, B: hand wheel encoder AB end (5V quadrature encoder level signal)

Installation size