+XXX3X 、+XXX5X speed feedback interface guide [For SLOT3(C Type)、SLOT5(R Type)]

To ensure good drive control service and its safe use, please read the following instructions carefully before using this product and its electrical and mechanical systems

INOMAX

1. Mechanical and electrical installation instructions

Before installation, please make sure that the drive is in the power off state, it is forbidden to insert the power plug

Remove the pre-sealed cover on the C-type SLOT3 card slot and insert the option vertically after inserting the option. After opening the R-type cover, insert the option from SLOT5 and lock it with the screw.

Use a flat-blade screwdriver or standard DB9 and DB15 heads to complete the wiring according to the wiring diagram after checking the model.

The wiring diameter is AWG14~24 (2.1~0.2mm2), and the terminal torque is up to 5kgf-cm.

To prevent interference, use a qualified shielded cable, and do not route alongside the AC220V and above circuits, and keep the distance between the motor and power cables at 15CM or more. When interlacing, please observe the principle of vertical wiring.

When connecting an inductive load (relay, electromagnetic contactor, motor, etc.), install an arc eliminator (RC absorber) on the coil side.

Try to control the length of the wiring (because this length is inversely proportional to the signal frequency).

Please use this product in a non-corrosive gas, liquid and dust-free indoor environment.

For safety reasons, please install a fuse in the circuit (the specification cannot be greater than the contact limit)

DB Plug eg.

Do not plug or unplug this card with power, otherwise the machine may be damaged.
Before the signal is connected, it must be confirmed that the motor is well grounded, otherwise the motor is inductive and has the risk of electric shock and equipment.

This product is a static-sensitive component. Although it has been treated with anti-static damage before leaving the factory, it is recommended that you minimize unnecessary hand-free contact during the installation and use process to avoid damage.

3+9 母头配螺杆   白胶镀金公头配螺杆（带固定线架）
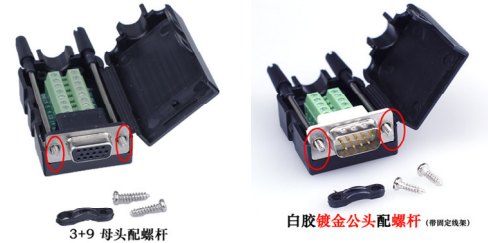
2.Specifications

Universal DB series gold-plated solderless terminal block connector,as above

1	High-speed differential encoder module	+TTL33	9+15Pin+C type, Non-isolated,high-speed differential encoder
2	Resolver encoder module	+RT35	9+15Pin+C type, Suitable for rotary transformers with excitation voltage of 7V and transformation ratio of 0.5
3	SinCos encoder module	+SN34	9+15Pin+C type, for resolver type encoder, frequency doubling inside
4	HTL pulse encoder module	+HTL39	9+15Pin+C type, HTL pulse encoder by DC12V, frequency dividing inside
5	TTL pulse encoder module	+TTL39	9+15Pin+C type,TTL pulse encoder by DC5V, frequency dividing inside
6	HTL pulse encoder module	+HTL52	9Pin Screw+R type, HTL pulse encoder by DC12V
7	Resolver encoder module	+RT55	9+15Pin+R type, for resolver type encoder
8	HTL pulse encoder module	+HTL59	9+15Pin+R type,HTL pulse encoder by DC12V ,frequency dividing inside
9	TTL pulse encoder module	+TTL59	9+15Pin+R type,TTL pulse encoder by DC5V ,frequency dividing inside
10	DB15VGA female plug with 15pin	+DB15F	Plug in X31 on C and R type drive with DB15 Pin
11	DB9VGA male plug with 9pin	+DB9M	Plug in X32 on C and R type drive with DB9 Pin
12	C type speed feedback card terminal type wiring adapter card	+DB915	Adapted to the speed feedback card of the C-type 9+15Pin interface

C type PG card

R type PG card

R type PG card
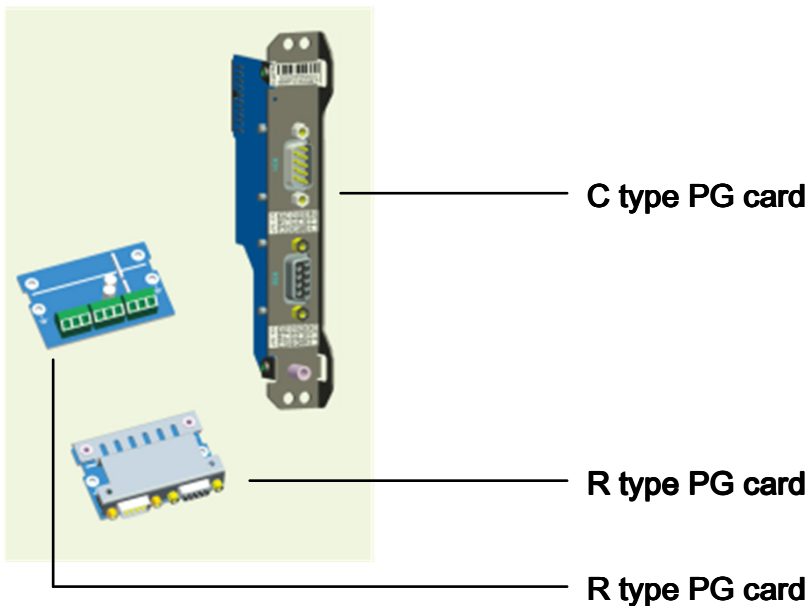
+DB915 Description

+ DB915 terminal type wiring adapter card provides another terminal type wiring mode in addition to the standard DB interface. It is suitable for inserting a C-type speed feedback card.

Connection:
+TTL33
+SN34
+TTL39
+HTL39
+RT35

+HTL39 **Multi-function crossover encoder card wiring guide**

1. Support Open collector/push-pull encoder, encoder shielded cable A/B/Z and power supply are connected to PG card A-/B-/Z- and VCC (+12.5V)/COM port, PG card A+/B+/Z+ is not connected. As shown in Figure 3 and Figure 4, the shielded cable is connected to the PE port of the DB9 male (the PE port of the DB9 male is marked as "GND" on the physical object, and this "GND" is not the signal GND,but the metal housing of the DB9).

2. If necessary, the control system is connected to the DB15 female port of the PG card through a shielded cable:

If the differential pulse given, the PG card PA+/PA-, PB+/PB-,COM(15) is connected, as shown in Fig. 5

If the NPN pulse given, the PG card PA-,PB-,COM(15) is connected, as shown in Fig. 6

If the PNP pulse given, the PG card PA+/PA-,PB+/PB-,COM(15) is connected, as shown in Fig. 7

If the differential pulse **divider output** is used, connect PG card **AO+/AO-, BO+/BO-, ZO+/ZO-, GND**(6),as shown in Figure8.

If the open collector circuit (NPN sink type) pulse frequency **division output** is connected to the PG card AO, BO, ZO, COM(15), as shown in Figure 9 .

Be sure to connect the signal GND line of the control system to the signal GND(6 or 15) on the DB15 port of the PG card. The shield line is connected to the PE port of the DB male (the PE port of the DB15 female is marked as "GND" on the physical object. This "GND" is not Signal GND,but the metal housing of the DB15).

DB9 Port		
Pin number	Pin definition	Description
1	A+	
2	B+	
3	Z+	
4	COM(0V)	Maximum frequency <200KHZ
5	VCC(+12.5V)	
6	A-	
7	B-	
8	Z-	
9	COM(0V)	

DB15 Port		
Pin number	Pin definition	Description
1	AO+	Differential signal divider output (Parameter group 61)
2	AO-	
3	BO+	
4	BO-	
5	ZO+	
10	ZO-	
7	AO	Open Collector signal divider output
8	BO	
9	ZO	
11	PA+	Differential/PNP/NPN input
12	PA-	
13	PB+	
14	PB-	
6	GND	Ground(0V)
15	COM	Ground(0V)

Figure 1 +HTL39 DB9/DB15   Port Definition

control unit Slot3

J12 and J13 need to be used simultaneously when given mode selection(Default differential pulse).PA+, PA-, PB+, PB- is the given port

J13 Differential given, the jumper is placed down
J12 Maximum frequency <1MHZ

J13 NPN given, the jumper is placed up
J12 Maximum frequency ≤200KHZ

J13 PNP given, the jumper is removed
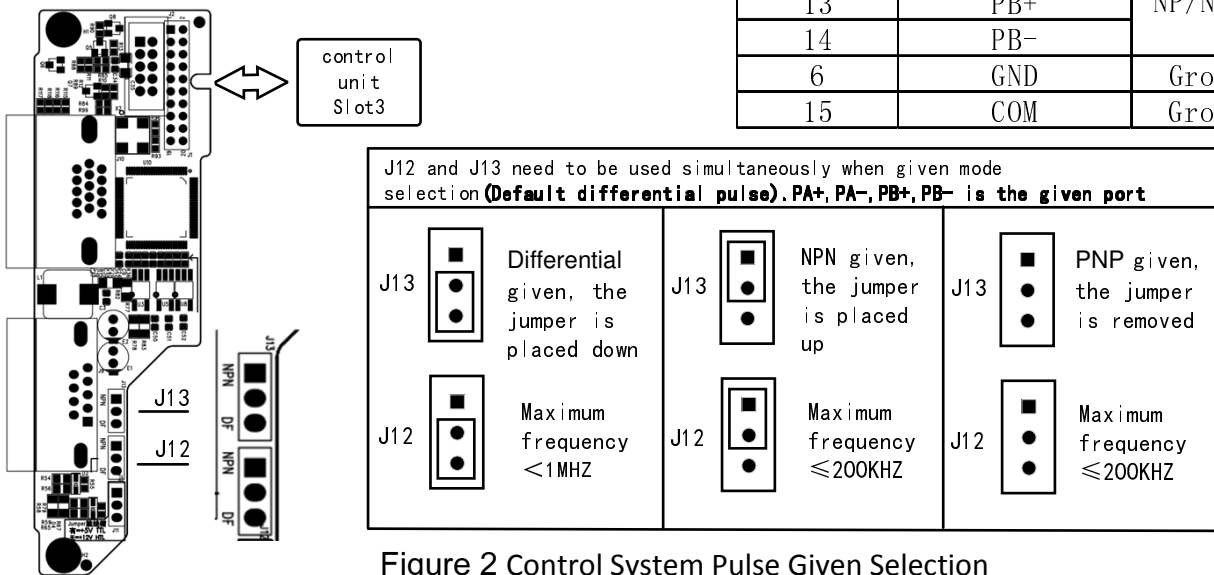J12 Maximum frequency ≤200KHZ

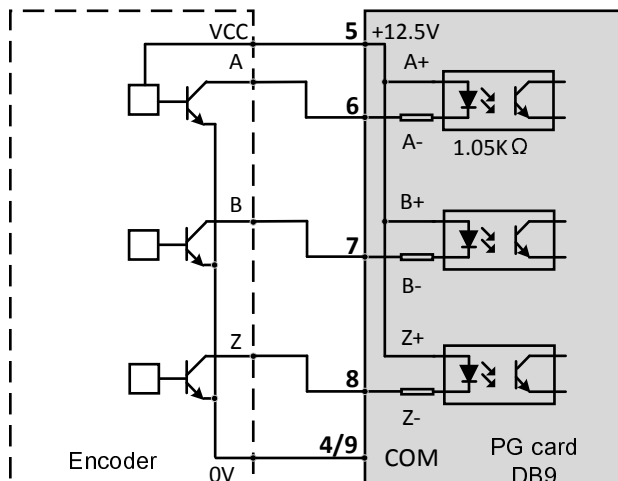Figure 2 Control System Pulse Given Selection

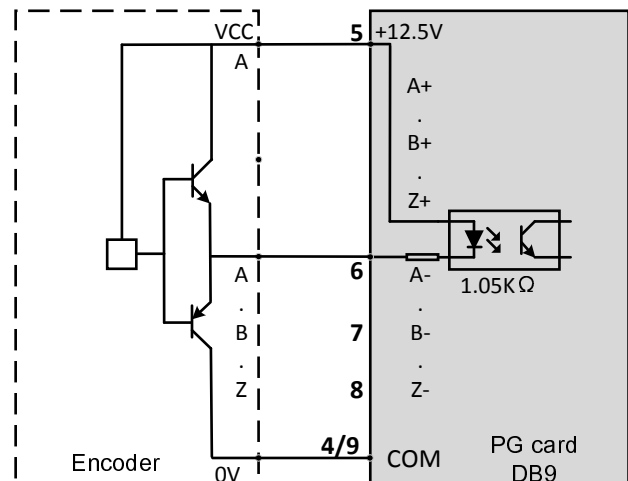Figure 3 Open Collector encoder wiring diagram

Figure 4 Push-pull encoder wiring diagram

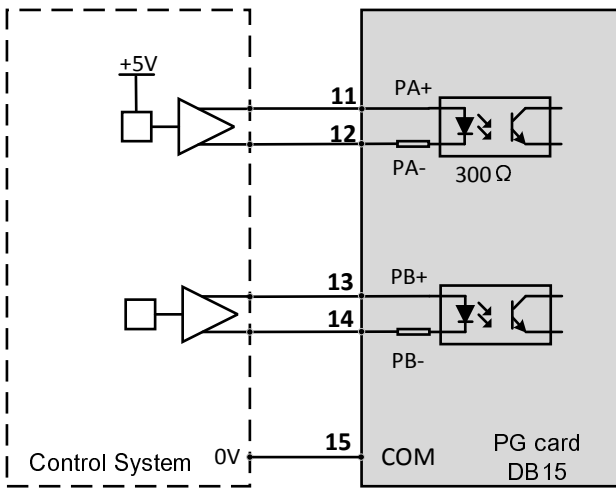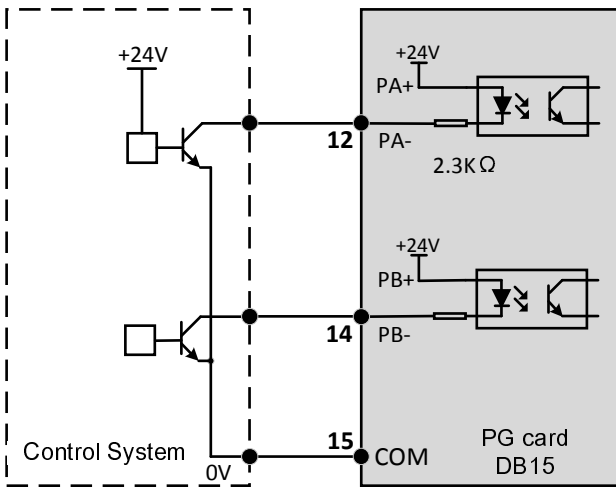**Figure 5 Differential pulse is given wiring diagram**

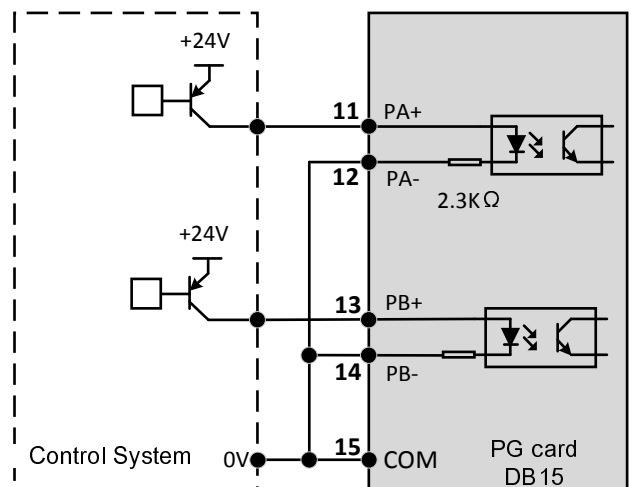**Figure 6 NPN pulse given wiring diagram**

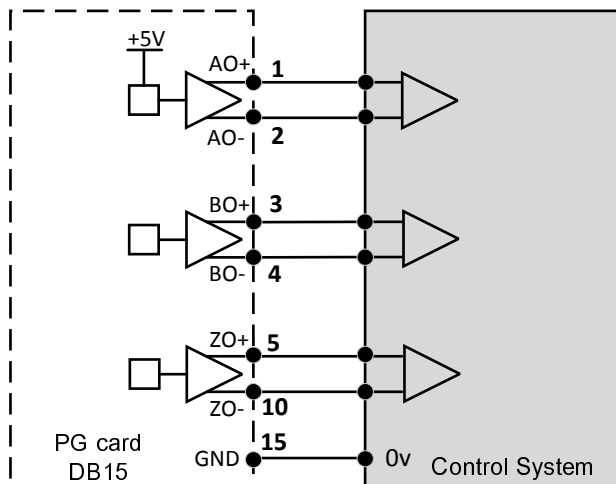**Figure 7 PNP pulse given wiring diagram**
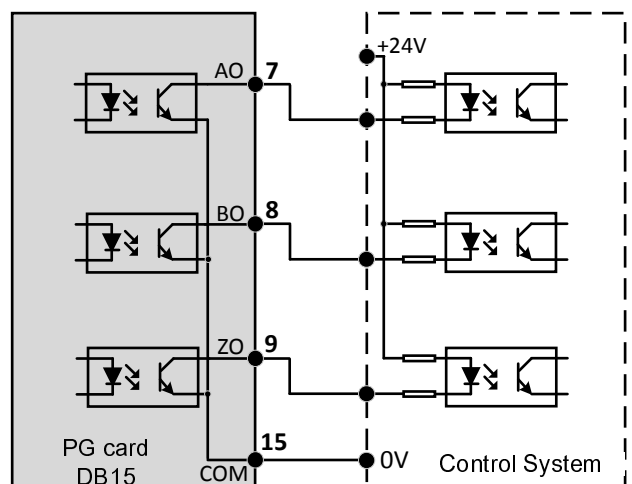
Figure 8 Differential pulse dIvider output wiring diagram

Figure 9 NPN pulse dIvider output wiring diagram