/ & 6HUHV$ & 6HUYR' UL YH

8 VHUV0 DQXDO

6KHQ KHQ; LQ FKXDQ(OHFWURQLF &R / WG

Chapter I Safety Precautions

Before using the servo drive system, please read the related precautions carefully, and be sure to abide by the safety precautions and operating procedures for installation and commissioning. The company is not responsible for any equipment damage or personal injury caused by not operating in accordance with the requirements.

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Chapter II Electrical Specifications

2.1 Specifications

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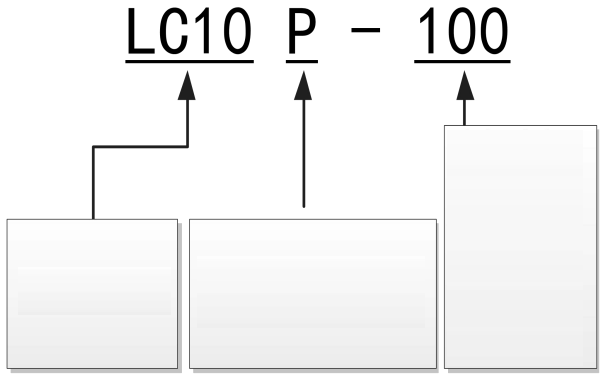
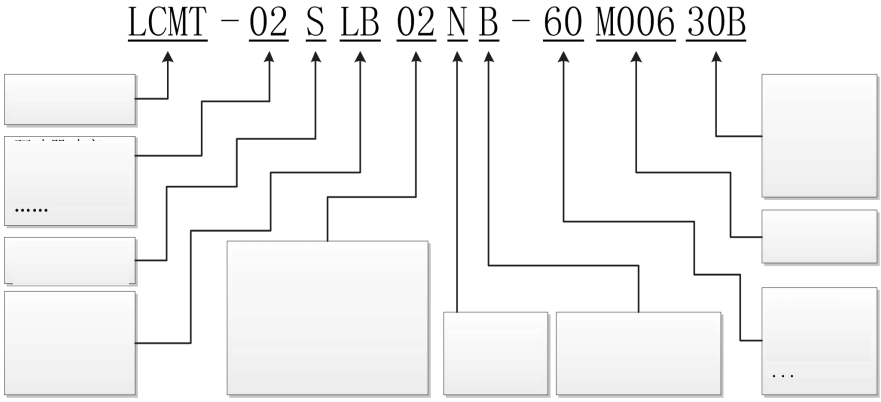
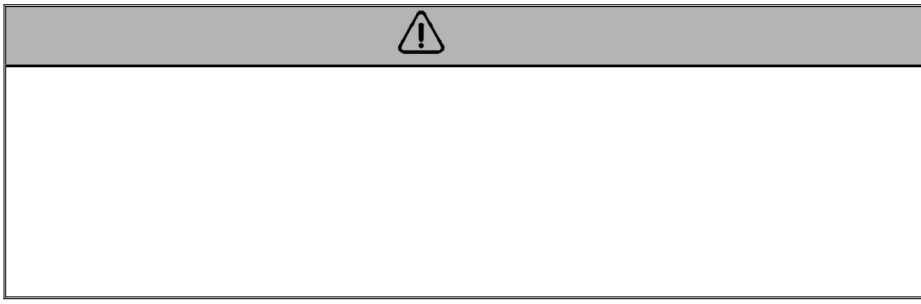
2.2 Drive model



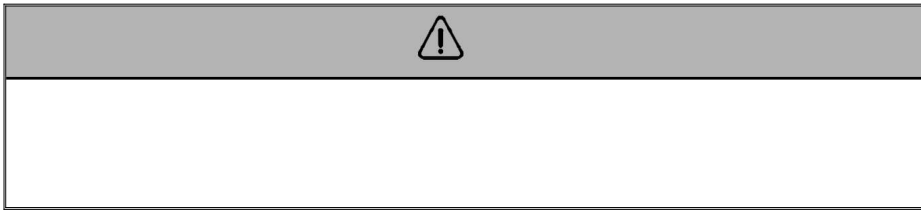
2.3 Motor model



Chapter III Installation



3.1 Installation of servo drive unit



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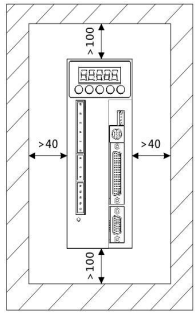
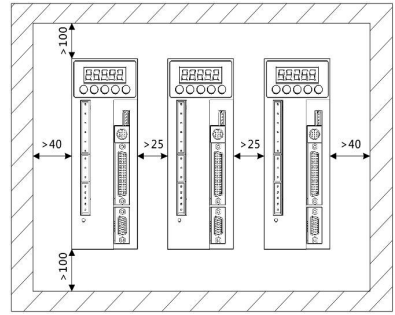
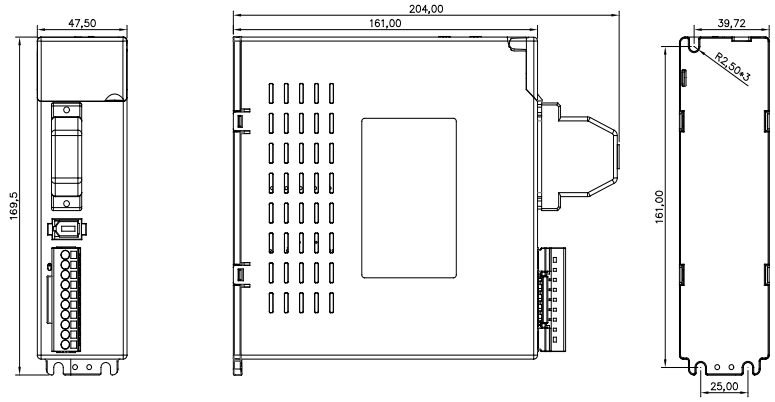
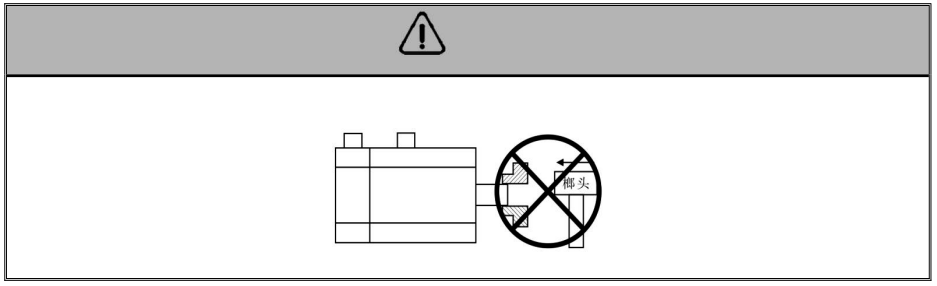




3.1.3 Installation dimensions



3.2 Servo motor installation



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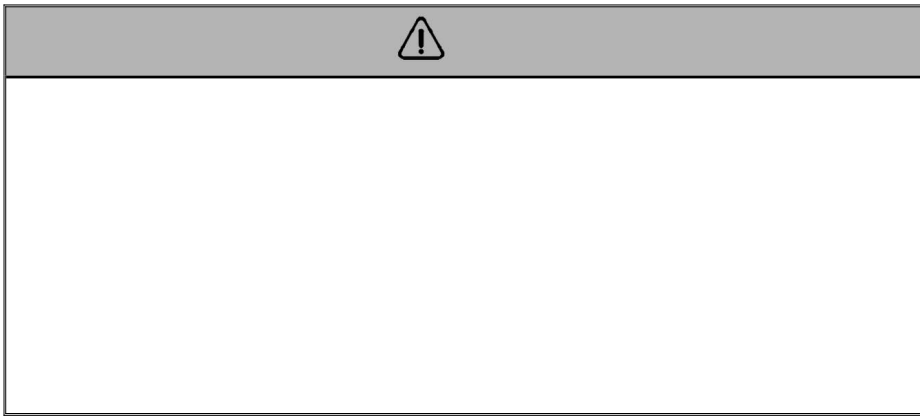
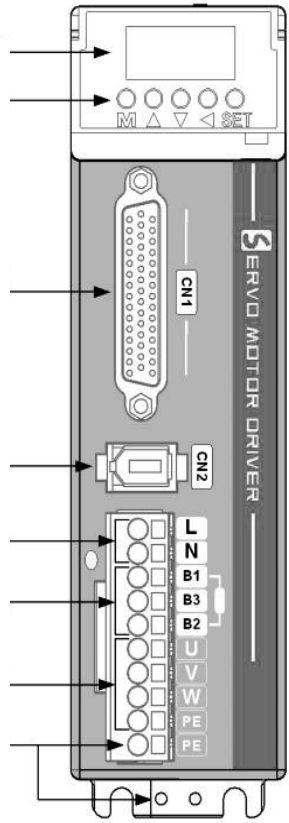
Chapter IV Wiring



4.1 Terminal description



4.2 Main circuit wiring

4.2.1 Definition of main circuit terminals

◆ **Input power terminal**

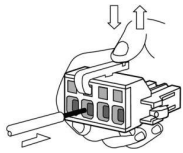
No.	Signal definition	Functions

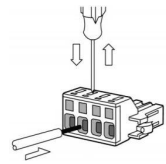
◆ **Braking resistor terminal**

Pin	Signal definition	Functions	Description

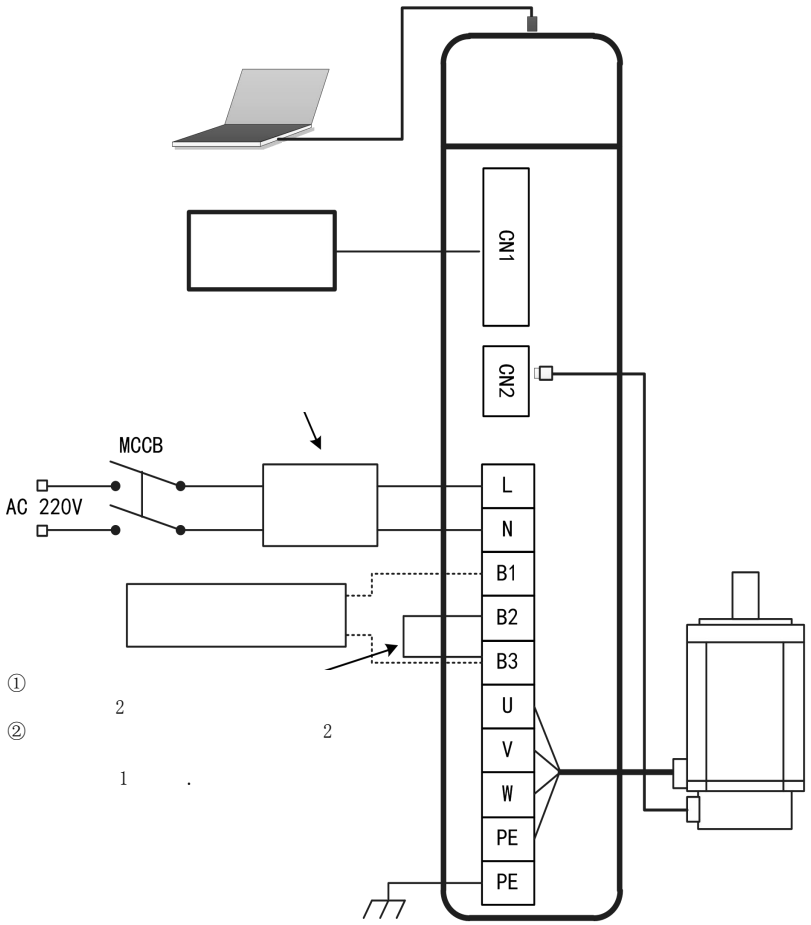
◆ **Motor terminal**

Socket No.	Signal definition	Functions





4.2.3 Drive wiring diagram



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② 2

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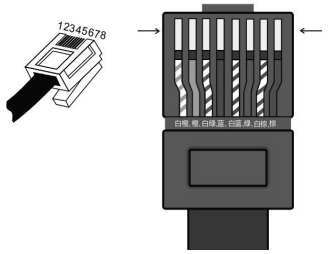
4.3 Definition of wiring terminal

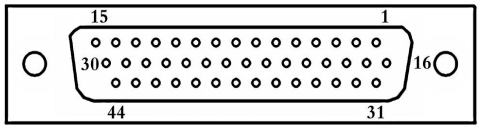
4.3.1 Definition of communication terminals (CN1/CN2)

Pin	Network cable color	Signal definition



Registered jack pin order

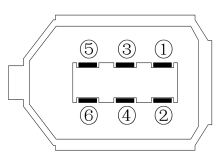
4.3.2 Definition of control terminals (CN1)



Terminal welding surface

Pin	Signal name	Function name	Notes or supplementary instructions
			It is forbidden to drive external loads.

◆



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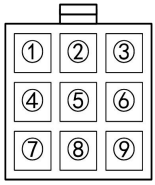
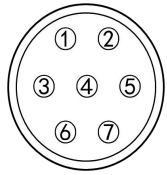
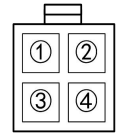
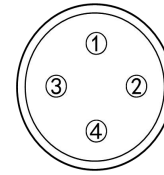
Servo side		Name	Wire color

◆









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Motor side		Name	Wire color

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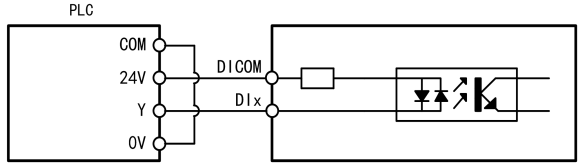
Motor side (Amp plug)		Name	Wire color

Motor side (aviation plug)		Name	Wire color

4.4 Control signal terminal wiring

4.4.1 DI input circuit

◆



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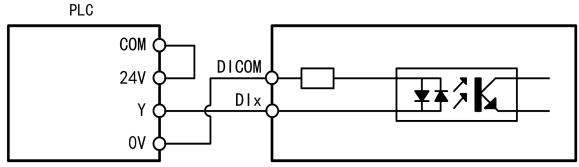

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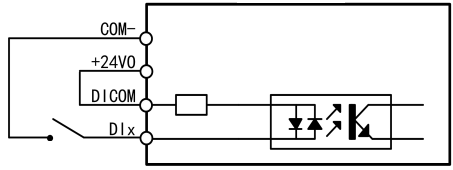

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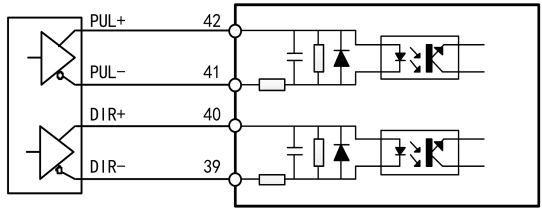

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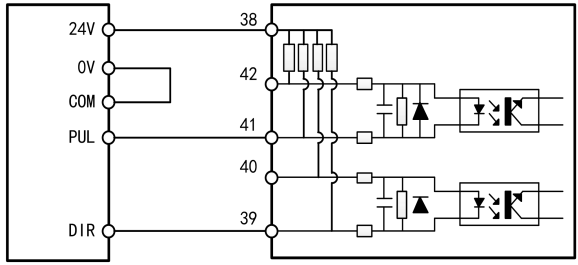

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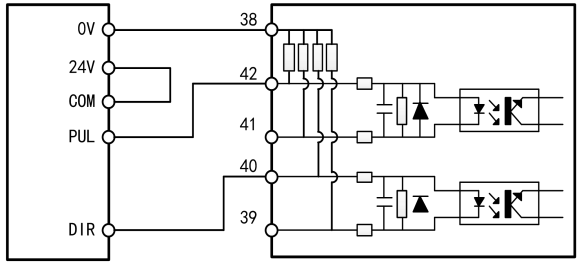

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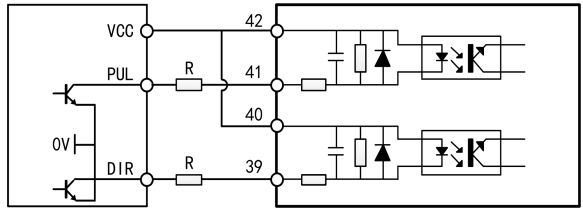

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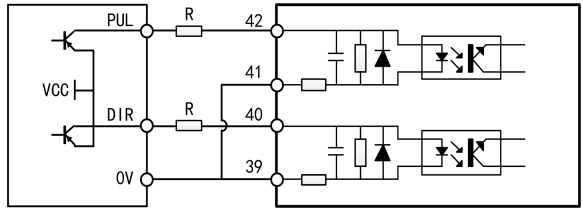

Note: With external resistor wiring, when signal voltage VCC=24V, R=1.5KΩ; when signal voltage VCC=12V, R=1KΩ;

When signal voltage VCC=5V, R=0Ω.

4.4.3 DO output circuit

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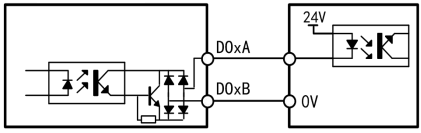

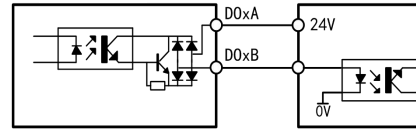

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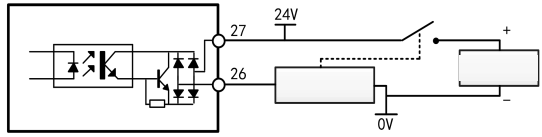
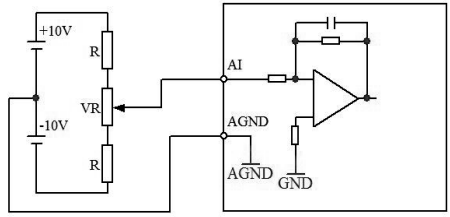
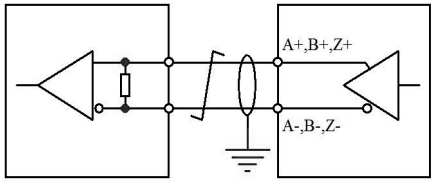
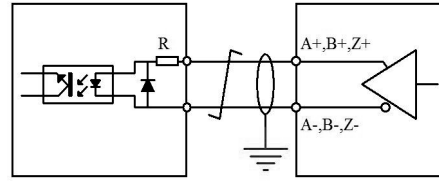




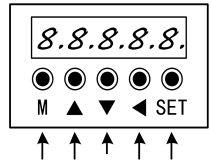




Chapter V Panel Display and Operation

5.1 Panel introduction and description

5.1.1 Description of panel keys



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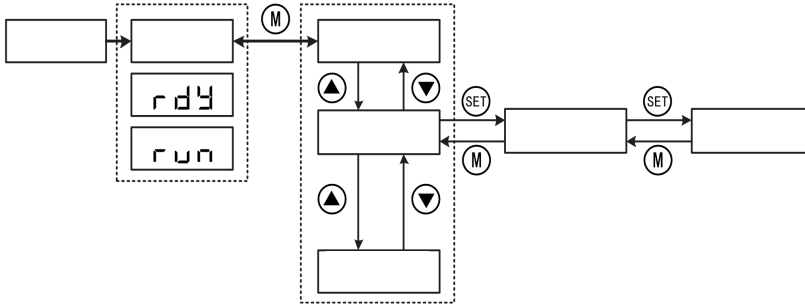
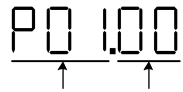


rESEt			
nrd			

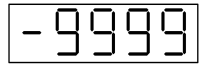
rdy			
run			
Jog			

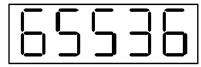


- **Signed number with no more than 4 digits or unsigned numbers with no more than 5 digits**

Displayed on a single page (5-digit nixie tube); for signed numbers, the highest digit of the data - represents a negative sign.

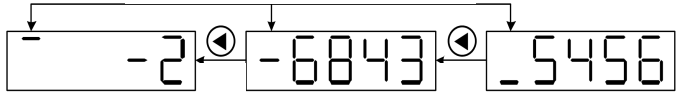
Example: -9999 is displayed as follows:





- **Signed numbers with more than 4 digits or unsigned numbers with more than 5 digits**

Displayed in pages from low to high digits, and every 5 digits is a page. Display method: current page current page value, as shown in the figure below, press and hold the ◀



			$\frac{P0B-09}{65536} \times 360.0°$
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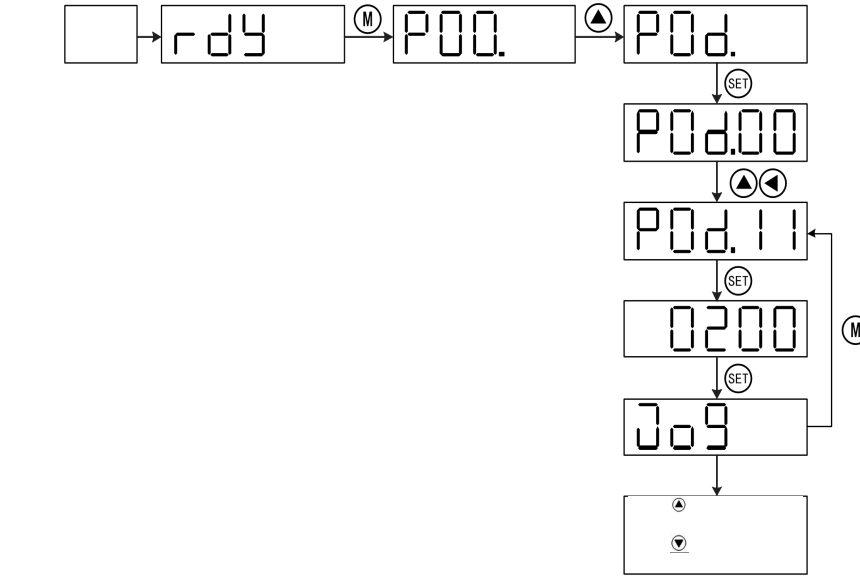
		℃	
			1- 2- 9- 9

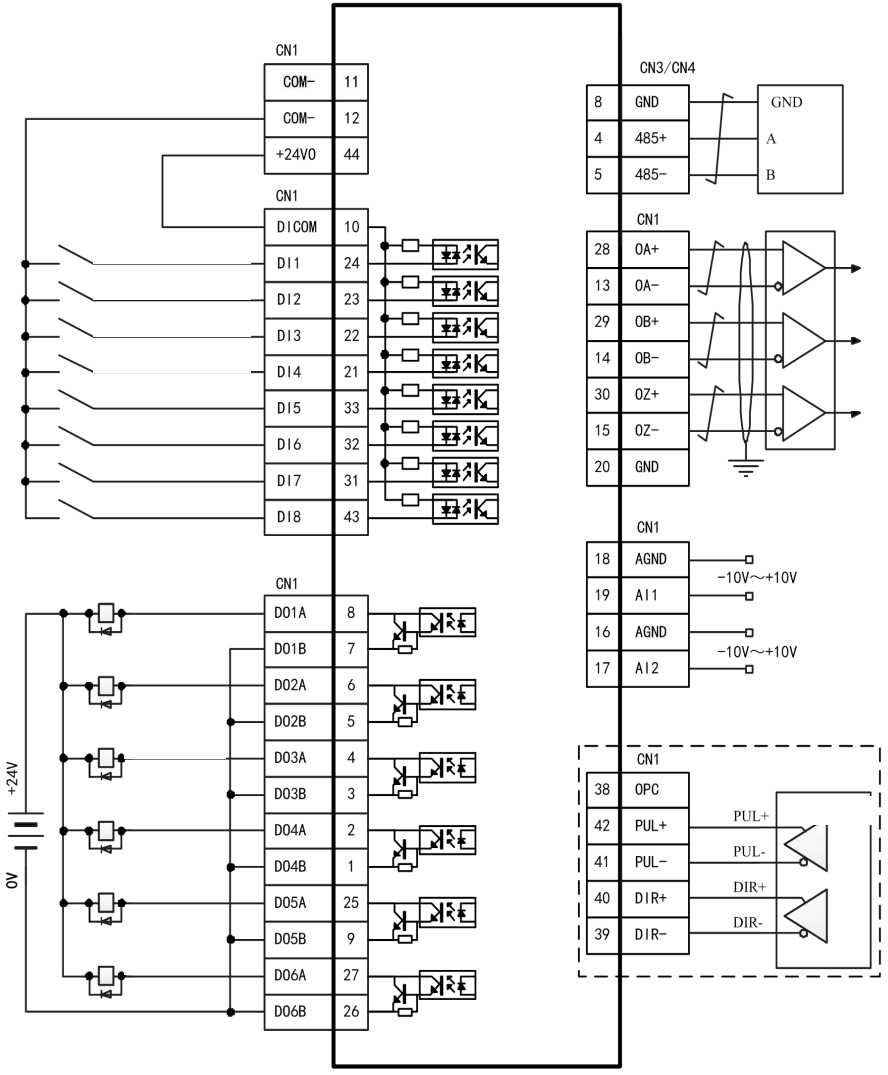
5.2 Common operations



Chapter VI Control Mode Description

6.1 Location mode description

6.1.1 Position mode wiring diagram



6.1.2 Parameters related to external pulse control

1. Pulse pin

Signal name	Corresponding CN1 pin number	Name	Note or supplementary instructions
			1. . .2
			.
			2.
			1 .

2. Related parameters

No.	Parameter name	Setting range	Functions
			:
			the default is power-on enable state

1. Related DI functions can be controlled by external DI, or through virtual VDI for communication control

DI function code	Symbol	Function name	Function description

2. Related parameters

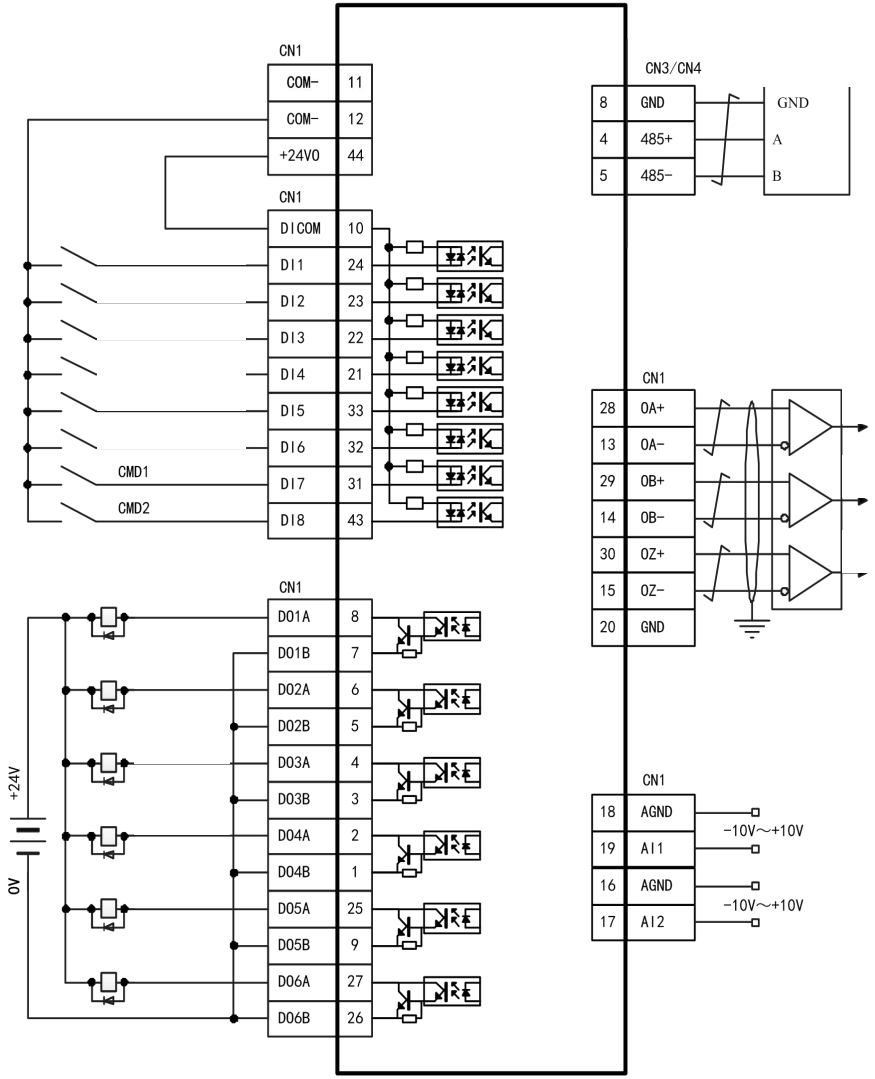
No.	Parameter name	Setting range	Functions

3. The combination method when using the DI port to switch the internal multi-segment position

Segment No.	DI port combination mode				Movement displacement	Max speed	Acceleration and deceleration Time	Wait time after segment

6.2 Speed mode description

6.2.1 Speed mode wiring diagram



Note: The DI and DO functions in this wiring diagram are not the default configuration, and need to be modified according to the parameters in the DI/DO port function configuration table in 6.2.2.

6.2.2 Functions related to external speed mode

1. DI/DO port function configuration

No.	Parameter name	Set value	Functions

2. Relevant pin wiring

Signal name	Corresponding CN1 pin number	Name	Note or supplementary instructions

3. Related parameters

No.	Parameter name	Setting range	Functions

1. Related DI functions can be controlled by external DI, or through virtual VDI for communication control

DI function code	Symbol	Function name	Function description

2. Related parameters

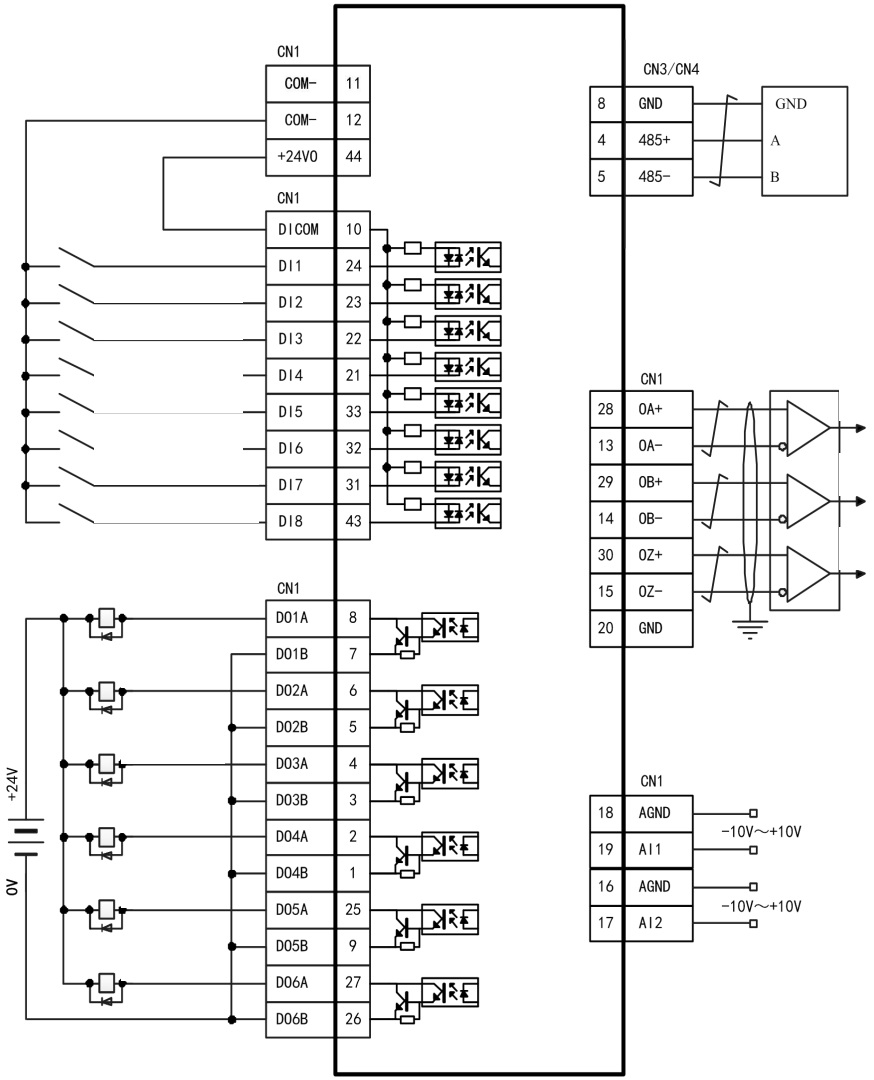
No.	Parameter name	Setting range	Functions
			; 1

3. Combination method when using DI port to switch internal multi-speed

Segment No.	DI port combination mode				Internal speed	Running Time	Acceleration and deceleration Time

6.3 Torque mode description

6.3.1 Torque mode wiring diagram



Note: The DI and DO functions in this wiring diagram are not the default configuration, and need to be modified according to the parameters in the DI/DO port function configuration table in 6.3.2.

6.3.2 Functions related to external torque mode

1. DI/DO port function configuration

No.	Parameter name	Set value	Functions

2. Relevant pin wiring

Signal name	Corresponding CN1 pin number	Name	Note or supplementary instructions

3. Related parameters

No.	Parameter name	Setting range	Functions

6.4 Detailed description of DI/DO port function configuration

6.4.1 DI function description

1. DI port configuration parameters:

DI port	Function selection			Logic level	

2. DI port function command table

DI port	Function selection			Logic level	

Chapter VII Parameter Description

7.1 P01 set drive parameters

7.2 P02 set basic control parameters

7.3 P03 set terminal input parameters

		0- 1- 2- 3- 4-					

7.4 P04 set terminal output parameters

		0- 1-					

7.5 P05 set position control parameters

		0- 1- 2- -					

		0- 1- 2- - - 3-					
		0- 1- 2-					
		0- 1- 2- 1 3- 2					
		0- 05-21 1- 05-21 0 2- 05-21 0 3- 0 05-60					
		0- 1- 2- 3- - 4- 5- 6- 8-					

		0- 1- 2- 3- 4- 5- 6- 7- 8- 9- 10- 11- 12- 13-					
		0- 1- 2-					
		0- 0 2 5 1- -					
		0- 05-36 - 1- 05-36 - 2- 05-36 3- 05-36					
		0- 1-					

7.6 P06 set speed control parameters

		0- 1- 2- 3-					

7.7 P07 set torque control parameters

		0- 1- 2- 3- 4-					
		0- 1- - - 2- - 3- - - - 4- - - -					
		0- 1- - 2- 07-19 36 - 07-20					

7.8 P08 set gain parameters

		0- 1- 1- 08-09					
		0- 1- 2- 3- 4- 5- 6- 7- 8- 9- 10-					
		0- 1- 2 2- 4 3- 8 4- 16					

7.9 P09 set self-tuning parameters

		3- 09-24 4- 3 4					
		0- 1-					
		0- 1-					

7.10 P0A set fault and protection parameters

		0- 1- 2-					

		0- - 1- -					
		0- 1-					
		0- 1-					
		0- 1-					
		0- 1-					
		0- 1-					
		0- 1- 2-					
		0- 1-					

7.11 P0B set monitoring parameters

			℃				

7.12 P0C set communication parameters

		0- 2 1- 1 2- 1 3- 1					
		0- 1-					
		0- 1-					
		0- 1- 0 0					
		0- 16 16 1- 16 16					
		0- 1-					

7.13 P0D set auxiliary function parameters

		0- 1-					
		0- 1-					
		0- 1-					
		0-					
		0- 1- 2- 3-					
		0- 1- - 2- -					
		0- 1-					

7.14 P11 set multi-segment position function parameters

		0- 1-					

7.15 P12 set multi-segment speed parameters

		0- 1- 1 2- 2 3- 3 4- 4					

7.16 P17 set virtual DIDO parameters

		0- 1 1 1- 1 0 1					
		0- 2 1 1- 2 0 1					
		0- 3 1 1- 3 0 1					
		0- 4 1 1- 4 0 1					
		0- 5 1 1- 5 0 1					
		0- 6 1 1- 6 0 1					

		0- 7 1 1- 7 0 1					
		0- 8 1 1- 8 0 1					
		0- 9 1 1- 9 0 1					
		0- 10 1 1- 10 0 1					
		0- 11 1 1- 11 0 1					
		0- 12 1 1- 12 0 1					
		0- 13 1 1- 13 0 1					
		0- 14 1 1- 14 0 1					
		0- 15 1 1- 15 0 1					
		0- 16 1 1- 16 0 1					
		0- 1 1- 0					
		0- 1 1- 0					
		0- 1 1- 0					
		0- 1 1- 0					
		0- 1 1- 0					

		0- 1 1- 0					
		0- 1 1- 0					
		0- 1 1- 0					
		0- 1 1- 0					
		0- 1 1- 0					
		0- 1 1- 0					
		0- 1 1- 0					
		0- 1 1- 0					
		0- 1 1- 0					
		0- 1 1- 0					
		0- 1 1- 0					

7.17 P30 set communication reading servo related variables

7.18 P31 set communication given servo related variables

Chapter VIII Troubleshooting

8.1 Fault and Warning Code List

8.1.1 Fault code table (to reset the fault, you need to cancel the enable first)

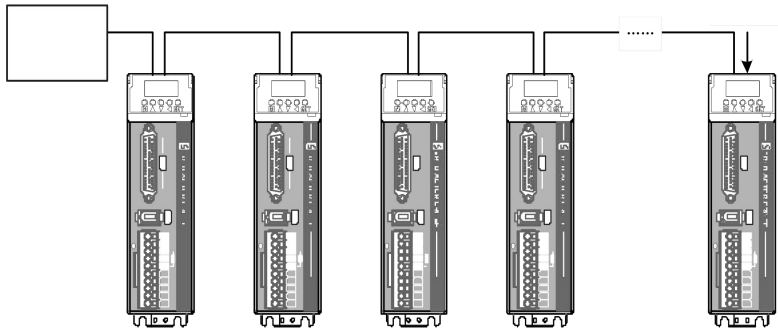
Chapter IX MODBUS Communication

This series of drives has two RS485 interfaces, which can communicate with the computer through USB-to-485 communication line for parameter setting, or control the drive to run the internal multi-segment position or multi-speed mode through the RS485 master station controller.

9.1 Wiring and Setup

9.1.1 Topology structure

CN3 and CN4 of the drive are RS485 interfaces. For specific pin definitions, please refer to chapter 4.3.1. When multiple nodes are used for communication control, a bus topology should be used, and the last one needs to be connected to a 120-ohm terminal resistor.

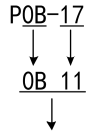


No.	Parameter name	Setting range	Factory setting

Note: To write parameters frequently, you need to set P0C-13 to 0 to prevent damage to the drive!

9.1.3 Communication address description

The communication address of the parameter can be calculated from the parameter number in the following method:



9.2 MODBUS communication protocol

9.2.1 Read register command (0x06)

Command sent by master station (PLC, etc.):

Byte order	Command example	Functional symbols	Functions

Byte order	Command example	Functional symbols	Functions

Byte order	Command example	Functional symbols	Functions

Byte order	Command example	Functional symbols	Functions

Byte order	Command example	Functional symbols	Functions

Byte order	Command example	Functional symbols	Functions

Byte order	Command example	Functional symbols	Functions