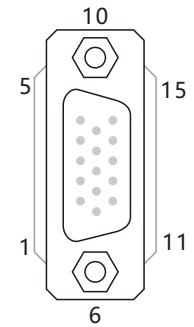


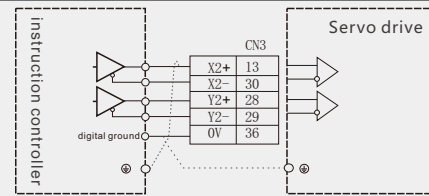
4 Encoder signal wiring



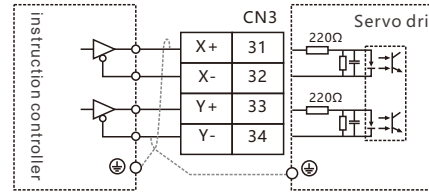
Pin No.	Define	Pin No.	Define
1	A+ or BISS-C encoder of CLK+	2	A- or BISS-C encoder of CLK-
3	B+ or BISS-C encoder of DATA+	4	B- or BISS-C encoder of DATA-
5	Z+ or absolute encoder signal is positive	6	Z- or absolute encoder signal negative
7	U+	8	U-
9	V+	10	V-
11	W+	12	W-
13	+5V	14	0V
15	reserve	case	Shielding layer

5 Position command input wiring example

- The figure on the right describes the wiring method of the high-speed pulse input (pins 13, 30, 28, and 29) in the CN3 port in detail.
- The high-speed pulse input signal type is 5V differential signal input, the maximum input frequency is less than or equal to 4MHZ, and the wiring is shown on the right.

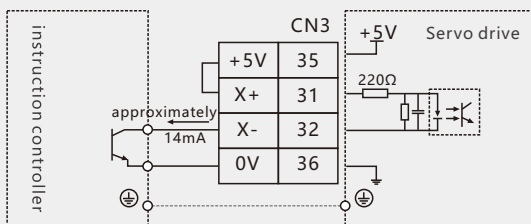


- The figure on the right describes the wiring method of the position command input (pins 31, 32, 33, and 34) in the CN3 port in detail.
- There are two options for the input signal type of the position command, which are 5V differential signal input and open-collector input. When the position command is differential input, the wiring is as shown on the right.



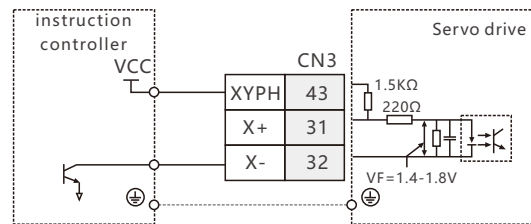
- When the position command is open-collector input, the wiring is as shown in the figure below.

Open collector input, upper controller is NPN type (Mitsubishi, Panasonic, Omron and other Japanese PLC), using servo internal power supply.



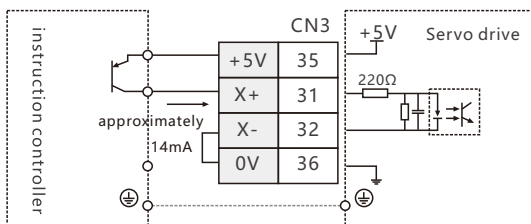
The wiring of Y+ (33 feet) and Y- (34 feet) is similar to that of X+ and X-

Open collector input, upper controller is NPN type (Mitsubishi, Panasonic, Omron and other Japanese PLC), using external power supply.



The above picture VCC=24V. The wiring of Y+ (33 feet) and Y- (34 feet) is similar to that of X+ and X-

Open collector input, the upper controller is PNP type (Siemens and other European PLCs), Use the servo internal power supply.



The wiring of Y+ (33 feet) and Y- (34 feet) is similar to that of X+ and X-

Open collector input, the upper controller is PNP type (Siemens and other European PLCs), Use an external power supply prepared by the user.

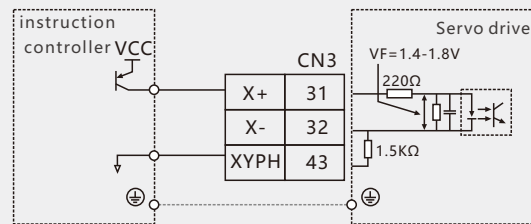
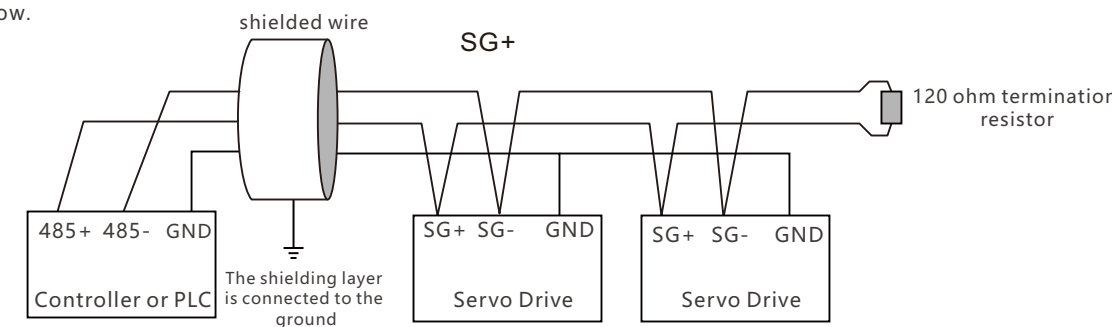


Figure VCC=24V. The wiring of Y+ (33 feet) and Y- (34 feet) is similar to that of X+ and X-

6 Communication signal wiring

Location and function	Terminal shape	Explanation																											
CN1 : RS485 and CAN bus communication interface, ETHERCAT interface		<p>The definitions of the two interfaces of the universal type and the CANopen bus type servo are the same. Defined as follows:</p> <table border="1"> <thead> <tr> <th>PIN</th> <th>Define</th> <th>Explanation</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CANH</td> <td>High signal of CAN bus</td> </tr> <tr> <td>2</td> <td>CANL</td> <td>Low signal of CAN bus</td> </tr> <tr> <td>3</td> <td>GND</td> <td>Power Ground</td> </tr> <tr> <td>4</td> <td>SG+</td> <td>RS485 Signal of Positive</td> </tr> <tr> <td>5</td> <td>SG-</td> <td>RS485 Signal of Negative</td> </tr> <tr> <td>6</td> <td>NC</td> <td>Dangling</td> </tr> <tr> <td>7</td> <td>NC</td> <td>Dangling</td> </tr> <tr> <td>8</td> <td>GND</td> <td>Power Ground</td> </tr> </tbody> </table> <p>Remark: The definition of CN1 of Profinet/EtherCAT bus servo is the definition of standard RJ45 interface.</p>	PIN	Define	Explanation	1	CANH	High signal of CAN bus	2	CANL	Low signal of CAN bus	3	GND	Power Ground	4	SG+	RS485 Signal of Positive	5	SG-	RS485 Signal of Negative	6	NC	Dangling	7	NC	Dangling	8	GND	Power Ground
		PIN	Define	Explanation																									
		1	CANH	High signal of CAN bus																									
		2	CANL	Low signal of CAN bus																									
		3	GND	Power Ground																									
		4	SG+	RS485 Signal of Positive																									
		5	SG-	RS485 Signal of Negative																									
		6	NC	Dangling																									
7	NC	Dangling																											
8	GND	Power Ground																											

- Note (1) When multiple drives are used in parallel with RS485 bus, please add a 120Ω terminal resistance between the SG+ and SG- terminals of the most remote drive
- Note (2) When multiple drivers are used in parallel with CAN bus, please add a 120Ω terminating resistor between the CANH and CANL terminals of the farthest driver
- Note (3) The general-purpose servo uses RS-485 signal communication, and the CANopen bus type servo uses CAN signal communication.
- Note (4) When wiring, connect the GND terminal of the host device and the GND terminal of the servo driver together .As shown below.



Location and function	Terminal shape	Explanation	wiring																		
Cn5 RS232 communication port		<p>It is used for computer monitoring servo drive.</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Define</th> <th>Explanation</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>GND</td> <td>Power Ground</td> </tr> <tr> <td>2</td> <td>NC</td> <td>Dangling</td> </tr> <tr> <td>3</td> <td>TXD</td> <td>Servo RS232 send</td> </tr> <tr> <td>4</td> <td>RXD</td> <td>Servo RS232 receive</td> </tr> <tr> <td>5</td> <td>NC</td> <td>Dangling</td> </tr> </tbody> </table>	Pin No.	Define	Explanation	1	GND	Power Ground	2	NC	Dangling	3	TXD	Servo RS232 send	4	RXD	Servo RS232 receive	5	NC	Dangling	<p>4 - RXD 3 - TXD 1 - GND</p>
		Pin No.	Define	Explanation																	
		1	GND	Power Ground																	
		2	NC	Dangling																	
		3	TXD	Servo RS232 send																	
4	RXD	Servo RS232 receive																			
5	NC	Dangling																			

7 Anti-interference wiring

In order to reduce electromagnetic interference, it is recommended to use shielded cables for motor lines, and to install noise filters on the RST end of the driver.

Vc Series Server Driver

Wiring Instructions 2.0



VEC-VC series servo driver Manual



VC Servo Instruction Manual 15/44 Simple Version 2.0

SHENZHEN WEIKEDA TECHNOLOGY CO.,LTD.

Dongguan R&D Building▶

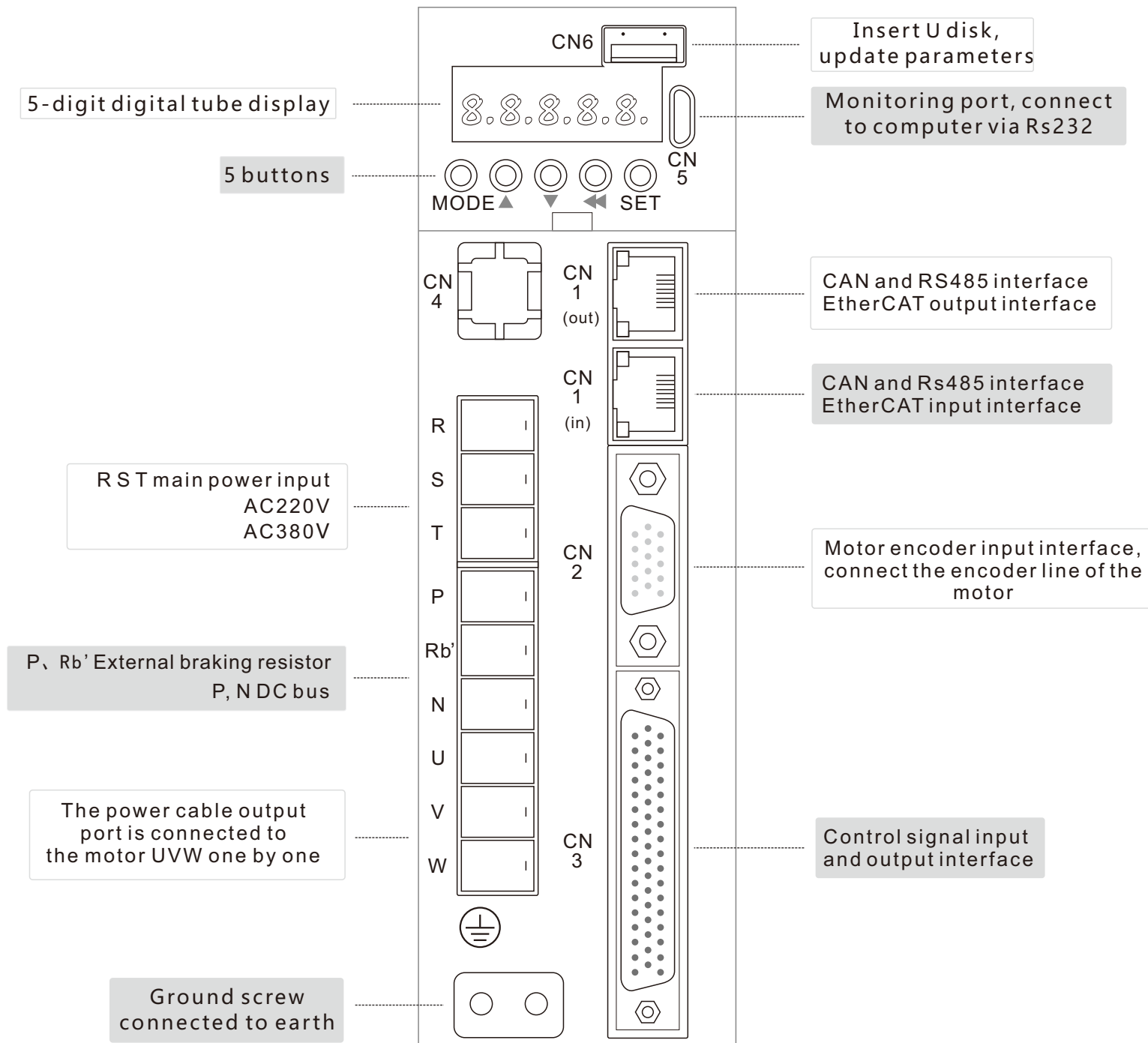
Building 12, CIMC Zhigu, No. 1 Nanshan Road, Songshan Lake High-tech Industrial Development Zone, Dongguan City, Guangdong Province
phone number : 0769-22235716

Shenzhen Office▶

Building 13, Maker Town, University Town, Taoyuan Street, Nanshan District, Shenzhen City, Guangdong Province
phone number : 0755-26610452
Company website : <http://www.szvector.com>
E-mail: weike@szvector.com

1 Drive overview

Scan the QR code on the cover to view the electronic manual



2 Nameplate Description

2.1 Drive nameplate

VEC - VC100 - 003 23 - E

1 VEC Brands	3 Rated current	4 Voltage level
2 Product Series	mark Current A	mark Voltage level
mark Current A	mark Current A	mark Voltage level
VC100 Economy	003 3A	23 Three-phase 220V
VC200 Smart	006 6A	33 Three-phase 380V
VC300 Bus	007 7A	43 Three-phase 440V
VC500 dedicated	012 12A	
VC600 Built-in PLC	016 16A	
VC800 Linear Motor Drive	020 20A	
VC900 non-standard custom	027 27A	
	032 32A	
	038 38A	
		5 structure type
		mark structure type
		E 3-32A/110-150A
		EA 38-90A

2.2 Motor nameplate

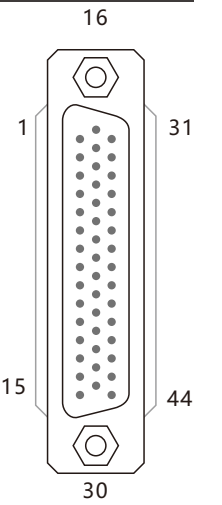
200 F MB - L 007 15 E 33 F 1 - M F2 *

200	Square flange side length dimension(mm)	mark	Specification	33	Voltage level	mark	Specification
F	cooling method	F	air-cooled	23	Three-phase 220V		
		default	natural cold	33	Three-phase 380V		
MB	Product Series	ME/MB/ME1/MD/MH		43	Three-phase 440V		
L	Moment of inertia	mark	inertia	F	Without brake, with oil seal		
		L	low inertia	B	Built-in brake with oil seal		
		M	medium inertia	A	No brake, no oil seal		
		H	high inertia	C	With brake without oil seal		
007	rated power	mark	Specification	1	Shaft connection method	mark	Specification
		R40	0.4KW	1	Keyed threaded hole		
		1R5	1.5KW		Optical axis		
		003	3.0KW	M	Encoder type	mark	Specification
		7R5	7.5KW			M	incremental optical coding
		020	20.0KW			N	Wire-saving optical knitting resolver encoder
15	Rated speed	mark	Rated speed			X	resolver encoder
		10	1000rpm			B	23-bit multi-turn absolute value optical encoder
		15	1500rpm			C1A	17-bit single-turn absolute value magnetic encoder
		20	2000rpm			C2A	17-bit multi-turn absolute value magnetic encoder
		25	2500rpm			S	24-bit multi-turn absolute value optical encoder
		30	3000rpm			D	BISS-C encoder
E	Installation method	mark	Specification	F2	specification		
		A	IMB5				
		D	IMB3				
		E	IMB35	*	Factory logo		

3 Input/Output Signal Wiring

In order to facilitate communication with the upper controller, the Vekoda servo drive provides 10 groups of digital input terminals and 6 groups of digital output terminals that can be arbitrarily configured. In addition, interfaces such as XY pulse input, encoder differential output signals (OA+, OA-, OB+, OB-) that can be arbitrarily divided, and analog input and output signals are provided.

Depending on the type of upper controller, the DI and DO signals of the Wikoda servo drive are designed to select NPN or PNP mode by jumper.



3.1 DIx signal type (NPN/PNP) selection

SW-DI (pin 27 of CN3) and +24V (pin 26) are shorted to NPN, and SW-DI (pin 27 of CN3) and COM (pin 25) are shorted to PNP

3.2 DOx signal type (NPN/PNP) selection

SW-DO (pin 11 of CN3) and COM (pin 25) are short-circuited as NPN, and SW-DO (pin 11 of CN3) and +24V (pin 26) are short-circuited as PNP;

Remarks: Connect external DC24V power supply to pin 9 (COM) and pin 10 (+24V).

3.3 The pin assignment of the input/output signal port (CN3) is shown in the table below.

44PIN pin definition					
Pin No.	Define	Explanation	Pin No.	Define	Explanation
10、26	+24V	External DC24V power supply, for DI, DO work	21	RST	Reset
9、25	COM		12	AGND	Built-in Analog Ground
3	DO1	Programmable digital output	14	AI1	Analog input
18	DO2		15	AI2	
2	DO3		44	AO1	Programmable Analog Output
17	DO4		28	Y2+	Input of high-speed pulse position command
1	DO5		29	Y2-	
16	DO6	Programmable digital input	13	X2+ (SIG+)	The default high-speed pulse position command input (can be customized as tension sensor signal input, the tension sensor can be powered through pins 35 and 36 (only for rewinding and unwinding)) two functions to choose from
24	DI1		30	X2- (SIG-)	
8	DI2		37	OA+	Select the encoder signal frequency division output through parameter P03.78 or second encoder input
23	DI3		38	OA-	
7	DI4		39	OB+	
22	DI5		40	OB-	
6	DI6		41	OZ+	Encoder Z point signal output
5	DI7		42	OZ-	
20	DI8		35	+5V	Built-in +5V power supply
4	DI9		36	0V	
19	DI10	11	SW-DO	NPN/PNP jumper for DO	
31	X+	27	SW-DI	NPN/PNP jumpers for DI	
32	X-	43	XYPH	XY input pull-up resistor	
33	Y+	case	Shielding layer	Connect to the ground wire of the driver	
34	Y-				

Remarks: 1. When the drive is a bus type servo drive, the following terminals are invalid: output terminal DO4\DO5\DO6, pulse receiving terminal (X+\X-\Y+\Y-). 2. The probe function must use high-speed input terminals, namely DI9 and DI10.