

# SVD4822RC-AA Servo Driver

## ➤ Characteristics

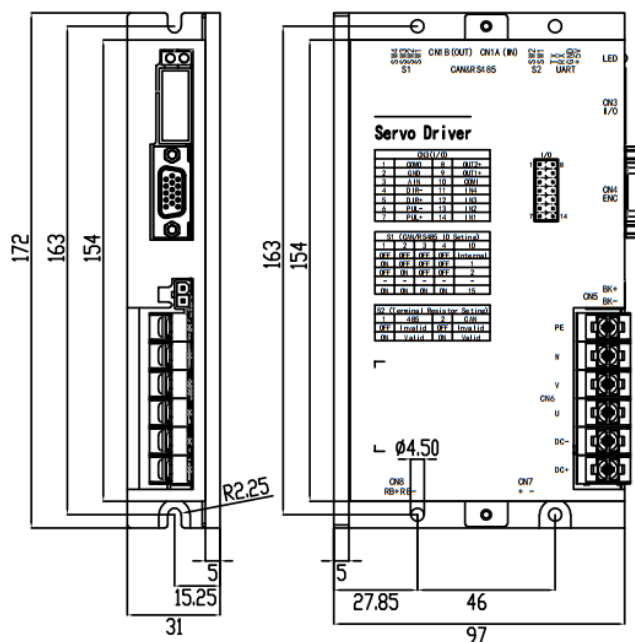
- Adopting ARM32 bit Cortex™-M3 core chip;
- Voltage range 20V-56V, support wide voltage input;
- Sustained current 22A;
- Support incremental differential encoder (5V), Tama River protocol communication encoder and so on;
- Support external brake resistance;
- Supports serial communication, RS485 communication, and CAN communication;
- Support input configuration (alarm reset, emergency stop, positive limit, negative limit, multi-speed control, multi-position control, etc.);
- Support output configuration (driver ready, driver error, motor zero speed, motor lock effective, limit effective, etc.);
- With overvoltage protection, undervoltage protection, motor overheating ( $I^2T$ ) protection, short circuit protection and other driver protection;

## ➤ Application Field

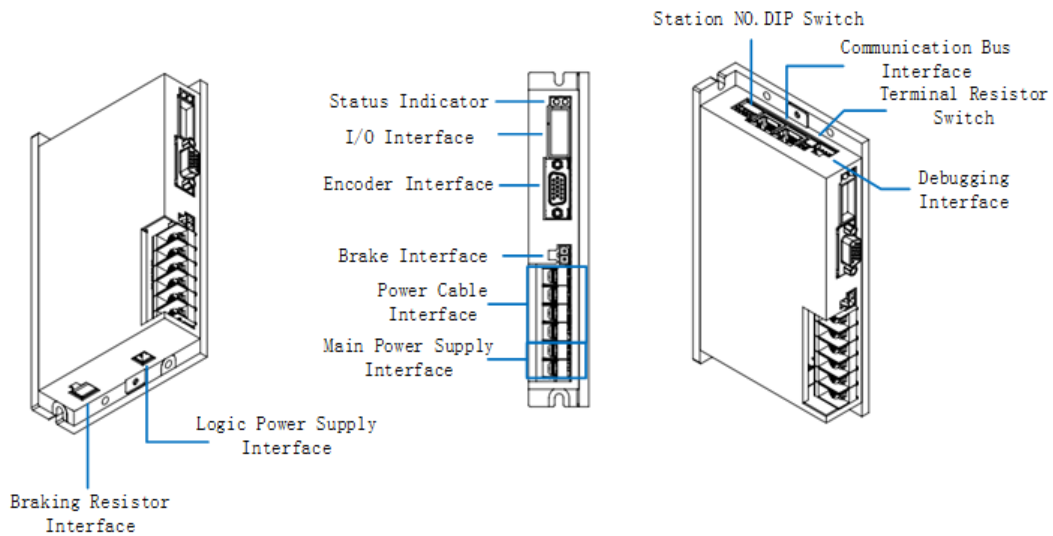
- Logistics robots: automatic navigation freight robots, shuttle cars, automatic parking robots, etc;
- Logistics equipment: automatic sorting line, three-dimensional warehouse, etc;
- Medical Device industry: Small systems;
- Other occasions requiring high response speed and high positioning accuracy.

SVD48 series servo driver is a cost-effective servo motor driver independently developed by Changzhou Fulling Motor Co., LTD. It uses a 32-bit ARM-based microcontroller with 512K byte flash memory, which is highly integrated and has complete protection measures. This series of driver adopts new control technology and has the characteristics of small size, good performance and high stability.

## ◆ Mechanical structure dimensions drawing:



◆ Name and function of each part of the drive



◆ Working environment:

Environment	Conditions
Operating temperature	0°C - 40°C
Operating humidity	5 - 95%RH (non-condensation)
Storage temperature	-10°C - 70°C (non-freezing)
Storage humidity	Below 90%RH (non-condensation)
Protection class	IP20
Installation site	Indoor, free from sunlight, corrosive gas, flammable gas, oil gas, and dust
Installation method	Vertical installation or horizontal installation
Barometric pressure	85kpa~105kpa
Altitude	Rated working altitude below 1000 meters, for working altitudes above 1000 meters, reduce by 1.5% for every 100 meters increase, maximum working altitude 4000 meters

## ◆ Servo Drive Related Parameters

<b>Drive Model</b>		<b>SVD4822RC-AA</b>
Supported Motor Type		Servo motor
Input Voltage Range		20~56V
Continuous Current		22Arms ( without auxiliary cooling ) 30arms ( with auxiliary cooling )
Peak Current		100Ap
Feedback Signal		Incremental differential encoder(5V) 、 Tamagawa protocol communication encoder
Dynamic Braking		Support external braking resistor
Dynamic Braking Voltage		DC65V(default value, settable)
Over-voltage Alarm Voltage		DC70V
Under-voltage Alarm Voltage		DC18V
Cooling Method		Natural cooling
Weight		0.6kg
Common Functions	Input Specifications	4 digital inputs, common COMI terminal, high level: 12VDC~30VDC, low level: 0~5VDC, maximum frequency 1kHz, input impedance 5kΩ
	Input Functions	Configurable functions include driver enable, alarm reset, emergency stop, positive limit, negative limit, multi-speed control, multi-position control, etc.
	Output Specifications	2 digital outputs, common COMO terminal
	Output Functions	Configurable functions include driver ready, driver error, motor zero speed, motor brake effective, limit effective, etc.
	Brake Output	Default 24VDC brake output, configurable voltage 0VDC~input voltage, configurable brake duty cycle
	Pulse Control	Pulse + direction, CCW + CW, A phase + B phase (5V-24V)
	TTL232	Default baud rate 115200, maximum support 115200, can be connected with FULLING master station, can also use custom protocol to communicate with the controller
	Protection Functions	Overvoltage protection, undervoltage protection, motor overheating (I <sup>2</sup> T) protection, short circuit protection, driver overheating protection, etc.
UART Baud Rate		115200bps (default value, can be modified)
RS485 Baud Rate		115200bps (default value, can be modified)
CAN Baud Rate		500Kbps (default value, can be modified)