WEIHONG
维宏股份 创业板:300508

JDS
MOTION ENGINEERING

WSE SERVO DRIVER & MOTOR

GOING WITH THE FLOW OF INTELLIGENT MANUFACTURING

Specialized · Concentrated · Focused

BUS COMMUNICATION SERVO DRIVE

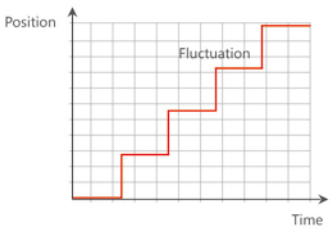
Introduction

Based on WSDV series, the overall performance of WSDA series bus communication servo drives has greatly upgraded and improved. Now, the drives can match with servo motors from 0.1kW to 3.0kW power, can realize precise position control, speed control and torque control and are widely applied in industries of woodworking, 3C, metalworking, waterjet cutting, laser cutting, etc.

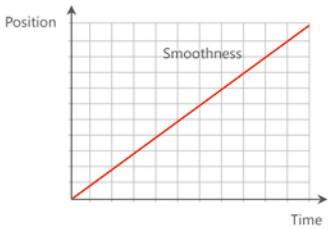
Characteristics

High- resolution Command

- Thanks to supporting of MECHATROLINK fieldbus technology and application of precise interpolation algorithm, resolution of command pulses has been greatly increased.



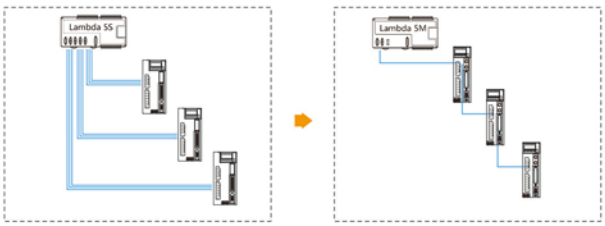
In case of pulse train command



In case of MECHATROLINK command

Simple Wiring

- With the technology of real-time high-speed industrial bus communication, the drives are connected in serial, making wiring simple and convenient. Mated with absolute encoders, there is no need to return to the machine origin again after the system is restarted. Fault points are decreased sharply because the origin switch and limit switch are cancelled.

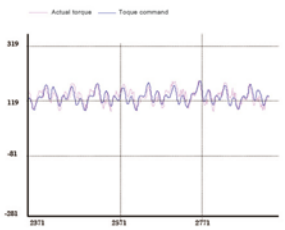


Optimized Inertia Estimation Algorithm

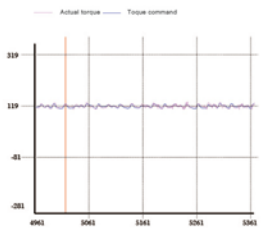
- The drives can quickly and precisely match with different mechanical loads. Inertia ratio can be automatically estimated with one-key in iMotion software. In addition, the estimation result is more precise because of optimized internal algorithm, including automatically planning the speed curve and calculating the average of multiple results.

Algorithm of Motor Cogging Torque Compensation

- The drives automatically collect the current data of the motor, analyze the cycle and amplitude of the cogging fluctuation, and compensate the current in reverse according to the actual situation. As a result, the cogging fluctuation is decreased by 20%, the noise during running is lower, and the motion control is more stable.



Non-cogging Torque Compensation



Cogging Torque Compensation

Upgraded Mechanism and Three Proofings

- Mechanism and three proofings have been ungraded, making the tolerance of terrible environment stronger, such as high temperature, moisture, dust, etc.

Damp Proof

Mildew Proof

Salt Spray Proof

Optimized Circuit Design

- The circuit design has been optimized by using a built-in dynamic brake module. When the system power or the servo is off, or an alarm occurs, the machine tool can stop faster.

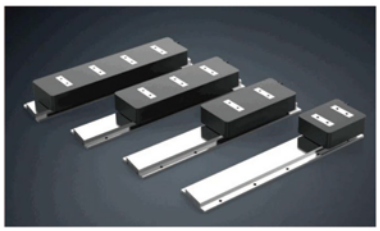
LINEAR SERVO DRIVE

Introduction

Integrated with the controlling performance of WSDA series servo drives, linear servo drives can realize precise position control, speed control and torque control, cover output power from 0.1kW to 2.5kW, and support both bus control and pulse control. We provide an overall solution, consisting of the control system, linear motor, linear drive, magnetic grid/grating and Hall sensor. Now, linear servo drives are widely applied in industries of laser cutting, and glass cutting of mobile phone, home decoration, ceramic, etc.

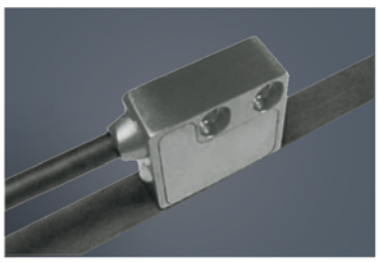
Characteristics

Applicable to Linear Motor, Torque Motor and Axial Motor



- Applicable motors: linear motors with/without iron core, torque motors and axial motors. Compared with the traditional feeding transmission mode of “rotary motor + ball screw”, linear motors adopt direct coupling and non-contact transmission, and own advantages such as high reliability and rigidity, low friction loss and noise, fast dynamic response, precise positioning, etc.

Applicable to Multiple Displacement Sensors



- Applicable displacement sensors: serial communication incremental/absolute displacement sensors, and A/B/Z phase displacement sensors.

Setting Motor Parameters by a Wizard

- Through setting the encoder type, motor parameters and magnetic pole sensor in “Motor Auto Setup” interface in iMotion software, the motor can learn phase sequence and magnetic pole sensor direction with one-key, reducing the commissioning time sharply.

Magnetic Pole Position Detection

- Even if the signal of magnetic pole position is not detected, the magnetic pole position of the linear motor can be automatically detected by the function of automatic magnetic pole detection, which can help to reduce the adjustment time.

Servo Hardware Encryption

- With the unique registration function, you can easily and conveniently register an account via the panel, NcStudio software or iMotion software, and generate and manage a registration code on the mobile phone with one-key.

IMULTI-AXIS SERVO DRIVE

Introduction

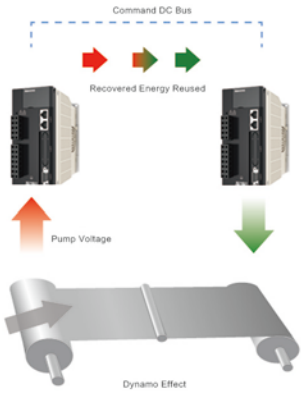
Multi-axis servo drive, built in 4 servo drives, supports 18 general outputs, 38 general inputs and 1 analog output. Additionally, it provides 1 host interface, 1 pulse spindle interface, 1 six-axis handwheel interface, 1 extended I/O interface and 1 bus extended axis interface. The drive has digital operation function.

With various general interfaces, smart design and strong reliability, the drive has many advantages, such as good synchronism among axes, small volume, convenient wiring, easy operation, etc. It supports MECHATROLINK-II bus extended interface.

Characteristics

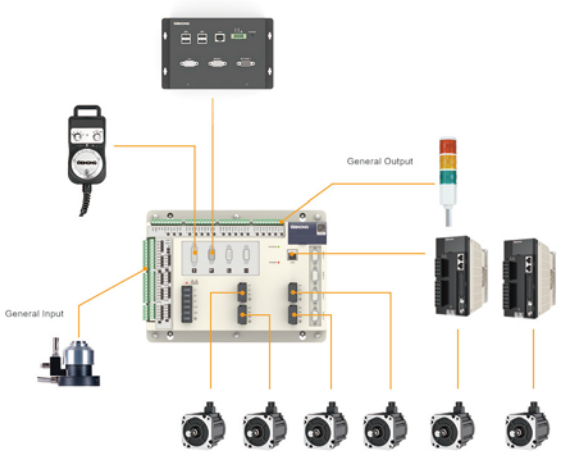
Better Dynamic Performance

- By using the technology of common DC bus, the motor feedback energy can be reused, which has improved the dynamic performance and the power utility.



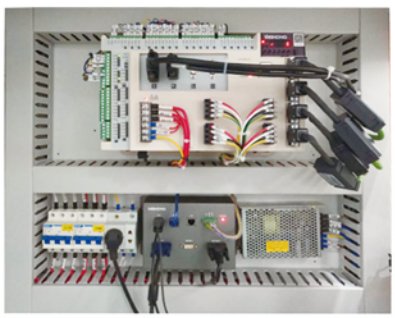
One Core for Multi-purposes

- The servo drive makes calculation with one processor. As a result, all control loops of each axis completely synchronize, and the synchronism among multi-axes becomes better.



Reasonable Structure

- Compared with the total volume of four drives and one terminal board, the volume of a multi-axis servo drive is only half. As a result, the size of electric cabinet reduces greatly.



Bus Communication Extended Axes

- The drives can be extended via a YASKAWA high-speed bus interface. This is applied to multi-axes machine tools.

IMOTION SOFTWARE

Introduction

iMotion software is a host controller software that is independently developed by Weihong Company. After the iMotion software is connected with the drive through a USB cable, the waveform can be intuitively viewed and the commissioning process can be greatly simplified through various functions in iMotion software.

Function

Automatic Gain Adjustment

The inertia ratio and friction can be automatically estimated, the adaptive filter can be set to suppress the machine resonance, and the rigidity can be automatically adjusted.

Servo Parameters Management

Servo parameters can be saved and imported with one-key, and compared to show the difference more clearly.

Real-time Acquisition of Multivariate by Waveform and Triggering

The drives support 64-bit multivariate via waveform acquisition and triggering acquisition in real time, including sending and feedback data, so as to help to analyze the running status of the motor.

Linear Servo Drive Commissioning

With motor setup wizard in iMotion software, the magnetic pole position can be estimated automatically, which is precisely and efficiently. As a result, the displacement of the motor is small.

Motor Trial Run

The drives support 64-bit multivariate via waveform acquisition and triggering acquisition in real time, including sending and feedback data, so as to help to analyze the running status of the motor.

Fault Diagnosis and Data Monitoring

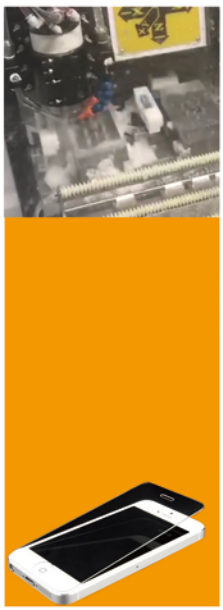
Explanations, causes and solutions of an alarm can pop up automatically. To maintain the running status of the machine tool, parameters related to the torque and the load ratio during running can be monitored in real time.

About WISE Servo Drive

WISE servo drives have various control modes (including pulse and bus communication) and products (including single-axis servo and multi-axes servo), and can match with various motors, including servo rotary motors, linear motors and direct drive motors.
The drives own the following characteristic:
-The continuous optimizing design makes the drives economic and practical, featuring high stability and reliability as well as outstanding servo control performance.
-High-speed pulse input, technology of YASKAWA high-speed bus communication and 24-bit multi-turn absolute encoders ensure high positioning precision and small low-speed fluctuation.
To conclude, WISE servo system: reliable, efficient, ease of use, an ideal choice for your motion control.

Application

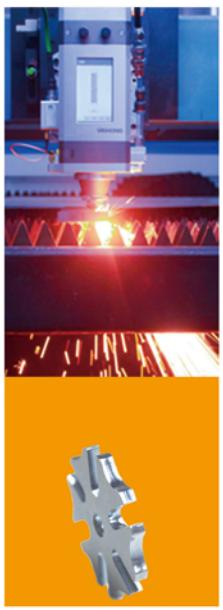
WOODWORK



GLASS ENGRAVING & MILLING

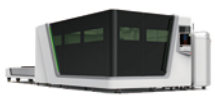
DRILLING CENTER

DRILLING & TAPPING MACHINE



LASER CUTTING

WATERJET CUTTING



SYSTEM CONSTITUTION

WEIHONG CNC SYSTEM

NC60A | NK300CX-H | NK300CX-V | NK530M | NK310M | NK280B | PM95A

Lambda

MULTI-AXES SERVO DRIVE

BUS COMMUNICATION SERVO DRIVE

LINEAR SERVO DRIVE

SERVO MOTOR

LINEAR MOTOR

SERVO MOTOR

WHERE THERE IS MOTION CONTROL THERE IS WEIHONG

Shanghai Weihong Electronic Technology Co., Ltd. (stock code: 300508), is a high-tech enterprise focusing on research and development, sales and services of motion control system. Based on industrial motion control technology with intellectual property rights, and the corporate philosophy of "Specialized Concentrated Focused", it can quickly provide customers with excellent products and efficient services, realizing shared growth of enterprise value and customer value. Up to now, WEIHONG brand has grown into one of outstanding solution providers featuring "Intelligent Manufacturing in China" in motion control industry.

With more than 21 technical service offices, sales network of Weihong Company has covered key industrial areas around China. Adhering to the faith of "Integrity based, Customer oriented", we try our best to offer customers with quickly-responded and qualified technical support. Through cooperating with famous companies and technical partners at home and abroad, we have brought more revenues for customers during long-term cooperation, and helped them gain success in the information era.

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